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2019-2020


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## 2019-2020 Catalog

## Welcome

It is my honor to welcome you to Houston Community College (HCC). Our signature programs prepare students for careers in the emerging economy-in the workforce and academic degrees, certificates, and transfer pathways that have an impact on today's world and the communities we engage. All of our programs and offerings aim for your success in the career path of your choice, and all of us at HCC are committed to supporting you in finding that success.
Your individual choice is part of what brought you to Houston Community College, and it will gain even more momentum as you connect with and find inspiration from other students, faculty and staff. The programs are rigorous, and the standards are high, yet we believe you belong at HCC and that here you will grow-as a thinker and professional member of the community-through your dedication to your studies and through participation in the opportunities we offer.


Houston Community College is committed to opportunities that allow you to engage in courses that connect undergraduates with community partners and third-party accreditations and licensures that expand your expertise and foster sense of community. The answers you seek regarding your education are limitless-reach out and we willguide you. Your path awaits.

We hope you are as excited to be at Houston community College as we are to welcome you!

Norma Perez, Ph.D.
Vice Chancellor of Instructional Services and Chief Academic Officer

## Scope of This Catalog

This Catalog, along with the Student Handbook and Code of Conduct, is meant to give guidance and background to all students enrolled at HCC, as well as prospective students and alumni. The HCC Community, including students, is also subject to HCC's Board Policies, which can be found online at www.hccs.edu/about-hcc/policies. Policy references in this catalog are meant to be helpful background information; for the most up-to-date Board Policies, students should consult the Board Policy website.

Some students in specialized programs or courses of study may also be subject to handbooks or rules pertaining to their particular program or course of study, in addition to a particular course syllabus. That information is provided to the student by their program, course of study, or faculty member.

A copy of the current Student Catalog is available online at www.hccs.edu/programs/catalog. Archived catalogs can be found at www.hccs.edu/programs/catalog/catalog-archive.

The current student handbook is available at www.hccs.edu/resources-for/current-students/student-handbook.

## About Houston Community College

## Mission Statement

Houston Community College is an open-admission, public institution of higher education offering a high-quality, affordable education for academic advancement, workforce training, career development, and lifelong learning to prepare individuals in our diverse communities for life and work in a global and technological society.

## Vision Statement

Houston Community College will be a leader in providing high-quality, innovative education leading to student success and completion of workforce and academic programs. We will be responsive to community needs and drive economic development in the communities we serve.

## Accreditation

Houston Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate degrees. For questions about the Accreditation of Houston Community College, contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500. In addition to SACSCOC accreditation, many of HCC's individual programs are accredited by specialized accrediting agencies or professional associations. More information regarding these accreditations may be found under the title "Specialty Accreditations" section of www.hccs.edu/about-hcc/accreditation, and the associated Board Policy, GK(LOCAL), is available at
www.hccs.edu/about-hcc/policies/hec-board-policy-manual-section-g.

## Board of Trustees

The Board of Trustees is the official governing body of Houston Community College. The Board is composed of nine members who are elected from single-member districts and who serve without remuneration. Board members are elected to staggered six-year terms. The Board has final authority to determine the policies that govern HCC. As part of their duties, the Trustees maintain a full schedule of community service, public appearances, speaking engagements and legislative affairs on behalf of HCC. Board members represent an impressive mix of individual talents and professional backgrounds enabling them to provide governance of the highest quality.
For more information on the Board of Trustees and its members, please see www.hccs.edu/about-hcc/board-of-trustees.

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## 2019-2021 CALENDAR

Calendars are also available online at hccs.edu/calendar

| ACADEMIC CALENDAR | 2019-2020 | 2020-2021 |
| :---: | :---: | :---: |
| Sessions | Fall 2019 | Fall 2020 |
| RT (16 weeks) | August 26 - December 15 | August 24 - December 13 |
| F4A (First 4 weeks) | August 26 - September 22 | August 24 - September 20 |
| F4B (Second 4 weeks) | September 23 - October 20 | September 21 - October 18 |
| F4C (Third 4 weeks) | October 21 - November 17 | October 19 - November 15 |
| F4D (Fourth 4 weeks) | November 18 - December 15 | November 16 - December 13 |
| F8A (First 8 Weeks) | August 26 - October 20 | August 24 - October 18 |
| F8B (Second 8 weeks) | October 21 - December 15 | October 19- December 13 |
| SS (Second Start 12 weeks) | September 23 - December 15 | September 21 - December 13 |
| DL1 (Dual Credit 15 weeks) | September 3 - December 15 | August 31 - December 13 |
| DL2 (Dual Credit 14 weeks) | September 9 - December 15 | September 8 - December 13 |
| Sessions | Spring 2020 | Spring 2021 |
| Mini Session (4 weeks) | December 16-January 13 | December 14 - January 11 |
| RT (16 weeks) | January 21 - May 17 | January 19-May 16 |
| F4A (First 4 weeks) | January 21-February 16 | January 19 - February 14 |
| F4B (Second 4 weeks) | February 18 - March 15 | February 16 - March 14 |
| F4C (Third 4 weeks) | March 23 - April $19 \longrightarrow$ | March 22 - April 18 |
| F4D (Fourth 4 weeks) | April 20-May 17 | April 19-May 16 |
| F8A (First 8 weeks) | January 21 - March 15 | January 19 - March 14 |
| F8B (Second 8 weeks) | March 23-May 17 | March 22 - May 16 |
| SS (Second Start 12 weeks) | February 18 - May 17 | February 16 - May 16 |
| DL1 (Dual Credit 15 weeks) | January 27-May 17 | January 25 - May 16 |
| DL2 (Dual Credit 14 weeks) | February 3-May 17 | February 1 - May 16 |
| Sessions | Summer 2020 | Summer 2021 |
| Mini Session (3 weeks) | May 18 - June 7 | May 17 - June 6 |
| S8A (First 8 weeks) | June 8-August 2 | June 7-August 1 |
| S1 (First 5 weeks) | June 8 - July 12 | June 7 - July 11 |
| S10 (10 weeks) | June 8 - August 16 | June 7 - August 15 |
| S2 (Second 5 weeks) | July 13 - August 16 | July 12 - August 15 |
| HOLIDAY CALENDAR (no class) | 2019-2020 | 2020-2021 |
| Labor Day | September 2 | September 7 |
| Thanksgiving Break | November 28 - December 1 | November 26 - November 29 |
| Winter Break | December 19 - January 1 | December 21 - January 4 |
| Martin Luther King , Jr. -Observance | January 20 | January 18 |
| President's Day | February 17 | February 15 |
| Spring Break | March 16 - March 22 | March 15 - March21 |
| Spring Holiday | April 10 - April 12 | April 2 - April 4 |
| Memorial Day | May 25 | May 31 |
| Independence Day | July 3 - July 4 | July 4 -July 5 |

## General Information

## Equal Educational Opportunities Statement

As stated in Board Policy FA(LOCAL), Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. HCC does not discriminate and prohibits discrimination on the basis of race, color, religion, gender identity and gender expression, national origin, age, disability, sex, sexual orientation, or Veteran status in employment or the rights, privileges, programs, and activities generally accorded or made available to students at the school, administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school administered programs. A lack of English language skills shall not be a barrier to admission to and participation in HCC programs. To ensure compliance with Title IX and other federal and state civil rights laws, HCC has developed policies and procedures that prohibit discrimination in all of its forms.
HCC is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity.
All inquiries regarding compliance with Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 or other civil rights and non-discrimination laws should be directed to the following individual:


More information on these policies and programs follows in this Catalog and is available on HCC's website as described below.
Office of Institutional Equity
The Office of Institutional Equity (OIE) was established to ensure that all individuals have an opportunity to have full participation in the life of Houston Community College. Services provided by OIE include, but are not limited to:

- Ensuring compliance with HCC's policies and laws prohibiting discrimination and illegal harassment based on protected characteristics;
Investigating complaints of discrimination initiated by students, faculty, staff, and the community, promptly and impartially; Providing training and education materials regarding Equal Employment Opportunity (EEO) and diversity compliance issues; and Developing new programs and metrics to advance diversity, inclusion, and multiculturalism at HCC.
For more information about OIE and its services, please visit www.hccs.edu/departments/institutional-equity.


## Sexual Misconduct Information and Reporting

Any student who believes that he or she has experienced prohibited conduct or believes that another student has experienced prohibited conduct should immediately report the alleged acts to a responsible employee. HCC designates the following persons as responsible employees for the purposes of reporting prohibited conduct: any instructor, any administrator, or the Title IX Coordinator or College Title IX Contact. Any changes to these procedures will be posted on the "Title IX Know Your Rights" website, at the link referenced below.

For additional information, please visit the following:
Title IX Know Your Rights: www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights Title IX Complaint Form: www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/title-ix-complaint-form Speak with a Title IX Contact: www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/speak-with-a-title-ix-contact Sexual Assault Policy for Students: www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/sexual-assault-policy-for-students/


## Admissions Information

## General Admissions Criteria

A comprehensive community college system, HCC offers many programs designed to meet the needs of students according to their interests. As an open-admission, two-year undergraduate institution, HCC has an "open door" admissions policy; individuals who have at least one of the following qualifications are welcome to enroll:

- Accredited High School diploma; or
- High School Equivalency certificate; or
- College-level hours earned at other accredited colleges or universities; or
- International students who meet college and state requirements; or
- An eligible high school student.

Admission to HCC does not guarantee admission to a particular course or program. HCC utilizes the Texas Success Initiative (TSI) Assessment to assess the level of students' reading, writing, and math skills. Based upon their assessment results and specific program objectives, students may be required to take developmental and/or prerequisite courses. In addition, special admission requirements have been established for programs that require students to possess previously learned skills and knowledge. Applicants may obtain some additionaladmission criteria by visiting www.hccs.edu/applying-and-paying.

For further information regarding admissions to certain programs, see below.
The applicable Board policies FB(LOCAL) and FB(LEGAL) can be found at: www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f

## Admissions Application

All students, except international students, must apply online using the Apply Texas website at www.applytexas.org. There is no charge to apply using the Apply Texas website.

The process for international student applications is contained in the section titled International Services and Programs below.

## Admissions Application Deadline

The admissions application deadline is one week before the class start date. Students should submit the applicationat least one week before the class start date. The application deadline calendar is available at www.hccs.edu/applying-and-paying/application-deadlines.

## New Student Checklist

After submitting an admissions application, students will receive a welcome email from HCC with a link to the student portal. The student portal will include a checklist of items for students that pertains to the admittance type.

## Online College Admissions

HCC does not have a separate admission policy for the Online College. All admission policies described above apply to all students regardless of course delivery modality. New online students may be asked to participate in an assessment that measures the student's readiness for online learning.

## Health Science Program Admissions

Admission to the college does not guarantee admission to a specific program. The HCC Health Sciences Programs have special conditions for admissions, including the following possibilities: successful completion of pre-requisite courses, acceptable scores on the Health Information Systems, Inc. (HESI) or other exams, submission of a personal narrative, and/or personalinterview. For details, please visit www.hccs.edu/centers/health-sciences.

## Continuing Education Programs Admissions

Admission to the college does not guarantee admission to a specific program. Some HCC Continuing Education Programs have special conditions for admissions, including the following possibilities: successful completion of pre-requisite courses, acceptable scores on prerequisite exams, criminal background checks, and/or special licenses or certifications.

For details, please visit hccs.edu/continuing-education.

## Veteran and Military-Affiliated Students Admissions

Veteran and/or Military-Affiliated Students who plan to use VA/GIBill and/or State of Texas "Hazlewood Act" educational benefits must follow the steps outlined in the applicable HCC enrollment checklist. Further information is available at Veteran \& Military-Affiliated Student Success (VMASS) Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.
Upon completion of the Admissions Application, Military, Veteran and/or Military-Affiliated students should contact a HCC Student Advisor to address questions regarding enrollment and/or gaining access to additional resources or information. Students may go to any advisor at any campus location. For information on how to contact a campus advisor, please see www.hccs.edu/support-services/advising.

## Registration of Sex Offenders

The Texas Code of Criminal Procedure Section 62.153 requires each person who has been convicted of specific sexual offenses and who intends to attend classes at an institution of higher education to register with the HCC Police Department. Sex offenders seeking to attend HCC are required to register with the HCC Police Department within ten (10) days of enrolling in class, but not later than the seventh ( 7 th) day after the date the person begins to attend school. FL(REGULATION), referenced below, explains in detail the process Registered Sex Offenders should follow. Sex
offenders must register with the HCCPD at the following location only:
Criminal Investigation Division of the HCC Police Department
3821 Caroline Street, Houston, Texas 77004
Monday-Friday: 8 a.m. - 4 p.m. (except during HCC closures or holidays)

See the Student Code of Conduct below and applicable Board policies FL(LOCAL); FL(LEGAL); FL(REGULATION) available at: www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f

## Re-admission

## After Absence

Students who have not enrolled for two or more consecutive regular semesters (fall, spring) must complete the core residency questions and satisfy all applicable requirements for residency again prior to registration. See Residency Information below.

## After Suspension/Academic Withdrawal

Students seeking re-admission after being placed on enforced Academic Withdrawal or Suspension at HCC must attend a Student Learning Intervention Program (SLIP) session at the college they attend. Students may be required to enroll in specified courses and/or have their course load limited.

## Academic Fresh Start

Under the provisions of the Texas Education Code Section 51.931, Texas residents seeking to apply for admission or re-admission to HCC and/or any specialized program at HCC may elect to have academic course credit more than ten (10) years old prior to the starting date of the semester in which they seek to enroll, not be considered as part of the admissions process. An applicant admitted to HCC under this provision may not receive any course credit for courses taken 10 or more years prior to enrollment. This means courses excluded under this provision may not be counted toward a degree, GPA calculations, academic standing or to meet prerequisite requirements. Applicants interested in the Academic Fresh Start Program must meet all HCC admissions requirements and must submit official transcripts from all previously attended colleges and universities along with a petition found at www.hccs.edu/media/houston-community-college/district/pdf/academic-affairs/Academic-Fresh-Start-(Update).pdf prior to admission to HCC.


## Special Admissions Information

Certain HCC programs require additional or special admissions information. Those programs are described briefly below.

## High School Student Admissions and Enrollment

Currently enrolled high school or home-schooled students may enroll in the same volume of HCC courses (each semester) as a traditional HCC student. Students should furnish a high school transcript, TSI scores (or documentation of exemption from TSI requirements), and approval from their high school. These students will need to maintain a "C" average to continue taking courses at HCC without limitations.

## Dual Credit

To be eligible for any dual credit course, the student may be currently enrolled in a public-school district, charter, private school, or homeschool students with an established memorandum of understanding (MOU) with Houston Community College. All dual credit MOUs are posted at www.hccs.edu/programs/dual-credit/dual-credit-memorandums-of-understanding.

Dual Credit students must complete an HCC admission application and submit an official high school transcript indicating PLAN, PSAT, TAKS, STAAR SAT, and/or ACT test scores (or bring the official test score report if test scores do not appear on the high school transcript). Dual Credit students are also allowed to take the Texas Success Initiative (TSI) Assessment to qualify for college courses taught as dual credit. Academic Dual Credit Courses: To be eligible for academic dual credit courses, high school students must pass the applicable areas of a Texas Success Initiative. The student may be exempt from state mandated TSI testing if the student meets the qualifying standards on applicable areas of the SAT, ACT, PLAN, PSAT, or qualifying STAAR scores by subject. Students may take college level courses related to the area(s) of the test they pass. The student must also meet institutional course prerequisites. Dual Credit students must take only courses that apply directly to their pathway and degree plan.

In 2015, House Bill 505 removed limitations on the number of classes a dual credit student may take. However, Houston Community College recommends that students taking more than two classes per semester possess a 3.0 or higher-grade point average in high school coursework. Dual Credit students, like all college students, are responsible for purchasing required textbooks and other essential course materials. The exception would be in cases where the high school provides textbooks. All Dual Credit instructional material is based on the recommended by the academic or workforce department. The Houston Community College Board of Trustees has waived tuition and fees for dual credit students residing within the taxing district (In-District) of the college. Students outside (Out-of-District) taxing districts may take dual credit classes at a cost of $\$ 50.00$ per course. If taught in the high school, the dual credit class must be composed solely of dual credit and/or college credit students, not traditional high school students.

For Dual Credit courses, grading criteria allow faculty the opportunity to award high school and college credit based on the student's performance. For further information, contact any HCC College P-16 Director at one of the college locations.
Senate Bill 1091 limits the courses students may take. The options are to take academic core courses, career and technical education courses, or foreign language courses. Students enrolled in Early

College High Schools are exempt from this legislation. Dual credit students must be placed on a degree plan when they enroll in the dual credit program.

## Articulated Credit

HCC participates in the Advanced Technical Credit (ATC) program (commonly known as statewide articulation), provides an educational and training structure that is sensitive to the transition of high school students to college. The process that facilitates an orderly progression through programs of instruction is commonly referred to as "articulation." Articulation agreements have been developed between HCC and school districts within the service area. These articulation agreements allow students to successfully complete certain Career and Technical Education (CTE) courses in high school to receive college credits, contingent upon enrollment in a similar Career and Technical Education program at HCC. The high school course must be on the state-approved articulated list and taught by an instructor who meets the HCC credential standards as defined by SACS. Students will only be awarded articulated credit if they received a letter grade of " $B$ " or higher in the high sehool course while maintaining an overall high school GPA of at least a "C." Students also will be awarded credit only if the course is a requirement of their degree or certificate.

For a list of universities in which HCC has established articulation agreements, visit www.hccs.edu/support-services/transfers/agreements.

Any individuals interested in majoring in Workforce (CTE) programs who want to know if they qualify for articulated credit under an Advanced Technical Credit agreement should contact an HCC Dual Credit Success Coach, Advisor or the appropriate program department chair. Students may apply for additional placement credit for no more than $25 \%$ of the degree hours. Credit for more than four courses in any one subject area requires special approval.

## Early College High School Students

Early College High Schools (ECHS) provide students with a "seamless" pathway from high school to college. ECHS allows high school students to complete a two-year degree while working through a traditional high school degree plan. After tackling this rigorous course of study, students graduate high school while earning up to 60 college credits, most of which are transferable to the postsecondary institution of their choice. ECHS provides strong support to students and their family in obtaining entrance to, and success in, higher education. For a listing of ECHS, please visit www.tea.texas.gov/echs.

## Home School and Private/Charter School Students

Home-schooled students may attend Houston Community College as dual credit students. They must meet the same requirements as dual credit students enrolled in public or private high schools and follow the same process of admittance to Houston Community College. In addition, they must document their status as home-schooled students, along with all pertinent information required to register for classes at Houston Community College.

The Houston Community College P-16 Council facilitates processes, consistency, standards, and procedures for homeschoolers who attend Houston Community College as dual credit students.

Private and charter school students may take dual credit courses at Houston Community College, on campus or online, but must work through the administration of their high school. Private and charter schools who want dual credit as an option for their students must have established partnerships with Houston Community College.
For more information, please contact the P-16 Director at 713-718-7651 or samuel.west@hccs.edu.

## Admissions for Minors

Students who are 16 years old or younger AND have graduated from high school may be eligible for special admission to Houston Community College. Applicants who are admitted under the special admission process can enroll in college courses at an HCC campus or online.

In addition to the regular admission process, students age 16 years or younger must:

- Show proof of education indicating graduation from public high school or completed secondary education according to the same general standards as those students who graduated from public high school; and
- Once admitted, meet with the Dean of Student Success prior to registering for the first semester.

Students under the age of 14 must have a parent or legal guardian available at the HCC campus site at all times when their child is attending each class. This is required to help monitor the student's activities and to be immediately available in case of an emergency. While on site at HCC, the parent or legal guardian cannot be in the student's classroom. Failure to be available on campus or insistence on being in the student's classroom will cause the student to be removed from each enrolled class.

## Non-Degree Seeking

A non-degree seeking applicant is admitted on the basis that coursework will be taken for personal enrichment and not for the purpose of seeking a degree or certificate. Non-degree seeking students may not enroll in more than a total of 12 semester credit hours and are not eligible for state or federal financial aid.

## Special Program Admissions

Certain HCC programs are available to students meeting special criteria. Those programs are described below. Students seeking admission to special programs should identify the programs to which they want to apply, and follow the directions on the corresponding website.

## Upward Bound

Upward Bound (UB) Program emerged as the first federal program from the Economic Opportunity Act of 1964. Two other programs joined by 1968 to form TRIO, those program were Talent Search and Student Support Services. Today there are nine programs under the TRIO umbrella and seven of them provide services directly to students.

Upward Bound is a federal program sponsored by the U.S. Department of Education to provide fundamental support to participants in their preparation for college. UB provides opportunitiesto high school students from low-income families, from families in which neither parent holds a bachelor degree, and who show an academic need. The mission of UB is to assist high school students to complete secondary education, and enroll in and graduate from institutions of postsecondary education. Upward Bound takes a holistic approach in preparing the students academically, personally and emotionally for the future. Upward Bound is a rigorous year-round college preparatory program that provides the following services:

1. Academic classes in Math, English, Science, Computers, Foreign Language;
2. Counseling, both academic and individual;
3. Tutorials for all subjects;
4. Cultural enrichment activities;
5. Workshops;
6. University tours;
7. 6-week summer program;
8. Work-study and internships; and
9. Financial literacy for students and parents.

Houston Community College supports the mission and objectives of Upward Bound. HCC has been an early supporter of TRIO programs and has hosted Upward Bound on its campuses since 1974 at Central Campus. In 1999, HCC applied and was granted a second Upward Bound program at Southeast Campus. Combined, HCC serves around 200 high school students as part of their Upward Bound family.
Upward Bound is a college preparatory program hosted at HCC and recruiting from Houston Independent School District (HISD) at these high schools: Sam Houston, Yates, Austin, and Northside. Each interested student will complete an application and an interview will be conducted with the parent and the student. Students will need to submit documents with the application to support their eligibility. Eligibility and acceptance are based on the documentation provided. Students must be meet the following criteria: 1) Low Income; 2) First Generation in college; 3) Academic Need; 4) U.S Citizen, Permanent Resident. All students who are between the ages of 13-19, attend or are zoned in one of the high schools mentioned above, and must finish the 8th grade before joining the program.
Formore information, visit www.hccs.edu/locations/southeast-college/upward-bound.

## VAST Academy (Vocational Advancement and Skills Training)

The VAST Academy provides post-secondary transition programs and comprehensive support services which lead to meaningful credentials, employment and independence for individuals with intellectual and developmental disabilities at three college campus locations: Central, Northwest/Spring-Branch and Southwest/Stafford. Opportunities include workforce certificates, precollege and freshman success bridge courses, career readiness credentials, internships and employment assistance offered through an inclusive, relevant, affordable, and supportive environment. VAST Academy offers a Career Readiness/Occupational Skills Certificate under HCC's Division of Extended Learning, School of Continuing Education. The program's successful supportive strategies include person-centered planning, peer mentoring, independent living, and internships based on students' interests and skills.

HCC's VAST Academy has a formal admissions process. For information on admissions criteria, requirements and steps to apply please visit our website at www.hccs.edu/vast.

## Honors College

The HCC Honors College is located at four campuses: Central, Northwest/Spring Branch, Southeast/Eastside and Southwest/Stafford. It offers high achieving students the opportunity for enriched instruction, leadership development, and the opportunity for study/travel abroad. The program is designed for full-time students beginning their college experience or with limited HCC credit hours (under 15). Students study together in cohorts for their core curriculum classes. Qualified students can receive scholarships and textbook assistance. To be eligible, students must have a 3.5 high school GPA or 3.5 HCC GPA and college-ready scores on TAKS, SAT, ACT or TSI. The Honors College application must be completed separately from the HCC application and all students are interviewed before acceptance. The applícation deadline for prior admissions is March 1, and for regular admissions on May 1 (or until the freshman class fills). The Honors College will continue to accept applications past the May 1 deadline until all slots are filled and thereafter, only as alternates on a waiting list. To access the application, go to the Applications/Deadlines section of www.hccs.edu/programs/honors-college. For more information, contact the Honors College Executive Director at 713-718-5203.


## Residency Information

## Establishing Residency

HCC is required by state law to determine the residency status of all students for tuition purposes. Students who have not enrolled for two or more consecutive regular semesters (fall and spring) must complete the residency core questions and satisfy all applicable requirements to establish residency. Additional documentation may be requested at any time following registration. Residency is determined at the time of registration, either by a student's current address or by the address of a parent or legal guardian, if the student is being claimed by his/her parents or is eligible to be claimed by his/her parents as a dependent for federal income tax purposes. A post office box can be used for a mailing address but cannot be used to establish residency. It is the responsibility of the student to register under the correct residency classification. A complete set of rules and regulations for determining residency is available at each campus's Admissions Office.

For tuition purposes, a student will be classified according to the following guidelines. The Registrar is the final authority on all questions of residency.

## Basic Residency Requirements

For tuition purposes, according to Texas Education Code Section 54.075 and Texas Higher Education Coordinating Board Rule 21.727, all students must answer a complete set of core residency questions within the admissions application. These questions will be used by the institution to determine if the person is a resident. The following persons shall be classified as Texas Residents and entitled to pay resident tuition at all institutions of higher education:

- A person who was enrolled at a Texas public institution during a fall or spring semester within the previous twelve months and was classified as a Texas resident for tuition purposes.
- A person who graduated from a public or accredited private high school in this state or as an alternative to high school graduation, received the equivalent of a high school diploma in this state AND maintained a residence continuously in this state for the 36 months immediately preceding the date of graduation, or received the diploma equivalent as applicable and the 12 months preceding the census date of the academic semester in which the person enrolled.
- A person or a dependent whose parent established a domicile in this state not less than 12 months before the census date of the academic semester in which the student enrolled in an institution AND maintained a residence continuously in the state for the 12 months immediately preceding the census date of the academic semester in which the person enrolled in an institution.
- If basing residency on a spouse and have been married at least 12 months, residency may be classified based on the spouse's qualifications for residency.


## In-District Residency

Students who have met the basic Texas residency requirements and live in HCC's taxing district (Alief ISD, Houston ISD, Stafford MSD, and part of Missouri City) are considered in-district residents.
Students must reside at a street address in HCC's taxing district. Post office boxes and dormitory addresses cannot be used.

## Out-of-District Residency

Students who have met the basic Texas residency requirements and live outside HCC's taxing district are considered out-of-district residents.

## Out-of-State Residency

A student who has not resided in Texas for 12 months immediately preceding registration is considered out-of-state, except for certain exceptions described below. A non-resident student classification is presumed to be correct as long as the residence in the state is primarily used for the purpose of attending school. To be reclassified as a resident (after one or more years of residency), the student must show proof of intent to establish Texas as his/her permanent legal residence.
See the section on Veterans Services for information regarding residency determinations of Veterans and Military-Affiliated Students.

## International Student Residency

An international student is a non-U.S. citizen who is not classified a resident alien by the U.S. Government.
International students living in the United States under an eligible visa permitting residence must provide documentation and meet the same requirements as a U.S. citizen to qualify for Texas resident status for tuition purposes.

## Undocumented Students

Texas State Law states that undocumented students can be admitted to the college and be considered a resident of Texas for tuition purposes if the undocumented student resided in Texas, and met the conditions listed below;

- Graduated or will graduate from a Texas public or private high school or received the equivalent of a high school diploma in Texas; and
- Resided in Texas for 36 months leading up to graduation from high school or receiving the equivalent of a high school diploma; or
- Have resided or will have resided in Texas for the 12 months prior to the census date of the semester in which the studentwill enroll in the college; and
- Sign the Affidavit of Intent to Become a Permanent Resident provided by the college that states the student has filed or will file an application to become a permanent resident at the earliest opportunity the student is are eligible to do so.

If the student does not meet these criteria, the student may still enroll, but will be classified as out-of-state for tuition purposes.

## Change of Residency

The change from out-of-district residency to in-district residency must be made at the time of registration. Any address change which results in a change to in-district status must be accompanied by adequate documentation. Changes to in-district status made after registration will be effective the following semester. A student who qualifies for a change from out-of-state to in-state residency status for tuition purposes may file a petition for change of residency. The petition must be filed
before the Official Day of Record for the regular term in order to receive any refund of excess tuition paid for that term.

## Penalties

Any student who provides false information or withholds information for proper determination of residency, admission, or enrollment is subject to any or all of the following penalties:

- Withdrawal from all classes with no refund.
- Dismissal from the institution.
- Payment of the difference in fees within 30 days.
- Loss of credit earned while under incorrect residency status.

These determinations will be made by the processes described in the Student Code of Conduct. See Student Code of Conduct included in this Catalog or Board Policy FLB(LOCAL) for more information.

## Additional Information for Non-U.S. Citizen Students

A non-U.S. citizen who is living in the United States under permanent resident status, has an appropriate visa, or who has filed an I-485 application for permanent residency and has been issued a notice of action from U.S. Citizenship and Immigration Service (USCIS) showing that the I-485 has been approved, has the same privilege of qualifying for resident status, for tuition purposes, as a U.S. citizen. Anyone permitted by Congress to adopt the United States as their domicile while living in this country is afforded the same privilege as citizens and permanent residents to establish Texas residency for tuition purposes.

For more information on residency or to see the list of approved documentation, visit www.hccs.edu/applying-and-paying/residency-information.

## Cost of Attendance and Exemptions/Waivers <br> Information

Students are required to pay tuition and mandatory fees based on residency, as discussed above, and are subject to certain waivers and exemptions described elsewhere in this Catalog. Tuition and fee rates are published on the HCC website and can be accessed at www.hccs.edu/applying-and-paying/tuition-calculator.

Some courses have additional fees specific to that course, such as laboratory and program fees. Check course listings for the additional fees. More information on course fees is contained below.

HCC charges a higher tuition rate to students registering for the third or subsequent time for certain courses. Students who enroll for most credit and Continuing Education Unit (CEU) classes for a third or more time will be charged an additional \$50 per semester credit hour and \$3.00 per contact hour, except for courses exempted by the Texas Higher Education Coordinating Board.
Parking Fees are not part of the published standard Tuition and Fee rates. Therefore, Parking Fees would be billed separately from these established rates. At this time, there is no charge for parking at most HCC locations.

HCC reserves the right to change its tuition and fees and refund policy structure wholly or in part during the year covered by this Catalog. Select fees are explained in more detail below.

## Tuition and Fee Schedule for Academic Year 2019-2020

Visit www.hccs.edu/applying-and-paying/tuition-calculator for the most up-to-date information.
Semester Credit Tuition Fees

| Description | Amount |
| :--- | :--- |
| In District | \$33.00 per hour |
| Tuition (\$50.00 minimum) |  |
| Out of District | $\$ 121.00$ per hour |
| Tuition Out-of-District (\$138.00 minimum) |  |
| Out-of-State | $\$ 151.00$ per hour |
| Tuition Qut-of-State (\$240.00 minimum) |  |
| Mandatory Fees |  |
| Description Amount <br> General Fee $\$ 25.50$ per hour <br> Out-of-District General Fee $\$ 3.50$ per hour |  |


| Description | Amount |
| :--- | :--- |
| Out-of-State General Fee | \$50.00 per hour |
| Technology Fee | $\$ 17.00$ per hour |
| Student Activity Fee | $\$ 1.00$ per hour |
|  | $(\$ 12.00$ maximum) |
| Recreation Fee | $\$ 6.00$ per semester |

Other Incidental Fees


## Testing Fees

| Description | Amount |
| :--- | :---: |
| Advance Standing Examination for College Credit Fee | $\$ 25.00$ per course |


| Description | Amount |
| :---: | :---: |
| Advance Standing Credit Evaluation | \$25.00 per evaluation |
| ACCUPLACER College Level Math | \$10.00 per attempt |
| ACCUPLACER ESL | \$29.00 Initial Test \$10.00 Retest |
| CLEP Test | \$12.00 |
| Correspondence Test - Proctoring Fee | \$25.00 |
| EMT Testing Fee | \$29.00-\$209.00 |
| HESI | \$45.00-\$75.00 |
| National Registry Test Fee | \$80.00-\$125.00 |
| NCLEX-RN Prep Fee | \$23.00-\$45.00 |
| Medical Assistant Exam Fee | $\$ 125.00$ |
| State Fire Fighter Exam Fee | \$85.00 |
| Surgical Technology Exam Fee | \$190.00 |
| TEAS | \$86.00 |
| TSI Assessment | \$29.00 All Sections \$10.00 Per section |


| Course Specific Fees |
| :--- |
| $\qquad$Description Amount <br>  Lab Fee <br> Adult High School Materials Fee $\$ 24.00-$ Various <br> Certified Nursing Aid Liability Fee $\$ 10.00 / \$ 20.00$ <br> $($ Art, BCIS, \& BIM)  |
| Computer Science Program Fee |
| Commercial Music Fee |
| Commercial Truck Clearing Acct |
| EMS AHA Card Fee |
| EMS OR Fee |


| Description | Amount |
| :--- | :--- |
| EMT Online Web Tool Fee | $\$ 110.00$ |
| HS-Film Badge Fee | $\$ 10.00-\$ 26.00$ |
| HS-Liability Insurance Fee | $\$ 10.00-\$ 34.00$ |
| Music Fee | $\$ 145.00$ |
| Phlebotomy Liability Fee | $\$ 12.00$ |
| Phlebotomy Materials and Supplies | $\$ 10.00-\$ 60.00$ |
| Police In-Service MAT/Test Fee | $\$ 50.00$ |
| Registration Fee Literacy NCR | $\$ 20.00$ |
| Registration Fee Math \& Reading | $\$ 60.00$ |
| Software Access Fee | $\$ 60.00$ |

In addition to tuition, there is a $\$ 42$ fee for each online course.

## Exemptions and Waivers

HCC offers tuition and fees exemptions and waivers to eligible students, including the Hazlewood Exemption and Military Waiver for Veteran and Military-Affiliated students. To view the full list of exemptions/waivers, visit www.hccs.edu/resources-for/eurrent-students/student-financial-services/waivers-and-exemptions.

## Flexible-Entry Course Fees

The cost of courses taken in the flex-entry term is the same as for regular semester-hour courses.

## Laboratory/Supply Fees

Laboratory supply fees, which help defray the cost of materials used in lab classes, vary. Certain programs have program-specific fees. Check course listings for additional fees in some classes.

## Continuing Education Unit Course Tuition and Fees

Continuing Education Unit (CEU) course tuition and fees are based on the expenses unique to each course and/or program. Therefore, each course is priced individually. For a schedule of classes and for more information on tuition and fees and refunds, contact the School of Continuing Education at 713-718-5303 or visit www.hccs.edu/continuing-education.

## Adult High School Costs

Adult High School is a credit recovery program designed to assist current high school students. For more information on the program, see the Adult Education \& Literacy Programs: Adult High School section of this Catalog below. The costs associated with this program are as follows:

- Recovery Credit - $\$ 165$ per half-credit plus $\$ 10$ materials fee
- Original Credit (online) - $\$ 255$ per half-credit plus $\$ 10$ materials fee


## Tuition Rebate Program

Students who graduate with a baccalaureate degree from a Texas public university may qualify to receive $\$ 1,000$ from the baccalaureate-granting institution if they meet the following criteria:

- Must have enrolled in a Texas public institution of higher education in fall 1997 or thereafter;
- Must have been a resident of Texas and entitled to pay in-state tuition at all times while pursuing the degree;
- Must have received a baccalaureate degree from a Texas public university; or
- Must have attempted no more than three hours in excess of the minimum number of semester hours required to complete the degree in the catalog under which one graduated.

Hours attempted include transfer credits, course credits earned exclusively by examination, courses that are dropped after the official census date. Hours attempted shall not include: course credit that is earned to satisfy requirements for a ROTC program but that is not required to complete the degree program; course credit, other than course credit earned exclusively by examination, that is earned before graduating from high school; and courses dropped for reasons that are determined by the institution to be totally beyond the control of the student.

Students are encouraged to consult advisors to plan their course of study at the community college level to maximize their chances of qualifying for this rebate when they transfer and graduate from a college or university with a baccalaureate degree and to look at baccalaureate granting investing.

## Tuition and Fees Payment

When a student registers for any class at Houston Community College (HCC) or receives any service from HCC, that student accepts full responsibility to pay all tuition, fees and other associated costs assessed as a result of registration and/or receipt of services.

Students should carefully review the Student Financial Responsibility Agreement and Acknowledgment of HCC Policies to understand their financial obligations to HCC: hccs.edu/resources-for/current-students/student-financial-services/student-financial-responsibility-agreement
Tuition bills will not be mailed to students. Students may view or print their current bill by logging
into their student account by visiting myeagle.hccs.edu. Students with questions about their tuition can contact the Bursar's Office at 713-718-5077.

## Payments and Payment Plans

HCC makes education affordable to students. Students have several options to pay their tuition and fees. Information on the payment options available to students, including installment plans, is available at:
www.hccs.edu/resources-for/current-students/student-financial-services/payments-and-payment-plan

At the time of registration, students will need to select their intended payment option to complete their enrollment. All HCC students are expected to pay their account balance in full or make payment arrangements according to the payment option selected during enrollment. For each payment option, payment to HCC is required within a specific timeframe. Students are not registered for any course until the full account balance is paid in full, or a payment plan contract is executed.

Students who fail to make payments within the payment timeframe allotted may be dropped from some or all classes, and will be required to register again. Course/section availability cannot be guaranteed upon re-registration.

Students are responsible for paying all charges arising from registration/enrollment. These may include charges arising from reduction of financial aid award(s) due to change in enrollment and/or eligibility status.

## Pay Online

Tutition and fees can be paid in full online by visiting myeagle.hocs.edu and following the steps outlined below:

- On the MyEagle home page, select Student Sign In.
- Enter Web User ID and Password, or follow the instructions to obtain the Web User ID and Password.
- After signing on, verify address and phone data. If no changes are necessary, click on continue.
- Acknowledge Student Financial Responsibility and HCC Policies to continue.
- On the Student's Center, click "Make a Payment or Set up a Payment Plan".
- Select Click here to make a payment or Enrollin Payment Plan. Complete the payment plan enrollment as directed.
- Enter credit card/checking account information.
- Enter student email address.
- Review information.
- Submit payment.
- Receive confirmation that payment has been accepted.

If the credit card is declined, a student may repeat the process using a different credit card.
Pay in Person
Students may pay by check, credit card or money order at any cashier's window. Students may call the Cashier's Office prior to visiting a campus to confirm that their preferred payment method is accepted at that specific location.
If students are receiving a tuition waiver or tuition is billed to a company or agency, those students must present the waiver or voucher to pay in person. The remaining balance should be paid in full or a Payment Plan must be set up.
A complete listing of all Cashier's Offices by college, including contact and location information, can be found at www.hccs.edu/applying-and-paying/business-office-locations.

## Returned Checks

A $\$ 25.00$ returned check fee may be assessed when a check payment or an electronic check (e-check) payment is returned unpaid.

## Delinquent Student Account Balances

Holds will be placed on the student record preventing registration, grades, transcripts and other college services as the account balance becomes delinquent. Balances not settled may be forwarded to a collection agency. It is the student's responsibility to pay collection fees, which may be based on a percentage at a maximum of $24 \%$ of the debt, and all costs and expenses, including reasonable attorney's fees, incur in such collection efforts.
Notification of the outstanding student account balance is delivered by email to the student's college email address and/or personal emails on file. Students can always view the balance and details online. It is the student's responsibility to update their email and mailing addresses each time there is a change. Notifications sent by the college through any of these addresses are considered delivered.

Students are encouraged to check their account balance by logging into their student account by visiting myeagle.hccs.edu.

## Refunds and Credit Balances

## HCC Eagle Card

In June 2016, HCC contracted with BankMobile Disbursement to manage student refunds through the HCC Eagle Card. Students can choose either to open a BankMobile account or have their refunds deposited to an existing account by clicking "Choose a Refund Option" button on their student center page.

## Credit Balances and Refunds

Credits generated as a result from dropped/cancelled courses and/or arising from overpayments shall be refunded after the official date of record or earlier upon student request to bursar.refunds@hccs.edu. Credits resulting from credit card payments shall be refunded to the same credit card used for initial payment as the first option. However, if it is not practicable, HCC may refund it through HEC Eagle Card. Credits resulting from cash, checks, and money order payments will be reimbursed through BankMobile Disbursement.
Amount of refunds for withdrawals are determined in accordance with the Drop and Withdrawal Refund Schedule based on total semester fees. If the student has established a payment plan, any remaining installment payments due are deducted from the refund amount. Any reduction in the balance due to a withdrawal will be adjusted on the remaining installments.

Course withdrawal does not release the student from the obligation to pay any balance owed to the college. One hundred percent (100\%) refund before class begins of ALL tuition and fees will be made ONLY when the college chooses not to offer the class, college error is involved, or before the applicable drop deadline. See below for additional information.

## Refund of Financial Aid Residual

The Financial Aid Office determines the schedule of financial aid refunds in accordance with the requirements of the Department of Education. More information is available by calling the Financial Aid District Call Center at 713-718-2000, and select option 2.

## Drop and Withdrawal Refund Schedule

100\% Refund Dates on Drops/Withdrawals are listed on the schedule.*

|  | Last Day for $70 \%$ | Last Day for $25 \%$ |
| :---: | :---: | :---: |
| Class Length | Refund* | Refund* |
| 2 or less wks. | 2nd day | n/a |
| 3 wks. | 3 rd day | 4th day |
| 4 wks. | 4th day | 5th day |
| 5 wks. | 5th day | 6th day |
| 6 wks. | 5th day | th day |
| 7 wks. | 7th day | 9th day |
| 8 wks. | 8th day | 10th day |
| 9 wks. | 9th day | 11th day |
| 10 wks . | 9th day | th day |
| 11 wks. | 10th day | 14 th day |
| 12 wks . | 12th day | 15th day |
| 13 wks. | 13th day | 16th day |
| 14 wks. | 13th day | 17th day |
| 15 wks. | da | 19th day |
| 6 wks. or more | 15th day | 20th day |

*A $\$ 15.00$ Change of Schedule Fee is deducted after computing the percentage refund.
All non-refundable fees will be deducted before the percentage for refund is applied.
Non-Refundable Fees
NOTE: HCC does not refund the following fees for any reason other than that the selected class fails to have adequate enrollment to be offered in the selected term.
Drop/Add - \$15
Returned Check-\$25
Stop Payment - \$25
Payment Plan Enrollment - \$30
Payment Plan Late - \$10
International Application - $\$ 75$ (One-time charge for F, M, or J Visas only)
International Orientation - \$50
Deferment/Reproduction - \$50
Transcript-\$5*
Transcript via Overnight Express or Fax - $\$ 15$

Advanced Standing Examination for College Credit (per course) - \$25
Advanced Standing Credit (per evaluation) - \$25
*An additional service provider fee is required if transcript is requested by phone or online. There is no fee if a transcript is requested in-person.

## Continuing Education Refund Policy

Courses offered by the HCC School of Continuing Education have their own refund policy. For information regarding that policy, please see www.hccs.edu/continuing-education/about-us.

## Academic Information

## Course and Program Definitions

The following definitions are in alignment with Texas Administrative Code Title 19, Part 1, Chapter 4, Subchapter P - Approval of Distance Education Courses and Programs for Public Institutions, Section 4.257 - Definitions:

- Online Course - A course in which the majority of the instruction takes place in an online forum. An online course may include mandatory face-to-face sessions totaling no more than 15 percent of the total instructional time. Examples of face-to-face sessions include orientation, laboratory, exam review, or in-person tests.
- Online Programs - A program in which the majority of the curriculum is delivered in an online forum. An online program may include mandatory face-to-face courses totaling no more than 15 percent of the total curriculum.
- Hybrid Course - A course in which approximately half of the instruction takes place in an online forum. Hybrid courses should have regularly designated face-to-face and online sessions throughout the academic term.
- Hybrid Programs - A program in which approximately half of the curriculum (more than 50 percent but less than 85 percent) takes place in an online forum. The remainder of the curriculum is delivered traditionally via face-to-face instruction.
- Traditional Course - A course in which the majority of instruction occurs during regularlyscheduled, face-to-face sessions in a conventional classroom environment. A traditional course may incorporate online mechanisms to deliver portions of the course; however, the majority of instruction should occur during the regularly scheduled, face-to-face sessions.
- Traditional Programs - A program in which the majority of curriculum is delivered via face-toface instruction. A traditional program may deliver some of the curriculum via an online forum; however, the majority of curriculum would be delivered via face-to-face instruction.


## Online Courses

HCC's online courses are one to four credit hours and are equivalent to on-campus courses in terms of transferability (no distinction is made on the transcript). Students are encouraged to visit the Online College's homepage at www.hccs.edu/online to see availability of online classes, certificates, and degree offerings.

## Attendance Policy

Students are expected to attend all lecture classes and labs regularly. Students are also responsible for materials covered during their absences. Instructors may be willing to consult with students for make-up assignments, but it is the students' responsibility to contact the instructor. Class attendance is monitored daily. Although it is the student's responsibility to drop a course for nonattendance, the instructor has the authority to drop a student for excessive absences. A student may be dropped from a course after accumulating absences in excess of $12.5 \%$ of the total hours of instruction (lecture and lab). For example:

For a 3 credit-hour lecture class meeting 3 hours per week ( 48 hours of instruction), a student can be dropped after 6 hours of absence.

- For a 4 credit-hour lecture/lab course meeting 6 hours per week ( 96 hours of instruction), a student can be dropped after 12 hours of absence.

Departments and programs governed by accreditation or certification standards may have different attendance policies. Administrative drops are at the discretion of the instructor. Failure to withdraw officially can result in a grade of " $F$ " in the course.

For medical issues or other problems affecting attendance, students should speak with their instructors.

NOTE: It is the responsibility of the student to withdraw officially from a course.

## Grading System

HCC uses the following standard grading system:

| Grade | Grade Interpretation | Grade Points |
| :---: | :--- | :---: |
| A | Excellent (90-100) | 4 |
| B | Good (80-89) | 3 |
| C | Fair (70-79) | 2 |
| D | Passing (60-69), except in developmental courses. | 1 |
| F | Failing (59 and below) | 0 |
| FX | Failing due to non-attendance | 0 |
| IP | In Progress | 0 |
| W | Withdrawn | 0 |
| I | Incomplete | 0 |
| AUD | Audit | 0 |
| IP | In Progress. Given only in certain developmental courses. A student must |  |
| re-enroll to receive credit. | 0 |  |
| COM | Completed. Given in non-eredit and continuing education courses. | 0 |

All grade points listed in the table above are per semester hour.
Note that some Health Sciences programs use a different grading scale.

## Grade Point Average (GPA)

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of semester hours the course carries.

To compute a student's grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP", "W", "AUD", "COM", and "I" do not affect the student's GPA.

## Incompletes

The grade of " $l$ " (Incomplete) is conditional. A student receiving an " $\mid$ " must arrange with the instructor to complete the course work within six (6) months of the end of the incomplete term. After the deadline, the " $l$ " becomes an "F." Upon completion of the course work, the grade will be entered as an " $l$ " grade on the student transcript. All "l"s must be changed to grades prior to graduation.

## Repetition of Courses

After the close of each semester, a check of a student's enrollment history is conducted and courses taken more than once are marked as a repeat. If a student repeats a course in which a grade (A-F) has been received, the highest grade received is the permanent grade for the course and will be used in computing the grade point average. All grades earned in a given course will be entered on the transcript. Other colleges may compute the GPA differently than HCC.

## No Late Registration

It is the official policy of HCC that there is no late registration.
A student may register for a class as long as it has not already met for the first time. A student may not register for a course if it has already met once. If it is believed that an extenuating circumstance exists, the student should be referred to the Dean of Student Success or designee.

An example of an extenuating circumstance is a cancelled class. A cancelled class is beyond the control of a student, and is an issue created by the college. In the event of a cancelled class, it may be appropriate to make an exception to the late registration procedure.

## Academic Progress Requirements

A student's academic progress will be evaluated for the first time after a minimum of nine (9) attempted semester hours. A student's academic standing is determined at the end of the Fall semester (December), Spring semester (May) and Summer semester (August).

To maintain satisfactory academic progress, a student is expected to maintain a minimum cumulative GPA of 2.0 based upon the aggregate number of hours attempted at Houston Community College.

Students who maintain a cumulative GPA of 2.0 or above are considered to be in good academic standing.
Students who do not maintain a minimum cumulative GPA of 2.0 will be placed on academic probation, continued academic probation or academic suspension as defined below. These three academic status levels alert students that action is required. Students are expected to establish contact with their counselor and/or college advising center for support and assistance with improving their academic standing.

Each academic status level is defined below with the required action by the student:

| Academic Status Level | Definition | Action Required by Student |
| :--- | :--- | :--- |
| Good Standing | Cumulative GPA of 2.0 or <br> above | None |
| Academic Probation | Cumulative GPA below 2.0 | Attend a SLIP session and have two (2) <br> follow-up counseling sessions during the <br> semester to improve academic standing |
| Contínued Academic <br> Probation | Cumulative GPA below 2.0 <br> and term GPA 2.0 or above | Continue to work with the counselor from <br> a previous semester, as needed, to <br> improve academic standing |
| Academic Suspension | Previous term status of <br> Academic Probation or <br> Continued Academic | Attend a SLIP session and work with <br> counselor to improve academic standing |


| Academic Status Level | Definition | Action Required by Student |
| :--- | :--- | :--- |
|  | Probation and term GPA <br> below 2.0 |  |

Additionally, students placed on academic probation or academic suspension should note the following:

- Students on academic suspension are required to attend a Successful Learning Intervention Program (SLIP) session at the college they attend prior to re-enrollment, and prior to meeting with their designated counselor.
- The student's counselor will stipulate conditions of enrollment including, but not limited to, maximum hours and/or specific courses.
- Students on Academic Suspension may be unable to enroll in classes for one (1) semester.
- A student may appeal an Academic Suspension may by completing the necessary paperwork obtained at the college's counseling center. For more information on appealing a suspension, students may contact their college's counseling center. See Counseling Contact Information at www.hccs.edu/online/counseling-services.
The following requirements also apply to the determination of academic progress:
- Students enrolled in multiple summer sessions will have their entire summer's work evaluated for determination of their academic status.
- Students in certain Health Sciences programs are required to maintain a grade of "C" in all courses in order to continue in the program. Students not meeting these standards may continue to enroll at HCC in other programs as long as they maintain minimum HCC requirements. Health Sciences students should check their program's requirements by visiting www.hccs.edu/programs/areas-of-study/health-sciences.
- Students are responsible for knowing whether they have passed the minimum standards for continuation in college. Ineligible students who register will be subject to dismissal with forfeiture of all tuition and fees.
If a student has any questions, please contact a campus academic advisor and for information on How to Meet with an Academic Advisor see www.hccs.edu/support-services/advising.


## Change of Schedule: Drop/Add/Swap <br> Before Classes Begin

Students may add classes but only through the drop/add/swap period. Payment of course fee is made at the time of the change. If a class is full, consider taking the course at a different time, location, via Distance Education, or in the second start session.

## After Classes Begin

Students can make a class change online through the drop/add/swap period listed in the academic calendar found at www.hccs.edu/calendar.
Approval or requests for changes will be based on the availability of space in the class to which the student wishes to transfer.

Deadline for changing schedule or adding courses is as follows:

- In-Person - Friday before the start of the session;
- Online - Night before the start of the session.


## Dropping Courses

Students should make sure they are aware of penalties regarding financial aid, additional tuition costs, etc. before withdrawing from course.

It is the responsibility of the student to officially drop or withdraw from a course. Failure to officially withdraw may result in the student receiving a grade of " $F$ " in the course. A student may officially withdraw in any of the following ways:

- Drop online from the student's account. A student may login to his/her Student Account by visiting myeagle.hccs.edu and selecting "Student Sign-In."
- Send a letter requesting withdrawal to:
Registrar
Houston Community College
P. O. Box 667517

Houston, TX 77266-7517
The withdrawal will be effective the date of postmark.

- Fax a letter of withdrawal to 713-718-2111.

A student who officially withdraws from a course before the Official Date of Record will not receive a grade and the course will not appear on the student's permanent record. A student withdrawing from a course after this period and prior to the deadline designated in the HCC calendar will receive a grade of "W".

## Limitation/Costs of Course Withdrawals

Under Section 51.907 of the Texas Education Code, an institution of higher education may not permit a student to drop more than six (6) courses, including any course a transfer student has dropped at another institution of higher education. This statute was enacted by the State of Texas in the Spring 2007, and applies to students who enfoll in a public institution of higher education as a first-time freshman in the Fall 2007 or later. Any course that a student drops is counted toward the six-course limit if (1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student's transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution. High school students enrolled in HCC Dual Credit and Early College are waived from this requirement until
they graduate from high school. All college-level courses dropped after the Official Day of Record are included in the six-course limit unless the student demonstrates to an appropriate college official that one of the following events occurred to the student during the semester or summer session:

- A severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course (see Medical Withdrawal/Compassionate Withdrawal Application Process below);
- The student's responsibility for the care of a sick, injured, or needy person if the provision of that care affects the student's ability to satisfactorily complete the course.
- The death of a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's death is considered to be a showing of good cause.
- The active duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student's family and such active duty interferes with the student's ability to satisfactorily complete the course.
- The change of the student's work schedule that is beyond the control of the student and that affects the student's ability to satisfactorily complete the course.
- Other personal or family reason that is considered catastrophic or beyond the control of the student and interferes with the student's ability to satisfactorily complete the course (as determined by the college official; see also Medical Withdrawal/Compassionate Withdrawal Application Process below).

For questions regarding the six-drop course limit, students should contact the Office of Enrollment Services at their college.
HCC students affected by this statute that have attended or plan to attend another institution of higher education should become familiar with that institution's policies on dropping courses.

Other laws affecting course drops are as follows:
Senate Bill 1782 - Effective June 1, 2018

- Allows students who have accrued at least 50 semester credit hours and stopped-out for 24 months, a one-time exemption from the six-drop and three-peat rules. For more information regarding these rules, see Course Withdrawals ( 6 -drop rule) and Repeating Course (Three-Peat rule) at www.hccs.edu/about-hcc/procedures/student-rightspolicies--procedures.
- A Senate Bill 1782 qualifying studdent may drop one (1) additional course, for a total of seven (7) drops. If a student once again drops out for a 24 -month period, the student is not granted an additional drop.
- Senate Bill 1782 qualifying students should contact the Enrollment Services Office at their college to provide documentation and obtain a waiver form.


## Medical Withdrawal/Compassionate Withdrawal Application Process <br> Applicability

Applies to all HCC students enrolled in the past two years prior to the publication of this Catalog.

## Definitions

"Medical Withdrawal Request" means a request to withdraw from college/courses because of an exceptional adverse life event related to physical or mental health of the student or someone for whom the student is the primary caretaker (i.e., power of attorney or medical power of attorney).
"Compassionate Withdrawal Request" means a request to withdraw from college/courses because of an exceptional adverse event not covered under a medical withdrawal (e.g., death of a family member, incarceration, crime victim, act of nature, legal issues).
"Late Withdrawal" means a withdrawal from class(es) after the withdrawal deadline for the current semester.
"Exceptional Adverse Life Events" means an unexpected and extraordinary event/circumstance that substantially impacts one's life and/or ability to remain enrolled in school. As documented and determined by the Dean of Student Success.
"Effective Date of Onset" means the date when the exceptional adverse life event began to impact academic work as determined by the Dean of Student Success when reviewing the documentation and timeline. Date of event must not exceed prior two years.
"Decision" means to approve or not approve the request to withdraw/refund from courses due to medical or compassionate reasons.

## Procedures

Students must complete and submit a Medical or Compassionate Withdrawal Request form provided by the college (online or in-person), with supporting documentation (e.g., medical or legal documentation) to an HCC Ability Services Counselor to request to withdraw from course(s) due to an exceptional adverse life event. Compassionate and late withdrawal requests should be submitted to the Office of the Dean of Student Success.

Students can obtain information on the process and the form from the Office of Enrollment Services at their college.

## Satisfactory Academic Progress Requirement for Veteran and Military Affiliated Students

The Department of Veterans Affairs requires that any student utilizing VA education benefits make satisfactory academic progress to remain eligible for such benefits.

Respective students on academic probation and suspension will be reported to the Department of Veterans Affairs. Please see the Requirements for Academic Progress section of this Catalog for more information.

## Time Frame Component

A student receiving the Hazlewood Act exemption will be expected to complete their educational attainment objective or course of study within their first 90 semester hours.
Grades of "F, FX, I, NG, or W" repeated courses are counted in the aggregate total number of hours attempted. Students will not receive the exemption if the course has previously been passed, unless the program of study requires students to take the course more than twice in order to achieve a required grade.

Please see the Grading System section of this Catalog for grade definitions.

## Repeating Courses for Veteran and Military-Affiliated Students

Students using VA educational or Hazlewood Act benefits may not retake a course in which a passing grade or a temporary grade of " $l$ " is awarded.

It is ultimately the responsibility of the student to know which course(s) has/have been completed. Students may check their progress by logging into their student account and viewing their advisement report (iAAR).

The HCC VMASS District office is required to notify the VA of any course duplications, and appropriate changes will be made when a student has taken a class that has been deemed successfully completed.

## Activated Reservists

A HCC student who is attending classes and is called to active duty during a semester may elect to do one of the following:

- Receive a refund for the tuition and fees paid for the semester from which the student withdraws;
- Receive an incomplete grade in all courses by designating "withdrawn" on the transcript; or
- Request the instructor to assign an appropriate final grade or credit if the student has satisfactorily completed a substantial amount of course work and demonstrated sufficient mastery of the course material.

The amount of the refund is contingent upon the course drop date in accordance with the Drop and Withdrawal Refund Schedule, found at the Refunds and Credit Balances section of this Catalog. To drop/withdraw from courses, submit a VMASS Certification Request at www.hccs.edu/support-services/veteran-affairs/vmass-certification-request.

## Satisfactory Academic Progress Requirements for Financial Aid Students

Financial aid students must meet the following Satisfactory Academic Progress (SAP) requirements set by the federal government:

- Must maintain a term GPA of 2.0 or higher;
- Must complete at least $67 \%$ of attempted courses for the academic year; and
- Must enroll in courses leading to an HCC degree or certificate.

Students who do not maintain the standards listed above will be ineligible to receive financial aid. Students should note that SAP Requirements to maintain financial aid are not the same as academic progress requirements (see Academic Progress Requirements section of this Catalog). A student may appeal a suspension of financial aid by submitting a written request to the college Financial Aid Office, online or in-person. For more information regarding the financial aid SAP requirement and appeal of suspension options is available in the college Financial Aid Offices and online at www.hccs.edu/applying-and-paying/financial-aid/satisfactory-academic-progress.

## Progress Records

A student can check their grades at any point by logging into their Student Account. A student may login to his/her Student Account by visiting myeagle.hccs.edu and selecting "Student Sign-In."

## Grade Reports

Grades generally post one week after the last final exam for that particular session or semester.

## Graduation

Prior to graduation, students must submit all official transcripts of credits transferred from other institutions to the Office of Admissions and Records. A candidate for any degree or certificate must meet the graduation requirements in the catalog for the year of initial enrollment unless the student elects to graduate under the requirements of a more recent catalog. The candidate must indicate the catalog choice when applying for graduation. A student who does not maintain enrollment at HCC and has a gap in enrollment for a period of more than one calendar year is required to graduate under the catalog requirements set by the student's year of readmission. Current and archived catalogs can be found at www.hccs.edu/programs/catalog.

To be considered as a candidate for the AA, AS, AAT, AAS degree or Certificate of Completion, students must meet with their advisor and get approval and then complete the application online through their student center. This should be done at the time of registration for the student's final semester, or during registration for the Spring semester if the student wants to participate in the May ceremony.

Students who are unable to complete their degree plan on file at HCC may transfer back up to 45 semester hours of equivalent courses from an accredited institution. These courses must be completed within three years of their last semester of enrollment at HCC. All other graduation requirements must be satisfied including the requirement that $25 \%$ of a student's degree must be completed at HCC.
Students who want a printed diploma must check the diploma box on the application and provide a diploma mailing address. There is no charge for the diploma. Students may request their records be reviewed at the conclusion of their course work so the appropriate degree or certificate will be recorded on the student's transcript. Students can meet with their advisor to review their records.

If a student did not elect to receive a copy of his/her diploma, a copy may be requested from the Registrar. Students may email graduation@hccs.edu regarding their diploma or graduation status.

## Graduation Honors

Graduation honors will be awarded to students pursuing an associate with superior cumulative GPAs. The following classifications of honors will be recognized on the student's transcript and diploma:

- Highest Honors - GPA 3.80 or above
- High Honors - CPA 3.60 to 3.79
- Honors-CPA 3.35 to 3.59

HCC will use the following guidelines to compute honors eligibility:
The student must complete at least $25 \%$ of the degree at HCC; and
The student must complete requirements for the AA, AS, AAT or AAS degree (certificate graduates do not receive honors).
The grades in all HCC courses, including Developmental work, will figure in the cumulative GPA.
Developmental course grades are excluded from the degree GPA.
Courses taken through the preceding fall semester will be used in computing the GPA for the purposes of determining graduation honors for the ceremony. The student must have completed $75 \%$ of the course work for the degree at that time.

Please see the Grading System section of this Catalog for more information on computing the student's GPA.

## Participation in the Graduation Exercises

HCC holds two student graduation ceremonies each year, one in December for fall graduates, and one in May for spring graduates. Candidates for degrees and certificates are encouraged to attend the graduation ceremonies. Students who complete course requirements in summer 2020 may participate in the Fall 2020 ceremony.

## Records and Transcripts

A transcript of college credits is an official copy of the student's permanent record bearing the HCC seal and the signature of the Registrar. Students may request an official transcript online, by phone, or by ordering and picking up in-person at a specific campus locations (see website for more information).
It is highly recommended that transcripts be sent electronically to colleges and universities to expedite processing. There is a charge for transcript processing. All admissions information must be on file and all holds cleared before a student's record will be released. A student should allow a week for delivery following the transcript request. Additional time should be allowed at the close of a semester. Students needing a transcript should allow one week after the end of a semester to ensure all grades have been entered for the term.

Students should request transcripts of work completed at another institution from that institution.
For more information on ordering official transcripts from HCC, including fees and campus pick up locations, please visit www.hccs.edu/resources-for/current-students/transcripts. Certain notations required by law are included on the transcripts, such as student discipline information, in addition to grades.

## Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) of 1974 was established to protect the privacy rights of all students and applies to any educational facility receiving federal funds. FERPA prevents the release of certain information held within student records. HCC complies with the FERPA when collecting, maintaining, and releasing student records.

## Release of Student Records/Information

FERPA affords students in "attendance" at Houston Community College (HCC) certain rights with respect to their education records. "Attendance" is defined by HCC as beginning on the first day of the term in which a student is enrolled. These student rights include:

The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. A student should submit to the registrar a written request that identifies the record(s) the student wishes to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

- The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the College to amend a record should write the College official responsible for the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. See policy FJ(LOCAL) available at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.
- The right to provide written consent before the College discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent. The College may disclose education records without a student's prior written consent under several FERPA exceptions including:
- Disclosure to school officials with legitimate educational interests
- A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position(including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
- A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.
- The student's application for financial aid
- Submitting proof of dependency
- Response to a judicial order or subpoena
- A bona fide health or safety emergency
- Information requested by other schools in which the student seeks or intends to enroll Directory information (described below)
As of January 2012, the U.S. Department of Education's FERPA regulations expanded the circumstances under which a student's education records and personally identifiable information (PII) contained in such records-including a student's SSN, grades, or other private informationmay be accessed without a student's consent.

First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to a student's records and PII without a student's consent to any third party designated by a Federal or State Authority to evaluate a federal or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution.

- Second, Federal and State Authorities may allow access to a student's education records and PII without a student's consent to researchers performing certain types of studies, in certain cases even when HCC objects or does not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive a student's PII, but the Authorities need not maintain direct control over such entities.
- In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without a student's consent PH from a student's education records, and they may track a student's participation in education and other programs by linking such PII to other personal information about a student that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

FERPA also designates certain information related to a student as "Directory Information." FERPA gives the College the right to disclose such information to anyone inquiring without having to ask a student for permission, unless the student specifically requests in writing that all such information not be made public without written consent (see location of HCC Confidentiality Form below) except by the National Student Clearinghouse to loan guarantors.
Houston Community College has designated the following as "Student Directory Information:"

- Student's name;
- Address and telephone number;
- Date of birth;
- Major field of study;
- Enrollment status (full/part-time);
- Classification;
- Dates of attendance at HCC;
- Number of semester hours completed and in progress;
- Student classification;
- Degrees earned and dates awarded; and
- Most recent previous educational institution attended.

If a student does not want directory information released, the student must complete a confidentiality request form at the college campus and submit to the Enrollment Services Office.
The Confidentiality form is located at
www.hccs.edu/media/houston-community-college/district/pdf/confidentiality-form.pdf.
Release of any additional information pertaining to student records must be authorized by the student (i.e., grades, transcripts). If a student wishes to authorize HCC to release information to another person, he/she must complete an Authorization to Release Information form and submit with proper identification to the Enrollment Services Office at the college. The form will specify duration and information allowed to be released.

The Authorization to Release information form is located at www.hccs.edu/media/houston-community-college/district/pdf/ferpa/FERPA-Release-Form.pdf.

If a student is not able to sign the Authorization to Release Information form in person at the Campus Registration Office, he/she must complete the FERPA Notary Form. The FERPA Notary Form
must be notarized and is located at www.hccs.edu/media/houston-community-college/district/pdf/ferpa/FERPA-Notary-Form.pdf.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5901
ferpa@ed.gov


## Academic Support

## Freshman Success Courses (FSC)

All students who attend Houston Community College for the first time and have twelve (12) college level semester credit hours (SCH) or fewer must enroll in a Freshman Success Course (FSC) their first semester. Houston Community College offers two forms of this course. The Introduction to Health Professions (HPRS 1201) course is designed for students pursuing a degree in Health §ciences and the Learning Frameworks (EDUC 1300) course is designed for students pursuing all other majors. This course is designed to provide career assessment as well as career exploration opportunities that will assist students in deciding on a career path.

For more information, consult the Class Schedule at https://myeagle.hccs.edu/app/catalog/classSearch.

## Service Learning

The Service Learning program at HCC provides civic engagement opportunities for students enrolled in courses with a community service component. However, these opportunities are also available to any student desiring to volunteer their time to assist in community outreach efforts. The program advocates a balanced service-learning approach, meeting the needs of the community while maintaining an academically rigorous campus environment.
A course designated as having a service learning component is one that provides students with an opportunity to apply what is learned in the classroom to a practical experience in the community. Often partnering with non-profit organizations and community service sections of corporations, service learning enriches the educational experience for students by unveiling the relevancy of coursework to real life scenarios in the community. Servicelearning improves retention rates of students, increases their sense of civic responsibility and deepens their understanding of community issues. Service learning also alows students to explore roles and activities that will help them develop valuable knowledge and skills and explore possible career options. For additional information regarding Service Learning opportunities, contact Dr. Pauline Warren at pauline.warren@hccs.edu or visit www.hccs.edu/departments/division-of-instructional-services/service-learning.

## Supplemental Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course. For additional information regarding Supplemental Instruction opportunities, please contact Dr.
Pauline Warren at pauline.warren@hccs.edu or visit
www.hccs.edu/resources-for/current-students/supplemental-instruction.

## Tutoring, Writing Centers, and Math Labs

One important key to success in college is learning to use available resources. Houston Community College provides many tutoring opportunities for students in almost all areas. Whether a student prefers face-to-face interaction or the privacy and convenience of working with a tutor online, HCC provides the options. In addition, HCC provides access to writing centers and math labs, staffed with
experts ready to assist students with writing assignments and math problems. More information is available at www.hccs.edu/resources-for/current-students/tutoring.


## Adult Education Program

Additionally, HCC offers Adult Education programs described below and at hccs.edu/programs/adult-education.

## Adult Education \& Literacy Programs

Adult Education courses are grant supported through the support of the Texas Workforce Commission. Adult Education students can choose from the following three areas below:

- HSE (High School Equivalency Student)

Students seeking a certificate of High School Equivalency (GED, Hi-SET, TASC).
A student who wants to prepare to take one of the three Texas-approved high school equivalency exams. These exams include the GED (General Educational Development), the TASC (Test Assessing Secondary Completion) or the Hi-SET (High School Equivalency Test). Upon successful completion of all parts of one of these three accepted exams, the student will receive the certificate of high school equivalency issued by Texas Education Agency.

- ESOL (English for Speakers of Other Languages)

Students wanting to speak, read, and write English and whose first language is not English. A learner who wants to achieve competence in comprehending, speaking, reading, and writing English. ESOL students can continue to study for their High Sehool Equivalency and/or transition to postsecondary education and training or employment.

- Career4U Academy

The Adult Education \& Literacy program offers five CareerqU Academies. These academies allow students to attend college without a TSI test and earn a certificate in the sectors of Healthcare, Information Technology, Business, Construction Trades, and Transportation. This student will establish a clear path toward his/her educational and employment goals by studying basic skills, English as a Second Language, and/or high school equivalency along with a post-secondary Workforce Certificate. Pay a $\$ 20$ processing fee and Adult Education will sponsor the first two classes, and financial aid pays for the completion of the program. For information about Adult Education call the HCC AEL Hotline at 713-718-5381 or visit hccs.edu/changemylife.

## Workforce and Career Training Program (WCTP)

Workforce and Career Training Program (WCTP) is a collaborative effort by HCC and a number of high-profile nonprofit organizations to assist underemployed or unemployed individuals. All WCTP training integrates career training with Adult Education classes. Financial aid is regularly available. All WCTP programs also can be configured to accommodate students whose second language is English. To find out more, email hcc.wctp@hccs.edu or call 713-718-2779 or visit www,hccs.edu/programs/adult-education/workforce--career-training.

IET/EL Civics offerings provide advanced English Language Learners with tuition assistance for concurrently enrolling in ESL courses that are integrated with Level One Certificate career programs.

## Ability to Benefit Programs

The Adult Education \& Literacy office has arrangements that will allow students who do not have a high school diploma or Certificate of High School Equivalency (TxCHSE) certificate to enroll at HCC and receive federal student aid including Pell Grants. Students need to demonstrate that they have the "ability to benefit" from postsecondary education and training and can meet certain additional requirements. More information is available at www.hccs.edu/programs/adult-education/ability-to-benefit-pell-grant-option.

## Adult High School

Adult High School (AHS) is a credit recovery program for students seeking credit recovery and/or original credit toward their high school graduation requirements (students recovering/completing credit receive a high school diploma). Current high school students will need a referral from their high school counselor before registering for any AHS class. For more information, including AHS locations and courses, call 713-718-7611 or visit www.hccs.edu/programs/adult-education/adult-high-school.


## Student Services

The mission of the Student Services Division is to foster a learning environment that supports students in their educational journeys. This includes engaging students in innovative co-curricular programs and providing exceptional support services to promote their intellectual and social development.

## Student Services Contact Center

The Student Services Contact Center provides information and registration assistance to future, current and returning Houston Community College students. Students may emailinquiries online to student.info@hccs.edu or chat live with knowledgeable associates regarding registration, admissions, academic and student services. Information, answers to frequently asked questions, and a video library can be found 24 hours a day, 7 days a week. More information regarding the Student Services Contact Center can be found at www.hccs.edu/support-services or by calling 713-718-2000 (select Option \#1) from 7:00 a.m. - 7:00 p.m., Monday - Friday excluding holidays.

## Student Orientation

New students entering as freshman or transferring to HCC are required to attend New Student Orientation (NSO). NSO sessions are offered at various campuses and times to meet students' needs. To view the locations and times, go to the Student Sign-In section of myeagle.hccs.edu, login to the student account, and view Student Center.

Before signing-up for a NSO session, students must complete the following:

- Provide proof of bacterial meningitis vaccination to the Admissions \& Records Office. For more information on requirements, exemptions, and required documentation, visit www.hccs.edu/applying-and-paying/meningitis;
- Submit official high school transcripts to Admissions \& Records Office. For information on how to submit transcripts to HCC, visit www.hccs.edu/resources-for/current-students/transcripts;
- Submit SAT and/or ACT test scores to Admissions to determine placement or waivers;
- Complete the Texas success Initiative (TSI) Assessment to determine college readiness, unless the student qualifies for an exemption. A list of TSI exemptions is available at www.hccs.edu/applying-and-paying/tsia-exemptions. If a student is not exempt from the TSI, that student must first take the Pre-Assessment Activity (PAA) test. For more information on the TSI and PAA, visit www.hccs.edu/departments/division-of-instructional-services/hcc-texas-success-initiativeassessment; and
Complete the Career Assessment through the Career Coach website at www.hccs.emsicc.com. The Career Assessment is a 60-question assessment to give students insight of their potential academic pathways and career options.
During Orientation students will:
Learn about the academic programs, academic and student support resources, and student life;
- Become familiar with financial services and payment;
- Receive advising and a recommended course schedule for their first semester;
- Enroll in courses; and
- Have an opportunity to take a campus tour.

After orientation, students need to:

- Get an HCC Student ID (see Student Identification Card section below); and
- Purchase textbooks (see Bookstore section of this Catalog).

Students should note that certain Health Sciences programs have separate orientation sessions.
For International student orientation information, please see the International Services and Programs: Check-in and Orientation for International Students section of this Catalog or visit www.hccs.edu/support-services/international-students/orientation.

For potential and returning students of the Adult Education program, Orientation and Registration must be completed at www.hccs.edu/programs/adult-education/take-a-txchse-or-esl-class/orientation-registration-schedule. Call 713-718-5381 for more information.

## Student Identification Card

Student identification (ID) cards are required once a student has registered and paidfor classes. The card will be needed for library and computer lab usage, admission to college activities, and voting in campus elections. ID cards are non-transferable and are to be held only by the students to whom they were issued. Students may obtain their HCC ID card by visiting the West Loop Campus on Tuesday, Wednesday or Thursday from 3:00 p.m. to 6:00 p.m. Student IDs may also be obtained at any of the other campuses operating a photo ID station. Check with the Campus Manager for the location and hours of campus photo ID stations. Students are required to be in possession of their ID card at all times. All ID cards are the property of HCC and must be shown when requested by a representative of HCC. If students lose their ID cards, they should report it to the HCC Police Department by calling 713-718-8888 as soon as it is discovered as missing. To obtain a replacement ID card, students must initiate the process at the college campus they attend. A nominal fee will be charged for the replacement of lost ID cards. For information on how and where to get your student ID, visit www.hccs.edu/support-services/get-your-student-id.

## Advising Services

Advisors provide one-on-one advising support for students, assist with pathway planning, and provide information about institutional and external resources available to students.
HCC requires all new HCC students to enroll in a Student Success Course in their first semester to help them determine their major, program, or area of study, and plan their degree path. Once a student has selected his/her "major," instructors who teach the courses in that field (e.g., accounting, computer science, history) will be his/her best academic advisors. If a student plans to transfer to completea baccalaureate degree, it is important to determine a major and the transfer institution as soon as possible, because different colleges and universities may have different requirements. New students are assigned an advisor.

Please visit www.hccs.edu/support-services/advising for more information regarding advising services and contacting an advisor.

International students can locate their DSO/International Student Advisor by visiting: www.hccs.edu/support-services/international-students/international-advisors.

## Counseling Services

The mission of the HCC Counseling Department is to provide holistic support for students pursuing their educational goals. In order to accomplish this mission, HCC will provide a full range of professional services including personal and mental health counseling, substance abuse counseling, ADA and Tile IX accommodations, career counseling, academic skills enhancement, outreach programming, consultation, and crisis intervention.

Counselors are available by appointment during the following hours:
Monday-Thursday 8:00 a.m. - 6:30 p.m.
Friday 8:00 a.m.-1:00 p.m.
Walk-in-hours vary across campuses.
To see a list of HCC counselors and their contact information please visit www.hccs.edu/support-services/counseling.

Information regarding ADA counselors is located in the Ability Support Services:ADA Counselors section of this Catalog below.
Information regarding Title IX contacts is located in the Equal Educational Opportunity Statement section of this Catalog.

## Ability Support Services

## Services for Students with a Qualified Disability

Houston Community College (HCC) views equal access as a shared responsibility between HCC and the student. HCC recognizes students with disabilities as a valued element of diversity and ensures that no academically qualified student with a dísability will be denied access to or participation in the services, programs, and activities of HCC. HCC makes its campuses and programs accessible to individuals with disabilities.

## ADA Accommodation Process for HCC Students

The Americans with Disabilities Act, as amended, prohibits discrimination against individuals with disabilities and requires postsecondary institutions to provide accommodations when a student discloses a disability. In college, students with disabilities are covered under Section 504 of the Rehabilitation Act, which also prohibits discrimination against individuals with disabilities, and under the Americans with Di'sabilities Act. HCC's obligations under these laws are different than what students will have experienced during high school. HCC's objective of reasonable accommodations in college is to accommodate the functional limitations of the student while maintaining the integrity of college courses and programs. Colleges provide reasonable accommodations, and not modifications, to courses in accordance with federal law.

## Student's Responsibility

Obtaining reasonable accommodations is a process that is voluntary on behalf of the student and interactive. It is the student's responsibility to self-identify, disclose his/her disability or condition to the Ability Services Office, provide the appropriate documentation from a qualified professional, usually a physician or clinician, with a diagnosis of his/her disability (s), and request reasonable accommodations. The Ability Services Office, in communication with the student, will issue a letter detailing the student's approved reasonable accommodations. Once the ADA
accommodation letter is received by the student, the student should contact his/her instructors at the start of the semester and present the letter to them. Accommodation letters are not retroactively applied. It is the student's responsibility to communicate his/her questions or concerns associated with his/her accommodation letter to the Ability Services office in a timely manner. Due to high demands for services, HCC strongly encourages students to request accommodations before the start of each academic term. Failure to provide sufficient documentation or timely request accommodations may delay the delivery of accommodations. Returning students should contact the Ability Services office at the beginning of each semester to receive their reasonable accommodation letters. Additional documentation may be requested if students request to change their existing accommodations.

## Examples of Reasonable Accommodations

Examples of accommodations students have received include, but are not limited to, extra time for testing, use of a tape recorder in classroom, Sign Language interpretation or CART services, preferential seating in the classroom, and alternate textbooks.

## ADA Counselors

The point of contact for the HCC students with a qualified disability seeking accommodations under the ADA is the Ability Services Office. The Ability Services Offices are located at each of our 6 colleges. For the list of ADA counselors and their contact information visit www.hccs.edu/support-services/ability-services.
Students, who are only enrolled in online classes, can contact any of the ADA counselors to request ADA accommodations.

Grievance and Appeal Process
Reports of discrimination based on disability may be directed to the ADA/Section 504 coordinator. HCC designates the following person to coordinate its efforts to comply with Title II of the Americans with Disabilities Act of 1990, as amended, which incorporates and expands the requirements of Section 504 of the Rehabilitation Act of 1973, as amended:

David Cross, Director EEO/Compliance, Title IX Coordinator/Section 504 Coordinator
Office of Institutional Equity
3100 Main, Suite 702
Houston, TX 77002
713-718-8271 or institutional.equity@hccs.edu
More information is also available at the Office of Institutional Equity (OIE) website: www.hces.edu/departments/institutional-equity

A student who is dissatisfied with the outcome of the investigation may appeal through the applicable grievance policy beginning at the appropriate level.
A student also has the right to file a complaint with the U.S. Department of Education, Office for Civil Rights.

## Testing

The Testing Center is responsible for the administration of various assessment tests and providing accommodations to those who qualify. Assessment tests are given to incoming and current students for the purpose of determining course placement. Testing schedules will vary, and not all tests are available at each college. For a list of testing center locations and hours of operation visit www.hccs.edu/resources-for/current-students/testing-services.

Special accommodations at testing centers are available for those who qualify. HCC students with a qualified disability seeking accommodations under the ADA should contact one of the Ability Services Offices located at each of our six (6) colleges. These counselors can give students information about testing accommodations. For the list of counselors and their contact information visit hccs.edu/support-services/disability-services.

## Child Care, Minors, and Relatives on Campus

HCC's Central College offers childcare through a private vendor at a discounted rate for all HCC fulland part-time students and staff at the YMCA at HCC Child Development Lab School. The center serves children 6 weeks to 5 years of age, Monday thru Friday, 7:00 a.m. - 5:30 p.m. The Lab School's staff are not supervised by HCC, but are expected to follow the guidelines of developmentally appropriate practice and state minimum.

For more information call 713-718-5437 or visit 3214 Austin Street for enrollment.
For more information on the YMCA, please see the Houston Community College section at of www.ymcahouston.org/programs/early-care/locations.
Childcare assistance is also available through Workforce Solutions. For more information on eligibility criteria, visit www.wrksolutions.com/for-individuals/financial-aid/financial-aid-for-child-care.
Otherwise, as stated in Board Policy GDA(LOCAL), minors and relatives requiring special care shall not be permitted on College property unless they are directly supervised by a parent, legal guardian, or responsible adult. Minors and relatives of College employees requiring special care shall not be allowed in College work areas. Minors and relatives of enrolled students requiring special care shall not be permitted in classrooms unless they are invited by the classroom instructor for instructional purposes.
Relatives requiring special care shall mean any person connected with another by blood or affinity that requires continuous health or medical-related assistance due to a chronic physical, developmental, behavioral, or emotional condition.

The parent, legal guardian, or responsible adult must be present at all times whenever the minor or relative is on College property. These requirements shall not apply to minors enrolled in courses or to minors participating in College-sponsored events or activities.
The college shallnot be responsible for the care and supervision of minors or relatives of employees or enrolled students and shall not be liable for any injury or harm to minors or relatives that result from the negligence of care by the responsible party.

## Alumni Association

The HCC Alumni Association is open to all graduates of HCC certificate and degree programs, former and current students who have successfully completed at least 12 hours at Houston Community College. The mission of the association is to promote meaningful engagement and continuing relationships between HCC and its alumni through programming and membership. The HCC Alumni Association strives to support, serve, inform, and involve alumni of the College, ensuring they have a lifetime connection to HCC and its mission.

For additional information, visit www.hccs.edu/alumni.


## HCC Libraries and Learning Resources

HCC Libraries are welcoming spaces to study and connect to resources and learning. Libraries are open 7 days a week and are here to help students succeed. The HCC library system consists of 9 libraries, 5 electronic resource centers (ERCs) as well as holdings with access to more than 580,000 electronic and print resources. HCC librarians are available face-to-face and online to help guide students to the resources they need. HCC librarians collaborate with faculty to provide course related instruction face-to-face and online. HCC Libraries provide access to more than 120 unique databases, numerous digital journals and thousands of physical multimedia items. For more information regarding all of HCC's Library resources and locations, please visit library.hccs.edu.

## How Do I Find What I Want?

HCC's online library catalog is accessible on and off campus at library.hccs.edu. The catalog is updated frequently and provides easy access for navigating library resources. Eagle Library Search provides access to the HCC online catalog and over 100 of the HCC licensed databases in a single search.

## How Do I Log into Databases and My Library Account?

HCC licensed databases can be accessed anywhere using a student's HCCID ("W" number) and the same password used to access a student's HCCemail, student account, and computers. Library accounts are used to request items from any HCC library and renew items. To login to a student's library account, a student should use their first name and last name, leaving a space between. A student's password will be your library barcode \# from your student ID card. For more information, go to library.hccs.edu/howdoi.

## More Than Books and Databases

HCC Libraries provides access to computers, printing, photocopying, scanning, DVDs, streaming video, Chromebooks, study rooms, 3D printing, and one-button studio access in certain locations. Assistive technology includes laptops with ADA software installed, TOPAZ video magnifiers, purple phones and more. More information regarding these resources is available at library.hccs.edu/accessibility.

## How Do ICheck Out What I Need?

A student ID card is a library card. Library material can be checked out for 3 weeks and renewed twice. Students can renew twice by telephone or the library website.

## Overdue Library Materials

The card inside books shows when materials are to be returned. If a student fails to return materials, a "hold" status is reported and reflected on their student record(s). A hold will affect a student's ability to register for additional courses or obtain a transcript. Students will be blocked from further borrowing until the materials due are returned to the library. Lost, damaged and stolen items are the responsibility of the borrower.

## What About Other Libraries?

In the event the HCC Libraries do not own a particular item student need for their research, students, faculty, and staff have full privileges to the TexShare Card Program and to the interlibrary loan program which expands access to the collections of all participating libraries. Students will be subject to the loan rules of each individual institution-both as to the number of items they may check out and how long they may keep them out. Students will be responsible for any overdue fines or lost book fees that particular library may charge.

## Bоokstore

Students may purchase textbooks, study aids, and a wide range of novelty items and apparel at the college bookstore. Students are encouraged to purchase books prior to the first day of class and can locate their course materials online at www.hccs.bncollege.com. Students should bring a copy of their class schedule to ensure that they are purchasing the correct texts. The bookstore will issue full refunds for textbooks during the first week of each term, provided the textbook is in original condition as when purchased and the original receipt is presented with request. For more information, visit www.hccs.bncollege.com.

For more information regarding HCC's policy regarding textbooks, please see Board Policy EDA(LEGAL) and EDA(LOCAL) located at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-e.


## Veteran Services

## Veteran \& Military-Affiliated Students

Veteran and/or Military-Affiliated Students who plan to use VA/GI Bill and/or State of Texas 'Hazlewood Act' educational benefits must follow the steps outlined in the applicable HCC enrollment checklist. Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

## Residency \& Tuition / Veteran \& Military-Affiliated Students

Military personnel, as defined by Texas Education Code Section 54.241, their spouses and dependent children may be entitled to pay tuition and fees at an institution of higher education at the rates provided for Texas residents in certain circumstances and regardless of the length of time the person or persons has/have resided in the state. For more information on Exemptions and Waivers, visit www.hccs.edu/resources-for/current-students/student-financial-services/waivers-and-exemptions.
Veteran and/or Military-Affiliated students may be required to file a 'Letter of Intent' with the institution to establish residency and reside in Texas while enrolled at the respective institution. In such cases, the 'Letter of Intent/Non-Resident Waiver' Form should be submitted to the HCC District Office of Veteran \& Military-Affiliated Student Success (VMASS) prior to the start of the enrollment term but no later than the college's Census Date (Refer to HCC Academic Calendar for respective date(s)). Additional documentation that may be required includes, but is not limited to: Military Identification Card, Official Military Orders, DD Form-214 or other official substantiating documentation.
For requirements on resident tuition, Military personnel, Veterans and/or Military-Affiliated students should check with the HCC VMASS District Office and refer to the applicable statutes found in the Texas Education Code at www.statutes.legis.state.tx.us and Texas Higher Education Coordinating Board Rules at www.thecb.state.tx.us.
The HCC VMASS District Office is located at 3220AMain Street, and can be contacted by phone at 713-718-8522.

## Applying for Education Benefits / Veteran \& Military-Affiliated Students

Students applying for Federal VA education benefits should submit the following documents to the HCC VMASS District office:

Complete the appropriate application for Educational Benefits to obtain the appropriate
Certificate of Eligibility (COE) and submit a copy of it.
Application for VA Education Benefits (VA Form 22-1990)
www.vets.gov/education/apply-for-education-benefits/application/1990/introduction
Application for VA Education Benefits under the National Call to Service Program (VA Form 221990N)
www.vets.gov/education/apply-for-education-benefits/application/199on/introduction
Application for Family Member to Use Transferred Benefits (VA Form 22-1990E)
www.vets.gov/education/apply-for-education-benefits/application/1990e/introduction

Dependents' Application for VA Education Benefits (VA Form 22-5490) www.vets.gov/education/apply-for-education-benefits/application/5490/introduction

Dependents' Request for Change of Program or Place of Training (VA Form 22-5495) www.vets.gov/education/apply-for-education-benefits/application/5495/introduction

Request for Change of Program or Place of Training (VA Form 22-1995) www.vets.gov/education/apply-for-education-benefits/application/1995/introduction
Disabled Veterans Application for Vocational Rehabilitation (VA Form 28-1900) www.ebenefits.va.gov/ebenefits/about/feature?feature=vocational-rehabilitation-and-employment
2. Submit the DD-214 member 4, 2 or 7. DD-214 member 1 is not acceptable.
3. Submit official transcripts from all schools attended, including military technical schools and/or non-accredited schools:

To request military transcripts for Army, Navy, Marines and Coast Guard: jst.doded.mil
To request Community College of the Air Force transcripts: www.airuniversity.af.mil
The HCC VMASS District Office is located at 3220A Main Street, and can be contacted by phone at 713-718-8522.

## Hazlewood Act Eligibility \& Required Documentation / Veteran \& Military-Affiliated Students

The Hazlewood Act is a State of Texas benefit that provides qualified Veterans, spouses, and/or dependent children with an education benefit of up to 150 hours of tuition exemption, including most fees, at public institutions of higher education in Texas. This does NOT include living expenses, books, or supply fees.

For more information, please see www.tvc.texas.gov/education/hazlewood-act.
To be eligible, a Veteran must:

- At the time of entry into active duty in the U.S. Armed Forces, designated Texas as Home of Record; or entered the service in Texas; or was a Texas resident;
- Have received an honorable discharge or separation or a general discharge under honorable conditions as indicated on the Veteran's Certificate of Release or Discharge from Active Duty (DD Form 214);
- Served at least 181 days of active duty service (excluding training);
- Currently reside in Texas;

Have no federal Veteran's education benefits, or have no federal Veterans education benefits dedicated to the payment of tuition and fees only (such as Chapter 33 or 31, for term or semester enrolled that do not exceed the value of Hazlewood benefits);

Not be in default on a student loan made or guaranteed by the State of Texas;
Enroll in classes for which the college receives tax support (i.e., a course that does not depend solely on student tuition and fees to cover its cost), unless the college's governing board has ruled to let Veterans receive the benefit while taking non-funded courses; and

- Meet the GPA requirement of the institution's satisfactory academic progress policy in a degree or certificate program as determined by the institution's financial aid policy and, as an undergraduate student, not be considered to have attempted an excessive amount of credit hours.


## Required Hazlewood Documents for Veterans

To comply with the requirements of the Texas Veterans Commission, during or before registration, Veterans or qualifying dependents must present the following documents to the HCCVMASS District office:

- The member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of educational benefits.
- Provide proof of eligibility or ineligibility for Chapter 33, from VA office in Muskogee, OK, if the Veteran served after 09/11 and separation. In the event the Veteran is eligible for chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Veterans may request a copy of their benefits eligibility letter by submitting a request through the VA's Ask a Question website at benefits.va.gov/gibill.
- A completed formal application for Hazlewood Act benefits. Applications are available at the HCC VMASS District office or a student may also download the application from the Texas Veterans Commission website at www.tvc.texas.gov/education/hazlewood-act.
- Veterans must also provide a copy of their Hazlewood Online Database Report available at hazlewood.tvc.texas.gov/students.

NOTE: Veterans may use the Hazlewood Exemption in conjunction with other VA education benefits and Pell Grant, if eligible. However, compliance with the "default loan" clause will be verified by the school.

For additional support and/orinformation, please contact VMASS by phone at 713-718-8522, on the website at hccs.edu/support-services/veteran-affairs, or visit the District Office at 3220A Main Street.

## Spouses and/or Children Required Hazlewood Documents

The military member's 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

A letter from the Department of Veterans Affairs Office stating the parent or spouse died as result of service-related injuries or illness, is missing in action or is considered totally disabled for purposes of employability as a service-related injury or illness.
Provide proof of eligibility or ineligibility for Chapter 33 from VA office in Muskogee, OK, if the
Veteran served after $09 / 11$. In the event the Veteran is eligible for Chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Please request an education benefits letter by calling 1-888-442-4551.

A completed formal application for Hazlewood Act benefits. Applications are available at the Veteran Services department. Applications are also available at the Texas Veterans Commission website at www.tvc.texas.gov/education/hazlewood-act.
Students must provide a copy of their Hazlewood Online Database Report available at hazlewood.tvc.texas.gov/students.

Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

## Transferability of Benefits (Legacy) Documents

Eligible Veterans may assign unused hours to a child under certain conditions. The following documents are required:

- The Veteran's member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.
- Copies of birth certificate, marriage certificates or tax returns may be requested.
- Applications are available at the Veteran Services department and are also available at the Texas Veterans Commission website at: www.tvc.texas.gov/education/hazlewood-act/
- Provide all transcripts from any previously attended institutions.
- Provide a copy of applicable Hazlewood Online Database Report available at hazlewood.tvc.texas.gov/students.


## Transfer / Veteran \& Military-Affiliated Students

Transfer students should submit all academic transeripts from both accredited and non-accredited schools (to include military technical school credits/transcripts).
All academic transcripts (from both accredited and/or non-accredited schools) should be received and evaluated by HCC prior to selecting courses (when possible).
Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

## Priority Enrollment / Veteran \& Military-Affiliated Students

Houston Community College offers priority registration to Veteran \& Military-Affiliated students prior to the general student population. Students should refer to the HCC Academic Calendar at www.hccs.edu/student-experience/events-calendar to find the appropriate Priority Registration date(s).
Veteran \& Military-Affiliated students choosing to exercise 'Priority Enrollment' must provide appropriate documentation to HCC VMASS District office to ensure the respective student is identified within the HCC student management system prior to the start of each term.

Further information is available at VMASS Resource Centers on campus, at the District Office at 3220A Main Street, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

# International Services and Programs (ISP) <br> Contacting International Student Services and Programs 

Individuals seeking to enroll at HCC as F-1 students may also contact International Services and Programs at 713-718-8521 or oiss.international@hccs.edu or visit the office at 3200 Main St., Houston, Texas 77002 (street level of the parking garage) during normal business hours, MondayFriday, 8 a.m. to 5 p.m. Prospective students may also learn more at www.hccs.edu/international.

## F-1 International Students

Houston Community College (HCC) considers students holding a nonimmigrant visa to be an international student. Prospective students maintaining any other type of visa status, except F-2 and B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should call their HCC college of choice for admission instructions and meet the published application deadline. International students who want to study in the U.S. with an F-1 status must obtain a Student and Exchange Visitor Information System (SEVIS) Certificate of Eligibility, also referred to as a SEVIS Form I-20, from HCC. HCC has been approved by the U.S. Department of Homeland Security (DHS) to issue SEVIS Form I-20s required to obtain F-1 student status. The individual must then use the SEVIS Form I20 to apply for an F-1 student visa (if outside the U.S.) or a change of non-immigrant classification to $\mathrm{F}-1$ (if inside the U.S.). U.S. federal regulations require all applicants to provide certain documentation and information to the college issuing the SEVIS Form I-20 before it can be issued to a student. To apply for a SEVIS Form I-20, please refer to the "International Students" section of the HCC website (see link below) and follow the outlined application guidelines.
An international student under the age of 18 who wishes to gain admission to HCC must provide documentation proving that he/she has achieved the equivalency of a U.S. high school diploma in his/her country by completing a transcript evaluation with an approved evaluation agency. F-1 students must maintain full-time status, which is defined as being enrolled in a minimum of 12 semester credit hours for the spring and fall semesters or a minimum of 9 semester credit hours for the summer term, provided in that case that summer is the initial semester of enrollment at HCC.

International Student Advisors/Designated School Officials (ISA/DSO) report all changes in enrollment status pertaining to F -1 internationals (both students and alumni) to DHS as required by U.S. federal law.

F-1 international students must adhere to the U.S. federal regulations governing their nonimmigrant status while studying in the U.S. Non-compliance could jeopardize an F-1 international student's ability to remain in the U.S and complete his/her studies at HCC. Students with questions may schedule an appointment with International Services and Programs (ISP) to discuss their options.
For more information, see www.hccs.edu/support-services/international-students.
Full-Time Enrollment Requirements for International Students
In order to maintain their visa status, effective Fall 2017, F-1 international students must earn letter grades (A, B, C, D or F). A grade of a "W" (withdrawn) or "FX" (failing due to non-attendance) will not count towards the full-time enrollment requirement. "W" or "FX" is not considered a valid letter grade and demonstrates the student is not maintaining F-1 immigration status.

F-1 students must maintain at least 12 credit hours during the fall and spring semesters ( 9 credit hours during the summer, provided this is their first semester of attendance at HCC). International students holding an F-1 visa are limited to no more than the equivalent of one class or 3 credit hours of distance education (online class) per semester that will count towards the full-time status.

## Concurrent Enrollment for F-1 International Students

An F-1 student maintaining his/her F-1 status at another educational institution and wishing to be concurrently enrolled at HCC must obtain a letter from the ISA/DSO at his/her parent institution confirming permission to take classes at HCC under the F-1 status. F-1 students maintaining status at other educational institutions are not eligible to work on the HCC campus until the student has received a SEVIS Form I-20 from HCC and approval to work on campus from an HCC ISA/DSO.

For more information, see www.hccs.edu/support-services/international-students/.

## Summer International Transient Students

Students who are attending another college or university and wish to take summer classes at HCC must provide a letter from the ISA/DSO at their parent institution that indicates they are maintaining their F-1 status and have been given permission to enroflat HCC.

## English Proficiency and Course Placement

International students planning to enroll in academic programs must demonstrate English language proficiency. This can be accomplished by taking one of the following exams: TOEFL, IELTS, PTE Academic, ACCUPLACER (ESL), or an approved Texas Success Initiative (TSI) test. Students who have not taken an English language proficiency test will be administered the ACCUPLACER (ESL) test by HCC to determine the student's English language proficiency. Scores on the exams must meet state and institutional requirements for placement into college-level classes. Students who do not meet these requirements will be required to enroll in the Intensive English program. For more information, please visit www.hccs.edu/support-services/international-students/foreign-credentials.

## International Transfer Students

A transfer student is any student who has previous college work and plans to pursue a certificate or degree at HCC. HCC admits transfer students who already have established F-1 status while attending other colleges and universities.
A transfer student may be admitted to either an academic program or the Intensive English program. Students planning to transfer to HCC must submit a complete application to the Office of International Services and Programs. For more information, please refer to the International Students section of the HCC website www.hccs.edu/support-services/international-students and click on "New Students."

## Transfer Credit from Foreign Institutions

Students petitioning to receive transfer credit from foreign institutions must first have their transcripts evaluated by an approved evaluation agency. For a list of approved evaluation agencies, students may visit www.hccs.edu/support-services/international-students/foreign-credentials.

## Check-in and Orientation for International Students

F-1 students new to the U.S. are required to report to our office for further instructions upon arriving in the country. Each semester, all incoming students (new, transfer, change-of-status and reinstatement) are required to attend the mandatory student orientation to learn more about adjusting to life in Houston and at HCC. Please visit www.hccs.edu/support-services/international-students/orientation.

## F-1 Student Health Insurance

F-1 students at HCC are enrolled in the College's mandatory student health insurance upon registration. They cannot opt out of the plan unless a waiver of coverage is approved upon condition that the student has an acceptable alternative insurance plan. Please visit www.hccs.edu/support-services/international-students/health-insurance for more information.

## International Initiatives and Study Abroad

Houston Community College, with a diverse student body and its location within a global city, is committed to globalizing learning for students so they are equipped to compete in the global workforce. Students, faculty and staff collaborate with institutions abroad to create exchange programs and study abroad opportunities through this initiative.

## Training Programs

Instructional programs and/or customized training are conducted through workforce partnerships to help students gain specific skills.
English for Speakers of Other Languages (ESOL) training and development for certificates and/or degrees are conducted through credit programs and contimuing Education (CE).
For more information, see www.hecs.edu/international.

## J-1 Visa Program

HCC is awarded the $\mathrm{J}-1$ visa sponsorship through the U.S. Department of State. Only a few community colleges in the nation are eligible to host under the $\mathrm{J}-1$ visa.

What is the $J-1$ Visitor Program?
The $J$-1 program enables foreign nationals to come to the U.S. to teach, study, conduct research, demonstrate special skills or receive on the job training for periods ranging from a few weeks to several years. The exchange of professors and research scholars promotes the exchange of ideas, research, mutual enrichment and linkages between research and academic institutions in the U.S. and foreign countries.
For more information about the J-1 Visitor Program or international initiatives, please contact the International Services and Programs (ISP) director at isp@hccs.edu.
Houston Community College (HCC) considers students holding a nonimmigrant visa to be international students. Prospective students maintaining any other type of visa status, except B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should call the program of choice for admission instructions and meet the published application deadline.

## Centers of Excellence

HCC's 15 Centers of Excellence focus on top-notch faculty and industry best practices to give students the skills they need for a successful career. The programs range from manufacturing and global energy to logistics, engineering, fashion design and information technology. For more information, please visit www.hccs.edu/centers.

## HCC GUARANTEE OF EdUCATIONAL ExCELLENCE

Houston Community College is committed to excellence in education. As an expression of this commitment, HCC guarantees its graduates both transfer credit and entry-level job skills. Such guarantee is a statement of confidence in the administration, faculty, and staff as well as a commitment to our educational mission to empower students so they may achieve their highest potential.
This guarantee is expressly subject to and limited to special conditions identified in the following sections on job competency and transfer credit. The HCC obligation under this guarantee is limited to providing additional courses under the conditions prescribed in these sections.

## Transfer Credit

HCC guarantees to those students earning the Associate of Arts, Assosiate of Arts in Teaching and the Associate of Science degrees that their required courses will transfer to all public-supported Texas colleges and universities. If these courses are rejected by the qualifying senior institution of the student's choice, HCC will offer the student an alternate tuition free course that will transfer.

Transferability means the acceptance of HCC credit toward a specific major and degree at a specific institution, as defined by the student's transfer/degree plan. However, no institution of higher education shall be required to accept in transfer, or apply toward a degree program, more than sixtysix (66) semester credit hours of lower-division academic credit. Institutions of higher education may choose to accept additional credit hours by agreement. The transfer guarantee of academic courses is subject to the following conditions:

- The student must file a written transfer/degree plan by the time he/she has completed 12 semester hours or the equivalent at HCC. The transfer/degree plan must include the following: (a) the specific institution to which the student plans to transfer, (b) the bachelor's degree and major the student plans to pursue, and (c) the date such decision was made.
- Courses must be identified by the receiving institutions as transferable and applicable toward a specific major. The receiving institution determines the following:

Total number of credits accepted for transfer;
Grades required;

- Relevant grade point average; and
- Duration of transferability.

Required courses must have been taken at HCC no earlier than three years before the attempt to transfer.

If the above terms and conditions have been met and courses are not accepted by a receiving institution in transfer, the following terms and conditions are applicable:

- The student must submit to HCC a Notice of Transfer Credit Denial from the receiving institution (within 10 days of denial) so the resolution process may begin.
- If transfer credit denial is not resolved, tuition-free transfer courses (semester hour for semester hour) must be taken within a one calendar year period.
- Although courses are tuition-free, students will be responsible for any fees or course-related expenses, other than the course-required books which HCC is responsible for providing at no cost to the student. The fees students are responsible for include General Fees, Technology Fees, Student Activity/Services Fees, Recreation Fees, and Out-of-District fees.


## Job Competency

HCC guarantees that graduates earning workforce certificates or degrees will possess the job skills required for entry-level employment in the occupational field for which they have been trained. (This guarantee does not imply the graduate will pass any licensing or qualifying examination for a particular career.)
Any HCC workforce program certificate or degree graduate whom the employer determines is lacking in the technical or general educational skills necessary for entry to the position shall be provided up to nine tuition-free credit hours. A program of instruction must be designed to meet specific occupational competencies identified in technical courses which are competency-based and emphasize the acquisition of the skills necessary for immediate employment and/or career advancement. Program competencies are identified in the course syllabus provided to each student.

- This guarantee applies only to certificates and degrees of at least 30 semester hours or 360 contact hours.
- All course work in question must have been taken at HCC and taught by HCC instructors.
- The graduate must have earned the AAS or certificate in a workforce program listed in the HCC catalog no earlier than one year prior to the beginning date of the employment in question.
- The graduate must have completed the degree within a five-year period beginning at the point of first enrollment.
- The graduate must be employed full-time within 12 months of graduation and in a position directly related to the specific program completed at HCC.
- Within 90 days of the graduate's initial date of employment, the employer must certify in writing that the graduate lacks entry-level skills identified by HCC as program-exit competencies. The employer must specify the areas of deficiency. The employer, graduate, and HCC personnel will develop a written retraining plan. The retraining will be limited to nine credit hours or 360 contact hours related to the identified skill deficiency.
The retraining must be completed within one calendar year from the time the plan is agreed upon.
Although retraining is tuition-free, the graduate (or employer) is responsible for the cost of insurance, uniforms, fees, and any other course-related expenses. HCC is responsible for the cost of books required for the course work.


## Transfer Information and Credit

## Transfer Policy

HCC analyzes credit accepted for transfer in terms of level, content, quality, comparability, and degree program relevance. Transfer of credit from one institution to another involves at least three considerations:

- the educational quality of the learning experience which the student transfers;
- the comparability of the nature, content, and level of the learning experience to that offered by the receiving institution; and
- the appropriateness and applicability of the learning experience to the programs offered by the receiving institution, in light of the student's educationalgoals.


## Accreditations Accepted in Transfer

HCC accepts college level credit in transfer from colleges and universities accredited by any of the six regional accreditation bodies: Middle States Association of Colleges and Schools, New England Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and the Western Association of Colleges and Schools.
In addition, HCC accepts college level credit in transfer from colleges and universities by any of the following national accreditation bodies: Accreditation Commission for Acupuncture \& Oriental Medicine, Accrediting Bureau of Health Education Schools, Accrediting Commission for Career Schools and Colleges, Accrediting Council for Continuing Education \& Training, Accrediting Council for Independent Colleges and Schools (prior to 12/31/2016), American Board of Funeral Service Education, Association of Advanced Rabbinical \& Talmudic Schools Accreditation, Association of Biblical Higher Education, Commission of Accrediting of the Association of Theological Schools, Council on Occupational Education, Distance Education Accrediting Commission, National Association of Schools of Theatre, and Transnational Association of Christian College and Schools.

## Students Transferring to HCC from Other Colleges/Universities

Transfer students are students who have previous college work and plan to pursue a certificate or degree at HCC. HCC evaluates, accepts, and awards credit for transfer course work, experiential learning, advanced placement, and professional certificates that is consistent with the HCC mission and for which HCC can ensure that the course work and learning outcomes are at the collegiate level and comparable to HCC certificate and degree programs. Transfer students are required to send official transcripts from each previously attended college or university. Transfer work is evaluated within the first semester of attendance. If students submit their prior college work after the start of their first semester, their credit will not be posted until the official transcript arrives.

## Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is a process for assessing learning gained outside a traditional academic environment. This could be learning acquired through military service, employer training programs, independent study, non-credit courses, open courseware, or volunteer or community service. Prior Learning Assessment (PLA) is a means of evaluating what a student already knows at the college-level derived from these experiences for college credit, certification, or advanced
standing toward further education or training. See PLA website for more information www.hccs.edu/resources-for/current-students/prior-learning-assessment.

To be eligible to earn PLA credit, a student must be currently or previously enrolled at HCC and meet all Houston Community College admissions requirements. They should not have previously taken or attempted the course (by title that is the same as the PLA credit for which they are applying). PLA credit is only awarded when it applies to the HCC programs of study.

To commence the PLA process, students must first speak with their Pathway and Case Management Advisor. If it is determined that they are eligible for PLA, the student will begin the PLA process.

NOTE: A minimum of $25 \%$ of the credits for the HCC certificate or degree must be completed at HCC (in fulfillment of the residency requirement). Please note that credit earned by Advanced Placement (AP) exams do not count toward the six-hour requirement.

## Credit by Examination

HCC awards credit for qualified scores on nationally standardized examinations for the following instruments: College Board Advanced Placement (AP) Examinations, the College Level Examination Program (CLEP), International Baccalaureate (IB) exams, and the Defense Activity for NonTraditional Education Support (DANTES) subject exams, Sophia Learning exams (with ACE evaluation), Learning Counts exams (with ACE evaluation), Assessment and Learning in Knowledge Spaces (ALEKS with ACE evaluation) and Straighter Line (with ACE evaluation). Credit earned through these examinations will be recorded by the Registrar only after the student has completed six semester hours at HCC. Official test scores must be sent from the testing agency to the HCC Office of Admissions and Records. Contact the Testing Office for examination schedules and availability of the CLEP. Questions regarding credit received for the above national exams should be directed to the Advising Office.
More information on is available at/www.hccs.edw/support-services/transfers/transferring-credits.

## Students Transferring from HCC to Other Colleges/Universities

HCC recommends the following steps to students considering transferring to other colleges/universities:

- Meet with a HCC advisor at a student's community college campus to discuss his/her academic goals, plans, and questions. For instance, the student should consider completing an associate degree before transferring. Some universities give preferential treatment in admission decisions, if a student transfers after completing his/her associate degree. Research indicates that students who have completed the associate degree perform better after transfer than those who did not complete the associate degree.
If a student needs to transfer to another institution before the completion of his/her HCC associate degree, the student may be able to "transfer back" to HCC his/her college credits from another institution in order to fulfill his/her associate degree requirements. In most cases, a student can "transfer back" up to 42 college-level semester hours of credit within three years of leaving HCC to complete his/her associate degree requirements. (Note: all graduation requirements must be fulfilled. See HCC catalog at www.hccs.edu/programs/catalog/academic-information for more information.)
- HCC also recommends that a student obtain a transfer plan from his/her HCC advisor. A transfer plan lists the university-required courses which can be taken at HCC toward a student's university bachelor's degree's major. If a student is undecided about his/her choice of university or his/her choice of major, see a HCC career counselor for more help. To locate a counselor, go to www.hccs.edu/support-services/counseling/counselors-hcc.

For more information, see the "If You are Transferring from HCC" section of www.hccs.edu/support-services/transfers.

## Transfer Dispute Resolution

If a student is informed by a Texas public college or university that it will not accept the transfer of any HCC academic course credit, the student may have a case for a transfer dispute which will ultimately be resolved by the Texas Higher Education Coordinating Board (THECB). Students should be cautioned that workforce course credits may or may not be transferable, depending upon the program and articulation agreements between HCC and the college or university involved.

Institutions of higher education, however, may choose to accept additional credit hours by agreement. If the student wishes to transfer credit later to work on a bachelor's degree, the student should consult with an HCC program or advisor. Rules and procedures for the resolution of transfer disputes regarding lower-division courses have been formulated by the THECB as follows:

If an institution of higher education refuses to accept course credit earned by a student at another institution of higher education, the receiving institution shall provide written notice to the student and to the sending institution that transfer of course credit has been denied, along with the reasons for denial. Students may dispute the denial of transfer credit by contacting a designated official at either the sending or receiving institution.

The two institutions and the student shall attempt to resolve the dispute in accordance with THECB rules and guidelines.

If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days of the date the student received written notice of denial, the institution denying the course credit transfer shall notify the Commissioner of Higher Education of the unresolved dispute and the reasons for the continued denial of course credit transfer.

The Commissioner or a designee shall make the final determination in an unresolved dispute concerning the transfer of course credit and provide written notice of the determination to the involved student and institutions.

## Transfer Limitation

Students who intend to transfer to baccalaureate degree programs should be aware of possible
limitations on lower division course work. Most universities will generally not accept in transfer more than sixty-six (66) semester credit hours of lower division academic credit; however, institutions may choose to accept additional hours by agreement.

## Career and Job Placement

Career \& Job Placement Services' offices are located at all of the main campuses as well as some satellite campuses. We assist current and former HCC students with a variety of services including administering career assessments and providing placement services by connecting students with companies seeking talent for full or part-time employment jobs as well as co-op/internship and externship opportunities. We also assist students with developing career goals, resume writing, interviewing, thus improving a student's overall competitiveness and job readiness skills.

Career \& Job Placement Services connects students with their field(s) of interest by hosting professional development workshops with employers as well as Industry-Focused Career Fairs throughout the year. HCC Career Fairs are held at all main campuses and some satellite locations.

To find a HCC Career Center location at each of the six colleges, visit www.hccs.edu/support-services/career-planning/contact-career-centers.

Office Hours:
Monday - Thursday: 8 a.m.-6:30 p.m.
Friday: 8 a.m. -5 p.m. (by Scheduled Appointment)
Drop-In Hours (Just Walk-In!):
Monday - Thursday: 10 a.m. -12 p.m., 2 p.m. -4 p.m.
For more information, please visit www.hccs.edu/support-services/career-planning.

## HCC CareerHub

Students can interact with companies in their field of interest by using HCC's new job search tool, CareerHub. CareerHub transforms students' career development experience in the following ways:

- Download the CareerHub App to view or apply for jobs from a mobile phone;
- Receive email or text notifications for jobs rélated to career interests;
- Upload a resume to the CareerHub Resume Book for employers to view;
- Apply for jobs in CareerHub and have a resume sent directly to the company;
- Record a mock interview in CareerHub and then send it to Career Services for feedback; and
- Schedule resume writing and other appointments with any Career Center in the HCC System.

Students can login to this new tool with their current MyEagle credentials at myeagle.hccs.edu.

## Student Life

The Student Life and Recreational Sports Offices offer activities and programs that extend students' personal and intellectual growth. Some of the activities include student government, student associations, clubs and organizations relating to student interests, honor societies, student publications (The Egalitarian and organization newsletters), recreational and intramural sports, as well as cultural, social, educational and leadership development activities. To get involved, visit www.hccs.edu/student-experience/student-life-on-campus.

## Health and Safety Information

## Health Services

HCC does not operate a Student Health Center; however, HCC is concerned about the health and welfare of its students and provides important health information to students. For information about student health insurance programs, visit www.hccs.edu/resources-for/current-students/student-health-insurance.

- Bacterial Meningitis Vaccination www.hccs.edu/applying-and-paying/meningitis
- Counseling, Mental Health, and Suicide Prevention www.hccs.edu/support-services/counseling
- Drug \& Alcohol Abuse Prevention www.hccs.edu/support-services/drug--alcohol-abuse-prevention


## Alcohol and Controlled Substances Policy and Procedures

Alcohol shall be defined as use, consumption, possession, furnishing, manufacturing, or distributing of alcoholic or intoxicating beverages (except as expressly permitted by College regulations A student shall be prohibited from using or being under the influence of intoxicating beverages at HCC. Both open containers and/or public intoxication are prohibited. Additionally, alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person under age twenty-one.
Controlled substances are those defined in the Texas Controlled Substances Act, as codified at Texas Health and Safety Code Section 481.001 et seq., including, but not limited to, such substances as marijuana, hashish, heroin, cocaine, LSD, PCP, methamphetamine, anabolic steroids, human-growth hormones and fentanyl.

## 1. Purpose:

Houston Community College (HCC) is committed to providing its students and employees a drugand alcohol-free workplace and learning environment to promote the reputation of HCC and its employees as responsible citizens of public trust, and to provide a consistent model of substance-free behavior for students. All employees and students are informed of the program and policy regarding the use of alcoholic beverages and controlled substances by means of the website, Student Handbook, and email.

## 2. Policy:

Houston Community College (HCC) standards of conduct for all employees and students clearly prohibit the unlawful possession, use, or distribution of illicit drugs and alcohol on the campus, at
College-sponsored events, on any HCC premises, or as part of any of the school's activities.
Students and employees who violate this policy will be subject to arrest and disciplinary action by the College imposed through established due process procedures as set forth in applicable law, applicable HCC Board Policy (referenced at the end of this section), and the Student Code of Conduct and Disciplinary Procedures.

## Students

As a condition of enrollment, all students are required to follow HCC policy and regulations concerning alcohol and other drugs. The unlawful manufacture, distribution, dispensation, possession, sale, offer to sell, purchase, or use of a controlled substance or alcohol on campuses, at teaching sites, in vehicles, and on other property owned, leased, or under control of HCC, and at all on-campus and off-campus College-sponsored activities is prohibited. Students who violate the applicable HCC Board Policies and/or the Student Code of Conduct and Disciplinary Procedures regarding drugs and alcohol on campus will be subject to disciplinary action including but not limited to: referral to drug and alcohol counseling or rehabilitation programs, student assistance programs, suspension, expulsion, and/or referral to appropriate law enforcement officials for prosecution.

## College Employees

While at work, each College employee has a responsibility to deliver service in a safe, efficient, and conscientious manner. Therefore, the use, sale, distribution, manufacturing, or possession of alcohol, or any drugs, including prescription medication used in an unauthorized manner is strictly prohibited and may result in disciplinary action up to, and including, termination.

Each employee has access to HCC employee rules and regulations governing employee conduct in the HCC General New Employee Orientation Booklet (GNEO). These rules and regulations are in effect when on campus in any capacity and participating in any HCC (or College) sponsored activity, either on campus or at an off-campus event.

College employees are subject to disciplinary actions as outlined in the HCC/TE policies and regulations, found in Board Policies at DH(LOCAL) and DI(EXHIBIT) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-d.

## 3. State and Federal Statues:

Houston Community College (HCC) provides notice of the federal and state laws and regulations, including legal sanctions, which govern alcoholic beverages and controlled substances. The laws are listed and can be found at the following location:
www.hccs.edu/support-services/drug-alcohol-abuse-prevention/standards-of-conduct/
4. Health Risks:

Houston Community College (HCC) recognizes that drug and alcohol use is a health problem with serious consequences that affect students and their ability to reach their goals.

Health risks associated with drug and alcohol use can be found on the College Drinking, Change the Culture website and DEA-United States Drug Enforcement Administration websites:

## www.collegedrinkingprevention.gov and www.dea.gov/factsheets

## 5. Prevention Program:

HCC has established a Drug and Alcohol Prevention Program to inform its faculty, staff, and students about the dangers of drug and alcohol abuse, penalties that may be imposed for drug and alcohol abuse violations, and available resources to combat drug and alcohol related issues. The following approaches and program activities and services constitute HCC's effort to prevent drug and alcohol abuse on the part of students. The Student Services division provides oversight for the content and timelines of the programs for students.
a. Individual counseling services using Motivational/Feedback techniques
b. Use of the Brief Alcohol Screening and Intervention for College Students (BASICS) administered by trained counselors
c. To provide students individualized feedback HCC uses the following web-based surveys Alcohol eCheckUp To Go www.echeckuptogo.com/programs/alcohol and Marijuana eCheckUp To Go
www.echeckuptogo.com/programs/marijuana
d. Educational Awareness Programs - At least one workshop, seminar, or presentation at event per college during the academic year open to students, faculty, and staff.
e. Informational Services - Counseling offices will provide readily available brochures and information sheets on alcohol and drug use to students.
f. Referral Services - A list of referral services specialized in providing services and assisting individuals with substance use related issues.

## 6. Biennial Review:

On a biennial basis, a committee chaired by the Associate Vice Chancellor of Student Success and comprised of representatives from the police department, human resources, counseling, financial aid, and student life will conduct a review of the program to assess the following:
a. Determine the effectiveness of the program and implement necessary changes.
b. Determine the number of drug and alcohol-related violations and fatalities that occur on the HCC campuses.
c. Determine the number and type of sanctions that are imposed.
d. Ensure that sanctions are consistently enforced.

For more information, see Board Policies FLBE(LECAL) and FLBE(LOCAL) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

## Police Services and Campus Safety

The HCC Police Department (HCCPD) is comprised of sworn police officers, licensed by the State of Texas, and civilian security officers, all who are here to assist students and staff and provide a safe learning environment. HCCPD accepts all reports of criminal incidents occurring on campus, is responsible for campus law enforcement requirements, emergency response, and the investigation of any campus crime. The department has a working relationship with the Houston Police Department, Harris County Sheriff Department, Fort Bend County Sheriff's Department, and the Stafford Police Department to provide assistance for incidents that require special resources. HCCPD may investigate violations of the law or college rules and regulations. Administrative violations may be adjudicated in the HCC discipline process via the Student Code of Conduct. Violations which rise to violations of the law will/may be adjudicated by the appropriate court system.

In the event of an Emergency on campus please call HCCPD at 713-718-8888 or dial 911.
HCCPD provides the following services:

- Parking Passes - Parking passes are available online annually after August 1st and are required to be displayed on all cars parked on campus.
- Campus Escorts - HCCPD will provide a safety escort to allstudents, faculty or staff upon request. Campus escorts may be scheduled by calling 713-718-8888.
- Vehicle Assists - Vehicle assistance is provided through a contractor for jump-starts, car unlocks and other disabled vehicle situations on most college campuses. Officers will assist the student in calling a service provider. PLEASE NOTE: All vehicle assist services must be paid for by the requester at the time the service is provided.
- Disabled Vehicles - Disabled vehicles may not remain on college property. To request assistance, call 713-718-8888.
- Lost and Found - HCCPD maintains the Lost and Found service. If a student finds an item on campus, please bring it to 3821 Caroling Street or call for an officer to meet you to turn the item in. HCCPD will hold found items for 90 days (with some exceptions of items being disposed of sooner). To recover lost items, stop a HCC Police Officer at the campus where the item was lost.
- Crime Statistics - HCCPD also makes available information related to campus crime statistics. This information may be found by visiting www.hccs.edu/departments/police/crime-statistics-information.
- Safety Tips and Crime Prevention Information - Resources are available at www.hces.edu//police/crime-prevention--safety to include active shooter training, domestic violence information, general safety tips, and much more.

To report that you have witnessed or been the victim of a crime, call HCCPD at 713-718-8888 or cm.maxient.com/reportingform.php?HoustonCC\&layout_id=1.

## Campus Carry

On June 13, 2015, Governor Abbott signed into law Senate Bill 11 which added Section 411.2031 to the Texas Government Code and authorized License to Carry (LTC) holders to carry a concealed handgun on the campus of a public or private university in Texas, subject to rules and regulations adopted by the institution.

HCC has designated certain areas as weapons-free zones, in which concealed carrying of handguns by licensed individuals is prohibited. Signage is posted to mark these areas as weapons-free zones,
and conform to applicable law. These designated areas may change daily based on the current use of a facility. When on campus, students, faculty, staff and visitors should look for Section 30.06 signs which indicate the areas that are designated as weapons-free zones.

Open carry of handguns (or other firearms) on a college campus continues to be prohibited.
For more information, please reference Texas Penal Code Sections 30.06 and 46.035(b)(2).
For detailed information, visit www.hccs.edu/departments/police/campus-carry.

## Weapons on Campus

HCC prohibits the use, possession, distribution, sale or display of any firearms, location-restricted knives, clubs, or other prohibited weapons, as defined by the college's regulations and/or applicable state law, on college property or at a College-sponsored or -related activity, unless written authorization is granted in advance by the Chancellor or his designee. Students are encouraged to review the "Prohibited Weapons" definition in the Student Code of Conduct section of this Catalog and Board Policies CHF(LOCAL), CHF(LEGAL), GFA (LOCAL), GFA (REGULATION) and FLB (LOCAL) and any other relevant Board Policies for more information.
Visible display of handguns on any HCC campus is prohibited, with the exception of licensed peace officers. License to Carry holders would be considered in violation of College regulations and state law if their handgun is plainly visible and they refuse to conceal it or they are carrying a handgun in a designated weapons-free zone (as marked by Section 30.06 signage).
Students are encouraged to call HCC PD at 713-718-8888 if they see any individual intentionally displaying a weapon or they feel threatened.


## Student Rights and Responsibilities

## Freedom of Inquiry and Expression

Educational institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. Students and student organizations will be free to examine and discuss all questions of interest to them and to express opinions publicly and privately. They will be free to support causes by orderly means which do not disrupt the regular and normal operation of the institution and which comply with the regulations that relate to student activities and conduct. At the same time, it should be made clear to the educational and the larger community that in their public expressions or demonstrations, students or student organizations speak only for themselves. Recognized student organizations will be allowed to invite and to hear any person of their choosing when the purpose of such an invitation is consistent with the aims of the College's policies. By law, the College does not advocate on behalf or particular political agendas or candidates. Hate messaging will not be tolerated and will result in disciplinary action.

## Student Concerns

Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. In order to ensure that commitment, the College has developed procedures for students to address their concerns within the college community. A student who has an unresolved disagreement with a faculty or staff member, another student, or a student group, or is dissatisfied with the service they received, may initiate an attempt to address a concern without prejudicing his or her status with the College. It is the goal of HCC to assist all students in efficiently resolving their concerns.

Students should refer to the HCC policy or process for specific types of concerns:

- Discrimination, Harassment and Retaliation (see Board Policies FFDA and FFDB):
www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f
- Financial Aid Satisfactory Academic Progress Appeals:
www.hccs.edu/applying-and-paying/financial-aid
- Grade Appeals:
www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures
- Board Policy FLB(LOCAL):
www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f
- Student Code of Conduct:
www.hocs.edu/programs/catalog/student-code-of-conduct
Formal complaints not related to the issues noted above should follow the Non-Academic Student Complaint Policy (see Board Policy FLD(LOCAL)) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

Students who have not been able to resolve their concern informally, may file a formal written complaint. Refer to one of the processes listed above based on the type of concern a student has and then submit a formal complaint at:
publicdocs.maxient.com/reportingform.php?HoustonCC\&layout_id=5

For assistance in determining the correct procedure to follow, or to identify the appropriate Dean or supervisor for informal resolution, students can contact the Dean of Student Success at their campus for assistance at www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/.
Per the Texas Higher Education Coordinating Board's (THECB) rules codified under Title 19 of the Texas Administrative Code, Sections 1.110-1.120, after exhausting the institution's grievance/complaint process, current, former, and prospective students may initiate a complaint with THECB. Refer to THECB website for details on this process at: www.thecb.state.tx.us/index.cfm?objectid=989FE9A0-2213-11E8-BC500050560100A9
The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) publishes a Policy Statement on Complaint Procedures Against SASCOC or Its Accredited Institutions. Students, employees or others may initiate a complaint on alleged violations of SACSCOC Principles of Accreditation, the Core Requirements, and policies or procedures, as well as address possible violations of an institution's own policies and procedures, if related to the Principles. Refer to the Policy Statement for details on this process at www.sacscoc.org/pdf/081705/complaintpolicy.pdf.


## Student Code of Conduct

What follows is the Student Code of Conduct, which includes non-exhaustive references to applicable HCC policies. All Board Policies may be found at hccs.edu/about-hcc/policies.
Students in the College are protected as any citizen and have rights as stated in the law and HCC policy. Students must, however, assume the responsibilities of being a helpful and productive member of the college community. They are expected to obey applicable law, HCC Board Policies, Regulations, procedures, handbooks, directives, and administrative rules.

This Student Code of Conduct contains regulations for dealing with alleged student violations of College standards of conduct in a manner consistent with HCC policy and legal requirements.

The Student Handbook and Code of Conduct is meant to give guidance and background to all students enrolled at HCC, as well as prospective students and alumni.
The HCC Community, including students, is also subject to HCC's Board Policies, which can be found online at www.hccs.edu/about-hcc/policies.

Some students in specialized programs or courses of study may also be subject to handbooks or rules pertaining to their particular program or course of study, in addition to a particular course syllabus. That information is provided to the student by their program, course of study, or faculty member.

## Responsibility and Standard of Conduct at HCC

Board Policies: FLB(LOCAL); FM(LEGAL)
Each student shall be charged with notice and knowledge of, and shall be required to comply with, the contents and provisions of the College's policies, procedures, handbooks, rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Each student shall be expected to:

- Demonstrate courtesy, even when others do not;
- Behave in a responsible manner, always exercising self-discipline;
- Attend all classes, regularly and on time;
- Prepare for each class and take appropriate materials and assignments to class;

Obey all classroom rules;

- Respect the rights and privileges of students, faculty, and other College staff and volunteers;

Respect the property of others, including College property and facilities; and Cooperate with and assist the College staff in maintaining safety, order, and discipline.

## Basic Standards of Conduct within the Classroom

An instructor or program may establish additional and reasonable behavior guidelines for class. Any student failing to abide by appropriate standards of conduct during scheduled College activities may be required by the instructor or another College Official to leave that day's class or activity or accept other clearly communicated and appropriate consequence(s).

The student has the right to return to the next class/activity, provided the student has met with the appropriate Department Chair and/or Dean of Student Success or designee, as applicable, or unless otherwise instructed.

If a student refuses a request to voluntarily leave the classroom or activity, security/HCCPD may be summoned to remove the student so that the scheduled activity can resume without further disruption. In cases of serious problems, the faculty or staff member will document and report the incident. Disciplinary action may be pursued to include a referral to the Dean of Student Success. Other options may be utilized in a manner consistent with the Student Handbook and Code of Conduct. The above policy does not diminish the student's freedom to take reasonable exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, in a way that includes appropriate classroom behavior. Students are responsible for learning the content of any course of study in which they are enrolled.

## Basic Standard of Conduct Free Inquiry and Expression

Free inquiry and free expression, both by the instructor and the student, and subject to applicable law and HCC policy, are indispensable to the pursuit of truth and the development of students. Students must exercise their liberty with responsibility. A student is not entitled to greater immunities or privileges under this policy than those enjoyed by other citizens generally.

## Student Code of Conduct Authority and Jurisdiction

## Board Policies: FLB(LOCAL); FM(LEGAL)

The College's Student Code of Conduct shall be used to address student or Student Organization conduct alleged to violate HCC Board of Trustees policy or any local, state or federal law.

A student shall be subject to disciplinary action if the student commits a violation of the offenses defined in the Handbook, Code of Conduct, and those described in other HCC Policies, Regulations, handbooks and rules:

- While on the College premises;
- While attending a college activity; or
- While elsewhere if the behavior adversely impacts the educational environment or otherwise interferes with the College's operations or objectives.
Each student/organization shall be responsible for their conduct from the time of application for admission through the actual awarding of a degree (which may apply even if their conduct is not discovered until after a degree is awarded).

The Student Code of Conduct shall apply to a student/organization's conduct even though conduct may occur before classes begin or after classes end as well as during the academic year and during periods between terms of actual enrollment. This document governs the behavior of all students/Organizations on and off College premises.
Students/organizations attending functions on or off campus as representatives of the College are subject to disciplinary sanctions for violations of the Student Code of Conduct. The Student Code of Conduct shall apply to a student's conduct even if the student withdraws from school while a disciplinary matter is pending.

The Dean of Student Success/Designee shall decide whether the Student Code of Conduct shall be applied to conduct occurring off campus, on a case-by-case basis, in their sole discretion. Should actions violate both College regulations and public law, this may result in the application of College disciplinary proceedings in addition to any legal proceedings.
For the purposes of this Student Code of Conduct, the determinant factor for misconduct or policy violations will be Responsible or Not Responsible with regard to the "preponderance of evidence standard.

## Procedural Definitions

Board Policies: FLB(LOCAL); FLC(LOCAL); FLC(LEGAL); FM(LEGAL)
In the code, unless the context requires a different meaning, the following definitions apply:

- "Absentia" means in the absence of "or" while absent.
- "Administrators" means all Vice Chancellors, Associate vice Chancellors, College Presidents, Deans, Associate Deans, Directors and Coordinators of the College.
- "Advisor" means any person selected by the accused student or complainant to assist with giving support and resources before, during, and/or after the Student Conduct Administrative Conference. Advisors may or may not be attorneys. Their role is limited during the conduct proceedings and they are permitted to only address the accused.
- "Alleged/Accused Student or Responding Party" means any person accused of allegedly violating the Student Code of Conduct.
- "BITAT" (Behavioral Intervention and Threat Assessment)" shall be defined as the team of individuals responsible to quickly respond to reports of threats or suspicions of threats to the health and safety of students, employees and visitors and for proactively identifying, assessing, and managing threats.
- "Board" means the Board of Trustees of Houston Community College.
- "Chancellor" means the top-ranking official of Houston Community College.
- "Chief of Police" means the head supervisor over police and security personnel.
- "College" means Houston Community College (HCC).
- "College Official" includes any person employed by the College, performing assigned administrative or professional responsibilities.
- "College Premises" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the College (including adjacent streets and sidewalks). This Student Code of Conduct applies as all locations of the College.
"Class Day" means a day on which classes are regularly scheduled or examinations are given.
"Classroom" includes physical and virtual education environments.
"Complaint" means a written summary of the essential facts constituting a violation of College Rules and Administrative Regulations.
- "Complainant/Reporting Party)" means any person who submits a referral alleging that a student violated this Student Code of Conduct. When a student believes that $s /$ he has been a victim of another student's misconduct, the student who believes $s / h e$ has been a victim will
have the same rights under this Student Code of Conduct as are provided to the Accused Student, even if another member.
- "Dean" means the College Dean of Student Success.
- "Designee" means the Associate Dean of Student Development or person designated by the Dean of Student Success to address code of conduct violations.
- "Department Chair/Academic Dean" means any person hired by the College to manage departmental programs/activities.
- "Disciplinary sanction(s) or sanction(s)" means an imposed decision (penalty) for violation of a college rule, policy or law.
- "Due process" is providing fair treatment to all parties in the disciplinary processes.
- "Egregious violation(s)" means as an action that goes well beyond the boundaries of acceptable behavior. Examples may include (but are not limited to) organizing or participating in a cheating ring, theft or misappropriation of instructional materials, impersonation of another student, purchasing of papers or assignments from others, bribery of another to take an exam or complete an assignment, or any violation that also violates state and/or federal laws.
- "Faculty Member" means any person hired by the College to conduct classroom or teaching activities or who is otherwise considered by the college to be a member of its faculty.
- "Manager of Student Conduct \& Academic Integrity" means the college official responsible for supporting the development of the student conduct system.
- "Maxient" refers to the student conduct management system whereby all student conduct case files/records are housed.
- "Official College Communication" means the student's assigned Houston Community College (HCC) email is the official method in which all student conduct correspondence will be communicated.
- "Policy" means the written regulations of the College found in, but not limited to, the Student Code of Conduct, the Student Handbook, and the College webpage.
- "Postpone" means to cause or arrange for something to take place at a time later than was first scheduled.
- "Preponderance of evidence" means a greater weight of evidence or more likely than not. The preponderance is based on the more convincing evidence and its probable truth or accuracy. Even in cases that refer to federal, state, or local criminal statutes or ordinances, the burden of proof in College conduct proceedings remains as a preponderance of evidence.
"Prima facie" means the specific evidence that if believed, supports a case or an element that needs to be proved.
"Reporting party" means the individual(s) who filed the incident report or complaint.
"Responding party" means the person(s) the allegation is made against.
- "Searches" means no person except a law enforcement officer will search a student's personal possessions as authorized by law, for the purpose of enforcing the Student Code of

Conduct, unless the individual's prior permission has been obtained. All HCC controlled property, such as lockers, desks, equipment, and, rooms will be subject to search at any time, and no student should place an object in these HCC controlled areas with a reasonable expectation of privacy.

- "Student" means a person enrolled at the College, a person accepted for enrollment, or an alumnus of the College.
- "Student Conduct Administrative Conference" means an informal/formal meeting between the Dean of Student Success/Designee and student/organization accused of misconduct to determine if a violation occurred and recommend appropriate sanctions.
- "Student Conduct Authority" means any person or persons given the authority to facilitate or participate in the Student Conduct process including: the Dean of Student Success/Designee, Department Chair, Academic Dean, Discipline Committee members, Manager of Student Conduct \& Academic Integrity, and the College President.
- "Student Conduct Discipline Committee" refers to members appointed by the College president to preside over disciplinary hearings that met the grounds for appeal after the Student Conduct Administrative Conference. Members of the Discipline Committee consists of three faculty or staff members and two students.
- "Student conduct investigation report (summary)" means a formal investigation of the history of the person(s) and their behavior/activity allegedly involved in a reported incident or crime.
- "Student Organization" (also "organization") means any number of persons who have complied with the formal requirements for College recognition, or any number of persons comprised of students who use College facilities or services; or any club, intramural sports club, athletic team or organization, which identifies with the College and presents student programs or activities in the College community.
- "Violation" means an offense which may result in disciplinary action, suspension or expulsion from the College.
- "Violation of Law" means all federal, state and local laws, violated on College property, at any function authorized by the college even if held off campus, or affecting the educational environment as a cause for disciplinary action in addition to any action that might be taken by our criminal justice system.


## Academic Integrity

## Board Policy:FLB(LOCAL)

When Houston Community College awards a credential, it is avowing that the work is of quality and integrity. A credential is meaningless if it is not honestly earned; therefore, HCC expects all students to conduct themselves with honor and integrity. Proceedings may be initiated by instructors, Department Chairs, and/or Instructional Deans against a student accused of a violation of academic integrity or scholastic dishonesty.
Prohibited Conduct is defined below:
"Academic integrity"|"Scholastic Dishonesty" shall include, but is not limited to as stated in Board policy, cheating, plagiarism, and collusion.
"Cheating" shall include, but shall not be limited to:

- Copying from another student's test or class work;
- Using test materials not authorized by the person administering the test;
- Collaborating with or seeking aid from another student during a test without permission from the test administrator;
- Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an un-administered test, paper, or another assignment;
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test;
- Substituting for another student, or permitting another student to substitute for one's self, to take a test;
- Bribing another person to obtain an un-administered test or information about an unadministered test;
- Manipulating a test, assignment, or final course grades.
"Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work submitted for fulfillment of course requirements.
"Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own work.
"Scholastic dishonesty" shall also include any fraud, unethical conduct, or intentional misconduct by administrators, faculty, staff, or students, including but not limited to the falsification or unauthorized altering of information of a student record (including information in an official student information system).


## Prohibited Student Conduct

Board Policies: CHF(LOCAL); CHF(LEGAL); DHBC (REGULATION); FA(LEGAL); FAA(LEGAL); FFDA(LOCAL); FFE(LOCAL); FL(LOCAL); FL(LEGAL); FLA(LOCAL); FLAA(LOCAL); FLB(LOCAL); FLB(LEGAL); FLBC(LEGAL); FLBE(LOCAL)
"Abuse" shall be defined as physical abuse, verbal abuse, threats, intimidation, harassment, coercion, and/or other conduct which threatens or endangers the health or safety of any person.
"Alcohol" shall be defined as the use, consumption, possession, furnishing, manufacturing, or distribution of alcoholic or intoxicating beverages (except as expressly permitted by College regulations). A student shall be prohibited from using or being under the influence of intoxicating beverages at HCC. Both open containers and/or public intoxication are prohibited. Additionally, alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person under age twenty-one.
"Bodily Harm" shall be defined as any injury or attempted injury that seriously threatens or interferes with any person's physical condition that is long-lasting rather than short lived. Examples may include but are not limited to Paralysis, Loss of limb, broken bones, head, neck, or spine injuries, burns, or serious cuts, or scarring or serious disfigurement. For purposes of this Code of Conduct, violations of this provision include any attempt at bodily harm toward self or others, whether or not the intended harm is achieved.
"Bullying" shall be defined as the use of aggression with the intention of hurting another person. Bullying results in pain and distress to the victim. HCC takes bullying seriously, and students should be assured that they will be supported when bullying is reported. Bullying will not be tolerated. Examples of bullying include, but are not limited to:
a. Emotional: Being unfriendly, excluding, tormenting (e.g. hiding books, threatening gestures);
b. Physical: Pushing, kicking, hitting, punching or any use of violence;
c. Racial: Racial taunts, graffiti, gestures;
d. Sexual: Unwanted physical contact or sexually abusive comments;
e. Homophobic: Because of, or focusing on the issue of sexual orientation, gender identity and/or gender expression;
f. Verbal: Name-calling, sarcasm, spreading rumors, teasing, and hate messaging; and
g. Cyber: The use of information and communication technologies to support deliberate, repeated and hostile behavior by an individual, or group that it is intended to harm others; this includes all areas of the Internet, such as email, social networking sites, Internet chat room misuse, mobile threats by text messaging and calls, and misuse of associated technology such as camera and video facilities.
"College Policies" shall be defined as a violation of any college policy, rule, or regulation published in hard copy or available electronically on the College website.
"Conduct System Abuse" - Abuse of the Student Conduct System. Conduct System Abuse includes, but not limited to:
a. Failure to comply with the notice from a student Conduct Authority to appear for a meeting as part of the Student Conduct process;
b. Falsification, distortion, or misrepresentation of information as part of a Student Conduct process;
c. Disruption or interference with the orderly conduct of a Student Conduct proceeding;
d. Instituting the student conduct process without true cause;
e. Attempting to discourage an individual's proper participation in, or use of, the student conduct process;
f. Attempting to influence the impartiality of the Student Conduct Administrator prior to, and/or during the course of the student conduct code proceeding;
g. Harassment (verbal or physical) and/or intimidation of the Conduct Administrator prior to, during, and/or after a student conduct code proceeding;
h. Failure to comply with the sanction(s) imposed under the Student Code of Conduct; Influencing or attempting to influence another person to commit an abuse of the Student Conduct process; and

Plagiarism of an educational student conduct sanction.
"Dating violence" means violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the victim. The existence of such a relationship shall be determined based on the reporting party's statement and with consideration of the length of the
relationship, the type of relationship, and the frequency of interaction between the persons involved in the relationship. For the purposes of this definition, dating violence includes, but is not limited to, sexual or physical abuse or the threat of such abuse and dating violence does not include acts covered under the definition of domestic violence.
"Dishonesty" - Acts of dishonesty shall include, but not limited to the following:
a. Cheating, plagiarism, or other forms of academic dishonesty;
b. Furnishing false information to any College Official, faculty member, or office;
c. Forgery, alteration, or misuse of any College document, record, or instrument of identification for educational purposes including but not limited to forging or alteration of educational transcripts;
d. Tampering with any College election process.
"Disorderly Conduct" shall be defined as conduct that is disorderly, lewd, or indecent; breach of peace or aiding, abetting, or procuring another person to breach the peace on College premises or at functions sponsored by the College or members of the academic community. Disorderly Conduct includes but is not limited to:
a. Behavior of a boisterous and tumultuous character such that there is a clear and present danger of alarming persons where no legitimate reason for alarm exits.
b. Interference with the peaceful and lawful conduct of persons under circumstances in which there is a reason to believe that such conduct will cause or provoke a disturbance.
"Disruptive Activity" - Students shall not engage in disruptive activities while on the College campus or property. State legislation governing such activities is found at Texas Education Code Section 37.123.

No person or groups of persons acting in concert may intentionally engage in disruptive activities or disrupt a lawful assembly on the campus or property of any private or public school or institution of higher education or public vocational and technical school or institute. For the purposes of this Code of Conduct, "Disruptive Activity" includes, but is not limited to:

- Obstructing or restraining the passage of persons in an exit, entrance or hallway of any building without the authorization of the administration of the school;
- Seizing control of any building or portion of a building for the purpose of interfering with any administrative, educational, research or other authorized activity;
- Preventing or attempting to prevent by force or violence or the threat of force or violence any lawful assembly authorized by the school administration;
- Disrupting by force or violence or the threat of force or violence a lawful assembly in progress;

Obstructing or restraining the passage of any person at an exit or entrance to said campus or property or preventing or attempting to prevent by force or violence or by threats thereof the ingress or egress of any person to or from said property or campus without the authorization of the administration of the school;

- Committing any act which is classified as an indictable offense under either state of federal law while on any college campus or while involved in any College-sponsored activities; and
- Other activities which disrupt the normal educational process.

A lawful assembly is disrupted when any person in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to reasonable fear that force or violence is likely to occur. Nothing herein shall be construed to infringe upon any right of free speech or expression guaranteed by the Constitution of the United States or the State of Texas. Students engaging in disruptive activity may be subject to disciplinary action.
"Disruption of Classes" shall be defined as students shall not engage in disruptive activities while on the College campus or property. State legislation governing such activities is found in Texas Education Code Section 37.124.

No person or groups of persons acting in concert may willfully engage in disruptive activities or disrupt a lawful assembly on the campus or property of any private or publie school or institution of higher education or public vocational and technical school or institute. For the purposes of this Code of Conduct, "Disruption of Classes" includes, but is not limited to:

- Emitting noise of an intensity that prevents or hinders classroom instruction;
- Enticing or attempting to entice a student away from a class or other school activity that the student is required to attend;
- Preventing or attempting to prevent a student from attending a class or other school activity that the student is required to attend; and
- Entering a classroom without the consent of the teacher, faculty member, or college official, and, through either acts of misconduct or the use of loud or profane language, disrupting class activities.
"Disruptive Classroom Behavior" shall be defined as a student's behavior which disrupts or otherwise interferes with any educational activity being performed by a member of the College. No student may interfere with their fellow students' right to pursue their academic goals to the fullest in an atmosphere appropriate to a community of scholars. While it is impossible to compile a complete list of disruptive classroom behavior, the following may be considered engaging in classroom disruption and thereby may be subject to disciplinary action:
- Any form of conduct by an individual or group of students that interferes with or inhibits the educational opportunities of another student.
- Conduct that diminishes the effectiveness of an instructor or has the effect of negatively impacting the learning environment.
- An instructor or program may establish additional reasonable behavioral guidelines for their class and/or course of study/program.
"Drug Free Schools" shall be defined as providing a drug free environment for all students and employees at allcollege locations. The unlawful manufacture, distribution, transmitting, dispensation, possession, sale, offer to sell, purchase and/or use of controlled substances, paraphernalia, or alcohol on campuses, at teaching sites, in vehicles, and on property owned, leased or under the control of HCC and at all on campus and off campus, College-sponsored activities is prohibited. Controlled substances include, but are not limited to, such substances as marijuana, hashish, heroin, cocaine, LSD, PCP, methamphetamine, anabolic steroids, prohibited inhalants, human-growth hormones, fentanyl, and other substances considered controlled substances under the law. A student who uses a drug authorized by a licensed physician through a prescription
specifically for that student's use will not be considered to have violated this rule. As a condition of enrollment, all students are required to follow HCC policy and regulations concerning alcohol and other drugs. College Counselors are available to students for consultation on alcohol and other drug issues. College Counselors will assist students personally or act as a referral source when necessary. All student-counselor relationships will be on a confidential basis to the extent permitted by law.
HCC distributes to students an annual statement regarding its drug and alcohol policies, in addition to the Student Handbook and the Student Code of Conduct.
"Electronic Devices in Classroom" - The use of electronic devices in the classroom shall be at the discretion of the instructor. Electronic devices include personal electronics, such as cellular telephones, pagers, electronic recorders, electronic cameras, laptop computers, tablets, and similar devices. Any use of such devices for purposes other than student learning is strictly prohibited. If an instructor perceives such use as disruptive and/or inappropriate, the instructor has the right to ask the student to terminate such use, subject to any accommodations for disability that the student may have. If the behavior continues, the student may be subject to disciplinary action to include removal from the classroom or referral to the Dean of Student Success for further disciplinary action.
"Electronic Media Violations" shall be defined as inappropriate use of College computers, computing resources, and networks. Inappropriate use includes, but is not limited to:
a. Any unauthorized use of electronic or other devices to make an audio or video record of any person while on College premises without their prior knowledge, or without their effective consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym, locker room, or restroom;
b. Anonymous or forged email messages;
c. Unauthorized attempts to access another person's email or similar electronic communications;
d. Use of another's name, email or computer address or workstation to send email or similar electronic communications;
e. Use of College email or other network resources for commercial purposes or for personal financial gain;
f. Access to a restricted computing resource without authorization or use for purposes beyond the authorization;
g. Transmission of copyrighted materials, without the written permission of the author or creator, through College email or other network resources in violation of U.S. copyright law;

Use of computing resources used in a manner that disrupts the work or educational environment;

Intentional use of College computing resources to store, download, upload, display, print or email computer images that constitute "obscenity" as defined by Subchapter B of Chapter 43 of the Texas Penal Code, and that are not directly related to or required for a specific educational course or research project directly related to an educational program;

The display or transmission of messages, images, cartoons or other messages or images that are sexually explicit or that demean a person on the basis of race, ethnicity, age, gender,
national origin, disability, and/or religion, may constitute prohibited harassment under College policies;
k. Upload or download of unauthorized materials to any College server;
I. Sharing of an account, password or other authentication device provided to permit access to restricted computing resources (HCC Guidelines for Computing and Technology Resources);
m. Students in healthcare programs must adhere to federal laws regarding HIPAA protected information and college policies regarding protection of privacy of the student's patients. Students may not post any photos, videos, patient information, or any other data regarding patients or affiliations on social networking or social communication sites and/or applications, including but not limited to Facebook, Twitter, YouTube, SnapChat, TikTok, Slack, or Instagram; and
n. Any other behavior using HCC computers, computing resources, or networks that constitutes a violation of Policy, Regulation, or law.
"Endangerment of Person(s)" shall be defined as conducting oneself in a manner that initially threatens or endangers the health or safety of a person, other members or visitors within the College community or at College-sponsored or related events is prohibited.
"Failure to Appear/Failure to respond to a Notice to appear" shall be defined as failure to appear for any meeting or hearing validly requested by a college official with the right to call such meeting.
"Failure to Comply" shall be defined as failure to comply with directions or directives of College Officials or law enforcement officers acting in the performance of their duties and/or failure to identify oneself to these persons when requested to do so including failure to comply with parking and traffic violations. This also refers to failure to comply with the College's attendance policy or other academic requirements of the College and its programs
Students who fail to comply with lawful directions or requests of College Officials, including, but not limited to student volunteers and student employees, or contract service vendors acting in performance of their duties, may be referred to the student conduct process.

Students who willfully resist, delay, or obstruct College Officials in the discharge or attempts to discharge the duty of their office or employment will also be referred to the student conduct process.
"Failure to register as a sex offender" shall be defined as failure to comply with Texas Code of Criminal Procedure Section 62.152, or any other applicable provisions of Chapter 62, which requires that sex offenders already required to register in a State to provide notice, as required under State law, of each institution of higher education in that State at which the person is employed, carries on a vocation, volunteers services or is a student.

Criminal sex offenders wishing to attend HCC must register with the HCC Police Department at the following location only:

Criminal Investigation Division of the HCC Police Department 3821 Caroline Street, Houston, Texas 77004
Monday-Friday: 8 a.m. - 4 p.m. (except during HCC closures or holidays)
"Financial Obligations" shall be defined as refusing to pay or fail to pay a debt owed to the College or giving the College a check, draft, or order with the intent to defraud the College. The Business Office sends written notice to a student when the drawee has rightfully refused payment. A
student's failure to pay the College the amount due on a check, draft or order on or before the fifth class day after the notice is given for the purpose of this Code of Conduct constitutes prima facie evidence that the student intended to defraud the College.
"Fraud" means deception intended to result in financial or personal gain, including receiving or attempting to receive payment, services, or academic credit under false pretenses, including, but not limited to presenting false documentation or information in order to receive financial aid.
"Gambling" shall be defined as failing to abide by federal and state laws prohibiting illegal gambling. Prohibited activity includes, but is not limited to: betting on, wagering on, or selling pools on any event; possessing on one's person or premises, any card, book or other device for registering bets; knowingly permitting the use of one's premises or one's telephone or other electronic event; and involvement in bookmaking or wagering pools with respect to the events. Gaming events, including but not limited to casino nights and poker events, are prohibited without the authorization of the Dean of Student Success /Designee.
"Gang Free Zones" - Certain criminal offenses, including those involving organized criminal activity such as gang-related crimes, will be enhanced to the next highest category of offense if they are committed in a gang-free zone. For purposes of the College, a gang-free zone includes a school bus and a location in, on, or within 1,000 feet of any district-owned or leased property or campus.
"Harassment" means engaging in behavior that is sufficiently severe or pervasive so as to threaten an individual or substantially interfere with the individual's employment, education or access to College programs, activities or opportunities, and such behavior would detrimentally affect a reasonable person under the same circumstances. Behaviors that meet the above definition may include, but are not limited to, the following:
a. Directing physical or verbal conduct at an individual because of the individual's age, race, color, gender, ancestry, national origin, religion, veteran status, sex, sexual orientation, physical or mental disability, gender identity;
b. Subjecting a person or group of persons to unwanted physical contact or threat of such; and
c. Engaging in a course of conduct, including following the person without proper authority (e.g., stalking), under circumstances which would cause a reasonable person to fear for their safety or the safety of others or to suffer emotional distress.
"Hazing" shall be defined pursuant to Texas Education Code Section 37.151(6), and include all acts associated with hazing as set forth in Texas Education Code Chapter 37, Subchapter F. Hazing is defined as any intentional, knowing, or reckless act, occurring on or off campus by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include other students.

An individual commits the offense of hazing if the individual:
Engages in hazing; and/or
Solicits, encourages, directs, aids, or attempts to aid another in engaging in hazing; and/or
Has first-hand knowledge of the planning of a specified hazing incident involving a student in an educational institution, or first-hand knowledge that a hazing incident has occurred, and knowingly fails to report that knowledge in writing to the Dean of Student Success or other appropriate official of the College.

The degree of the offense depends on the specific conduct of the individual and the extent of injury to the victim.

Hazing also includes the following behaviors:
a. Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
b. Any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
c. Any activity involving consumption of a food, liquid, alcoholic beyerage, liquor, drug, or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
d. Any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described above; or
e. Any activity that induces, causes, or requires the student to perform a duty or task that involves a violation of the Penal Code.
"Identification/HCC ID" shall be defined as all students and guests are required to provide their name and show appropriate identification to a College Official upon request. Students must carry their Houston Community College identification with them at all times when on College property or at College functions. Guests must carry a driver's license or other government-issued identification at all times. The following behaviors are also prohibited:

- Falsely identifying oneself to others;
- Any misuse of an HCC student ID card;
- Possession, production, or distribution of false identification cards, or materials to fabricate such, is illegal and strictly prohibited. Any false identification cards found to be in the possession of students or guests will be confiscated, destroyed, and may result in a citation from the governing Poliee authority; and
- Failure to provide identification when requested to do so by College personnel.
"Illegal Substances/Alcohol" shall be defined as using, possessing, controlling, manufacturing, transmitting, selling, or being under the influence of any illicit drug or narcotic, as those terms are defined by the Texas Controlled Substances Act, on College property or at any College-related events or activities, unless under the direction of a physician. The following behaviors are also prohibited:

Using, possessing, controlling, manufacturing, transmitting, or selling paraphernalia related to any prohibited substance;

Using, possessing, controlling, manufacturing, transmitting, selling, or being under the influence of alcohol or another intoxicating beverage without the permission of the College.
"Misuse of Technology" (formerly "Computer and Network Violations") shall be defined as theft or other abuse of computer facilities and resources without proper authorization. The following behavior shall be prohibited:
a. Violating policies, rules, or agreements signed by the student regarding the use of technology resources.
b. Attempting to access or circumvent passwords, or other security-related information of the College, students, or employees or uploading or creating computer viruses.
c. Attempting to reprogram, alter, destroy, disable, or restrict access to College technology resources including but not limited to computers and related equipment, College data, the data of others, or other networks connected to the College's system without permission.
d. Using the internet or other electronic communications to threaten College students, employees, or volunteers.
e. Sending, posting, or possessing electronic messages that are abusive, obscene, sexually oriented, threatening, harassing, damaging to another's reputation, or illegal.
f. Using email or websites to engage in, or encourage illegal behavior or threaten the safety of the College, students, employees, or visitors.
g. Possessing published or electronic material that is designed to promote or encourage illegal behavior or that could threaten the safety of the College, students, employees, or visitors.
h. Theft, sabotage, destruction, distribution, or other use of the intellectual property of the College or third parties without permission.
i. Any violation of described as Misuse of Technology at Board Policy FLB(LOCAL).
"Prohibited Weapons" shall be defined as use, possession, display, distribution or sale of firearms, location-restricted knives, clubs or other prohibited weapons in violation of the College's regulations regarding campus carry and/or applicable state law including explosives, swords, daggers, straight razors, machine guns, short-barrel firearms, knuckles, armor piercing ammunition, chemical dispensing devices, zip guns, tire deflation devices, firearm silencers, or improvised explosive devices are prohibited on any College property or at a College-sponsored or -related activity, unless written authorization is granted in advance by the Chancellor or designee.

- "Firearms" shall be defined as any device designed, made, or adapted to expel a projectile through a barrel by using the energy generated by an explosion or burning substance or any device readily convertible to that use.
- "Location-Restricted Knife" shall be defined as a knife with a blade over five and one-half inches.
"Club" shall be defined as an instrument that is specially designed, made, or adapted for the purpose of inflicting serious bodily injury or death by striking a person with the instrument and includes, but is not limited to, a blackjack, nightstick, mace and tomahawk.
"Other Prohibited Weapons" shall be defined as fireworks, incendiary devices, instruments designed to expel a projectile with the use of pressurized air (like a BB gun), razors, chains, or martial arts throwing stars are prohibited on any College property or at a College-sponsored or -related activity. The possession or use of articles not generally considered to be weapons may be prohibited when the Chancellor or designee determines that a danger exists for any student, College employee, or College property by virtue of possession or use.
"Property Damage" shall be defined as destruction, damage, misuse and/or defacing of College property or the property of a member of the College community or campus visitor, and is prohibited.
"Retaliation" - The College will not tolerate retaliation. Retaliation against any person or group who exercises a legal right, including making a complaint, cooperating with an investigation, or participating in a resolution process, is a violation of College policy. Retaliation can take many forms, including continued abuse or violence, bullying, threats, and intimidation. Any individual or group of individuals, not just a complainant or respondent, can engage in retaliation. Retaliation should be reported promptly to the Dean of Student Success/Designee and may result in disciplinary action independent and/or in conjunction with any sanction or interim measures imposed in response to the underlying allegation of misconduct.
"Right to Assemble/Public Demonstration" - Participating in an on-campus or off-campus demonstration, riot or activity that disrupts the normal operations of the College and/or infringes on the rights of other members of the College community, and leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area is prohibited.
"Sexual assault" means an offense that meets the definition of rape, fondling, incest, or statutory rape as used in the FBI's Uniform Crime Reporting (UCR) program and included in Appendix A of 34 C.F.R. Part 668, Subpart D.

Code of Federal Regulations (CFR), Title 34, Part 668, Subpart D, Appendix A (2018) defines these offenses as:
"Rape" means the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim.
"Sex Offenses" means any sexual act directed against another person, without the consent of the victim, including instances where the victim is incapable of giving consent. The following are considered sex offenses:
A. "Fondling" means the touching of the private body parts of another person for the purpose of sexual gratification, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental incapacity.
B. "Incest" means sexual intercourse between persons who are related to each other within the degrees wherein marriage is prohibited by law.
"Statutory Rape" means sexual intercourse with a person who is under the statutory age of consent.
"Stalking" means engaging in a course of conduct directed at a specific person that would cause a reasonable person to fear for the person's safety or the safety of others, or suffer substantial emotional distress. For the purposes of this definition:

Course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person, or interferes with a per-son's property;
2. Reasonable person means a reasonable person under similar circumstances and with similar identities to the victim; and
3. Substantial emotional distress means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling.
"Sexual harassment of students" is discrimination on the basis of sex under Title IX.
Sexual harassment of students is conduct that is so severe, pervasive, and objectively offensive that it can be said to deprive the victim of access to the educational opportunities or benefits provided by the school. Sexual harassment does not include simple acts of teasing and name-calling, however, even when the comments target differences in gender.
An educational entity must reasonably respond to known student-on-student harassment where the harasser is under the entity's disciplinary authority.
"Smoking" - HCC prohibits smoking of tobacco products or any substances, and using electronic or e-cigarettes to deliver nicotine or other substances by inhaling from the device inside any of the College's buildings, owned or leased, including offices, classrooms, restrooms, hallways, elevators and all other interior locations. Smoking is permitted outside in approved areas established by each college, administrative, or support location.
"Theft/Possession of Stolen Property or Service" - Attempted or actual theft of and/or damage to property of the College, property of a member of the College community, or other personal or public property on campus or other property owned or controlled by the College. Conduct covered by the offense includes, but is not limited to the following: taking without consent the property or service of the College, another person, business, or organization; possessing property that can reasonably be determined to have been stolen from the College, another person, business or organization.
"Threatening/Violent behavior" - Students are prohibited from making threats or engaging in violent activities. Examples of such behavior consist of, but are not limited to, the following:

- Intentionally, recklessly, or negligently engaging in verbal abuse, threats, intimidation, harassment, coercion, and/ or other conduct which threatens or endangers the mental or physical health and/or safety of any person or causes reasonable apprehension of such harm;
- Stalking or willfully, maliciously and repeatedly following or harassing another person in a manner that would cause a reasonable person to feel frightened, intimidated, harassed, molested;
- Engaging in conduct that constitutes harassment, including sexual harassment and sexual misconduct, bullying, or dating violence directed toward another person, including a student or employee;
- Engaging in a physical altercation or fighting;
- Causing physical injury to another person; and
- Sexual assault.

Such behaviors will not be tolerated and may be grounds for disciplinary action, up to an including expulsion. A student who poses a threat to him/herself or others will be subject to disciplinary action which-may involve a mental health leave of absence.
"Unauthorized use of college facilities" shall be defined as the unauthorized use of any College equipment, facility or operations by any student is prohibited.

# Initiating Reports of Misconduct in the Classroom/Classroom Disruption Procedures 

Board Policy: FLB(LOCAL)

## Classroom Disruption Protocol

Regarding Classroom Disruption, a student's membership in the community of scholars is a privilege and carries with it obligations to participate in and contribute to the educational mission of the College and to avoid any behavior that is contrary to that mission. Therefore, no student may disrupt or otherwise interfere with any educational activity being performed by a member of the College. No student may interfere with their fellow students' right to pursue their academic goals to the fullest, in an atmosphere appropriate to a community of scholars. While it is impossible to compile a complete list of disruptive classroom behavior the following may be considered engaging in classroom disruption and thereby may be subject to disciplinary action:

- Any form of conduct by an individual or group of students that interferes with or inhibits the educational opportunities of another student.
- Conduct that diminishes the effectiveness of an instructor or has the effect of negatively impacting the learning environment.

An instructor may establish additional reasonable behavioral guidelines for their class.

## Classroom Disruption Procedures

General procedures that are followed by faculty in the case of a classroom disruption are:
a. Student will be asked to leave by instructor.
b. Security may be called to remove the student if he/she refuses to leave.
c. Student must meet with the appropriate Department Chair and/or the Dean of Student Success prior to returning to class (all efforts will be made to meet with student prior to next class meeting) to resolve the matter.
d. Department Chair/Academic Dean or Dean of Student Success will notify the student in writing of the appropriate resolution.

Department Chair/Academic Dean or Dean of Student Success will attempt to provide resolution and all maintain related documents via the student conduct management system (Maxient).
f. If warranted, the student may appeal per the student grievance/complaint procedures or by following the conduct appeals process (if necessary).

Serious Classroom Disruptions
Serious classroom disruptions, such as threat to self or others, or any form of violence, the Dean
of Student Success will meet with the student and may implement the following:
a. Interim suspension when immediate action is warranted.
b. Suspend student from being on any HCC campus, enroll or attend class pending further investigation per Disciplinary Procedures.
c. Faculty Member/Department Chair shall notify the Dean of Student Success to conduct preliminary investigation per Disciplinary Procedures.
d. Dean of Student Success/Designee shall notify student of date, time, and place to meet for an Administrative Conference per Disciplinary Procedures.
e. Complete administrative conference per Disciplinary Procedures.
f. Dean of Student Success/Designee shall sanction student as outlined per Disciplinary Procedures if appropriate. Any Appeal made by the student will then follow all discipline appeal procedures per the Student Code of Conduct.

In the event the student is found not responsible of a rule or policy, the student will be given the opportunity to resume classes and make up work at no cost to the student.

## Initiation of Disciplinary Action: Disciplinary Procedures

Board Policies: FFDA(LOCAL); FLB(LOCAL)
The Student Code of Conduct addresses procedural processes followed when alleged violations of the Student Code of Conduct occur. The procedures outlined below ensure appropriate measures are taken. Any student needing accommodations for conduct proceedings should submit requests to the Dean of Student Success/Designee.

The College's student discipline process may involve up to four steps after the matter has been referred for formal disciplinary action, as noted below:

Step 1: Information Gathering/Preliminary Investigation by Dean of Student Success/Designee
Step 2: Student Conduct Administrative Conference with Dean of Student Success/Designee
Step 3: Appeal to the College Student Conduct Discipline Committee (if warranted)
Step 4: Appeal to the College President (if warranted)
Alleged conduct violations shall be resolved at the completion of Step 2, subject to the appeals processes described in Steps 3 and 4.

Reports of alleged policy violations and misconduct shall be submitted to the Dean of Student Success/Designee within a reasonable time frame following an incident. The reports must be submitted in writing, normally through the student conduct management system (Maxient), and must clearly describe the alleged policy violation or misconduct and any other important information and facts.
When the Dean of Student Success receives information that a student has allegedly violated a rule or policy, the Dean will investigate the alleged violation. Upon completion of the investigation, the Dean can take action as stated in the Penalties Section of this procedure.

The Dean can take immediate interim disciplinary actions and suspend the right of a student to be present on any HCC campus, enroll or attend classes. Altering the status of a student for violation of a rule or policy when an emergency exists, requires immediate action to preserve the educational environment.

## Notice to Student/Recognized Student Organization

Board Policy: FLB(LOCAL)

The Dean of Student Success/Designee ("Dean") shall notify the student/organization via email within seven (7) College business days that a conduct report has been received alleging a policy violation or misconduct. It is the student's responsibility to cooperate with the student conduct proceedings, including to check the student's college email address. It is the student's responsibility to maintain updated contact information within the official College student management system.

## Notice of Administrative Conference/Review

Board Policy: FLB(LOCAL)
The notice summoning the student to an Administrative Conference will consist of the following:

- Statement of the violation for which the student is accused of.
- Notification for student to appear before the Dean of Student Success/Designee on the date, time, and place specified.
- Notification of Student Rights \& Responsibilities as outlined in the Student Code of Conduct.

The Dean of Student Success/Designee can place a student on disciplinary probation if the student fails, without good cause as determined by the Dean of Student Success/Designee, to comply with a Letter of Summons, or the Dean of Student Success/Designee can proceed against the student as described in "Administrative Disposition of a Violation."

## Administrative Conference/Conference Review

Board Policy: FLB(LOCAL)
Once the preliminary investigation has been completed and if there is sufficient supporting documentation, the Dean of Student Success/Designee shall provide notice to the student or Student Organization to attend a Student Conduct Administrative Conference.

During the Student Conduct Administrative Conference, the Dean of Student Success/Designee shall meet with the student, repeat the allegations and give the student or Student Organization an opportunity to view the supporting documentation, present a rebuttal and submit other information and supporting documentation for consideration.
The Student Conduct Administrative Conference shall be held within fifteen (15) College business days following the submission of the conduct case to the Dean of Student Success/Designee.

## Administrative Disposition of a Violation

Board Policy: FLB(LOCAL)
In administratively disposing of a violation, the Dean of Student Success/Designee can impose any disciplinary action authorized in "Disciplinary Sanctions," subject to the student's right to appeal as described elsewhere in this Code of Conduct.
During the administrative conference with a student/organization in connection with an alleged violation, the Dean of Student Success/Designee will advise the student/organization of their rights.

At the conclusion of the Administrative Conference, the Dean of Student Success/Designee will prepare an accurate, written summary of each administrative disposition of a violation and forward a copy to the student and to the College President and/or other administrative personnel when deemed appropriate.

If the administrative disposition is accepted, the student/organization will be given an opportunity to review and sign a statement that they understand the nature of the conduct, the right to a hearing or to waive the same, the penalty imposed, and the waiver of the right to appeal.

In the event that a student/organization refuses the administrative disposition, the student/organization may have the right to appeal the decision, subject to the established grounds for appeal. In the case of a valid appeal, the student/organization is entitled to a hearing before the Student Conduct Discipline Committee.

## Administrative Conference Review Outcomes

## Board Policy: FLB(LOCAL)

Based on the outcome of the Student Conduct Administrative Conference, one of the following shall occur:

1. The Dean of Student Success/Designee shall have the authority to dismiss the conduct case based on the supporting documentation or other information submitted by the student/organization.
2. The Dean of Student Success/Designee can request more information or supporting documents be provided by any party associated with the complaint. The Dean of Student Success/Designee can require that the accused student/organization submit the requested supporting documentation or information during a rescheduled Student Conduct Administrative Conference or as part of an informal process set forth by the Dean of Student Success/Designee. Written notice for a rescheduled conference, including adjusted deadline dates, shall be communicated to the student/organization by email.
3. The Dean of Student Success/Designee can decide to postpone final deliberation for a reasonable time on a conduct case in order to make a more informed and thoughtful decision.
4. After considering the supporting documentation and the information presented by the student/organization as part of the rebuttal, the Dean of Student Success/Designee can find that the student/organization did engage in the reported misconduct. If the Dean of Student Success/Designee finds that the student/organization engaged in the reported misconduct, disciplinary sanctions shall be imposed immediately or at a later date.
The Dean of Student Success/Designee can take other action as needed to resolve a conduct case.
5. The accused student/organization can accept the disposition, given an opportunity to review and sign a statement certifying understanding the nature of the charges, the right to a hearing or waive the same, the penalty imposed, and the waiver of the right to appeal.
6. The accused student/organization shall have the right to appeal the administrative disposition and request a hearing before a Student Conduct Discipline Committee should grounds for an appeal exist.

## Student Conduct Discipline Committee Procedures

## Board Policy: FLB(LOCAL)

When a student/organization does not accept the administrative disposition of a violation, the student/organization may appeal and request a hearing before a Student Conduct Discipline Committee if grounds for an appeal exists.

This request must be made in writing on or before the seventh (7th) working day following the administrative disposition. The student/organization may contact the Dean of Student Success/Designee for the appropriate form to submit. If the student/organization's appeal is accepted by the College as warranted, the Dean of Student Success/Designee will schedule a hearing of the Student Conduct Discipline Committee. The Grounds for Appeal are listed elsewhere in this Code of Conduct, and will be applied to determine if the student/organization's appeal is warranted.

At least seventy-two (72) hours prior to the hearing date, the student/organization concerned should furnish the Committee Chairperson with:

- The name and address of each witness the student wants to appear and a description of all documentary and other evidence possessed by the College which the student wants produced.
- A summary of the proposed testimony of each witness.
- A request for a hearing separate from other accused students, if any, and the grounds for such request.
- The name and contact information for the student's representative, if the student chooses to bring a representative, and whether or not that representative is an attorney.
Failure to provide advanced notice can result in the Committee's refusal to allow witnesses to participate in the hearing or can be grounds for a delay in the proceeding.

Discipline Committee members will be appointed by the College President, and will include three faculty or staff members and two students. The Discipline Committee will elect a Chairperson from the three faculty or staff members. The Committee Chairperson will preside over the hearing. All members of the Committee are eligible to vote in the hearing and the majority vote will dictate the outcome of the proceedings.

The Dean of Student Success/Designee will set the date, time and place for the hearing and notify the student/organization of the same. The Dean of Student Success/Designee will also request the appearance of witnesses and require the production of documentary and other evidence from the student within a specified timeframe.
The Dean of Student Success/Designee will represent the College before the Discipline Committee and present evidence to support any allegations of violations of Board Policies, Regulations, rules, or this Student Code of Conduct.

The hearing is informal and the Chairperson will provide reasonable opportunities for witnesses to be heard. The student is entitled to be represented by a representative, which may or may not be an attorney, at the student's own expense if they so choose.

## Student Conduct Disciplinary Hearing Notification

Board Policy: FLB(LOCAL)

The Dean of Student Success/Designee will notify the student/organization concerned by phone and email or letter using the last known information in HCC files of the date, time, and place for the hearing. The Dean of Student Success/Designee will specify a hearing date not less than three (3) or more than ten (10) College business days after the date of the contact. The Dean of Student Success/Designee can, for good cause, postpone the hearing as long as all interested parties are notified of the new hearing date, time, and place.

The Student Conduct Discipline Committee can hold a hearing at any time as long as the student has been provided notice of the new date, time, and place for the hearing. The Disciplinary hearing notice will consist of the following:

- Statement of the violation for which the student is accused of.
- Notification for student to appear before the Committee on the date, time, and place specified.
- Notification of Student Rights \& Responsibilities as outlined in the Student Code of Conduct.


## Student Conduct Disciplinary Hearing Committee Procedures

## Board Policy: FLB(LOCAL)

The Student Conduct Discipline Committee is designed to be informal, but will contain the following basic hearing procedures:

- The Dean of Student Success/Designee reads the violation for which the student/organization is accused.
- The Dean of Student Success/Designee informs the student/organization of their rights.
- The Dean of Student Success/Designee presents the College's case.
- The student/organization presents their case.
- The Dean of Student Success/Designee and the student/organization present rebuttal evidence and arguments.
The Committee meets alone to discuss the case and votes to decide whether or not there has been a violation of a rule or policy.

If the Committee finds the student/organization has violated a rule or policy, the Committee will determine the appropriate outcome, as described below.

## Student Conduct Discipline Committee Hearing Outcomes

The Student Conduct Discipline Committee hearing outcomes are as follows:
Uphold the decision and penalty imposed by the Dean of Student Success/Designee; and/or Impose a less severe penalty; and/or

- Find the student not responsible for any violations.

The Committee or the Dean of Student Success/Designee acting on behalf of the Committee will state in writing the outcome of the hearing.

In the event that a student is found to have violated a rule or policy each violation will be stated with the corresponding penalty.

Each Committee member concurring in the finding and penalty will sign the statement.
The Committee will include in the statement its rationale for the finding and penalty.

## Student Rights \& Responsibilities Related to the Code of Conduct

## Board Policy: FLB(LOCAL)

a. The accused student/organization shall have the right to be assisted during the student Conduct Administrative Conference by a representative chosen by the student/ organization. The representative must only speak to the student/organization during the student conduct proceedings and shall not directly address the Dean of Student Success.
b. The accused student/organization shall have the right to request copies of any supporting documentation collected by the College to support the reported policy violation or misconduct and offer supporting documentation on their own behalf.
c. The accused student/organization shall have the right to know the names of witnesses who may have been interviewed and the summary of statements will be offered as supporting documentation of wrong-doing against the student/organization.
d. The accused student/organization shall have the right to know the proposed sanction or range of disciplinary sanctions that may be imposed.
e. The accused student/organization shall have the right to appeal the decision made disciplinary sanction imposed to the Student Conduct Discipline Committee should grounds for an appeal exist.
f. The accused student/organization Can request a separate hearing and grounds for such request in the event of multiple respondents.
g. The accused student/organization shall have the right to request a final appeal to the College President.

Students needing assistance with general questions or to better understand the conduct process should contact the Dean of Student Success/Designee.

## Discipline Hearing Rules of Evidence

Legal rules of evidence do not apply to hearings before the Student Conduct Discipline Committee. All documentation and other evidence will be offered to the Committee during the hearing and made a part of the hearing record. Documentary evidence can be admitted in the form of copies or extracts, in addition to incorporation by reference.

However, the Committee may exclude irrelevant, immaterial and unduly repetitious evidence.
The Committee will recognize as privileged, to the extent permitted by law, communications between a student and a member of the professional staff of the counseling center where such communications were made in the course of performance of official duties and when the matters
discussed were understood by the staff member and the student to be confidential. The Committee members can freely question witnesses.

The Committee will presume a student is innocent of the alleged violation until it is convinced by a preponderance of the evidence that the student violated a rule or policy.

## Disciplinary Records

Board Policy: FLB(LOCAL)
A student/organization's disciplinary record will include the following and will be maintained according to the applicable College document retention schedule:

- A copy of the notice required; and/or
- All documentary and other evidence offered or admitted as evidence in any disciplinary proceeding; and/or
- The disposition outcomes to include the Student Conduct Discipline Committee's decision, and any records pertaining to appeals or appellate decisions.
All disciplinary records and proceedings will be kept separate from the student's academic record and will be treated as confidential to the extent provided by law. Some disciplinary consequences legally require certain types of disclosure, including notation on a student's transcript. Final disposition of the record will reside with the Office of Student Records.


## Grounds for Appeal

A student/organization may appeal a discipline decision on the following grounds:

1. The established student discipline procedures were not followed and as a result, the findings or disciplinary sanctions imposed by the Dean of Student Success/Designee were not correct.
2. The severity of the disciplinary sanctions imposed were not appropriate based on the nature of the policy violation or misconduct. For conduct cases in which the accused student/ organization has accepted responsibility, such appeals shall be limited to having the severity of the disciplinary sanctions reviewed.
3. There is new information that would have been pertinent to the outcome had the information been available to the Dean of Student Success/Designee before delivering a finding or imposing disciplinary sanctions. The student/organization must clearly describe the new information in the written request for an appeal and must include any available supporting documentation. Additionally, the student/organization must show that the new information and supporting documentation was not known at the time of the Student Conduct Administrative Conference or Student Conduct Discipline Committee hearing.

## Appeal Procedures/Outcomes to the College President

The college President will automatically review every sanction of expulsion. A student is entitled to appeal from the Student Conduct Discipline Committee to the College president, if Grounds for Appeal are present. An appeal to the College President is informal, but a student's written appeal will contain the information required by Grounds for Appeal. A student should file the appeal to the College President on or before the third (3rd) class day after the Student Conduct Discipline Committee announces its decision. The College President will receive written briefs and hear oral argument during their review, if a student chooses to file a written brief.

The College President in their review may take any action that the Student Conduct Discipline Committee is authorized to take (see Student Conduct Discipline Committee Outcomes regarding appeal outcomes).

The decision of the College President is final.

## Interim Disciplinary Procedures

Board Policy: FLB(LOCAL)
In certain circumstances, the Dean of Student Success/Designee shall have the authority to immediately impose interim disciplinary measures against a student/organization prior to the completion of the student conduct proceedings. Any interim disciplinary measures imposed may be enforced College-wide, at the discretion of the Dean of Student Success/Designee. The interim disciplinary measures include:

1. Temporary removal from a designated area, including but not limited to classroom, library, lab, campus or College premises; or
2. An interim suspension:
a. To ensure the safety and well-being of members of the College community or preservation of College property when an emergency exists;
b. To ensure the physical or emotional safety and well-being of the student/organization; or
c. If the student/organization poses an ongoing threat of disruption or interference with the normal operations of the College.

The Dean of Student Success/Designee also has the right to suspend a student pending investigation. In the event the temporarily suspended student is found not to have violated the rule or policy, the student will be given the opportunity to resume classes and make up the work at no cost to the student.

An interim suspension shall not replace the regular student discipline and penalties procedure. Upon issuance of an interim suspension, an administrative conference shall be scheduled between five (5) and fifteen (15) College business days of the student/organization receiving notification from the College.

## Disciplinary Sanctions

Board Policy: FLB(LOCAL)
The following disciplinary sanctions may be imposed upon any accused student/organization found
to have violated College policy or engaged in misconduct. This list is not exhaustive. College Officials may impose sanctions individually or may impose multiple sanctions in conjunction.

Warning - Indicates that further violations of regulations will result in more severe disciplinary action.
Written Reprimand - A written notice given to a student/organization explaining that the student/organization has engaged in misconduct or violated College policy or institutional regulations. Repeated incidents of misconduct or violations of College policy or institutional regulations can result in more severe disciplinary action.
3. Restitution - Reimbursement for damage to, or misuse of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damage.
4. Scholastic Penalties - The assignment of a failing grade on an assignment or examination or in a course by an instructor based on scholastic dishonesty including cheating, collusion or plagiarism committed by a student. The instructor will submit a written report of the incident and of the planned action to the Dean of Student Success/Designee for maintenance of disciplinary records. The grade decision of the instructor is final, subject to the Grade Appeal processes, described elsewhere in the Student Handbook.
5. Disciplinary Probation - A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions including suspension or expulsion, if the student/organization is found to have engaged in additional violations during the probationary period.
The Dean of Student Success/Designee may require a student to participate in activities that will enhance appropriate behavior(s) such as counseling, student conduct workshops, or alcohol and substance abuse workshops. Disciplinary Probation can be imposed for any length of time up to one calendar year and the student will be automatically removed from disciplinary probation when the imposed period expires.
6. Disciplinary Hold - A disciplinary hold will be placed on the student's account preventing any transactions until the student has completed or satisfied all imposed disciplinary sanctions (i.e. transcript requests, registration, etc.,). This penalty is used in conjunction with other sanctions.
7. Disciplinary Suspension - Forced withdrawal from the college for either a definite period of time or until stated conditions have been met. Normally, suspension shall extend through a minimum of one regular long semester (with summer sessions not counting in the onesemester minimum time lapse). However, suspension may exceed the one-semester minimum. This may include suspension of rights or privileges, including eligibility of official co-curricular activities with specific rights and/or privileges specified.
8. Disciplinary Expulsion - Permanent separation of the student/organization from the College.
9. Drug/Alcohol Counseling or Educational Programs - Counselors will assist students with short-term counseling or act as a referral source to community treatment providers when necessary including but not limited to AA, or NA meetings and other assigned educational programming. All student-counselor relationship communication will be confidential to the extent required by law.
10. Loss of Privileges - Denial of specified privileges for a designated period of time. Examples include, but are not limited to, limits to extracurricular or sports participation.
Administrative Withdrawal - Removal from an academic or non-credit bearing course as a result of disruptive or insubordinate behavior.
12. Educational Disciplinary Sanctions - Work assignments, Behavior Contracts, Essays, service to the College, or other related discretionary assignments. At their discretion, the Dean of Student Success/Designee, College President, or Student Conduct Administrator shall have the authority to require that a student/organization complete additional educational assignments, such as essays or research papers, attend meetings or training sessions, or perform services for the College.
13. Revocation of Admission and/or Degree/Certificate - The College shall have the authority to revoke a student's admission or a degree or certificate for fraud, misrepresentation, violation of degree or certificate standards or other serious violations of conduct.
14. Withholding Degree/Certificate - The College shall have the authority to withhold the awarding of a degree or certificate from a student who has otherwise earned the degree or certificate until the student has completed or satisfied all imposed disciplinary sanctions.
15. No Trespass Order - A student/organization suspended or expelled from the College shall be issued a no-trespass order for the duration of the assigned sanction. Exceptions shall be made for suspensions, as noted above at item 7 .
16. No Communication/Contact Order - The College shall have the authority to prohibit a student/organization from engaging in personal contact and all forms of communication with other members of the College community. This sanction shall be imposed primarily when such contact has the potential to lead to harassment, threats or other forms of unwanted interaction, or the College believes there is a reasonable likelihood of additional conduct violations by the student/organization.
17. Withhold Official Records - The College shall have the authority to block registration or withhold transcripts, grades, diplomas or other official records if the action is reasonably necessary to preserve the College's ability to enforce disciplinary rules, in a manner consistent with legal requirements.
Other than College expulsion or revocation/withholding of a degree/certificate, disciplinary sanctions will not be made part of the student's/organization's permanent academic record, but will become part of the student's/organization's disciplinary record.

Disciplinary sanctions of suspension, expulsion or revocation of a degree or certificate shall not be removed from the disciplinary record of a student/organization.

## Academic Integrity/Scholastic Dishonesty Procedures and Sanctions

The following procedure may be initiated by instructors, Department Chairs, and/or Instructional Deans against a student accused of a violation of academic integrity.
If an instructor or instructional leader suspects that academic integrity has occurred, the following procedure(s) apply:

1. Instructor/leader will collect the evidence and notify the student of the incident.
2. The student may meet with the instructor/leader to discuss the evidence.
3. The instructor/leader will notify the student of findings in writing via email.
4. Students who wish to contest findings that result in failure of the course may submit a request for review to the chair (or Dean if the chair is the instructor or if there is no chair) within seven (7) College business days.
5. The Chair (or instructional leader) reviews evidence presented by both parties and makes a determination within seven (7) College business days.

Appeals of the Chair's decision may only be made on procedural grounds and should be submitted within seven (7) College business days to the appropriate Instructional Dean/next level supervisor.
6. The instructor/leader will document and submit all supporting documentation of violations of academic integrity into the student conduct system (Maxient) to the Dean of Student Success/Designee.
7. The Dean of Student Success/Designee will review the case for any prior violations and note the incident as follows:
a. First time violation - Record the incident and notify the student of the recorded incident through Maxient
b. Repeated violation - Send student a notice to appear to discuss the repeated violation, possible sanction(s) may include up to one semester suspension.
c. Three or more violations or Egregious violations - May result in permanent expulsion from the College. Any decision for expulsion may be appealed (see Grounds for Appeal).
d. Violations involving dual credit students - Will be reported to the HCC P-16 Coordinator, who will report the incident to the student's high school and record the incident in Maxient.

Possible consequences for a violation of academic integrity may include

1. A grade of " 0 " or " "F" on the particular assignment/exam
2. Failure in the course.
3. Referral to the Dean of Student Success for repeated/egregious violations

Some HCC programs may view a firșt violation to be egregious and may result in removal from the program.

Individual assignment/exam grades are final.

## Recognized Student Organizations

Board Policy: FLBC(LEGAL)
Recognized Student Organizations, including athletics, intramural sports, and officers of recognized organizations must adhere to the same basic standard of conduct applied to individual students within the College. A student group or organization and its officers may be held collectively and/or individually responsible when alleged violations occur either during an event sponsored by the organization or by an individualrepresenting or associated with that organization or group and are subject to all rules, regulations, policies, procedures and disciplinary sanctions outlined in this Student Code of Conduct OR as outlined below.

Financialirresponsibility;

- Criminal actions on the part of officers;

Criminal actions at an organization-sponsored event;
Use of illegal substances at an organizational event (with the knowledge of the officers);
Destructive actions at an organizational event;

- Failure to live up to contractual obligations of the organization;
- Discrimination or harassment knowingly sanctioned or allowed by an organization or at an organizational event;
- Disruption of College activities on or off campus;
- Violation of College policy by the officers operating on behalf of the organization;
- Abuse of the role of student organization in representing the College;
- Hazing, and all acts associated with hazing, as set forth in Texas Education Code Chapter 37, Subchapter F;
- Initiations that include features that are dangerous, harmful, or degrading to a student;
- Any violation covered in the Student Code Conduct.


## Sex Offender Registry

Board Policies: FL(LOCAL); FL(LEGAL); FL (REGULATION)
The federal "Campus Sex Crimes Prevention Act," enacted on October 28, 2000, went into effect on October 28, 2002. The law requires institutions of higher education to issue a statement advising the College community where law enforcement agency information provided by a State concerning registered sex offenders may be obtained. It also requires sex offenders already required to register in a State to provide notice, as required under State law, of each institution of higher education in that State at which the person is employed, carries on a vocation, volunteers services, or is a student.

Ten (10) days before enrolling in class, but never later than the seventh day after the date on which the person begins to attend school, a person required to register as a sex offender under Texas Code of Criminal Procedure 62.152 or any other provision of Texas Code of Criminal Procedure Chapter 62, who is a student at a public institution of higher education, including a college district, shall report that fact to the authority for campus security for the institution, the Houston Community College Police Department (HCCPD). Following registration with HCCPD, information regarding the registrant shall be forwarded to the Registered Sex Offender Review Committee for processing. Prior to the final decision of the Committee, the registrant's enrollment and course selection are subject to review and are not final. Registrants will be identified by risk level and processed accordingly. Registrants are encouraged to report as soon as possible in order to avoid delays in enrollment. Information regarding sexual offenders is available through the Texas Department of Public Safety's Sex Offender Registry and at hccs.edu/departments/police/crime-statistics-information/sex-offender-information. The procedures of the Registered Sex Offender Review Committee are described in FL (Regulation) available at hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

## Interpretations and Revisions

## Board Policy: FLB(LOCAL)

Any question of interpretation or application of the Student Code of Conduct shall be referred to the Dean of Student Success/Designee for final determination.
The Student Code of Conduct shall be reviewed at a minimum every biennial year under the direction of the Manager of Student Conduct \& Academic Integrity, Dean of Student Success, Director of Counseling, General Counsel, and the Vice Chancellor for Student Success.

## Office of Responsibility

The Office of Responsibility for the Code of Conduct is the Student Services Division.


## Degree and Certificate Options

Houston Community College offers the following awards to students once they have chosen their career paths and completed all necessary course and residency requirements.

## Associate of Arts - AA Degree

This degree prepares students for academic transfer to a public university or college in texas as a junior for those who declare a major in the liberal or fine arts. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives.

## Associate of Arts in Teaching - AAT Degree

This degree is a state-approved collegiate degree program consisting of lower-division courses intended for transfer to baccalaureate programs that lead to initial Texas teacher certification in grades Pre-K to 6 or 4-8. The degree includes 42 hours of the corecurriculum and 18 hours in courses related to teaching.

## Associate of Science - AS Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior for those who declare a major in the sciences, as math, engineering, biology, chemistry and others. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives relevant to the student's career path.

## Associate of Applied Science - AAS Degree

This degree is specifically for students seeking technical career skills for work in a specific field or industry. The emphasis is on practical and applied skills, but does include 15 hours of general education core classes. It is primarily designed for work, not transfer, although general education core classes will transfer.

## Certificates - Level One and Level Two

Certificates in a specialized career field will help a student gain skill for job advancement. Most certificates are designed to be stackable (Level One to Level Two) to help a student complete an AAS degree if so desired.

## Occupational Skills Award - OSA

An OSA award prepares a student to enter a high-demand career field with minimal training.

## Enhanced Skills Certificate - ESC

The certificate is pursued simultaneously with an AAS degree and offers specialization in a career field with targeted training.

Advanced Technical Certificate - ATC
After the student completes an Associate's or Bachelor's degree, the advanced technical certificate provides specialized career field training.

## Degree and Certificate Requirements for Graduation

Houston Community College (HCC) offers various degrees and courses to serve the needs of its individual students. Students interested in academic transfer degrees (AA, AS, and AAT) may study courses and earn degrees that will transfer to four-year universities, while students interested in pursuing work or advancing in their workplace skills may earn AAS degrees or Certificates that improve employability. In addition, HCC also offers continuing education (CE) courses to enhance lifelong learning.

Students should work with an advisor at the beginning to help identify their program of study, take courses in the prescribed sequence or pathway, and choose their elective credits based on any transfer plans of their intended four-year university. Before the final semester, the student should again work with their advisor to assure that all requirements are met in order to file for graduation In general, working closely with an advisor will create the seamless path to completion.

## Core Curriculum

The core curriculum is designed to provide students with the foundational knowledge and transferable skills that are needed for future careers and work in a technological and global society. In addition, the core curriculum helps individual students to develop personal skills of critical thinking, communication, empirical and quantitative reasoning, teamwork, personal responsibility, and social responsibility. Core educated individuals are guided by a strong sense of values, ethics, and civic engagement. The Texas Higher Education Coordinating Board approved a 42 -semester credit hour (SCH) core curriculum for undergraduate students in Texas which was implemented in fall of 2014 for all public colleges and universities offering academic degrees. It included the following statements of purpose, the six core objectives, and the foundational component areas.

## Statement of Purpose

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

## Core Objectives

- Critical Thinking Skills-to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
Communication Skills-to include effective development, interpretation and expression of ideas through written, oral and visual communication
- Empirical and Quantitative Skills-to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
Teamwork-to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
Personal Responsibility-to include the ability to connect choices, actions, and consequences to ethical decision-making.
Social Responsibility-to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.


## Foundational Component Areas

- Communication- $(6 \mathrm{SCH})$ Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.
- Mathematics- $(3 \mathrm{SCH})$ Courses in this category focus on quantitative literacy in logic, patterns and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate qualitative tools to everyday experience.
- Life and Physical Sciences-(6 SCH) Courses in this category focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.
- Language, Philosophy \& Culture-(3 SCH) Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.
- Creative Arts- ( 3 SCH ) Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.
- American History-(6 SCH) Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.
- Government/Political Science-(6 SCH) Courses in this category focus on consideration of the constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.
- Social and Behavioral Sciences- $(3 \mathrm{SCH})$ Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals and groups.
- Component Area Option-(6 SCH)

A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundation component areas;

- As an option for up to 3 SCH of the Component Area Option, an institution may select course(s) that (1) meet the definition specified for one or more of the foundational component areas and (2) includes a minimum of 3 core objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the Institution's choice.


## General Associate Degree Requirements (for AA, AAT, and AS)

To be eligible for an Associate of Arts, Associate of Arts in Teaching, or an Associate of Science, a student must successfully:

1. Complete at least 60 hours, including 42 hours of core curriculum courses and 18 hours in the student's area of major and intended transfer major; for the Associate of Science, the student needs 6 additional hours of math and four additional hours of natural science.
2. Complete at least $25 \%$ of the semester hours toward the degree in the Houston Community College System. These hours may not be satisfied by credit by exam.
3. Have an overall 2.0 HCC grade point average.
4. Satisfy TSI requirements.
5. Resolve all financial obligations and return all college materials, including library books, to HCC prior to graduation.

## General Associate of Applied Science Degree Requirements (AAS)

The Associate of Applied Science degree is designed for students who complete a college-level workforce education curriculum. The AAS degree prepares students for employment in a specific career, and the program pathway includes general education core requirements ( 15 hours) and specific applied or technical courses in the field.

## AAS Requirements

To be eligible for an AAS degree, the student must successfully complete the following:

- 60 semester hours of credit and the prescribed curriculum for the two-year career and technology education program.
- Complete a minimum of $25 \%$ semester hours of credit toward the degree at HCC, 12 semester hours of which must be in the career and technology education program the student is pursuing. These hours may not be satisfied by Credit by Exam or Advanced Standing Credit.
- Have an overall 2.0 HCC GPA.
- Satisfy all TSI requirements.
- Resolve all financial obligations and return all materials to HCC prior to graduation.
- Multiple Associate of Applied Science degrees may be earned from HCC if all AAS program requirements are met, including earning at least 18 additional semester hours at HCC. Twelve of the hours must be earned in the major program of the additional degree.
The general education electives for each program must contain a minimum of 15 college credit hours. These must be taken from the following categories:

Humanities/Fine Arts 3 SCH
Social/Behavioral Science 3 SCH
Math/Natural Science 3 SCH
Ceneral Education Electives 6 SCH

## Certificate Programs and General Requirements

Houston Community College awards certificates upon completion of courses that have been industry-validated and designed to develop and upgrade the skills in a specific occupation. These programs vary in length and time based on Level One or Level Two. To be awarded a certificate, a student must do the following:

- Fulfill all course requirements for the certificate, by completing $50 \%$ of the coursework at HCC.
- Earn a GPA of 2.0 in all courses required for the certificate.
- Apply for graduation before the announced deadline.
- Students who are pursuing an Advanced Technical Certificate must complete a related associate or bachelor's degree prior to enrollment.



## Core Curriculum

## Core Curriculum Electives <br> for Academic Degree Programs



HUMA 2323 World Cultures 3

PHIL 1301 Introduction to Philosophy 3
PHIL 1304 Introduction to World Religions 3
PHIL 2306 Introduction to Ethics 3
PHIL 2307 Introduction to Social \& Political Philosophy 3
PHIL 2316 Classical Philosophy
Creative Arts-3 SCH

| ARTS | 1301 | Art Appreciation |
| :--- | :--- | :--- |
| ARTS | 1303 | Art History I |
| ARTS | 1304 | Art History II |
| DANC | 1305 | World Dance |
| DANC | 2303 | Dance Appreciation |
| DRAM | 1310 | Introduction to Theater |
| DRAM | 2361 | History of the Theater I |
| DRAM | 2366 | Introduction to Cinema |
| HUMA | 1301 | Introduction to Humanities I |
| HUMA | 1311 | Mexican American Fine Arts Appreciation |
| MUSI | 1306 | Music Appreciation |
| MUSI | 1307 | Music Literature |
| MUSI | 1310 | American Music |
| American History - 6 SCH |  |  |


| HIST | 1301 | United States History I | 3 |
| :--- | :--- | :--- | :--- |
| HIST | 1302 | United States History II | 3 |

HIST 2301 Texas History 3
HIST 2327 Mexican American History I 3
HIST 2328 Mexican American History II 3
HIST 2381 African-American History 3
Government/Political Science-6 SCH
GOVT 2305 Federal Government 3
GOVT 2306 Texas Government 3
Social \& Behavioral Sciences - 3 SCH

| ANTH | 2346 | General Anthropology | 3 |
| :--- | :--- | :--- | :--- |
| ANTH | 2351 | Cultural Anthropology | 3 |
| ECON | 1301 | Introduction to Economics | 3 |
| ECON | 2301 | Principles of Macroeconomics | 3 |
| ECON | 2302 | Principles of Microeconomics | 3 |
| GEOG | 1302 | Human Geography | 3 |
| GEOG | 1303 | World Regional Geography | 3 |
| PSYC | 2301 | General Psychology | 3 |

PSYC 2314 Lifespan Growth \& Development 3

PSYC 2316 Psychology of Personality 3
PSYC 2319 Social Psychology 3
SOCI 1301 Introduction to Sociology 3
SOCI 1306 Social Problems 3
SOCI 2336 Criminology 3
TECA 1354 Child Growth \& Development
Component Area Option-6 SCH
Any course listed above, or:



## Core Curriculum

## General Education Electives for Workforce Degree Programs




| Math/Natural Science Electives |  |  | $\begin{gathered} \text { SCH } \\ 1 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| ANTH | 2101 | Physical Anthropology (Lab) |  |
| ANTH | 2301 | Physical Anthropology (Lecture) | 3 |
| ANTH | 2302 | Introduction to Archaeology | 3 |
| ASTR | 1303 | Stars \& Galaxies (Lecture) | 3 |
| ASTR | 1304 | Solar System (Lecture) | 3 |
| ASTR | 1403 | Stars \& Galaxies (Lecture \& Lab) | 4 |
| ASTR | 1404 | Solar System (Lecture \& Lab) | 4 |
| BIOL | 1106 | Biology for Science Majors I (Lab) | 1 |
| BIOL | 1306 | Biology for Science Majors I (Lecture) | 3 |
| BIOL | 1308 | Biology for Non-Science Majors I (Lecture) |  |
| BIOL | 1309 | Biology for Non-Science Majors II (Lecture) | 3 |
| BIOL | 1322 | Nutrition \& Diet Therapy | 3 |
| BIOL | 1407 | Biology for Science Majors II (Lecture \& Lab) | 4 |
| BIOL | 2301 | Anatomy \& Physiology I (Lecture) |  |
| BIOL | 2302 | Anatomy \& Physiology II (Lecture) |  |
| CHEM | 1111 | General Chemistry I (Lab) | 1 |
| CHEM | 1305 | Introductory Chemistry I (Lecture) |  |
| CHEM | 1311 | General Chemistry I (Lecture) |  |
| CHEM | 1405 | Introductory Chemistry I (Lecture \& |  |
| CHEM | 1412 | General Chemistry II (Lecture \& Lab) | 4 |
| cosc | 1436 | Programming Fundamentals | 4 |
| GEOG | 1301 | Physical Geography | 3 |
| GEOL | 1301 | Earth Sciences for Non-Science Majors 1 (Lectur | 3 |
| GEOL | 1305 | Environmental Science (Lecture) | 3 |
| GEOL | 1345 | Oceanography (Lecture) | 3 |
| GEOL | 1347 | Meteorology (Lecture) | 3 |
| GEOL | 1403 | Physical Geology (Lecture \& Lab) | 4 |
| GEOL | 04 | Historical Geology (Lecture \& Lab) | 4 |
| MATH |  | College Algebra | 3 |
| MATH | 1316 | Plane Trigonometry | 3 |
| MATH | 1324 | Mathematics for Business \& Social Sciences | 3 |
| MAT | 1325 | Calculus for Business \& Social Sciences | 3 |
| MA | 1332 | Contemporary Mathematics | 3 |
| MATH | 1342 | Elementary Statistical Methods | 3 |
| MATH | 1350 | Mathematics for Teachers I | 3 |
| MATH | 1351 | Mathematics for Teachers II | 3 |
| MATH | 2318 | Linear Algebra | 3 |
| MATH | 2320 | Differential Equations | 3 |


| MATH | 2412 | Pre-Calculus Math | 4 |
| :--- | :--- | :--- | :--- |
| MATH | 2413 | Calculus I | 4 |
| MATH | 2414 | Calculus II | 4 |
| MATH | 2415 | Calculus III | 4 |
| PHIL | 2303 | Introduction to Formal Logic | 3 |
| PHYS | 1305 | Elementary Physics I (Lecture) | 3 |
| PHYS | 1401 | College Physics I (Lecture \& Lab) | 4 |
| PHYS | 1402 | College Physics II (Lecture \& Lab) | 4 |
| PHYS | 2125 | University Physics I (Lab) | 1 |
| PHYS | 2126 | University Physics II (Lab) | 1 |
| PHYS | 2325 | University Physics I (Lecture) | 3 |
| PHYS | 2326 | University Physics II (Lecture) | 3 |
| PSYC | 2317 | Statistical Methods in Psychology | 3 |

## General Education Electives

Choose ( 6 credits) from the entire list above

Description of HCC's programs are available at https://www.hccs.edu/finder/

## Field of Study Curricula

## Field of Study Curricula

A Field of Study (FOS) is a selection of lower-division courses that are guaranteed by state law to transfer and apply to a degree program. If a student takes all the courses in a FOS and then transfers to another Texas public institution of higher education, the FOS is guaranteed to transfer as a block and be applied to the appropriate major. If a student has completed the FOS, the Texas common core curriculum, and any university or college courses required of all students regardless of major, then the student is finished with all the lower-division courses for the degree program at any Texas public institution. If a student transfers with an incomplete FOS, then each completed FOS course is guaranteed to transfer and apply to the degree program, although the institution may require additional lower-division courses.

The Field of Study curricula that have been approved are incorporated into the associate degree plans for: Biology, Business, Communications, Computer Science, Criminal Justice, Engineering, English, History, Mathematics, Interdisciplinary Studies, Music, Government, and Psychology. FOS designations are also available for Economics and Sociology, an option in Multidisciplinary Studies

Field of Study Curricula approved by the Texas Higher Education Coordinating Board are incorporated into maps. Houston Guided Pathways (GPS) maps include courses that apply to lowerlevel requirements in specified degrees across Houston GPS institutions without resulting in excess credit upon transfer. Courses are in the Lower-Division Academic Course Guide Manual (ACGM) and course numbers provided are those in the Texas Common Course Numbering System.

Field of Study Curricula Approved by the Texas Higher Education Coordinating Board
Currently approved:
Architecture *


Mexican American Studies
Music
Biology
Business Administration \& Management
Nursing
Communications
Computer Science \& Information Technology
Political Science [Government]
Psychology
Radio \& Television
Social Work *
Sociology
Engineering (Chemical Engineering, Civil
Engineering, Electrical Engineeríng, Mechanical
Engineering) *
Engineering Technology*
Teaching AAT *
English Language and Literature
Fine Arts
Health \& Wellness *
History
Journalism
Mathematics

* Houston Community College does not offer Field of Study Curricula for these programs at this time.


## Academic Degrees and Certificates

## Associate of Arts in ANTHROPOLOGY

FIRST YEAR SCH

First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH 1342 Elementary Statistical Methods
Bachelor of Arts Transfer Specialization
XXXX $1411^{2} \quad$ Beginning Foreign Language I
Bachelor of Science Transfer Specialization
ANTH 2346 General Anthropology
Semester Total
Second Semester - Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST \#3\#\#1 ${ }^{1}$ American History Elective
ANTH 2301 Physical Anthropology (Lecture)
ANTH 2101 Physical Anthropology (Lab)
Bachelor of Arts Transfer Specialization
XXXX $1412^{3} \quad$ Beginning Foreign Language II
Bachelor of Science Transfer Specialization
GEOG 1303 World Regional Geography OR
PSYC 2301 General Psychology
MATH \#3\#\# ${ }^{2}$
Mathematics Elective
3

## Semester Total <br> SECOND YEAR

First Semester - Fall

GOVT 2305 Federal Government 3
ANTH 2351 Cultural Anthropology 3
BIOL \#3\#\# ${ }^{4} \quad$ Biology Elective OR
CHEM \# 3 \#\# ${ }^{5}$ Chemistry Elective 3
Bachelor of Arts Transfer Specialization
XXXX $2311^{3}$ Intermediate Foreign Language I 3
Bachelor of Science Transfer Specialization
MATH \#З\#\# ${ }^{2}$ Mathematics Elective 3
Semester Total 15

## Academic Degrees and Certificates

## Second Semester - Spring

XXXX \#3\#\# ${ }^{1}$ Creative Arts Elective 3
GOVT 2306 Texas Government 3

GEOG 1302 Human Geography OR
SOCI 1301 Introduction to Sociology
Bachelor of Arts Transfer Specialization
ANTH 2302 Introduction to Archaeology OR
ANTH 2346 General Anthropology
XXXX $2312^{3}$ Intermediate Foreign Language II

## Bachelor of Science Transfer Specialization

ANTH 2302 Introduction to Archaeology
XXXX \#3\#\# ${ }^{6}$ Approved Elective
Semester Total
Total Minimum Credits for the AA Degree ${ }^{7}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 All four foreign language courses must be in one language: French or Spanish.
3 All four foreign language courses must be in one language: French or Spanish.
4 Biology electives: BIOL 1308, 1411, or 1413.
5 Chemistry elective: CHEM 1305, 1405, or 1311.
6 Consult with an advisor to select an appropriate elective.
7 The BS Transfer Specialization has 61 semester credit hours.

## Academic Degrees and Certificates

Associate of Arts in BUSINESS

## Field of Study Curriculum

FIRST YEAR
SCH
First Semester - Fall

| EDUC 1300 | Learning Framework |
| :---: | :---: |
| ENGL 1301 | Composition I |
| MATH 1324 | Mathematics for Business \& Social Sciences |
| BCIS 1305 | Business Computer Applications |
| BUSI 1301 | Business Principles |
|  | Semester Total |
| Second Semester - Spring |  |
| ACCT 2301 | Principles of Financial Accounting |
| ECON 2301 | Principles of Macroeconomics |
| HIST \#3\#\# ${ }^{1}$ | American History Elective |
| ENGL 1302 | Composition II OR |
| ENGL 2311 | Technical \& Business Writing |
| BUSI 2305 | Business Statistics |
|  | Semester Total |

ACCT 2302 Principles of Managerial Accounting ..... 3
GOVT 2305 Federal Government ..... 3
ECON 2302 Principles of Microeconomics ..... 3
XXXX \#3\#\#1 Life \& Physical Sciences Elective ..... 3
PHIL 2306 Introductionto Ethics ..... 3
Semester Total ..... 15
Second Semester - Spring
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective ..... 3
GOVT 2306 Texas Government ..... 3
HIST \#3\#\# American History Elective ..... 3
XXXX \#3\#\# Creative Arts Elective ..... 3
MATH $1325^{2}$ Calculus for Business \& Social Sciences OR
PSYC2301 General Psychology OR
SOCl 1301 Introduction to Sociology OR
XXXX \# \#\#\#' General Education Elective ..... 3
Semester Total ..... 15
Total Minimum Credits for the AA Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 Some transfer institutions require MATH 1325. Please consult with an advisor.

## Academic Degrees and Certificates

Associate of Arts in COMMUNICATIONS
Field of Study Curriculum
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
MATH 1332 Contemporary Mathematics OR
MATH 1342 Elementary Statistical Methods
Advertising/Public Relations Specialization
COMM 1307 Introductionto Mass Communication
COMM 2327 Introduction to Advertising
Journalism - Teacher Certification Specialization ${ }^{4}$
COMM 1307 Introduction to Mass Communication
COMM 1335 Introduction to Electronic Media OR
COMM 2300 Media Literacy OR
COMM 2302 Principles of Journalism
Mass Media Specialization
COMM 1307 Introduction to Mass Communication
COMM 1335 Introduction to Electronic Media OR
COMM 2300 Media Literacy OR
COMM 2302 Principles of Journalism
Speech Communication Specialization
$\begin{array}{llr}\text { SPCH } 1311 & \text { Introduction to Speech Communication } & 3 \\ \text { COMM } 1307 & \text { Introduction to Mass Communication OR } \\ \text { XXXX \#3\#\# } \\ & \text { Liberal Arts Elective } & \\ & \text { Semester Total } & 3 \\ \text { Second Semester - Spring } & 15 \\ \text { ENGL } 1302 & \text { Composition II OR } & \\ \text { ENGL } 2311 & \text { Technical \& Business Writing } & 3\end{array}$
HIST \#3\#\# ${ }^{2}$ American History Elective I 3
xxxx \#3\#\# ${ }^{2}$ Creative Arts Elective 3
XXXX \#3\#\#² ${ }^{2}$ Social \& Behavioral Sciences Elective 3
Advertising/Public Relations Specialization
COMM 2330 Introduction to Public Relations 3
Journalism - Teacher Certification Specialization ${ }^{4}$
COMM 2311 Media Writing
Mass Media Specialization
СОММ 2311 Media Writing 3
Speech Communication Specialization
SPCH 1315 Public Speaking 3
Semester Total 15

## Academic Degrees and Certificates

## SECOND YEAR



## Academic Degrees and Certificates

## Mass Media Specialization

COMM 1336 Video Production I OR
COMM 2305 Editing \& Layout OR
COMM 2315 News Reporting
3
COMM 1336 Video Production I OR
COMM 2305 Editing \& Layout OR
COMM 2315 News Reporting
Speech Communication Specialization
XXXX \#3\#\# ${ }^{13}$ Liberal Arts Elective
SPCH 1321 Business \& Professional Communication
Semester Total
Total Minimum Credits for the AA Degree
${ }^{1}$ Liberal arts electives include the following selections from the Core
${ }^{2}$ A list of electives appears in the Core Curriculum section of this catalog.
${ }^{3}$ Note: Students transferring to a BA program in Communication(s) will need 6 hours of the same intermediate foreign language (LANG 2311 and 2312).
${ }^{4}$ Note: Missing EDUC 2301 Introduction to Special Populations in Field of Study Journalism Teacher Certification Specialization.

## Academic Degrees and Certificates

Associate of Arts in
COMPUTER INFORMATION SYSTEMS
FIRST YEAR SCH

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
MATH 1324 Mathematics for Business \& Social Sciences
BCIS 1305 Business Computer Applications
HIST \#3\#\# ${ }^{1}$ American History Elective
Semester Total
Second Semester - Spring
ENGL 1302 Composition II
MATH 1325 Calculus for Business \& Social Sciences
COSC 1436 Programming Fundamentals I
XXXX \#3\#\#1 Life \& Physical Sciences Elective
HIST \#3\#\# ${ }^{1}$ American History Elective
Semester Total
SECOND YEAR
First Semester - Fall
$\begin{array}{ll}\text { ACCT 2301 } & \text { Principles of Financial Accounting } \\ \text { COSC 1437 } & \text { Programming Fundamentals II } \\ \text { ECON 2301 } & \text { Principles of Macroeconomics OR } \\ \text { ECON 2302 } & \text { Principles of Microeconomics }\end{array}$
GOVT 2305 Federal Government 3
$x x x X \# 3 \# \#^{1} \quad$ Creative Arts Elective $\quad 3$
Semester Total 16
Second Semester - Spring
MATH 1342 Elementary Statistical Methods OR
ACCT 2302 Principles of Managerial Accounting 3
COSC 2425 Computer Organization 4
XXXX \#3\#\# Language, Philosophy, \&Culture Elective 3
GOVT 2306 Texas Government 3
Semester Total 13
Total Minimum Credits for the AA Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Academic Degrees and Certificates

## Associate of Arts in DANCE

## FIRST YEAR

SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH 1332 Contemporary Mathematics
DANC 1201 Dance Composition-Improvisation
DANC 1245 Beginning Modern Dance
Semester Total

## Second Semester - Spring

| ENGL 1302 | Composition II |
| :--- | :--- |
| HIST \#3\#\# |  |

DANC 1241 Beginning Ballet
DANC 1301 Dance Composition-Choreography OR
DANC 1245 Beginning Modern Dance OR
DANC 1247 Beginning Jazz Dance
DANC 1110 Tap Dance OR
DANC 1112 Dance Practicum OR
DANC 1128 Ballroom \& Social Dance OR
DANC 1151 Freshman Dance Performance
DANC 2303 Dance Appreciation
Semester Total
SECOND YEAR
First Semester - Fall
GOVT 2305 Federal Government 3
XXXX \#3\#\#1 Language, Philosophy, \& Culture Elective 3
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective 3
DANC2245 Intermediate Modern Dance 2
DANC 1245 Beginning Modern Dance OR
DANC 1247 Beginning Jazz Dance OR

| DANC 2247 | Intermediate Jazz Dance |
| :--- | :--- |
| DANC 1110 | Tap Dance OR |
| DANC 1112 | Dance-Practicum OR |
| DANC 1128 | Ballroom \& Social Dance OR |
| DANC 1151 | Freshman Dance Performance OR |
| DANC2151 | Sophomore Dance Performance |
|  | Semester Total |

## Academic Degrees and Certificates

## Second Semester - Spring

GOVT 2306 Texas Government 3
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective 3
XXXX \#3\#\# ${ }^{1}$ Social \& Behavioral Sciences Elective 3
DANC 1305 World Dance 3
DANC 2241 Intermediate Ballet
2
DANC 1245 Beginning Modern Dance OR
DANC 1247 Beginning Jazz Dance OR
DANC 2245 Intermediate Modern Dance OR
DANC 2247 Intermediate Jazz Dance
Semester Total
Total Minimum Credits for the AA Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Academic Degrees and Certificates

## Associate of Arts in DRAMA

## FIRST YEAR

SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH 1332 Contemporary Mathematics OR
MATH 1342 Elementary Statistical Methods
DRAM 1310 Introduction to Theater
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
HIST \#3\#\# ${ }^{1}$ American History Elective
DRAM 1351 Acting I
DRAM 1120 Theater Practicum I
XXXX \#3\#\#1 ${ }^{1}$ Social \& Behavioral Sciences Elective
Semester Total

## SECOND YEAR

First Semester - Fall

GOVT 2305 Federal Government
DRAM 1322 Stage Movement 3
DRAM 1121 Theater Practicum II 1
DRAM 1330 Stagecraft I 3
Semester Total 16
Second Semester - Spring
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective 3
GOVT 2306 Texas Government 3
DRAM 1352 Actingll 3
DRAM 1341 Makeup 3
DRAM 2120 Theater Practicum III 1
DRAM 2361 History of the Theater I 3
Semester Total 16
Total Minimum Credits for the AA Degree $\quad \mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

# Academic Degrees and Certificates 

Associate of Arts in ENGLISH

Field of Study Curriculum


## Academic Degrees and Certificates

Associate of Arts in GOVERNMENT

## Field of Study Curriculum

FIRST YEAR
SCH
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
HIST 1301 United States History I
XXXX $1411^{1} \quad$ Beginning Foreign Language I OR
SPAN2313 Spanish for Native/ Herltage Speakers I
MATH 1332 Contemporary Mathematics OR
MATH 1342 Elementary Statistical Methods
Semester Total
Second Semester-Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST 1302 United States History II
XXXX $1412^{1} \quad$ Beginning Foreign Language II OR
SPAN2313 Spanish for Native/Herltage Speakers
GOVT 2304 Introduction to Political Science
XXXX \# $3 \#^{2}$ Social \& Behavioral Sciences Elective
Semester Total SECOND YEAR
First Semester - Fall
XXXX \#3\#\#² Language, Philosophy, \& Culture Elective $>3$
XXXX\#3\#\#3 ${ }^{3}$ Liberal Arts Elective 3
XXXX 2311 ${ }^{1}$ Intermediate Foreign Language I 3
GOVT 2305 Federal Government 3
XXXX \#3\#\# ${ }^{2}$ Life \& Physical Sciences Elective 3
Semester Total 15

## Academic Degrees and Certificates

## Second Semester - Spring

$$
\begin{aligned}
& \text { XXXX \#3\#\# }{ }^{3} \text { Liberal Arts Elective } 3 \\
& \text { XXXX } 2312^{1} \text { Intermediate Foreign Language II } 3 \\
& \text { GOVT } 2306 \text { Texas Government } 3 \\
& \text { XXXX \#3\#\# }{ }^{2} \text { Creative Arts Elective } \\
& { }^{1} \text { All four foreign language courses must be in one language: French or Spanish. } \\
& 2 \text { A list of electives appears in the Core Curriculum section of this catalog. } \\
& 3 \text { Liberal Arts electives: Choose any Core Curriculum course from Creative Arts, Language, } \\
& \text { Philosophy, \& Culture, or Social \& Behavioral Sciences. } \\
& \text { History Options: HIST 1301, 1302, 2301, 2327, 2328, 2381, HIST 1302, 1301, 2327, } \\
& \text { 2328, and } 2381 .
\end{aligned}
$$



## Academic Degrees and Certificates

Associate of Arts in HISTORY
Field of Study Curriculum - Academic Track
FIRST YEAR SCH
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
HIST 1301 United States History I
MATH 1332 Contemporary Mathematics
XXXX \#3\#\#1 Creative Arts Elective
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
HIST 1302 United States History II
XXXX \# ${ }^{2} \# \#^{1} \quad$ Social \& Behavioral Sciences Elective
XXXX \#3\#\# ${ }^{1}$ Language, Philosophy, \& Culture Elective
XXXX \#3\#\# ${ }^{2}$ Transferable Elective
Semester Total
SCH

## Academic Degrees and Certificates

## SECOND YEAR



# Academic Degrees and Certificates 

Associate of Arts in HISTORY
Field of Study Curriculum - Teacher Certification Track

FIRST YEAR

SCH
First Semester - Fall


SECOND YEAR
First Semester - Fall
Second Semester - Spring
EDUC 2301 Introduction to Special Populations 3
HIST 2322 World Civilizations II 3
GOVT 2306 Texas Government 3
XXXX $1412^{3}$ Beginning Foreign Language II 4
XXXX \#3\#\#1 Life \& Physical Sciences Elective 3
Semester Total 16
Total Minimum Credits for the AA Degree 60
1 Alist of electives appears in the Core Curriculum section of this catalog.
Creative Arts elective recommendations: HUMA 1301; ARTS 1301, 1303, or 1304.
1301 or 1305 .
Students who successfully complete a four-hour Life \& Physical Sciences elective
should consult with an advisor to have the additional hour applied toward the one-
hour transferable elective requirement.
2 Consult with an advisor to select an appropriate elective.
3 All four foreign language courses must be in one language: French or Spanish.

## Academic Degrees and Certificates

## Associate of Arts in <br> INTERDISCIPLINARY STUDIES

FIRST YEAR
SCH
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
MATH 1332 Contemporary Mathematics OR
MATH 1342 Elementary Statistical Methods
Mexican-American/Latino Studies Specialization - Field of Study Curriculum
HIST 2327 Mexican-American History I
SPAN $1411^{1} \quad$ Beginning Spanish I OR
SPAN $2313^{2} \quad$ Spanish for Native/HerItage Speakers I
All Other Specializations
HIST 1301 United States History I
XXXX $1411^{1} \quad$ Beginning Foreign Language I
Semester Total
Second Semester - Spring
ENGL 1302 Composition II
Africana/African American Studies Specialization
ARTS 1304 Art History II OR
HUMA 1301 Introduction to Humanities I
HIST 2381 African-American History
XXXX \#3\#\# ${ }^{3} \quad$ Life \& Physical Sciences Elective
Beginning Foreign Language II
XXXX $1412^{1} \quad$ Beginning Foreign Language II
4
Global Studies Specialization
ARTS 1304 Art History II OR
HUMA 1301 Introduction to Humanities I 3
HIST 1302 United States History II 3
XXXX \#3\#\# ${ }^{3}$ Life \& Physical Sciences Elective 3
XXXX $1412^{1}$ Beginning Foreign Language II 4
Mexican-American/Latino Studies Specialization
HUMA 1311 Mexican American Fine Arts Appreciation OR
HUMA 1301 Introduction to Humanities I 3
HIST 2328 Mexican-American History II 3
XXXX \#3\#\#3 Life \& Physical Sciences Elective 3
SPAN $1412^{1} \quad$ Beginning Spanish II OR
SPAN $2315^{2}$ Spanish for Native/Heritage Speakers II 3

## Academic Degrees and Certificates

Women \& Gender Studies Specialization

| ARTS 1304 | Art History II OR |  |
| :--- | :--- | :--- |
| HUMA 1301 | Introduction to Humanities I | 3 |
| HIST 1302 | United States History II | 3 |
| XXXX \#3\#\# | Life \& Physical Sciences Elective | 3 |
| XXXX 1412 |  |  |
|  | Beginning Foreign Language II | 4 |
|  | Semester Total | $\mathbf{1 6}$ |

## First Semester - Fall

GOVT 2305 Federal Government

## Africana/African American Studies Specialization

ENGL 2328 American Literature II OR
ENGL 2341 Forms of Literature
SOCI 1306 Social Problems
XXXX \#3\#\#3 ${ }^{3}$ Life \& Physical Sciences Elective
XXXX $2311^{1}$ Intermediate Foreign Language I
Global Studies Specialization
ENGL 2332 World Literature I OR
SECOND YEAR

ENGL 2333 World Literature II
GEOG 1303 World Regional Geography
GEOG 1301 Physical Geography
XXXX $2311^{1} \quad$ Intermediate Foreign Language I
3

Mexican-American/Latino Studies Specialization

ENGL 2351 Mexican-American Literature 3
SPAN $2311^{1}$ Intermediate Spanish I 3
XXXX \#3\#\# ${ }^{3}$ Life \& Physical Sciences Elective 3
Women \& Gender Studies Specialization
ENGL 2341 Forms of Literature OR
HUMA 2319 American Minority Studies 3
SOCl 1306 Social Problems $\quad 3$
XXXX $2311^{1}$ Intermediate Foreign Language I 3
XXXX \#3\#\#3 ${ }^{3}$ Life \& Physical Sciences Elective 3
Semester Total 15
Second Semester - Spring
GOVT2306 Texas Government 3
Africana/African American Studies Specialization
HUMA 2319 American Minority Studies 3
HUMA 2323 World Cultures 3
SOCl 2319 Minority Studies 3
XXXX $2312^{1}$ Intermediate Foreign Language II 3

## Academic Degrees and Certificates

## Global Studies Specialization


${ }^{1}$ All four foreign language courses must be in one language: Frenchor Spanish.
2 Students who select Spanish for Native/Heritage Speakers and II will still meet the 60hour degree requirement.
3 A list of electives appears in the Core Curriculum section of this catalog.
4 Inclusion in Field of Study

## Academic Degrees and Certificates



## Academic Degrees and Certificates

## Certificate in

GLOBAL STUDIES SCH
HUMA 1301 Introduction to Humanities I 3
Choose one of the following courses: 3
ENGL 2332 World Literature I
ENGL 2333 World Literature II
HUMA 2323 World Cultures
PHIL 2316 Classical Philosophy
PHIL 1304 Introduction to World Religions
Choose one course from two of the following categories:
Social \& Behavioral Sciences
ANTH 2351 Cultural Anthropology OR
GEOG 1303 World Regional Geography

## Component Area Option

XXXX \#4\#\# ${ }^{1} \quad$ Beginning Foreign Language I or II OR
XXXX \#3\#\#1 ${ }^{1} \quad$ Spanish for Native/Heritage Speakers I or II OR
XXXX \#3\#\# ${ }^{1} \quad$ Intermediate Foreign Language I or II
Total Minimum Credits for the Certificate
${ }^{1}$ Consult with an advisor to select an appropriate elective.
Total Minimum Credits for the Certificate

## Academic Degrees and Certificates

## Certificate in

$\begin{array}{ll}\text { Mexican-American/Latino Studies } & \text { SCH } \\ \text { Field of Study Curriculum } & \end{array}$
Choose one of the following courses:
HUMA 1305 Introduction to Mexican American Studies
ENGL 2351 Mexican-American Literature
Choose one of the following courses:
HIST 2327 Mexican-American History I
HIST 2328 Mexican-American History II
Choose one course from two of the following categories:
Creative Arts
HUMA 1301 Introduction to Humanities I
HUMA 1311 Mexican American Fine Arts Appreciation
Government/Political Science
GOVT 2305 Federal Government OR
GOVT 2306 Texas Government
GOVT2311 Mexican-American \& Latino Politics

## Component Area Option

HUMA 2323 World Cultures - Mesoamerica
SPAN 1411 Beginning Spanish I OR
SPAN $1412 \quad$ Beginning Spanish II
Total Minimum Credits for the Certificate

3

## Academic Degrees and Certificates



## Academic Degrees and Certificates

## Associate of Arts in <br> MULTIDISCIPLINARY STUDIES

FIRST YEAR SCH

First Semester - Fall

ENGL 1301 Composition I 3
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH \#3\#\#² Approved Mathematics Elective
XXXX \#3\#\# ${ }^{3}$ Transferable Elective
Semester Total
Second Semester - Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST \#3\#\# ${ }^{1}$ American History Elective
XXXX \#3\#\# ${ }^{1} \quad$ Creative Arts Elective
XXXX \# $3 \#^{1} \quad$ Life \& Physical Sciences Elective
XXXX \#3\#\# ${ }^{3}$ Transferable Elective

First Semester - Fall
GOVT 2305 Federal Government $\gg 3$
XXXX \#3\#\# ${ }^{1}$ Component Area Option Elective 3
XXXX \#3\#\#' $\quad$ Language, Philosophy, \& Culture Elective 3
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective 3
XXXX \#3\#\# ${ }^{1} \quad$ Social \& Behavioral Sciences Elective $\quad 3$
Semester Total 15
Second Semester - Spring
GOVT 2306 TexasGovernment
XXXX \#3\#\# ${ }^{3}$ Transferable Elective 3
XXXX \# $3 \# \#^{3}$ Transferable Elective 3
XXXX \#3\#\# ${ }^{3}$ Transferable Elective $\quad 3$
XXXX \#3\#\# ${ }^{3}$ Transferable Elective 3
Semester Total 15
Total Minimum Credits for the AA Degree $\mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
Consult with an advisor to select an appropriate MATH course.
3 Consult with an advisor to select an appropriate elective.

## Academic Degrees and Certificates

Associate of Arts in
MULTIDISCIPLINARY STUDIES
Economics Major - BA and BS Field of Study Curriculum Tracks
FIRST YEAR
SCH
First Semester - Fall
EDUC 1300 Learning Framework
ECON 2301 Principles of Macroeconomics
ENGL 1301 Composition I
HIST \#3\#\# ${ }^{1}$ American History Elective
BA Track:
MATH 1325
Calculus for Business \& Social Sciences OR
MATH 2313 Calculus I

## BS Track:

MATH 2313 Calculus I
Semester Total
15
Second Semester - Spring
ECON 2302 Principles of Microeconomics
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST \#3\#\# ${ }^{1}$ American History Elective
BUSI 2305
Business Statistics OR
MATH 1342 Elementary Statistical Methods
Social \& Behavioral Sciences Elective
Semester Total
SECOND YEAR
First Semester - Fall
XXXX \#3\#\# ${ }^{2}$ Language, Philosophy, \& Culture Elective 3
GOVT 2305 Federal Government 3
XXXX \#3\#\# Transferable Elective 3
BA Track:
XXXX $1411^{2} \quad$ Beginning Foreign Language I OR
SPAN $2313^{2}$ Spanish for Native/Heritage Speakers I 3-4
XXXX \#3\#\# ${ }^{2} \quad$ Life \& Physical Sciences Elective 3
BS Track:
XXXX \#4\#\# ${ }^{2} \quad$ Life \& Physical Sciences Elective with Lab 4
$\begin{array}{llc}\text { XXXX \#2\#\# } & \text { Transferable Elective } & 2 \\ & \text { Semester Total } & \mathbf{1 5 - 1 6}\end{array}$

## Academic Degrees and Certificates

## Second Semester - Spring

GOVT 2306 Texas Government 3
XXXX \#3\#\# ${ }^{2}$ Creative Arts Elective 3
XXXX \#3\#\# Transferable Elective 3
BA Track:
XXXX $1412^{2} \quad$ Beginning Foreign Language II OR
SPAN $2315^{2} \quad$ Spanish for Native/Heritage Speakers II
XXXX \#3\#\# ${ }^{2} \quad$ Life \& Physical Sciences Elective

## BS Track:

XXXX \#4\#\#² Life \& Physical Sciences Elective with Lab


1 A list of electives appears in the Core Curriculum section of this catalog.
2 Intermediate Foreign Language courses. All foreign language courses must be

## Academic Degrees and Certificates

Associate of Arts in
MULTIDISCIPLINARY STUDIES
Geography Major
FIRST YEAR
SCH
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
GEOG 1302 Human Geography
MATH \#3\#\#1 ${ }^{1}$ Approved Mathematics Elective
XXXX $1411^{2} \quad$ Beginning Foreign Language I
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
GEOG 1301 Physical Geography
XXXX $1412^{2} \quad$ Beginning Foreign Language II
4
XXXX \#2\#\# Transferable Elective OR
GEOG 1303 World Regional Geography
Semester Total

## First Semester - Fall

GOVT 2305 Federal Government
ENGL 23\#\#³ English Literature Elective OR
XXXX \#3\#\# ${ }^{4}$ Language, Philosophy, \& Culture Elective
HIST \#3\#\# ${ }^{4}$ American History Elective 3
XXXX 2311 ${ }^{2}$ Intermediate Foreign Language I 3
ANTH 2301 Physical Anthropology (or other Life \& Physical Science) 3
ANTH2101 Physical Anthropology Lab (or other Life \& Physical Science Lab) 1
Semester Total 16

## Academic Degrees and Certificates



## Academic Degrees and Certificates



## Academic Degrees and Certificates

| Second Semester - Spring |  |  |
| :--- | :--- | ---: |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) | 3 |
| BIOL 2102 | Anatomy \& Physiology II (Lab) | 1 |
| GOVT 2306 | Texas Government OR |  |
| HIST \#3\#\# | American History Elective |  |
| XXXX \#3\#\#1 | Language, Philosophy, \& Culture Elective | 3 |
| KINE 1346 | Drug Use \& Abuse | 3 |
| KINE \#1\#\# |  |  |
|  | Activity Course | 3 |
|  | Semester Total | 1 |
| Total Minimum Credits for the AA Degree | 14 |  |
|  | 1 Alist of electives appears in the Core Curriculum section of this catalog. | 60 |

## Academic Degrees and Certificates

Associate of Arts in
MULTIDISCIPLINARY STUDIES
Philosophy Major
FIRST YEAR SCH
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
HIST \#3\#\# United States History
MATH \#3\#\# College Level Math
PHIL 1301
Introduction to Philosophy
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
HIST \#3\#\# United States History
PHIL 2306 Introductionto Ethics
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective
PSYC 2301 General Psychology OR
SOCI 1301 Introduction to Sociology
Semester Total
SECOND YEAR

## First Semester - Fall

$\begin{array}{llc}\text { PHIL } 2316 & \text { Classical Philosophy } & 3 \\ \text { GOVT } 2305 & \text { Federal Government } & 3 \\ \text { LANG 1311 or } & \text { Beginning Foreign Language I } & 3-4 \\ \text { 1411 } & & 3 \\ \text { XXXX \#3\#\# } \\ \text { PHIL } 2303 & \text { Life \& Physical Sciences Elective } & \text { Introductionto Formal Logic } \\ & \text { Semester Total } & 3 \\ \text { Second Semester } & \text { Spring } & 16 \\ \text { GOVT 2306 } & \text { Texas Government } & 3 \\ \text { XXXX \#3\#\# } & \text { Creative Arts Elective } & 3 \\ \text { LANG 1312 or } & \text { BeginningForeign Language II } & 3-4 \\ \text { 1412 } & 3 \\ \text { PHIL2307 } & \text { Introductionto Social \& Political Philosophy } & 3 \\ \text { PHIL1304 } & \text { Introductionto World Religions } & 3\end{array}$
Semester Total 16
Total Minimum Credits for the AAT Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Academic Degrees and Certificates



## Academic Degrees and Certificates

Associate of Arts in
MUSIC
Field of Study Curriculum

FIRST YEAR
SCH
First Semester - Fall

## Academic Degrees and Certificates

## Second Semester - Spring

MUAP 21\#\# ${ }^{1} \quad$ Applied Music Lesson 1
MUAP $21 \# \#^{1} \quad$ Applied Music Studio $\quad 1$
MUSI 2312 Music Theory IV 3
MUSI 2117 Sight Singing \& Ear Training IV 1
MUSI 2182 Piano Class IV 1
MUEN 11\#\# ${ }^{1}$ Ensemble
MUSI 1307 Music Literature
XXXX \# 3 \#\# ${ }^{2}$ Social \& Behavioral Sciences Elective
Semester Total
Total Minimum Credits for the AA Degree
${ }^{1}$ Consult with an advisor to select an appropriate elective.
2 A list of electives appears in the Core Curriculum section of this catalog. CORE not complete with this plan.


## Academic Degrees and Certificates

Associate of Arts in STUDIO ART

FIRST YEAR SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
HIST \#3\#\#1 American History Elective
ARTS 1311 Design I (2-Dimensional Design)
ARTS 1316 Drawing I
Semester Total
Second Semester - Spring
ENGL 1302 Composition II
MATH \#3\#\# ${ }^{2}$ Mathematics Elective
HIST \#3\#\#1 American History Elective
ARTS 1303 Art History I
ARTS 1312 Design II (3-Dimensional Design)
Semester Total
SECOND YEAR
First Semester - Fall
$\begin{array}{lll}\text { GOVT 2305 } & \text { Federal Government } & 3 \\ \text { XXXX \#3\#\#1 } & \text { Life \& Physical Sciences Elective } \\ \text { XXXX \#3\#\#1 } & \text { Social \& Behavioral Sciences Elective } & 3 \\ \text { ARTS 1304 } & \text { Art History II } & 3 \\ \text { ARTS 1317 } & \text { Drawing II } & 3 \\ & \text { Semester Total } & 3 \\ \text { Serond Semer } & & 15\end{array}$
Second Semester-Spring
GOVT 2306 Texas Government 3
XXXX \#3\#\#1 Life \&.Physical Sciences Elective 3
XXXX \#3\#\#1 Language, Philosophy, \& Culture Elective 3
ARTS \#3\#\#3 ${ }^{3}$ 3-D Studio Elective 3
ARTS \#3\#\# ${ }^{4}$ 2-D Studio Elective $\quad 3$
SemesterTotal 15
Total Minimum Credits for the AA Degree $\quad \mathbf{6 0}$
1 A list of electives appears in the Core Curriculum section of this catalog.
2 Mathelectives: MATH 1314, 1324, 1332, or 1342.
3 3-D Studio electives: ARTS 2311 (3-D), 2326, 2341, 2346, 2347.
4 2-D Studio electives: ARTS 2311 (2-D), 2316, 2317, 2323, 2333, 2348, 2356, 2357, 2366.

## Academic Degrees and Certificates

Associate of Arts in TEACHING

FIRST YEAR
SCH
First Semester - Fall

BIOL 1308 Biology for Non-Science Majors I (Lecture)
BIOL 1108 Biology for Non-Science Majors I (Lab)
EDUC 1301 Introduction to the Teaching Profession
ENGL 1301 Composition I
HIST 1301 United States History I
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
HIST 1302 United States History II OR
HIST 2301 Texas History
MATH 1314 College Algebra OR
MATH 1332 Contemporary Mathematics OR
MATH 1342 Elementary Statistical Methods
3
SPCH 1315 Public Speaking 3
CHEM 1405 Introductory Chemistry I (Lecture \& Lab)OR
$\begin{array}{ll}\text { CHEM 1311 } & \text { General Chemistry I (Lecture) } \\ \text { CHEM 1111 } & \text { General Chemistry I (Lab) } \\ & \text { Semester Total }\end{array}$
SECOND YEAR
First Semester - Fall
EDUC 2301 Introduction to Special Populations 3
ENGL 23\#\#1 ${ }^{1}$ English Literature Elective 3
GOVT 2305 Federal Government 3
MATH 1350 Mathematics for Teachers I 3
XXXX \#3\#\#² Social \& Behavioral Sciences Elective 3
Semester Total $>15$
Second Semester - Spring
GOVT 2306 Texas Government 3
MATH 1351 Mathematics for Teachers II 3
XXXX \#3\#\#3 Creative Arts Elective 3
XXXX \#4\#\#4 $\quad$ Physical Lab Science Elective 4
Semester Total 13
Total Minimum Credits for the AAT Degree 60
1 ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343.
2 GEOG 1303; PSYC 2301; or TECA 1354.
3 ARTS 1301, 1303, 1304; DANC 1305, 2303; DRAM 1310, 2361, 2366; HUMA 1301; MUSI 1306, 1307, 1310.

4 ANTH 2301 \& 2101; ASTR 1403 or 1404; GEOL 1403 or 1404; or PHYS 1401 or higher.

## Academic Degrees and Certificates

Associate of Arts in
WORLD LANGUAGES


## Academic Degrees and Certificates

## Associate in Science



## Academic Degrees and Certificates

Associate of Science in
BIOLOGY
Biology Majors \& Pre-medical Programs
Field of Study Curriculum


## Academic Degrees and Certificates

Associate of Science in BIOLOGY

Health Sciences Professions
Field of Study Curriculum


## Academic Degrees and Certificates

## Pre-Radiologic Sciences Specialization

| BIOL 2302 | Anatomy \& Physiology II (Lecture) | 3 |
| :--- | :--- | :--- |
| BIOL 2102 | Anatomy \& Physiology II (Lab) | 1 |
| PHYS 1401 | College Physics I (Lecture \& Lab) | 4 |
| Pre-Clinical Laboratory Services Specialization |  |  |

BIOL 1407 Biology for Science Majors II (Lecture \& Lab) OR
BIOL 2416 Genetics (Lecture \& Lab)
CHEM 2423 Organic Chemistry I (Lecture \& Lab)
Semester Total

## Second Semester - Spring

Pre-Nursing Specialization
BIOL 2320 Microbiology for Non-Science Majors (Lecture)
BIOL 2120 Microbiology for Non-Science Majors (Lab)
GOVT 2306 Texas Government
XXXX \#3\#\# ${ }^{1} \quad$ Creative Arts Elective
HIST \#3 \#\# ${ }^{1}$ American History Elective
XXXX \#1\#\# ${ }^{2}$ Transferable Elective
Pre-Radiologic Sciences Specialization
PHYS 1402 College Physics II (Lecture \& Lab)
GOVT 2306 Texas Government
XXXX \#3\#\# ${ }^{1}$ Creative Arts Elective
HIST \#3\#\# ${ }^{1}$ American History Elective


Pre-Clinical Laboratory Services Specialization
CHEM 2425 Organic Chemistry 川(Lecture \& Lab) 4
GOVT 2306 Texas Government $>3$
XXXX \#3\#\# ${ }^{1}$ Creative Arts Elective 3
HIST \#3\#\# ${ }^{1}$ American History Elective 3
XXXX \#1\#\# ${ }^{2} \quad$ Transferable Elective $\quad 1$
Semester Total $\quad$ 13-14
Total Minimum Credits for the AS Degree $\quad \mathbf{6 0}$
1 A list of electives appearsin the Core Curriculum section of this catalog.
2 Consult with an advisor to select an appropriate elective.
The Health Sciences track includes the full FOSC, but student must take MATH
1342 instead of PSYC 2317.

# Academic Degrees and Certificates 

Associate of Science in CHEMISTRY

FIRST YEAR SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH 2413 Calculus I
CHEM 1311 General Chemistry I (Lecture)
CHEM 1111 General Chemistry I (Lab)
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
HIST \#3\#\# ${ }^{1}$ American History Elective
MATH 2414 Calculus II
CHEM 1412 General Chemistry II (Lecture \& Lab)
XXXX \#3\#\# ${ }^{1}$ Social \& Behavioral Sciences Elective
Semester Total
SECOND YEAR
First Semester - Fall
XXXX \#3\#\#1 $\quad$ Language, Philosophy, \& Culture Elective $\ggg>$
GOVT 2305 Federal Government 3
CHEM 2423 Organic Chemistry I (Lecture \& Lab) 4
PHYS 2325 University Physics I (Lecture) 3
PHYS 2125 University Physics I (Lab) Note: Universities require the lab.
$\begin{array}{ll}\text { Semester Total } \\ \text { Second Semester - Spring } \\ \text { XXXX \#3\#\# } \\ & \text { Creative Arts Elective }\end{array}$
GOVT 2306 Texas Government 3
CHEM 2425 Organic Chemistry II (Lecture \& Lab) 4
PHYS 2326 University Physics II (Lecture) 3
PHYS 2126 University Physics II (Lab) Note: Universities require the lab.

| Semester Total | 13 |
| :---: | :---: |
| Total Minimum Credits for the AS Degree | 60 |

${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
Consult with an advisor to select an appropriate elective.

## Academic Degrees and Certificates

Associate of Science in COMPUTER SCIENCE
Field of Study Curriculum
FIRST YEAR
SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
MATH 2412 Pre-Calculus Math
COSC 1436 Programming Fundamentals I
HIST \#3\#\# ${ }^{1}$ American History Elective
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
MATH 2413 Calculus I
COSC 1437 Programming Fundamentals II
HIST \#3\#\# ${ }^{1}$ American History Elective
Semester Total
SECOND YEAR
First Semester - Fall
$\begin{array}{llc}\text { MATH } 2414 & \text { Calculus II } & 4 \\ \text { PHYS 2325 } & \text { University Physics I (Lecture) } & 3 \\ \text { PHYS 2125 } & \text { University Physics I (Lab) } & 1 \\ \text { COSC 2436 } & \text { Programming Fundamentals III } & 4 \\ \text { GOVT 2305 } & \text { Federal Government } & 3 \\ & \text { Semester Total } & 15\end{array}$
Second Semester - Spring
PHYS $2326 \quad$ University Physics II (Lecture)
PHYS 2126 University Physics II (Lab) 1
COSC 2425 Computer Organization 4
XXXX \#3\#\#1 ${ }^{1}$ Social \& Behavioral Sciences Elective 3
GOVT 2306 Texas Government $\longrightarrow 3$
Semester Total 14
Tótal Minimum Credits for the AS Degree 60
1 A list of electives appears in the Core Curriculum section of this catalog.
Not CORE complete but Field of Study Compliant

## Academic Degrees and Certificates

Associate of Science in
Criminal Justice - Field of Study Curriculum
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework ..... 3
ENGL 1301 Composition I ..... 3HIST $1301 \quad$ United States History IMATH1342 Mathematics for Business \& Social SciencesCRIJ 1301 Introduction to Criminal Justice
Semester Total
Second Semester - Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST 1302 United States History II
PSYC 2317 Statistical Methods in PsychologyXXXX \#3\#\# ${ }^{1} \quad$ Life \& Physical Sciences ElectiveCRIJ 1306 The Courts and Criminal ProcedureSemester Total
SECOND YEAR
First Semester - Fall
XXXX \#3\#\#1 ${ }^{1}$ Language, Philosophy, \& Culture Elective $>3$
GOVT 2305 Federal Government ..... 3
SOCI 1301 Introduction to Sociology ..... 3
XXXX \#3\#\# ${ }^{1}$ Life \& Physical Sciences Elective ..... 3
CRIJ 2313 Correctional Systems \& Practices ..... 3
Second Semester - Spring
GOVT 2306 Texas Government3
XXXX \#3\#\# ${ }^{1}$ Creative Arts Elective ..... 3
CRIJ 2328 Police Systems \& Practices ..... 3
CRIJ 1307 Crime inAmerica ..... 3
CRIJ 1310 Fundamentals of Criminal Law ..... 3
Semester Total ..... 15
Total Minimum Credits for the AS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Academic Degrees and Certificates

Associate of Science in
ENGINEERING SCIENCE

FIRST YEAR SCH

First Semester - Fall

## Second Semester - Spring

ENGR 1204 Engineering Graphics I
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
MATH 2414 Calculus II
PHYS 2325 University Physics I (Lecture)
PHYS 2125 University Physics I (Lab)
GOVT 2305 Federal Government OR
GOVT 2306 Texas Government
Semester Total

## First Semester - Fall

ECON 2301 Principles of Macroeconomics OR
ECON 2302 Principles of Microeconomics 3
ENGR 2301 Engineering Mechanics-Statics 3
MATH 2415 Calculus III 4
PHYS 2326 University Physics II (Lecture) 3
PHYS 2126 University Physics II (Lab) 1
Semester Total 17
Second Semester - Spring
ENGR2405 Electrical Gircuits I 4
MATH 2320 Differential Equations 3
XxxX\#3\#\#2 $\quad$ Engineering Elective 3
XXXX \# ${ }^{2} \#^{1}$ Creative Arts Elective 3
XXXX \#3\#\# ${ }^{1}$ Language, Philosophy, \& Culture Elective 3
Semester Total 16
Total Minimum Credits for the ASES Degree 65
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 Consult with an advisor to select an appropriate elective.
CORE not complete with this plan.

# Academic Degrees and Certificates 

Associate of Science in GEOLOGY

FIRST YEAR SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
HIST \#3\#\# ${ }^{1}$ American History Elective
CHEM 1311 General Chemistry I (Lecture)
CHEM 1111 General Chemistry I (Lab)
Semester Total
Second Semester - Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
HIST \#3\#\# ${ }^{1}$ American History Elective
CHEM 1412 General Chemistry II (Lecture \& Lab)
MATH 2413 Calculus I
XXXX \# $3 \#^{1} \quad$ Social \& Behavioral Sciences Electiv
Semester Total

MATH 2414 Calculus II
GOVT 2305 Federal Government
PHYS 2325 University Physics I (Lecture)
SECOND YEAR

PHYS 2125 University Physics I (Lab) Note: Universities require the lab.
GEOL 1403 Physical Geology (Lecture \& Lab) 4
Semester Total 14
Second Semester - Spring
XXXX \#3\#\#1 ${ }^{1} \quad$ Creative Arts Elective
XXXX \#3\#\# ${ }^{1}$ Language, Philosophy, \& Culture Elective 3
GOVT 2306 Texas Government 3
GEOL 1404 Historical Geology (Lecture \& Lab) 4
PHYS 2326 University Physics II (Lecture) 3
$\begin{array}{lll}\text { PHYS } 2126 & \begin{array}{l}\text { University Physics II (Lab) Note: Universities require the lab. } \\ \text { Semester Total }\end{array}\end{array}$
Total Minimum Credits for the AS Degree 60
A list of electives appears in the Core Curriculum section of this catalog.

## Academic Degrees and Certificates

Associate of Science in MATHEMATICS

Field of Study Curriculum
FIRST YEAR
SCH
First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | :--- |
| ENGL 1301 | Composition I | 3 |
| CHEM 1311 | General Chemistry I (Lecture) | 3 |
| CHEM 1111 | General Chemistry I (Lab) | 1 |
| MATH 2413 | Calculus I | 4 |

## Second Semester - Spring

ENGL 1302 Composition II OR
$\begin{array}{ll}\text { ENGL } 2311 & \text { Technical \& Business Writing } \\ \text { CHEM 1412 } & \text { General Chemistry II (Lecture \& Lab) }\end{array}$
MATH 2414 Calculus II
HIST \#3\#\# ${ }^{1}$ American History Elective
XXXX \#3\#\# ${ }^{2}$ Programming Elective
Semester Total


SECOND YEAR
First Semester - Fall

GOVT 2306 Texas_Government ..... 3
HIST \#3\#\#1 American History Elective ..... 3
XXXX \#3\#\# ${ }^{3}$ Advanced Mathematics Elective ..... 3
XXXX \#3\#\#1 Social \& Behavioral Sciences Elective ..... 3
PHYS 2326 University Physics II (Lecture) ..... 3
PHYS 2126 University Physics II (Lab) Note: Universities require the lab.
Semester Total ..... 16
Total Minimum Credits for the AS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
${ }^{2}$ Choose from ENGR 2304 or COSC 1436
3 Choose from MATH 2318 or 2320

## Academic Degrees and Certificates

Associate of Science in PHYSICS

FIRST YEAR
SCH

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
CHEM 1311 General Chemistry I (Lecture)
CHEM 1111 General Chemistry I (Lab)
MATH 2412 Pre-Calculus Math
HIST \#3\#\#1 ${ }^{1}$ American History Elective
Semester Total

## Second Semester - Spring

ENGL 1302 Composition II
CHEM 1412 General Chemistry II (Lecture \& Lab)
MATH 2413 Calculus I
HIST \#3\#\#1 ${ }^{1}$ American History Elective
XXXX \#3\#\# ${ }^{1}$ Language, Philosophy, \& Culture Elective
Semester Total

## Academic Degrees and Certificates

Associate of Science in PSYCHOLOGY
Field of Study Curriculum
FIRST YEAR
SCH

## First Semester

EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
HIST \#3\#\# ${ }^{1}$ American History Elective
PSYC 2301 General Psychology
MATH 1314 College Algebra
XXXX \#1\#\# ${ }^{1}$ Transferable Elective
Semester Total

## Second Semester

ENGL 1302 Composition II
HIST \#3\#\#1 American History Elective
PHIL 1301 Introduction to Philosophy
PSYC 2314 Lifespan Growth \& Development
PSYC 2317 Statistical Methods in Psychology
Semester Total
SECOND YEAR
First Semester
$\begin{array}{ll}\text { BIOL 1306 } & \text { Biology for Science Majors I (Lecture) } \\ \text { BIOL 1106 } & \text { Biology for Science Majors I (Lab) }\end{array}$
XXXX\#3\#\#1 Creative Arts Elective 3
GOVT 2305 Federal Government 3
PSYC 2319 Social Psychology 3
XXXX \#3\#\#1 $\quad$ Social \& Behavioral Sciences Elective 3
Semester Total 16

## Second Semester

BIOL 1407 Biology for Science Majors II (Lecture \& Lab) 4
GOVT 2306 Texas Government $>3$
PSYC2320 Abnormal Psychology 3
PSYC2330 Biological Psychology 3
Semester Total 13
Total Minimum Credits for the AS Degree $\quad \mathbf{6 0}$
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## ACCOUNTING

## ACCOUNTING

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| ACCT 2301 | Principles of Financial Accounting |
| XXXX \#3\#\#1 | Math/Natural Science Elective |
| ENGL 1301 | Composition I |
| XXXX \#3\#\# | Computer Applications Elective <br>  <br>  <br> Semester Total |

Second Semester-Spring
ACNT 2331 Internal Control \& Auditing OR
ACNT 1313 Computerized Accounting Applications
ACNT 1331 Federal Income Tax: Individual
ACCT 2302 Principles of Managerial Accounting
ACNT 1382
Cooperative Education - Accounting Technology/Technician \& Bookkeeping
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
Semester Total

## SECOND YEAR

ACNT 2303 Intermediate Accounting IITSW 2334 Advanced Spreadsheets OR
POFI 1349 Spreadsheets3
ACNT 1347 Federal Income Tax for Partnerships \& Corporations ..... 3
PSYC 2301 General Psychology ..... 3
ACNT 2382 Cooperative Education-Accounting Technology/Technician \& Bookkeeping ..... 3
Semester Total ..... 15
Second Semester - Spring
BMGT 1327 Principles of Management ..... 3
ECON 2301 Principles of Macroeconomics ..... 3
xxxX\#3\#\#' Humanities/Fine Arts Elective ..... 3
BUSC 2305 BusinessLaw/Contracts ..... 3
ACNT 2304 Intermediate Accounting II (Capstone) ..... 3
Semester Total ..... 15
Total Minimum Credits for the AAS Degree ..... 60${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.2 Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

## Workforce Degrees and Certificates

## ACCOUNTING

Certificate - Level 1 SCH
First Semester - Fall
ACNT 1313 Computerized Accounting Applications 3
ACNT 1331 Federal Income Tax: Individual
3
ACCT 2301 Principles of Financial Accounting
XXXX \#3\#\# ${ }^{1}$ Computer Applications Elective
Semester Total
Second Semester - Spring
ACCT 2302 Principles of Managerial Accounting
ACNT 2331 Internal Control \& Auditing
ACNT 1347 Federal Income Tax for Partnerships \& Corporations
ACNT 1382

Cooperative Education-Accounting Technology/Technician \& Bookkeeping
Semester Total

Third Semester - Summer
ITSW 2334
Advanced Spreadsheets


Cooperative Education-Accounting Technology/Technician \& Bookkeeping
ACNT 2303
Intermediate Accounting I (Capstone)


ACNT 2309 Cost Accounting OR
ACNT 1392 Special Topics in Accounting: Small Business Accounting3

Semester Total 12
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## ACCOUNTING - PAYROLL SPECIALIST

Certificate - Level 1 SCH
First Semester - Fall
ACNT 1303 Introduction to Accounting I 3
ACNT 1329 Payroll \& Business Tax Accounting (Capstone) 3
POFI 1301 Computer Applications I OR
ITSC 1309 Integrated Software Applications I
POFI 1349 Spreadsheets OR
ITSW 2334 Advanced Spreadsheets
ACNT 1313 Computerized Accounting Applications
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## ACCOUNTING - FORENSIC ACCOUNTING \& FRAUD EXAMINATION <br> Enhanced Skills Certificate

First Semester - Fall
ACNT 1305 Forensic Accounting 3
ACNT 1335 Accounting Ethics
ACNT 2331 Internal Control and Auditing
ACNT 1391 Special Topics in Accounting: Fraud Examination
Semester Total
Total Minimum Credits for the Enhanced Skills Certificate


## Workforce Degrees and Certificates

## APPLIED HORTICULTURE



## Workforce Degrees and Certificates

## AUDIO RECORDING TECHNOLOGY



## Workforce Degrees and Certificates

## AUDIO RECORDING TECHNOLOGY

Certificate - Level
SCH
First Semester - Fall
MUSC 1335 Commercial Music Software
MUSC 1331 MIDI I
RTVB 1321 TV/Video Field Production
MUSB 1305 Survey of the Music Business
Semester Total
Second Semester - Spring
MUSC 1327 Audio Engineering I
MUSC 1323 Audio Electronics
MUSC 1405 Live Sound I
Semester Total
Third Semester - Summer
MUSC 2427 Audio Engineering II (Capstone)
RTVB 1240 Audio/Radio Production Practices
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

AUDIO RECORDING TECHNOLOGY - ELECTRONIC MUSIC PRODUCTION Certificate - Level 1

First Semester - Fall

MUSB 1305
MUSC 1335
Survey of the Music Business

MUSC
MUSC 1331
MUSI 1181
Piano Class I OR
MUAP 1169 Piano
MUSI 1303 Fundamentals of Music
Semester Total
Second Semester - Spring
MUSC 1327 Audio Engineering
MUSC 2355 MIDI II
MUSC 2433 Scoring for Video \& Film
MUSI 1182 Piano Class II OR
MUAP 1169 Piano
MUSC 1270 Fundamentals of Music Production
Semester Total
Third Semester - Summer
MUSC 2345 Synthesis II
MUSC 1350 Remixing (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## AUTOMOTIVE TECHNOLOGY

AUTOMOTIVE TECHNOLOGY - TECHNICIAN
Associate of Applied Science
FIRST YEAR


## Workforce Degrees and Certificates

## AUTOMOTIVE TECHNOLOGY - TECHNICIAN

Certificate - Level 1
First Semester - Fall
AUMT 1305 Introduction to Automotive Technology 3
AUMT 2328 Automotive Service 3
AUMT 1310 Automotive Brake Systems
AUMT 1316 Automotive Suspension \& Steering Systems
Semester Total
Second Semester - Spring
AUMT 1307 Automotive Electrical Systems
AUMT 1345 Automotive Climate Control Systems
AUMT 2321 Automotive Electrical Diagnosis \& Repair
AUMT 2317 Automotive Engine Performance Analysis I
Semester Total

## Third Semester - Summer

AUMT 2313 Automotive Drive Train \& Axles
AUMT 1306 Automotive Engine Removal \& Installation
3
AUMT 2325 Automotive Automatic Transmission \& Transaxle 3
AUMT 2334 Automotive Engine Performance Analysis II 3
$\begin{array}{ll}\text { AUMT } 1380 & \begin{array}{l}\text { Cooperative Education - Automobile/Automotive Mechanics } \\ \text { Technology/Technician (Capstone) }\end{array}\end{array}$
Semester Total 15
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## AUTOMOTIVE TECHNOLOGY - AUTOBODY/COLLISION REPAIR TECHNICIAN <br> Certificate - Level 1 <br> SCH

First Semester - Fall
4ABDR 1431 Basic Refinishing4ABDR 1207 Collision Repair WeldingABDR 1215 Vehicle Trim \& Hardware
Semester Total

Second Semester - Spring
ABDR 1458 Intermediate Refinishing
ABDR 1441 Structural Analysis \& Damage Repair I
ABDR 1442 Structural Analysis \& Damage Repair II
Semester Total

## Third Semester - Summer

ABDR 2449 Advanced Refinishing
ABDR 2431 Structural Analysis \& Damage Repair III
ABDR 1291 Special Topics in Auto/Automotive Body Repairer
ABDR 1280 Cooperative Education-Autobody/Collision \& Repair Technology/Technician (Capstone)
Semester Total
12
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## AUTOMOTIVE TECHNOLOGY - MAINTENANCE \& LIGHT REPAIR

## Certificate - Level 1

First Semester - Fall
AUMT 1305 Introduction to Automotive Technology 3
AUMT 1307 Automotive Electrical Systems 3
AUMT 1310 Automotive Brake Systems
AUMT 1316 Automotive Suspension \& Steering Systems
AUMT 2310 Automotive Service Consultant
Semester Total
Second Semester - Spring
AUMT 1345 Automotive Climate Control Systems
AUMT 2317 Automotive Engine Performance Analysis I
AUMT 2328 Automotive Service
AUMT 1380 Cooperative Education-Automobile/Automotive Mechanics
Technology/Technician (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

AUTOMOTIVE TECHNOLOGY - LIGHT AUTOMOTIVE MAINTENANCE TECHNICIAN
Occupational Skills Award
First Semester - Fall
AUMT 1305 Introduction to Automotive Technology 3
AUMT 1310 Automotive Brake Systems
AUMT 1316 Automotive Suspension \& Steering Systems
3

AUMT 2328 Automotive Service
Semester Total
Total Minimum Credits for the Occupational Skills Award

## Workforce Degrees and Certificates

## BANKING/FINANCE

BANKING/FINANCE
Associate of Applied Science

FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ACCT 2301 Principles of Financial Accounting
BNKG 1303 Principles of Bank Operation
BNKG 1351 Selling Bank/Financial Products \& Services
BNKG 1340 Money \& Financial Markets
Semester Total

## Second Semester - Spring

BNKG 1356 Analyzing Financial Statements
IBUS 2339 International Banking \& Trade Finance
BUSG 1301 Introduction to Business
BNKG 1345 Consumer Lending
BNKG 1380 Cooperative Education - Banking \& Financial Support Services 3
Semester Total 15
SECOND YEAR
First Semester - Fall
BNKG 1343 Law \& Banking 3
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
BUSG 1303 Principles of Finance $\quad 3$
BMGT 1327 Principles of Management 3
XXXX \#3\#\# ${ }^{1}$ Math/Natural Science Elective 3
Semester Total 15
Second Semester - Spring
XXXX \#3\#\#1 ${ }^{1}$ Social/Behavioral Sciences Elective 3
ECON 2302 Principles of Microeconomics 3
BNKG 2374 Financial Business Administration (Capstone) 3
ENGL 1301 Composition I 3
BNKG 2381 Cooperative Education - Banking \& Financial Support Services 3
Semester Total 15
Total Minimum Credits for the AAS Degree 60
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

BANKING/FINANCE - FINANCIAL LENDING
Certificate - Level 1 SCH
First Semester - Fall
BNKG 1303 Principles of Bank Operation 3
BNKG 1351 Selling Bank/Financial Products \& Services
3
BNKG 1340 Money \& Financial Markets
HRPO 1311 Human Relations
Semester Total
Second Semester - Spring
BNKG 1356 Analyzing Financial Statements
IBUS 2339 International Banking \& Trade Finance
BNKG 1345 Consumer Lending
BNKG 1349 Commercial Lending
BNKG 2380 Cooperative Education- Banking \& Financial Support Services (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## BANKING/FINANCE - FINANCIAL OPERATIONS

Certificate - Level 1 SCH
First Semester - Fall
BNKG 1303 Principles of Bank Operation 3
BNKG 1351 Selling Bank/Financial Products \& Services
3
BNKG 1340 Money \& Financial Markets
HRPO 1311 Human Relations
Semester Total
Second Semester - Spring
BUSG 1303 Principles of Finance
ETWR 1302 ${ }^{1}$ Introduction to Technical Writing
BNKG 1380 Cooperative Education - Banking \& Financial Support Services (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate
${ }^{1}$ ENGL 1301 is required for the Banking/Finance AAS Degree.

## Workforce Degrees and Certificates

BANKING/FINANCE - TELLER TRAINING
Occupational Skills Award SCH
First Semester - Fall
BNKG 1305 Teller Training 3
BNKG 1373 Teller Training Lab
BNKG 1351 Selling Bank/Financial Products \& Services
Total Minimum Credits for the Occupational Skills Award


## Workforce Degrees and Certificates

## BUSINESS MANAGEMENT



## Workforce Degrees and Certificates

BUSINESS MANAGEMENT - GENERAL BUSINESS
Certificate - Level 1
First Semester - Fal
ETWR $130{ }^{1}$ Introduction to Technical Writing OR
ENGL 1301 Composition I
3
BUSI 1301 Business Principles
BUSI 1307 Personal Finance
BMGT 1327 Principles of Management
Semester Total
Second Semester - Spring
BMGT 1301 Supervision
HRPO 1311 Human Relations
BUSG 2305 Business Law/Contracts
HRPO 2307 Organizational Behavior OR
BMGT 1341 Business Ethics
BUSG 1380 Cooperative Education-Business/Commerce, General (Capstone)
Semester Total
15
Total Minimum Credits for the Level 1 Certificate
15

1 ETWR 1302 does not count toward the AAS degree in Business Management.

## Workforce Degrees and Certificates

BUSINESS MANAGEMENT - ENTREPRENEURSHIP
Certificate - Level 1 SCH
First Semester - Fall
ETWR 1302 Introduction to Technical Writing 3

BUSI 1307 Personal Finance
BUSI 1301 Business Principles
BUSG 1307

Entrepreneurship \& Economic Development
Semester Total
Second Semester - Spring


# Workforce Degrees and Certificates 

## BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION <br> Associate of Applied Science

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | ---: |
| ENGL 1301 | Composition I | 3 |
| BUSI 1301 | Business Principles |  |
| HRPO 1305 | Management \& Labor Relations | 3 |
| BMGT 1327 | Principles of Management | 3 |
|  | Semester Total | 3 |
| Second Semester - Spring | 3 |  |
| HRPO 1302 | Human Resources Training \& Development | 3 |
| HRPO 1311 | Human Relations | 3 |
| MATH 1314 | College Algebra OR | 3 |
| MATH 1324 | Mathematics for Business \& Social Sciences | 3 |
| BMGT 1301 | Supervision | 3 |
| ACNT 1303 | Introduction to Accounting I OR | 3 |
| ACCT 2301 | Principles of Financial Accounting | 3 |

15
SECOND YEAR
First Semester - Fall

## HRPO 2307 Organizational Behavior OR

BMGT 1341 Business Ethics3
BUSG 2305 Business Law/Contraets ..... 3
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective ..... 3
BCIS 1305 Business Computer Applications ..... 3Semester Total 15
Second Semester - Spring
ECON 2302 Principles of Microeconomics ..... 3
XXXX \#3\#\# General Education Elective ..... 3
HRPO 2303 Employment Practices ..... 3
HRPO 2301 Human Resources Management (Capstone) ..... 3
BUSG 2380 Cooperative Education- Business/Commerce, General ..... 3
Semester Total ..... 15
Total Minimum Credits for the AAS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION
Certificate - Level 1
First Semester - Fall
ETWR 1302 Introduction to Technical Writing 3
BUSI 1301 Business Principles
HRPO 1305 Management \& Labor Relations
HRPO 1302 Human Resources Training \& Development
Semester Total
Second Semester - Spring

| HRPO 2301 | Human Resources Management |
| :--- | :--- |
| HRPO 2306 | Benefits \& Compensation |
| HRPO 2307 | Organizational Behavior OR |
| BMGT 1341 | Business Ethics |
| BUSG 2305 | Business Law/Contracts |
| BUSG 1380 | Cooperative Education- Business/Commerce, General (Capstone) |
|  | Semester Total |

Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## BUSINESS MANAGEMENT - INSURANCE SPECIALIST/ASSOCIATE

Certificate - Level 1 SCH
First Semester - Fall
BUSG 1301 Introduction to Business 3
INSR 1205 Personal Insurance
INSR 1209 Principles of Insurance
INSR 1301 Commercial Insurance
INSR 2340 Multiline Insurance Sales \& Marketing
INSR 1217 Insurance Customer Service Representative
INSR 1117 Special Topics in Insurance: Insurance Customer Service Representative
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## BUSINESS TECHNOLOGY



## Workforce Degrees and Certificates

## BUSINESS TECHNOLOGY - GENERAL OFFICE ADMINISTRATION

Certificate - Level 1 SCH
First Semester - Fall
POFI 1301 Computer Applications I 3
POFT 1325
Business Math Using Technology3

POFT 1329 Beginning Keyboarding
Semester Total
Second Semester - Spring
POFT 1319 Records \& Information Management I
POFI 1341 Computer Applications II
POFT 1370 Introduction to Office Technology
POFT 2301 Intermediate Keyboarding (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## BUSINESS TECHNOLOGY - HUMAN RESOURCES/PEOPLESOFT SPECIALIZATION

Certificate - Level 1

## First Semester - Fall

POFI 1301 Computer Applications I 3

BMGT 1370
Introduction to HR/PeopleSoft Applications
Beginning Keyboarding
Semester Total
Second Semester - Spring
POFI 1341 Computer Applications II
BMGT 1371 Intermediate HR/PeopleSoft Applications
BMGT 2305 Advanced Communications in Management
Semester Total
Third Semester - Summer
BMGT 2331 Principles of Quality Management
BMGT 2310 Financial Management
POFT 2331 Administrative Project Solutions (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate
9
27

# Workforce Degrees and Certificates 


1 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - LEGAL OFFICE ASSISTANT SPECIALIZATION
Certificate - Level 1 SCH
First Semester - Fall
POFI 1301 Computer Applications I 3
POFL 1305 Legal Terminology
POFT 1345 Shorthand/Notetaking I
POFL 1359 Legal Transcription
Semester Total
Second Semester - Spring
BMGT 1370 Introduction to HR/PeopleSoft Applications
POFL 2305 Introduction to Legal Research
POFT 2301 Intermediate Keyboarding (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MEDICAL OFFICE SPECIALIST SPECIALIZATION
Certificate - Level 1
SCH
First Semester - Fall
POFM 1370 Office Specialist, Medical Terminology
POFI 1301 Computer Applications I
POFT 2301 Intermediate Keyboarding
POFM 1300 Basic Medical Coding
Semester Total
Second Semester - Spring
MRMT 1307 Medical Transcription I
POFM 2333 Medical Document Production
POFT 2331 Administrative Project Solutions (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


# Workforce Degrees and Certificates 

## BUSINESS TECHNOLOGY - MEDICAL OFFICE SPECIALIST SPECIALIZATION <br> Associate of Applied Science

## FIRST YEAR



[^1]
# Workforce Degrees and Certificates 

## BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY SPECIALIZATION

## Associate of Applied Science

## FIRST YEAR

First Semester - Fall

EDUC 1300 Learning Framework
POFI 1301 Computer Applications I
POFT 1329 Beginning Keyboarding
POFI 1349 Spreadsheets
POFT 1325 Business Math Using Technology
Semester Total
Second Semester - Spring
POFI 1341 Computer Applications II
POFI 2331 Desktop Publishing
POFT 2301 Intermediate Keyboarding
POFT 1370 Introduction to Office Technology
BMGT 1325 Office Management
Semester Total
SECOND YEAR
First Semester - Fall

ENGL 1301 Composition I
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
ECON 1301 Introduction to Economics 3
BMGT 1370 Introduction to HR/PeopleSoft Applícations 3
Semester Total 15
Second Semester - Spring
BMGT 1371 Intermediate HR/PeopleSoft Applications 3
POFT 2331 Administrative Project Solutions (Capstone) 3
PSYC2301 General Psychology 3
XXXX \#3\#\# ${ }^{1}$ Math/Natural Science Elective 3
POFT 2380 Cooperative Education-Administrative Assistant \& Secretarial Science, General3
Semester Total ..... 15
Total Minimum Credits for the AAS Degree ..... 60

[^2]
## Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY SPECIALIZATION
Certificate - Level 1
SCH
First Semester - Fall

POFI 1349 Spreadsheets
POFT 1329 Beginning Keyboarding
Semester Total
Second Semester - Spring
POFI 1341 Computer Applications II
POFT 1325 Business Math Using Technology
POFI 2331 Desktop Publishing (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - BILINGUAL
Certificate - Level 2 SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
POFI 1301 Computer Applications I 3
POFT 1370 Introduction to Office Technology
POFT 1329 Beginning Keyboarding
XXXX $1411^{1} \quad$ Beginning Foreign Language I
Semester Total
Second Semester - Spring
ENGL 1301 Composition I
POFI 1341 Computer Applications II
XXXX $1412^{1} \quad$ Beginning Foreign Language II
POFI 1349 Spreadsheets
POFT 1319 Records \& Information Management I
Semester Total
Third Semester - Summer
BMGT 1325 Office Management
3
POFT 2331 Administrative Project Solutions (Capstone) 3
Semester Total
6
Total Minimum Credits for the Level 2 Certificate 38
${ }^{1}$ Foreign language courses must be in the same language.

## Workforce Degrees and Certificates

## CHILD DEVELOPMENT

## CHILD DEVELOPMENT

Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
CDEC 1313 Curriculum Resources for Early Childhood Programs
TECA 1311 Educating Young Children
CDEC 1323 Observation \& Assessment
Semester Total
Second Semester - Spring
CDEC 1358 Creative Arts for Early Childhood
XXXX \#3\#\# ${ }^{1} \quad$ Math/Natural Science Elective
CDEC 2326 Administration of Programs for Children I
TECA 1354 Child Growth \& Development
CDEC 1319 Child Guidance
Semester Total


## Workforce Degrees and Certificates

## CHILD DEVELOPMENT - ADMINISTRATION

Certificate - Level 1 SCH
First Semester - Fall
CDEC 1313 Curriculum Resources for Early Childhood Programs 3
CDEC 2326 Administration of Programs for Children I
BMGT 1301 Supervision
Semester Total

## Second Semester - Spring

CDEC $1319 \quad$ Child Guidance
XXXX \#3\#\# ${ }^{1}$ Approved Program Elective
CDEC 2328 Administration of Programs for Children II (Capstone)
POFI 1301 Computer Applications I OR
ITSC 1309 Integrated Software Applications I
Semester Total
Total Minimum Credits for the Level 1 Certificate
21
1
CDEC 1317, 1321, 1339, 1391, 1393, 2315, 2322, 2324, 2328, 2341; BMGT 1301; POFI
1301, ITSC 1309, or BCIS 1305, all EDUC courses.
Alternative electives may be chosen with prior departmental approval.

## Workforce Degrees and Certificates

## CHILD DEVELOPMENT- EARLY CHILDHOOD

## Certificate - Level 2

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
TECA 1311 Educating Young Children
XXXX \#3\#\# ${ }^{1}$ Approved Program Elective
CDEC 1313 Curriculum Resources for Early Childhood Programs
Semester Total
Second Semester - Spring
PSYC 2301 General Psychology OR
SOCl 1301 Introduction to Sociology OR
CDEC 1359 Children with Special Needs
TECA 1354 Child Growth \& Development
CDEC 1319 Child Guidance
CDEC 1358 Creative Arts for Early Childhood
XXXX \#3\#\# ${ }^{1}$ Approved Program Elective
Semester Total
15
Third Semester - Summer
$\begin{array}{lll}\text { CDEC } 2315 & \text { Diverse Cultural/Multilingual Education } \\ \text { CDEC } 1356 & \text { Emergent Literacy for Early Ghildhood } & 3 \\ \text { TECA } 1318 & \text { Wellness of the Young Child } \\ \text { CDEC } 2307 & \text { Math \& Science for Early Child hood } & 3 \\ \text { CDEC } 2326 & \text { Administration of Programs for Children I (Capstone) } & 3 \\ & \text { Semester Total } & 3 \\ \text { Total Minimum Credits for the Level } 2 \text { Certificate } & 3 \\ & 1 \text { Consult withan advisor to select an approved program elective. } & 45 \\ & & 45\end{array}$

## Workforce Degrees and Certificates

## CHILD DEVELOPMENT - INFANT \& TODDLER TEACHER

## Certificate - Level 1

## FIRST YEAR

First Semester - Fall
CDEC 1339 Early Childhood Development: 0-3 Years
CDEC 1321 The Infant \& Toddler
CDEC 1391 Special Topics in Family Life \& Relations Studies
Semester Total
Second Semester - Spring
CDEC 1313 Curriculum Resources for Early Childhood Programs
CDEC 1319 Child Guidance (Capstone)
CDEC 1323 Observation \& Assessment
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

CHILD DEVELOPMENT - TEACHER ASSISTANT/AIDE
Certificate - Level 2 SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework 3
TECA 1354 Child Growth \& Development
CDEC 1323 Observation \& Assessment
ENGL 1301 Composition I
TECA 1311 Educating Young Children
Semester Total
Second Semester - Spring
SOCI 1301 Introduction to Sociology OR
TECA 1303 Families, School, \& Community
CDEC 1319 Child Guidance
CDEC 1313 Curriculum Resources for Early Childhood Programs
EDUC 1301 Introduction to the Teaching Profession
EDUC 2301 Introduction to Special Populations OR
CDEC 1359 Children with Special Needs
Semester Total
3
15
Third Semester - Summer
$\begin{array}{ll}\text { CDEC } 1358 & \text { Creative Arts for Early Childhood } \\ \text { CDEC } 2315 & \text { Diverse Cultural/Multilingual Education }\end{array}$
Semester Total
SECOND YEAR
First Semester - Fall
CDEC 1356 Emergent Literacy for Early Childhood 3
CDEC 2341 The School Age Child (Capstone) 3
SPCH 1315 Public Speaking OR
SPCH 1318 Interpersonal Communication 3
XXXX \#3\#\#1 ${ }^{1}$ Math/Natural Science Elective 3
Semester Total $\quad 12$
Total Minimum Credits for the Level 2 Certificate 48


## Workforce Degrees and Certificates

## CONSTRUCTION TECHNOLOGY

CONSTRUCTION MANAGEMENT TECHNOLOGY - GENERAL
Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ELPT 1315 Electrical Calculations I
CNBT 1301 Introduction to the Construction Industry
CNBT 1318 Construction Tools \& Techniques
CNBT 1300 Residential \& Light Commercial Blueprint Reading
CNBT 1311 Construction Methods \& Materials I
Semester Total
Second Semester-Spring
CNBT 1342 Building Codes \& Inspections
ELPT 1329 Residential Wiring
CNBT 1346 Construction Estimating I
CNBT 1302 Mechanical, Plumbing, \& Electrical Systems in Construction I
CNBT 1316 Construction Technology I
Semester Total
15
SECOND YEAR
First Semester - Fall
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
CNBT 2337 Construction Estimating II 3
XXXX \#3\#\#1 ${ }^{1}$ Humanities/FineArtsElective $\gg 3$
Semester Total 9
Second Semester-Spring
CNBT 2342 Construction Management I 3
XXXX \#3\#\#1 Math/Natural Science Elective 3
XXXX \#3\#\#1 $\quad$ General Education Elective 3
XXXX \#3\#\# $\quad$ Social/Behavioral Sciences Elective 3
Semester Total 12
Third Semester-Summer
CNBT 1391 Special Topics in Construction/Building Technology/Technician 3
CNBT 2335 Computer-Aided Construction Scheduling(Capstone) 3
Semester Total 6
Total Minimum Credits for the AAS Degree 60
${ }^{1} \mathrm{~A}$ list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

CONSTRUCTION MANAGEMENT TECHNOLOGY - CRAFT MANAGEMENT SCH
Associate of Applied Science

## FIRST YEAR

Block credit for approved certification: 21 semester hours.
EDUC 1300 Learning Framework
Semester Total
SECOND YEAR
First Semester - Fall
XXXX \#3\#\# ${ }^{1}$ General Education Elective
CNBT 1342 Building Codes \& Inspections
CNBT 2335 Computer-Aided Construction Scheduling
CNBT 1300 Residential \& Light Commercial Blueprint Reading
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
Semester Total
Second Semester - Spring
CNBT 1346 Construction Estimating I
CNBT 2342 Construction Management I
XXXX \#3\#\# ${ }^{1} \quad$ Math/Natural Science Elective
3

XXXX \#3\#\# ${ }^{1}$ General Education Elective
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
Semester Total
Third Semester - Summer
CNBT 2337 Construction Estimating II 3
CNBT 1391 Special Topics in Construction/Building Technology/Technician (Capstone) 3
Semester Total 6
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY-GENERAL

## Certificate - Level 1

First Semester - Fall
ELPT 1315 Electrical Calculations I 3
CNBT 1301 Introduction to the Construction Industry 3
CNBT 1318 Construction Tools \& Techniques
CNBT 1300 Residential \& Light Commercial Blueprint Reading
CNBT 1311 Construction Methods \& Materials I
Semester Total
Second Semester - Spring
CNBT 2335 Computer-Aided Construction Scheduling

ELPT 1329 Residential Wiring
CNBT 1302 Mechanical, Plumbing, \& Electrical Systems in Construction I
CNBT 1316 Construction Technology I (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY - CONSTRUCTION HELPER- GENERAL
Certificate - Level 1
SCH
First Semester - Fall
ELPT 1315 Electrical Calculations I
CNBT 1301 Introduction to the Construction Industry
CNBT 1318 Construction Tools \& Techniques
CNBT 1300 Residential \& Light Commercial Blueprint Reading
CNBT 1311 Construction Methods \& Materials I (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY - CONSTRUCTION HELPER- BUILDING INSPECTION SPECIALIZATION

Certificate - Level 1 SCH<br>First Semester - Fall<br>CNBT 1301 Introduction to the Construction Industry<br>CNBT 1300 Residential \& Light Commercial Blueprint Reading<br>CNBT 1311 Construction Methods \& Materials I (Capstone)<br>CNBT 1391 Special Topics: Residential Construction Technology<br>ELPT 1391 Special Topics: Commercial Construction Technology<br>Semester Total<br>Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## COMPUTER PROGRAMMING

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - CLOUD COMPUTING AND APPLICATION DEVELOPMENT - SPECIALIZATION

Associate of Applied Science

SCH
FIRST YEAR

## First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| ITSE1411 | Beginning Web Programming |
| MATH1314 | College Algebra |
| COSC1436 | Programming Fundamentals I <br>  <br>  <br> Semester Total |

Second Semester - Spring
COSC1437 Programming Fundamentals II

ITSE2402 Intermediate Web Programming
ITCC1414 CCNA1: Introduction to Computer Networks OR
ITNW1425
Fundamentals of Networking Technologies
Introduction to Oracle SQL OR
ITSE1345
Database Theory and Design
Semester Total

Semester Total
Third Semester - Summer
ENGL 1301 Composition I
ITNW1313 Computer Virtualization

First Semester - Fall
ITSE2473 Cloud Computing I- Solution Architect 4
INEW2434 Advanced Web Programming 4
XXXX \#3\#\#1 ${ }^{1}$ Social/Behavioral Sciences Elective 3
Semester Total 11
Second Semester-Spring
ITSE2474 Cloud Computing II- Developer 4
XXXX \#4\#\#² $\quad$ Program Approved IT Elective 4
Cooperative Education - Computer Programming/Programmer, General
OR
Comprehensive Software Project 3
Humanities/Fine Arts Elective 3
Semester Total 14
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

# Workforce Degrees and Certificates 



# Workforce Degrees and Certificates 

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - MICROSOFT
C++ SPECIALIZATION
Associate of Applied Science
FIRST YEAR
First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | :---: |
| ENGL 1301 | Composition I | 3 |
| MATH 1314 | College Algebra | 3 |
| BCIS 1305 | Business Computer Applications | 3 |
| COSC 1436 | Programming Fundamentals I (with C++) | 4 |
|  | Semester Total | 16 |

Second Semester - Spring
MATH 1324 Mathematics for Business \& Social Sciences
COSC 1437 Programming Fundamentals II (with C++)
ITSE 1346 Database Theory \& Design OR
ITSE 1345 Introduction to Oracle SQL
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
Semester Total
Third Semester - Summer
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
Semester Total

## SECOND YEAR

First Semester - Fall
ITSE 2402 Intermediate Web Programming 4
COSC 2425 Computer Organization \& Machine Language 4
COSC 2436 Programming Fundamentals III (with C++) 4
XXXX \#3\#\#² $\quad$ Program Approved Business Elective 3
Semester Total 15
Second Semester - Spring
INEW 2434 Advanced Web Programming 4
ITSE 1380 Cooperative Education-Computer Programming/Programmer, General
OR
NEW2332 Comprehensive Software Project: Coding, Testing, \& Implementation
(Capstone) 3
XXXX \#3\#\# ${ }^{1}$ GeneralEducation Elective 3
XXXX \#3\#\# Program Approved IT Elective 3
Semester Total 13
Total Minimum Credits for the AAS Degree 60
1 A list of electives appears in the Core Curriculum section of this catalog.
2 ACCT 2301, 2302; BMGT 1301, 1303, 1325; BUSG 1301, 2305, 2317; ECON 1301, 2301, 2302; HRPO 1311, 2307.
3 COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

# Workforce Degrees and Certificates 

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - JAVA SPECIALIZATION

Associate of Applied Science
SCH

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| ENGL 1301 | Composition I |
| MATH 1314 | College Algebra |
| BCIS 1305 | Business Computer Applications |
| COSC 1436 | Programming Fundamentals I (with Java) |
|  | Semester Total |

## Second Semester - Spring

MATH 1324 Mathematics for Business \& Social Sciences
COSC 1437 Programming Fundamentals II (with Java)
ITSE 1346 Database Theory \& Design OR
ITSE 1345 Introduction to Oracle SQL
XXXX \#2\#\# ${ }^{1}$ General Education Elective
Semester Total


COSC 2436 Programming Fundamentals III (with Java) $>\quad 4$
INEW 2438 Advanced Java Programming 4
XXXX \#3\#\#² $\quad$ Program Approved Business Elective 3
Semester Total 15
Second Semester - Spring
INEW 2434 Advanced Web Programming 4
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciencés Elective _ _ . 3
ITSE 1380 OR
INEW2332 Comprehensive Software Project: Coding, Testing, \& Implementation
(Capstone)3
XXXX \#4\#\#3 ${ }^{3}$ Program Approved IT Elective ..... 4
Semester Total ..... 14
Total Minimum Credits for the AAS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 ACCT 2301, 2302; BMGT 1301, 1303, 1325; BUSG 1301, 2305, 2317; ECON 1301, 2301, 2302; HRPO 1311, 2307.

3 COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

# Workforce Degrees and Certificates 



## Workforce Degrees and Certificates

COMPUTER PROGRAMMING - MOBILE APPLICATION DEVELOPER

## Certificate - Level 2 FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- | :--- |
| ITSC 1309 | Integrated Software Applications I OR |
| BCIS 1305 | Business Computer Applications |
| COSC 1436 | Programming Fundamentals I |
| MATH 1314 | College Algebra |
|  | Semester Total |
| Second Semester - Spring |  |
| COSC 1437 | Programming Fundamentals II |
| ITSE 1346 | Database Theory \& Design OR |
| ITSE 1345 | Introduction to Oracle SQL |
| ITSE 2471 | Mobile Application Programming I |
| First Semester - Fall | 3 |

ITSE 2402 Intermediate Web Programming 4
ITSE 2472 Mobile Application Programming II (Capstone) 4
Semester Total $\quad 8$
Total Minimum Credits for the Level 2 Certificate 32

## Workforce Degrees and Certificates

COMPUTER PROGRAMMING - SHAREPOINT ADMINISTRATOR

## Certificate - Level 2

## FIRST YEAR



# Workforce Degrees and Certificates 

COMPUTER PROGRAMMING - WEB APPLICATION DEVELOPER
Certificate - Level 2 FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
COSC 1436 Programming Fundamentals I
ITSC 1319 Internet/Web Page Development
MATH 1314 College Algebra
Semester Total
Second Semester - Spring

| ITSE 2402 | Intermediate Web Programming |
| :--- | :--- |
| COSC 1437 | Programming Fundamentals II |
| ITSC 1309 | Integrated Software Applications I OR |
| BCIS 1305 | Business Computer Applications |
| ITSC 1307 | UNIX Operating System I OR |
| ITMT 1358 | Windows Client Operating System |
|  | Semester Total |
|  |  |

First Semester - Fall
ITSE 1346 Database Theory \& Design OR
ITSE 1345 Introduction to Oracle SQL
Semester Total

## Workforce Degrees and Certificates

## COMPUTER SYSTEMS NETWORKING



## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK PROFESSIONAL (CCNP)

## Certificate - Level 1 <br> SCH

FIRST YEAR
First Semester - Fall
ITCC 1414 CCNA 1: Introduction to Networks
Semester Total
Second Semester - Spring
ITCC $1440 \quad$ CCNA 2: Routing \& Switching Essentials

ITCC 2412 CCNA 3: Scaling Networks
Semester Total
Third Semester - Summer
ITCC 2413
CCNA 4: Connecting Networks
Semester Total
SECOND YEAR
First Semester - Fall

| ITCC 2454 | CCNP R\&S ROUTE |
| :--- | :--- |
| ITCC 2455 | CCNP R\&S SWITCH |
|  | Semester Total |

Second Semester - Spring
ITCC 2456 CCNP R\&S TSHOOT (Capstone)
ITSC 1307 UNIX Operating System I
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK
ASSOCIATE (CCNA)
Certificate - Level 1
SCH
First Semester - Fall
ITCC 1414 CCNA 1: Introduction to Networks
Semester Total
Second Semester - Spring
ITCC 1440 CCNA 2: Routing \& Switching Essentials
ITCC 2412 CCNA 3: Scaling Networks
Semester Total
Third Semester - Summer
ITCC 2413 CCNA 4: Connecting Networks (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## COMPUTER SYSTEMS NETWORKING - CYBER SECURITY- SPECIALIZATION <br> Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
MATH 1314 College Algebra
BCIS 1305 Business Computer Applications OR
ITMT 1358 Windows Client Operating System
ITSC 1307 UNIX Operating System I
Semester Total
Second Semester - Spring
XXXX \#3\#\# ${ }^{1} \quad$ Humanities/Fine Arts Elective
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
ITSY 1342 Information Technology Security
COSC 1436 Programming Fundamentals I
Semester Total
.

3417
Third Semester - Summer
ITMT 1357 Administering a Windows Server Operating System3
Semester Total ..... 3
SECOND YEAR
First Semester - Fall
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective ..... 3
ITNW 1313 Computer Virtualization ..... 3
ITSY 2330 Intrusion Detection ..... 3
ITSY 2401 Firewalls \& Network Security ..... 4
Semester Total ..... 13Second Semester-Spring
ITSY 2443 Computer System Forensics ..... 4
ITSY 1491 Special Topics in Information Technology/Security ..... 4
ITSY 2471 Cyber Competitions (Capstone) ..... 4
Semester Total ..... 12
Total Minimum Credits for the AAS Degree ..... 60

A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY
Certificate - Level 2 FIRST YEAR

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| ITSC 1307 | UNIX Operating System I | 3 |
| BCIS 1305 | Business Computer Applications OR |  |
| ITMT 1358 | Windows Client Operating System |  |
| ITNW 1425 | Fundamentals of Networking Technologies OR |  |
| ITCC 1414 | CCNA 1: Introduction to Networks | 4 |
|  | Semester Total | 13 |
| Second Semester - Spring |  |  |
| ITSY 1342 | Information Technology Security |  |
| ITNW 1313 | Computer Virtualization |  |
|  | Semester Total |  |
|  | SECOND YEAR |  |
| First Semester - Fall |  |  |
| ITSY 2401 | Firewalls \& Network Security | 4 |
| ITSY 2330 | Intrusion Detection | 3 |
| ITSY 2443 | Computer System Forensics | 4 |
|  | Semester Total | 11 |
| Second Semester - Spring |  |  |
| ITSY 1491 | Special Topics in Information Technology/Securither | 4 |
| ITSY 2471 | Cyber Competitions (Capstone) | 4 |
|  | Semester Total | 8 |
| Total Minim | m Credits for the Level 2 Certificate | 38 |

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY

## Certificate - Level 1 <br> SCH

First Semester - Fall
ITSC 1307 UNIX Operating System I 3
ITMT 1358 Windows Client Operating System
3
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
Semester Total
Second Semester - Spring
ITSY 1342 Information Technology Security
ITSY 2330 Intrusion Detection (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - INFORMATION TECHNOLOGY CORE
Certificate - Level 1
First Semester - Fall
ITSC 1301 Introduction to Computers 3
ITSC 1425 Personal Computer Hardware
ITMT 1358 Windows Client Operating System
ITSC 1307 UNIX Operating System I
Semester Total
Second Semester - Spring
ITNW 1425 Fundamentals of Networking Technologies
ITSE 1402 Computer Programming - Swift I
ITSY 1342 Information Technology Security(Capstone)
ITNW 1313
Computer Virtualization
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## COMPUTER SYSTEMS NETWORKING - LINUX SERVER ADMINISTRATOR SPECIALIZATION

Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
MATH 1314 College Algebra
ITSC 1307 UNIX Operating System I
ITSC 1425 Personal Computer Hardware
Semester Total
Second Semester - Spring
ENGL 1302 Composition II
ITSC 1458 UNIX System Administration I
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
XXXX \#3\#\# ${ }^{1}$
Humanities/Fine Arts Elective
Semester Total
Third Semester - Summer


## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX ADMINISTRATOR
Certificate - Level 2

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | ---: |
| ITSC 1425 | Personal Computer Hardware | 4 |
| ITSC 1307 | UNIX Operating System I | 3 |
| ITNW 1425 | Fundamentals of Networking Technologies OR | 4 |
| ITCC 1414 | CCNA 1: Introduction to Networks | 14 |
|  | Semester Total | 4 |

ITSC 1458 UNIX System Administration I
ITSC 1319 Internet/Web Page Development OR
ITSC 1391 Special Topics in computer and Information Sciences, General (Linux OS
Red Hat)
Semester Total
Third Semester - Summer


ITSC1491 Special Topics in computer and Information Sciences, General 4
ITSC 2425 Advanced Linux (Capstone) 4
Semester Total $>8$
Total Minimum Credits for the Level 2 Certificate 36

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX SYSTEM ADMINISTRATION
Certificate - Level 1
First Semester - Fall
ITSC 1425 Personal Computer Hardware 4
ITSC 1307 UNIX Operating System I 3
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
Semester Total
Second Semester - Spring
ITSC1319 Internet/Web Page Development OR
ITSC 1391 Special Topics in computer and Information Sciences, General (Linux OS Red Hat)

ITSC 149
Special Topics in computer and Information Sciences, General
ITSC 1458 UNIX System Administration I (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

# Workforce Degrees and Certificates 

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER
Associate of Applied Science SCH

## FIRST YEAR

| First Semester - Fall |  |  |
| :--- | :--- | :---: |
| EDUC 1300 | Learning Framework |  |
| ITSC 1309 | Integrated Software Applications I OR | 3 |
| BCIS 1305 | Business Computer Applications | 3 |
| MATH 1314 | College Algebra | 3 |
| ITSC 1425 | Personal Computer Hardware | 4 |
| ITMT 1358 | Windows Client Operating System | 3 |

Second Semester - Spring

| ENGL 1301 | Composition I |
| :--- | :--- |
| ITNW 1425 | Fundamentals of Networking Technologies OR |

ITCC $1414 \quad$ CCNA 1: Introduction to Networks
ITMT 1357 Administering a Windows Server Operating System ..... 3
ITSY 1342 Information Technology Security ..... 3
Semester Total ..... 13
Third Semester - Summer
XXXX \#3\#\# ${ }^{1}$ General Education Elective ..... 3
ITSC 1319 Internet/Web Page Development ..... 3
Semester Total ..... 6
SECOND YEAR
First Semester - Fall
ITNW 1313 Computer Virtualization ..... 3
COSC 1436 Programming Fundamentals I ..... 4
ITMT 2304 Implementing an Advanced Server Infrastructure ..... 3
XXXX \#3\#\#1 ${ }^{1}$ Social/Behavioral Sciences Elective ..... 3
Semester Total ..... 13
Second Semester - Spring
ITMT 2305 Designing \& Implementing a Server Infrastructure ..... 3
ITSY 2330 Intrusion Detection ..... 3
ITNW 1380 Telecommunications OR
ITNW 2335 Network Troubleshooting \& Support (Capstone) ..... 3
XXXX \#3\#\# Humanities/Fine Arts Elective ..... 3
Semester Total ..... 12
Total Minimum Credits for the AAS Degree ..... 601 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION
Certificate - Level 2 FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ITSC 1309 Integrated Software Applications I OR
BCIS 1305 Business Computer Applications
ITMT 1358 Windows Client Operating System
ITSC 1425 Personal Computer Hardware

## Semester Total

Second Semester - Spring
ITMT 1357 Administering a Windows Server Operating System
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
ITSY 1342 Information Technology Security
Semester Total
Third Semester - Summer


## Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION
Certificate - Level 1
First Semester - Fall
ITMT 1358 Windows Client Operating System
ITSC 1309 Integrated Software Applications I OR
BCIS 1305 Business Computer Applications
ITSC 1425 Personal Computer Hardware
Semester Total
Second Semester - Spring
ITMT 1357 Administering a Windows Server Operating System (Capstone)
ITNW 1425 Fundamentals of Networking Technologies OR
ITCC 1414 CCNA 1: Introduction to Networks
ITSY 1342 Information Technology Security
Semester Total
Total Minimum Credits for the Level 1 Certificate


20

## Workforce Degrees and Certificates

## CORROSION TECHNOLOGY

## CORROSION TECHNOLOGY

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
METL 1313 Introduction to Corrosion
ENGL 1301 Composition I
ENTC 2331 Manufacturing Materials
MATH 1314 College Algebra
Semester Total
Second Semester - Spring
XXXX \#3\#\# Math/
$\begin{array}{ll}\text { XXXX \#3\#\#1 } & \text { Humanities/Fine Arts Elective } \\ \text { INMT 1311 } & \text { Computer Integrated Manufacturing } \\ \text { HYDR 1345 } & \text { Hydraulics \& Pneumatics }\end{array}$
NDTE 1305 Introduction to Ultrasonics 3
ENTC 1347 Safety \& Ergonomics OR
OSHT 1301 Introduction to Safety \& Health 3
Semester Total 15
Second Semester - Spring
INMT 1343 Computer Aided Design/Computer Aided Manufacturing (CAD-CAM) 3
METL 2405 Atmospheric Corrosion Control (Capstone) 4
INMT 1317 Industrial Automation 3
CETT 1409 DC-AC Circuits 4
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective 3
Semester Total 17
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## CORROSION TECHNOLOGY

| Certificate - Level 1 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| METL 1313 | Introduction to Corrosion | 3 |
| TECM 1301 | Industrial Mathematics | 3 |
| ELPT 1311 | Basic Electrical Theory | 3 |
| ETWR 1302 | Introduction to Technical Writing | 3 |
|  | Semester Total | 12 |
| Second Semester - Spring |  |  |
| METL 1301 | Introduction to Metallurgy | 3 |
| METL 2405 | Atmospheric Corrosion Control (Capstone) |  |
| METL 2441 | Cathodic Protection |  |
|  | Semester Total |  |
| Total Minim | m Credits for the Level 1 Certificate |  |

## Workforce Degrees and Certificates

COSMETOLOGY

${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## COSMETOLOGY OPERATOR

Certificate - Level 2 SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
CSME 1405 Fundamentals of Cosmetology
CSME 1410 Introduction to Haircutting \& Related Theory
CSME 1453 Chemical Reformation \& Related Theory
CSME 2204 Introduction to the Theory \& Chemistry of Hair Color
Semester Total
Second Semester - Spring
CSME 2501 The Principles of Hair Coloring \& Related Theory
CSME 2337 Advanced Cosmetology Techniques
CSME 2439 Advanced Hair Design
CSME 1391 Special Topics in Cosmetology/Cosmetologist, General
Semester Total

## Third Semester - Summer

CSME 2343 Salon Development
CSME 2410 Advanced Haircutting \& Related Theory
4
CSME 1451 Artistry of Hair, Theory \& Practice 4
CSME 2541 Preparation for the State Licensing Examination (Capstone) 5
Semester Total $>16$
Total Minimum Credits for the Level 2 Certificate

## Workforce Degrees and Certificates

## COSMETOLOGY INSTRUCTOR

Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
CSME 1535 Orientation to the Instruction of Cosmetology 5
CSME 1534 Cosmetology Instructor I
XXXX \#3\#\# ${ }^{1}$ Computer Applications Elective
Semester Total
Second Semester - Spring

| XXXX \#3\#\# |  |
| :--- | :--- |
| CSME 2514 | Math/Natural Science Elective |
| CSME 2549 | Cosmetology Instructor II |
| XXXX \#3\#\# |  |
|  | General Education Elective |
|  | Semester Total |

Semester Total
16
SECOND YEAR
First Semester - Fall


BUSG 2309 Small Business Management/Entrepreneurship 3
GOVT 2306 Texas Government 3
SPCH 1321 Business \& Professional Communication OR
SPCH 1315 Public Speaking 3
PSYC 2301 General Psychology 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad 60$
1 Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.
2 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## COSMETOLOGY INSTRUCTOR

## Certificate - Level 1 SCH

First Semester - Fall
CSME 1535 Orientation to the Instruction of Cosmetology 5
CSME 1534 Cosmetology Instructor I
5
CSME 2514 Cosmetology Instructor II
Semester Total
Second Semester - Spring

| CSME 2549 | Cosmetology Instructor III |
| :--- | :--- |
| CSME 2544 | Cosmetology Instructor IV |
| CSME 2545 | Instructional Theory \& Clinic Operation(Capstone) |
|  | Semester Total |
| Total Minimum Credits for the Level 1 Certificate |  |

## Workforce Degrees and Certificates

## COSMETOLOGY - BARBER/STYLIST

Certificate - Level 1 SCH
First Semester - Fall
BARB 1307 Introduction to Hair Design 3
BARB 1402 Barber Styling I
BARB 1404 Introduction to Barber Styling
BARB 1391 Special Topics in Barber/Hairstylist
Semester Total
Second Semester - Spring
BARB 1442 Barber Styling II
BARB 2402 Barber Styling III
BARB 2431 Advanced Barber Styling I
Semester Total
Third Semester - Summer
BARB 2441 Advanced Barber Styling II
BARB 2432 Barber Law \& Shop Management I
BARB 2444 Barber Law \& Shop Management II
BARB 2470 Preparation for the State Barber Examination(Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## COSMETOLOGY - FACIAL SPECIALIST

## Certificate - Level 1 SCH

First Semester - Fall
CSME 1420 Orientation to Facial Specialist
CSME 1421 Principles of Facial \& Skin Care Technology I
CSME $1447 \quad$ Principles of Skin Care/Facials \& Related Theory
Semester Total
Second Semester - Spring
CSME 1545 Principles of Facial \& Skin Care Technology II
CSME 2531 Principles of Facial \& Skin Care Technology III (Capstone)
CSME 1491 Special Topics in Cosmetology/Cosmetologist, General
Semester Total
Total Minimum Credits for the Level 1 Certificate

$$
4
$$

## Workforce Degrees and Certificates

COSMETOLOGY - HAIR WEAVING \& BRAIDING ENTREPRENEUR
Certificate - Level 1 SCH
First Semester - Fall
CSME 1452 Orientation to Hair Weaving \& Braiding 4
CSME 1557 Applications of Hair Weaving \& Braiding
CSME 1491 Special Topics in Cosmetology/Cosmetologist, General
CSME 2343 Salon Development (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## COSMETOLOGY - LASH

Occupational Skills Award SCH
First Semester - Fall
CSME 1507 Orientation to Eyelash Extensions 5
CSME 1308 Principles of Eyelash Extensions
CSME 1409 Application of Eyelash Extensions
Semester Total
Total Minimum Credits for the Occupational Skills Award


# Workforce Degrees and Certificates 

## CRIMINAL JUSTICE

Total Minimum Credits for the AAS Degree ..... 60

A list of electives appears in the Core Curriculum section of this catalog.
2 Consult with Advisor: ITSC 1301, POFI 1301 or BCIS 1305.

## Workforce Degrees and Certificates

CRIMINAL JUSTICE - BASIC PEACE OFFICER LICENSING

## Certificate - Level 1

LEVELI
First Semester - Fall
CJE 1506 Basic Peace Officer I
CLLE 1512 Basic Peace Officer II
Semester Total
LEVEL II
Second Semester-Spring
CLLE 1518 Basic Peace Officer III
CJLE 1524 Basic Peace Officer IV (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


# Workforce Degrees and Certificates 

## CULINARY ARTS

CULINARY ARTS

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
CHEF 1301 Basic Food Preparation
CHEF 2201 Intermediate Food Preparation
CHEF 2231 Advanced Food Preparation
Semester Total
Second Semester-Spring
CHEF 2302 Saucier
CHEF 1310 Garde Manger
MATH 1324 Mathematics for Business \& Social Sciences
PSTR 1301 Fundamentals of Baking
HAMG 1321 Introduction to Hospitality Industry
Semester Total
15
Third Semester - Summer
GEOL 1305
Environmental Science (Lecture)
RSTO 1325 Purchasing for Hospitality Operations
CHEF 1205
Sanitation \& Safety
RSTO 1301
Beverage Management
Semester Total 11
First Semester - Fall
CHEF $1302 \quad$ Principles of Healthy Cuisine
CHEF 1314 ALa Carte Cooking 3
CHEF 1313 Food Service Operation/Systems 3
HAMG1324 Hospitality Human Resources Management 3
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
Semester Total 15
Second Semester - Spring
XXXX \#3\#\#1 General Education Elective 3
CHEF 2171 Culinary Capstone Projects Laboratory (Capstone) 1
CHEF 2265 Practicum (or Field Experience) - Culinary Arts/Chef Training 2
Semester Total 6
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## CULINARY ARTS

First Semester - Fall
EDUC 1300 Learning Framework 3
CHEF 1301 Basic Food Preparation 3
CHEF 2201 Intermediate Food Preparation
CHEF 2231 Advanced Food Preparation
HAMG 1321 Introduction to Hospitality Industry
Semester Total
Second Semester - Spring

| PSTR 1301 | Fundamentals of Baking |
| :--- | :--- |
| CHEF 2302 | Saucier |
| CHEF 1310 | Garde Manger |
| RSTO 1325 | Purchasing for Hospitality Operations |

Semester Total
Third Semester - Summer

| RSTO 1301 | Beverage Management |
| :--- | :--- |
| CHEF 1205 | Sanitation \& Safety |
| CHEF 1314 | A La Carte Cooking (Capstone) |
|  | Semester Total |

3

## Workforce Degrees and Certificates

## CULINARY ARTS - PREP COOK

Certificate - Level 1 SCH
First Semester - Fall
CHEF 1301 Basic Food Preparation 3
CHEF 2201 Intermediate Food Preparation
2
CHEF 2231 Advanced Food Preparation
HAMG 1321 Introduction to Hospitality Industry
RSTO 1325 Purchasing for Hospitality Operations
PSTR 1301 Fundamentals of Baking
Semester Total


## Workforce Degrees and Certificates

CULINARY ARTS - BAKING \& PASTRY ARTS
Associate of Applied Science SCH

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
PSTR 1301 Fundamentals of Baking
PSTR 1310 Pies, Tarts, Teacakes \& Cookies
CHEF 1205 Sanitation \& Safety
Semester Total
Second Semester - Spring
GEOL 1305 Environmental Science (Lecture)
PSTR 1312 Laminated Dough, Paté à Choux, \& Donuts
PSTR 2301 Chocolates \& Confections
PSTR 1306 Cake Decorating I
PSTR 1305 Breads \& Rolls
Semester Total
Third Semester - Summer
MATH 1324 Mathematics for Business \& Social Sciences 3
PSTR 1343 Bakery Operations \& Management 3
PSTR $1340 \quad$ Plated Desserts
Semester Total 9

## SECOND YEAR

First Semester - Fall
$\begin{array}{ll}\text { XXXX \#3\#\# } \\ & \text { Humanities/Fine Arts Elective } \\ \text { PSTR } 2307 & \text { Cake Decorating II OR } \\ \text { PSTR 2350 } & \text { Wedding Cakes }\end{array}$
HAMG 1324 Hospitality Human Resources Management 3
PSTR 1471 Baking for Special Dietary Needs 4
Semester Total 13
Second Semester-Spring
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
PSTR 2370 Supervised Study: Capstone in Baking \& Pastry Arts (Capstone) 3
PSTR 2331 Advanced Pastry Shop 3
$\begin{array}{ll}\text { Semester Total } & 9\end{array}$
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

CULINARY ARTS - BAKING \& PASTRY ARTS

| Certificate - Level 2 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| EDUC 1300 | Learning Framework | 3 |
| PSTR 1301 | Fundamentals of Baking | 3 |
| PSTR 1306 | Cake Decorating I | 3 |
| PSTR 1310 | Pies, Tarts, Teacakes \& Cookies | 3 |
| CHEF 1205 | Sanitation \& Safety |  |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| PSTR 1343 | Bakery Operations \& Management |  |
| PSTR 1305 | Breads \& Rolls |  |
| PSTR 2307 | Cake Decorating II OR |  |
| PSTR 2350 | Wedding Cakes |  |
| PSTR 1312 | Laminated Dough, Paté à Choux, \& Donuts |  |
| HAMG 1324 | Hospitality Human Resources Management |  |
|  | Semester Total | 15 |
| Third Semester - Summer |  |  |
| PSTR 2331 | Advanced Pastry Shop | 3 |
| PSTR 2301 | Chocolates \& Confections | 3 |
| PSTR 1340 | Plated Desserts | 3 |
| PSTR 2370 | Supervised Study: Capstone in Baking \& Pas | 3 |
|  | Semester Total | 12 |
| Total Minim | m Credits for the Level 2 Certificate | 41 |

## Workforce Degrees and Certificates

## CULINARY ARTS - BAKER

| Certificate - Level 1 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| PSTR 1301 | Fundamentals of Baking | 3 |
| CHEF 1205 | Sanitation \& Safety | 2 |
|  | Semester Total | 5 |
| Second Semester - Spring |  |  |
| PSTR 1305 | Breads \& Rolls |  |
| PSTR 1312 | Laminated Dough, Paté à Choux, \& Donuts |  |
| PSTR 1310 | Pies, Tarts, Teacakes \& Cookies (Capstone) | 3 |
| PSTR \#3\#\# ${ }^{1}$ | Program Approved Elective |  |
|  | Semester Total |  |
| Total Minimum Credits for the Level 1 Certificate |  | 7 |
|  | PSTR 1340, 1391, 2301, 2307, 2331, or 2350. |  |



## Workforce Degrees and Certificates

## CULINARY ARTS - PASTRY COOK

| Certificate - Level 1 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| PSTR 1301 | Fundamentals of Baking | 3 |
| CHEF 1205 | Sanitation \& Safety | 2 |
|  | Semester Total | 5 |
| Second Semester - Spring |  |  |
| PSTR 1305 | Breads \& Rolls |  |
| PSTR 1306 | Cake Decorating I |  |
| PSTR 1310 | Pies, Tarts, Teacakes \& Cookies (Capstone) | 3 |
| PSTR \#3\#\# ${ }^{1}$ | Program Approved Elective |  |
|  | Semester Total |  |
| Total Minimum Credits for the Level 1 Certificate |  |  |
|  | PSTR 1340, 1391, 2301, 2307, 2331, or 2350. |  |



# Workforce Degrees and Certificates 

## DENTAL ASSISTING

## ALLIED HEALTH - DENTAL ASSISTING

Associate of Applied Science $\quad$ FIRST YEAR


## Workforce Degrees and Certificates

## DENTAL ASSISTING

## Certificate - Level 1

## Prerequisite Semester

HPRS 1201 Introduction to Health Professions
2
Semester Total 2

First Semester - Fall
DNTA 1245 Preventive Dentistry
DNTA 1411 Dental Science
DNTA 1401 Dental Materials
DNTA 1415 Chairside Assisting
DNTA 1305 Dental Radiology
Semester Total

## Second Semester - Spring

DNTA 1447 Advanced Dental Science
DNTA 1351 Dental Office Management
DNTA 1453 Dental Assisting Applications
DNTA 1349 Dental Radiology in the Clinic
3
DNTA 1167 Practicum (or Field Experience) - Dental Assisting/Assistant
Semester Total

Third Semester - Summer

| DNTA 2130 | Seminar for the Dental Assistant |  |
| :--- | :--- | :---: |
| DNTA 1102 | Communication \& Behavior in the Dental Office | 1 |
| DNTA 2267 | Practicum (or Field Experience) - Dental Assisting/Assistant (Capstone) | 1 |
|  | Semester Total | 2 |
| Total Minimum Credits for the Level 1 Certificate | 4 |  |

## Workforce Degrees and Certificates

## DENTAL HYGIENE

DENTAL HYGIENE
Associate of Applied Science
Prerequisite Semester
CHEM 1305 Introductory Chemistry I (Lecture)
BIOL 2301 Anatomy \& Physiology I (Lecture)
BIOL 2101 Anatomy \& Physiology I (Lab)
ENGL 1301 Composition I
SOCl 1301 Introductionto Sociology
Semester Total

## FIRST YEAR

First Semester - Fall
DHYG 1331 Preclinical Dental Hygiene
DHYG 1304 Dental Radiology
DHYG 1227 Preventive Dental Hygiene Care
DHYG 1301 Orofacial Anatomy, Histology \& Embryology
BIOL 2302 Anatomy \& Physiology II (Lecture)
BIOL 2102 Anatomy \& Physiology II (Lab)
Semester Total1
Second Semester-Spring
DHYG 1260 Clinical-Dental Hygiene/Hygienist 2
DHYG 1339 General \& Oral Pathology 3
DHYG 2201 Dental Hygiene Carel 2
DHYG 1319 Dental Materials 3
BIOL 2320 Microbiology for Non-Science Majors (Lecture) 3
BIOL 2120 Microbiology for Non-Science Majors(Lab) 1
DHYG 1207 General \& Dental Nutrition 2
$\begin{array}{ll}\text { Semester Total } & 16\end{array}$
DHYG 1261 Clinical-Dental Hygiene/Hygienist 2
Semester Total 2
$\begin{array}{ll} & \text { SECOND YEAR } \\ \text { First Semester - Fall } \\ \text { DHYG } 1211 & \text { Periodontology }\end{array}$
DHYG 1235 Pharmacology for the Dental Hygienist 2
DHYG 1215 Community Dentistry 2
DHYC2260 Clinical - Dental Hygiene/ Hygienist 2
PHIL2306 Introductionto Ethics 3
Semester Total 11

## Workforce Degrees and Certificates

## Second Semester - Spring

DHYG2153 Dental Hygiene Practice 1
DHYG 2231 Dental Hygiene Care II 2
DHYG 2261 Clinical - Dental Hygiene/ Hygienist (Capstone) 2
PSYC2301 General Psychology 3
SPCH 1318 Interpersonal Communication
Semester Total
Total Minimum Credits for the AAS Degree


## Workforce Degrees and Certificates

## DIAGNOSTIC MEDICAL SONOGRAPHY



## Workforce Degrees and Certificates

## DIGITAL COMMUNICATION

## DIGITAL COMMUNICATION - GENERAL

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ARTC 1325 Introduction to Computer Graphics
ARTC 1302 Digital Imaging (Photoshop)
ARTC 1309 Basic Illustration
ARTC 1305 Basic Graphic Design
Semester Total
Second Semester - Spring
ARTC 1353 Computer Illustration
PHTC 1311 Fundamentals of Photography
ARTC 1313 Digital Publishing I
IMED 1316 Web Design I
ARTV 1351 Digital Video
Semester Total
Third Semester - Summer
$\begin{array}{ll}\text { IMED 1341 } & \text { Interface Design } \\ \text { XXXX \#3\#\#¹ } & \text { General Education Elective } \\ & \text { Semester Total } \\ & \text { SECOND YEAR }\end{array}$
First Semester - Fall
ARTC 1317 Design Communication I 3
IMED 2359 Interactive Web Elements 3
IMED 1359 Writing for Digital Media 3
ARTS 1303 Art History I 3
XXXX \#3\#\#1 Humanities/Fine Arts Elective 3
Semester Total $>15$
Second Semester - Spring
ARTV 1345 3-D Modeling \& Rendering I 3
XXXX \#3\#\#1 ${ }^{1}$ Math/Natural Science Elective 3
IMED 2388 Internship - Digital Communication \& Media/Multimedia (Capstone) 3
Semester Total 9
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GENERAL
Certificate - Level 1 SCH
First Semester - Fall
ARTC 1325 Introduction to Computer Graphics 3
ARTC 1305 Basic Graphic Design
ARTC 1302 Digital Imaging (Photoshop)
PHTC 1311 Fundamentals of Photography
IMED 1316 Web Design I (Capstone)
ARTV 1351 Digital Video
Semester Total


## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GENERAL
Certificate - Level 2 SCH FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework 3
ARTC 1325 Introduction to Computer Graphics
ARTC 1302 Digital Imaging (Photoshop)
ARTC 1309 Basic Illustration
ARTC 1305 Basic Graphic Design
Semester Total
Second Semester - Spring


## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION
Associate of Applied Science SCH
FIRST YEAR
First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| ARTC 1302 | Digital Imaging (Photoshop) |
| ARTC 1305 | Basic Graphic Design |
| IMED 1345 | Interactive Digital Media I (Virtual Reality -Introduction) |
|  | Semester Total |

Second Semester - Spring
IMED 1341 Interface Design
ARTV 1345 3-D Modeling \& Rendering I
IMED 2345 Interactive Digital Media II (Virtual Reality - Intermediate)
ARTC 1353 Computer Illustration
ARTV 1371 Introduction to 3D Printing Technology
Semester Total
3

Third Semester - Summer

| XXXX \#3\#\#1 | Math/Natural Science Elective |
| :--- | :--- |
| IMED 1359 | Writing for Digital Media |
|  | Semester Total |
|  | SECOND YEAR |

First Semester - Fall

| ARTV 1351 | Digital Video | 3 |
| :--- | :--- | :---: |
| ARTV 2301 | 2-D Animation I | 3 |
| ARTV 2345 | 3-D Modeling \& Rendering II | 3 |
| ARTS 1303 | Art History I |  |
| IMED 2357 | Interactive Digital Media III (Virtual Reality - Advanced) | 3 |
|  | Semester Total | 3 |
| Second Semester - Spring |  |  |

XXXX \#3\#\# General Education Elective 3
IMED 2313 Project Analysis \& Design 3
IMED 2388 Internship - Digital Communication \& Media/Multimedia (Capstone) 3
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION

## Certificate - Level 1 <br> SCH

First Semester - Fall
ARTC 1325 Introduction to Computer Graphics 3
ARTC 1305 Basic Graphic Design
3
ARTC 1302 Digital Imaging (Photoshop)
IMED 1316 Web Design I (Capstone)
ARTV 1345 3-D Modeling \& Rendering I
ARTV 1371 Introduction to 3D Printing Technology
Semester Total
Total Minimum Credits for the Level 1 Certificate

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION
Certificate - Level 2

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ARTC 1325 Introduction to Computer Graphics
ARTC 1305 Basic Graphic Design
ARTC 1302 Digital Imaging (Photoshop)
ARTV 1371 Introduction to 3D Printing Technology
Semester Total
Second Semester - Spring
IMED 1341 Interface Design
IMED 1316 Web Design I
ARTC 1353 Computer Illustration
ARTV 1345 3-D Modeling \& Rendering I
Semester Total
SECOND YEAR
First Semester - Fall
ARTV 2345 3-D Modeling \& Rendering II
IMED 1359 Writing for Digital Media
ARTV 1351 Digital Video
IMED 1345 Interactive Digital Media I
Semester Total
Second Semester - Spring
ARTV 2301 2-D Animation

IMED 2313 Project Analysis \& Design (Capstone) 3
Semester Total 6
Total Minimum Credits for the Level 2 Certificate 45

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION Associate of Applied Science

FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework 3
PHTC 1371 Adobe Photoshop Lightroom CC
PHTC 1311 Fundamentals of Photography
PHTC 1343 Expressive Photography
ARTC 1302 Digital Imaging (Photoshop)
Semester Total
Second Semester - Spring

| PHTC 1353 | Portraiture I |
| :--- | :--- |
| IMED 1359 | Writing for Digital Media |
| ARTC 1305 | Basic Graphic Design |
| PHTC 2349 | Photo Digital Imaging II |
|  | Semester Total |

Third Semester - Summer

PHTC 1351 Photojournalisml 3
PHTC 2353 Portraiture II 3
XXXX \#3\#\#¹ General Education Elective 3
Semester Total 12
Second Semester - Spring
XXXX \#3\#\#1 Math/Natural Sccience Elective 3
PHTC 2343 Portfolio Development 3
PHTC 2340 Photographic Studio Management 3
IMED2388 Internship - Digital Communication \& Media/Multimedia (Capstone) 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

## Certificate - Level 1 <br> SCH

First Semester - Fall
IMED 1359 Writing for Digital Media 3
ARTC 1305 Basic Graphic Design 3

ARTC 1302 Digital Imaging I (Photoshop)
PHTC 1311 Fundamentals of Photography
PHTC 1343 Expressive Photography (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate
15

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION
Certificate - Level 2

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
PHTC 1371 Adobe Photoshop Lightroom CC
PHTC 1311 Fundamentals of Photography
PHTC 1343 Expressive Photography
ARTC 1302 Digital Imaging (Photoshop)
Semester Total
Second Semester-Spring


# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION
Associate of Applied Science
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
3
ARTC 2311 History of Communication Graphics
ARTC 1302 Digital Imaging (Photoshop)
ARTC 1309 Basic Illustration
ARTC 1305 Basic Graphic Design
Semester Total
Second Semester - Spring
ARTC 1313 Digital Publishing I
ARTC 1321 Illustration Techniques I
ARTC 1353 Computer Illustration
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
Semester Total
Third Semester - Summer
XXXX \#3\#\# ${ }^{1} \quad$ Math/Natural Science Elective
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
Semester Total

## SECOND YEAR

## First Semester - Fall

$\begin{array}{ll}\text { ARTC } 2317 & \text { Typographic Design } \\ \text { ARTC } 1317 & \begin{array}{l}\text { Design Communication I } \\ \text { ARTC 2313 } \\ \text { Digital Publishing II } \\ \text { ARTC 2305 } \\ \text { Semester Total Imaging II }\end{array}\end{array}$

## Workforce Degrees and Certificates

## Second Semester - Spring

| XXXX \#3\#\#1 | General Education Elective | 3 |
| :--- | :--- | :---: |
| IMED 1316 | Web Design I OR |  |
| PHTC 1311 | Fundamentals of Photography | 3 |
| ARTC 2335 | Portfolio Development for Graphic Design | 3 |
| ARTC 2347 | Design Communication II | 3 |
|  | Semester Total | $\mathbf{1 2}$ |

## Third Semester - Summer

IMED 2388 Internship - Digital Communication \& Media/Multimedia (Capstone)
Semester Total
Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

## Certificate - Level 1

SCHFirst Semester - Fall
ARTC 2311 History of Communication Graphics3

ARTC 1305 Basic Graphic Design 3
ARTC 1302 Digital Imaging (Photoshop)
3

ARTC 1353 Computer Illustration
ARTC 1313 Digital Publishing I (Capstone)
Total Minimum Credits for the Level 1 Certificate

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION
Certificate - Level 2

## FIRST YEAR

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| ARTC 1305 | Basic Graphic Design | 3 |
| ARTC 2311 | History of Communication Graphics | 3 |
| ARTC 1302 | Digital Imaging I (Photoshop) |  |
| ARTC 1309 | Basic Illustration |  |
|  | Semester Total | 15 |
| Second Semester - Spring |  |  |
| ARTC 1317 | Design Communication I |  |
| ARTC 1321 | Illustration Techniques I |  |
| ARTC 1353 | Computer Illustration (Illustrator) |  |
| ARTC 1313 | Digital Publishing I |  |
|  | Semester Total | 12 |
|  | SECOND YEAR |  |
| First Semester - Fall |  |  |
| ARTC 2313 | Digital Publishing II | 3 |
| ARTC 2305 | Digital Imaging II | 3 |
| IMED 1316 | Web Design I OR |  |
| PHTC 1311 | Fundamentals of Photography | 3 |
| ARTC 2317 | Typographic Design | 3 |
|  | Semester Total | 12 |
| Second Semester - Spring |  |  |
| ARTC 2347 | Design Communication II | 3 |
| ARTC 2335 | Portfolio Development for Graphic Design (Capstone) | 3 |
|  | Semester Total | 6 |
| Total Minimum Credits for the Level 2 Certificate |  | 45 |

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - MOBILE APPLICATION
Certificate - Level
SCH
First Semester - Fall
ARTC 1325 Introduction to Computer Graphics 3
IMED 1316 Web Design I
3
IMED 1341 Interface Design
Semester Total
Second Semester - Spring

| IMED 2351 | Digital Media Programming |
| :--- | :--- |
| IMED 2359 | Interactive Web Elements |
| IMED 2345 | Interactive Digital Media II (Capstone) |
|  | Semester Total |

Total Minimum Credits for the Level 1 Certificate

# Workforce Degrees and Certificates 

## DIGITAL COMMUNICATION - VISUAL EFFECTS \& MOTION GRAPHICS SPECIALIZATION Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ARTC 1302 Digital Imaging (Photoshop)
ARTC 1309 Basic Illustration
ARTV 1303 Basic Animation
ARTV 1341 3-D Animation I
Semester Total
ARTV 2335 Portfolio Development for Animation3
IMED 2388 Internship-Digital Communication \& Media/Multimedia (Capstone) ..... 3
Semester Total ..... 9
Total Minimum Credits for the AAS Degree ..... 60

A list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - VISUAL EFFECTS \& MOTION GRAPHICS SPECIALIZATION
Certificate - Level 1
SCH
FIRST YEAR
First Semester - Fall
ARTC 1302 Digital Imaging (Photoshop)
ARTV 1303 Basic Animation
ARTC 1309 Basic Illustration
Semester Total
Second Semester - Spring

| ARTC 1305 | Basic Graphic Design |
| :--- | :--- |
| ARTV 1341 | 3-D Animation I |
| ARTV 2301 | 2-D Animation I (Capstone) |
|  | Semester Total |
| Total Minimum Credits for the Level 1 Certificate |  |

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - VISUAL EFFECTS \& MOTION GRAPHICS SPECIALIZATION
Certificate - Level 2
SCH

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework |  |
| :--- | :--- | :--- |
| ARTC 1302 | Digital Imaging (Photoshop) | 3 |
| ARTV 1303 | Basic Animation |  |
| ARTC 1309 | Basic Illustration | 3 |
| ARTV 1341 | 3-D Animation I |  |
|  | Semester Total | 3 |
| Second Semester - Spring | 3 |  |
| ARTC 1305 | Basic Graphic Design | 3 |
| ARTV 2351 | 3-D Animation II | 3 |
| ARTV 2301 | 2-D Animation I | 3 |
| ARTV 1351 | Digital Video | 3 |
| ARTC 1353 | Computer Illustration | 3 |

First Semester - Fall

| ARTC 1359 | Visual Design For New Media |  |
| :--- | :--- | :---: |
| ARTV 2330 | 2-D Animation II |  |
| ARTV 2341 | Advanced Digital Video |  |
| ARTV 2355 | Character Rigging \& Animation | 3 |
|  | Semester Total | 3 |
| Second Semester - Spring | 3 |  |
| ARTV 2335 | Portfolio Development for Animation (Capstone) | 12 |
|  | Semester Total | 3 |
| Total Minimum Credits for the AAS Degree | 3 |  |

${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION
Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
ARTC 1325 Introduction to Computer Graphics
ARTC 1305 Basic Graphic Design
IMED 1316 Web Design I
ARTC 1302 Digital Imaging I (Photoshop)
Semester Total
Second Semester - Spring

| XXXX \#3\#\#1 | General Education Elective |
| :--- | :--- |
| IMED 2351 | Digital Media Programming |
| IMED 1341 | Interface Design |
| IMED 2315 | Web Design II |
|  | Semester Total |

Third Semester - Summer

| IMED 2359 | Interactive Web Elements |
| :---: | :---: |
| XXXX \#3\#\# ${ }^{1}$ | Social/Behavioral Sciences Elective |
| XXXX \#3\#\# ${ }^{1}$ | Math/Natural Science Elective |
|  | Semester Total |

First Semester - Fall

| IMED 1359 | Writing for Digital Media |  |
| :--- | :--- | :--- |
| IMED 2309 | Internet Commerce | 3 |
| ARTV 1351 | Digital Video |  |
| ARTS 1303 | Art History I | 3 |
|  | Semester Total | 3 |
|  |  | $\mathbf{1 2}$ |

Second Semester - Spring
IMED 2371 Content Management Systems 3
IMED 2313 Project Analysis \& Design 3
XXXX \#3\#\# ${ }^{1}$ Approved Program Elective 3
IMED2388 Internship-Digital Communication \& Media/Multimedia (Capstone) 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

## Certificate - Level 1

SCHFirst Semester - Fal
ARTC 1325 Introduction to Computer Graphics ..... 3
ARTC 1305 Basic Graphic Design ..... 3ARTC 1302 Digital Imaging (Photoshop)3IMED 1341 Interface DesignIMED 1316 Web Design I (Capstone)Semester Total
Total Minimum Credits for the Level 1 Certificate15

# Workforce Degrees and Certificates 

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION
Certificate - Level 2

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework
3
ARTC 1325 Introduction to Computer Graphics
ARTC 1305 Basic Graphic Design
IMED 1316 Web Design I
ARTC 1302 Digital Imaging (Photoshop)
Semester Total
Second Semester - Spring
IMED 1341 Interface Design
IMED 2351 Digital Media Programming
IMED 2315 Web Design II
Semester Total
SECOND YEAR
First Semester - Fall

| IMED 2359 | Interactive Web Elements | 3 |
| :--- | :--- | :---: |
| ARTV 1351 | Digital Video | 3 |
| IMED 2309 | Internet Commerce | 3 |
|  | Semester Total | 9 |
| Second Semester - Spring |  |  |
| IMED 2371 | Content Management Systems | 3 |
| IMED 1359 | Writing for Digital Media | 3 |
| IMED 2313 | Project Analysis \& Design(Capstone) | 3 |
|  | Semester Total | 9 |
| Total Minimum Credits for the Level 2 Certificate | 42 |  |

## Workforce Degrees and Certificates

## DIGITAL GAMING



## Workforce Degrees and Certificates

DIGITAL GAMING \& SIMULATION FOR ARTISTS
Certificate - Level 2

## FIRST YEAR

First Semester - Fall


## Workforce Degrees and Certificates



## Workforce Degrees and Certificates

## DIGITAL GAMING \& SIMULATION FOR PROGRAMMERS

Certificate - Level 2
FIRST YEAR


## Workforce Degrees and Certificates

## DRAFTING \& DESIGN ENGINEERING TECHNOLOGY

## DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED DRAFTING - GENERAL

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
DFTG 1305 Technical Drafting
DFTG 1309 Basic Computer-Aided Drafting
MATH 1314 College Algebra
Semester Total
Second Semester - Spring
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2317 Descriptive Geometry
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
DFTG 1333 Mechanical Drafting
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
Semester Total


First Semester - Fall
DFTG 1358 Electrical/Electronics Drafting OR
DFTG 1329 Electro-Mechanical Drafting $\quad 3$
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) 3
DFTG 2323 Pipe Drafting 3
DFTG 2330 Civil Drafting 3
MATH 1316 Plane Trigonometry 3
Semester Total 15
Second Semester - Spring
DFTG 1317 Architectural Drafting-Residential 3
ARCE 1352 Structural Drafting 3
DFTG 2335 Advanced Technologies in Mechanical Design \& Drafting OR
DFTG2340 Solid Modeling/Design 3
XXXX \#3\#\#' Humanities/Fine Arts Elective 3
DFTC 2338 Final Project - Advanced Drafting(Capstone) 3
Semester Total 15
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - GENERAL

```
Certificate - Level 1 SCH
SCH
```

First Semester - Fall
DFTG 1309 Basic Computer-Aided Drafting
DFTG 1305 Technical Drafting
Semester Total
Second Semester - Spring
DFTG 1358 Electrical/Electronics Drafting OR
DFTG 1329 Electro-Mechanical Drafting
DFTG 2319 Intermediate Computer-Aided Drafting OR
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)
DFTG 1333 Mechanical Drafting
DFTG 1317 Architectural Drafting-Residential
Semester Total
12
Third Semester - Summer
DFTG 2323 Pipe Drafting

DFTG 2330 Civil Drafting (Capstone)
ARCE 1352 Structural Drafting
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED DRAFTING - ARCHITECTURAL SPECIALIZATION <br> Associate of Applied Science <br> SCH

FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
DFTG 1305 Technical Drafting
DFTG 1309 Basic Computer-Aided Drafting
MATH 1314 College Algebra
Semester Total
Second Semester - Spring
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 1317 Architectural Drafting-Residential
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
MATH 1316 Plane Trigonometry
ARCE 1352 Structural Drafting
Semester Total

## SECOND YEAR

First Semester - Fall
XXXX \#3\#\#1 ${ }^{1}$ Humanities/Fine Arts Elective $\gg$
DFTG 2300 Intermediate Architectural Drafting-Residential 3
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
3
DFTG 2330 Civil Drafting 3
DFTG 1376 Revit Residential 3
Semester Total 15
Second Semester - Spring
DFTG 2331 Advanced Technologies in Architectural Design \& Drafting 3
DFTG 1392 Special Topics in Architectural Drafting \& Architectural CAD/CADD 3
DFTG 2328 Architectural Drafting - Commercial (Capstone) 3
ARCE 2352 Mechanical \& Electrical Systems OR
XXXX \#3\#\#² Program Approved Elective
DFTG 2338 Final Project - Advanced Drafting OR
DFTG2381 Cooperative Education - Drafting \& Design Technology/Technician, General
Semester Total 15
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391 - Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - ARCHITECTURAL SPECIALIZATION
Certificate - Level 1 SCH
First Semester - Fall
DFTG 1309 Basic Computer-Aided Drafting
DFTG 1305 Technical Drafting
Semester Total
Second Semester - Spring
ARCE 1352 Structural Drafting
DFTG 1317 Architectural Drafting-Residential
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2330 Civil Drafting
Semester Total
Third Semester - Summer
DFTG 1376 Revit Residential
ARCE 2352 Mechanical \& Electrical Systems OR
XXXX \#3\#\# ${ }^{1}$ Program Approved Elective
DFTG 2328 Architectural Drafting-Commercial (Capstone)
3

## Semester Total

9
Total Minimum Credits for the Level 1 Certificate
${ }^{1}$ ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391 - Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - CIVIL SPECIALIZATION
Associate of Applied Science
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework 3

ENGL 1301 Composition I
DFTG 1305 Technical Drafting
DFTG 1309 Basic Computer-Aided Drafting
MATH 1314 College Algebra
Semester Total
Second Semester-Spring
DFTG 2319 Intermediate Computer-Aided Drafting
SRVY 1301 Introduction to Surveying
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) OR
DFTG \#3\#\#1 Drafting Elective
$\begin{array}{ll}\text { DFTG } 2317 & \text { Descriptive Geometry } \\ \text { MATH } 1316 & \text { Plane Trigonometry }\end{array}$
Semester Total
SECOND YEAR

## First Semester - Fall

XXXX \#3\#\#² $\quad$ Social/Behavioral Sciences Elective
SRVY 1341 Land Surveying 3
DFTG 2321 Topographical Drafting OR
DFTG 2375 Introductionto GIS
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
DFTG 2330 Civil Drafting
Semester Total 15
Second Semester - Spring
ARCE 1352 Structural Drafting $>3$
DFTG 2370 Intermediate CAD (Microstation) 3
XXXX\#3\#\# ${ }^{2}$ Humanities/Fine Arts Elective 3
SRVY2348 Plane Surveying 3
DFTG 2374 Civil 3DOR
DFTG 2338 Final Project - Advanced Drafting (Capstone)
Semester Total 15
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391-Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.
2 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - CIVIL SPECIALIZATION
Certificate - Level 1
SCH
First Semester - Fall
DFTG 1309 Basic Computer-Aided Drafting
DFTG 1305 Technical Drafting
Semester Total
Second Semester - Spring
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)
DFTG 2319 Intermediate Computer-Aided Drafting
SRVY 1301 Introduction to Surveying
DFTG 2330 Civil Drafting
Semester Total
Third Semester - Summer
SRVY 1341 Land Surveying
DFTG 2374 Civil 3-D OR
DFTG 2338 Final Project - Advanced Drafting (Capstone)
ARCE 1352 Structural Drafting
Semester Total
Total Minimum Credits for the Level 1 Certificate

9

## Workforce Degrees and Certificates

## DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED DRAFTING - ELECTRICAL SPECIALIZATION <br> Associate of Applied Science

FIRST YEAR
First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | :--- |
| ENGL 1301 | Composition I | 3 |
| DFTG 1305 | Technical Drafting | 3 |
| DFTG 1309 | Basic Computer-Aided Drafting | 3 |
| MATH 1314 | College Algebra | 3 |

Second Semester - Spring
DFTG 1333 Mechanical Drafting
DFTG 2319 Intermediate Computer-Aided Drafting XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective MATH 1316 Plane Trigonometry

DFTG 1329 Electro-Mechanical Drafting

SECOND YEAR
First Semester - Fall

DFTG 2317 Descriptive Geometry $>3$
DFTG 1358 Electrical/Electronics Drafting 3
DFTG 2340 Solid Modeling/Design 3
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective $\quad 3$
Semester Total 15
Second Semester - Spring
DFTG 2335 Advanced Technologies in Mechanical Design \& Drafting 3
DFTG 2302 Machine Drafting 3
DFTG 2305 Printed Círcuit Board Design OR
XXXX \#3\#\#² Program Approved Elective 3
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing
DFTG 2307 Electrical Drafting (Capstone) 3
Semester Total 15
Total Minimum Credits for the AAS Degree 60
1 A list of electives appears in the Core Curriculum section of this catalog.
2 Consult with an advisor to select an appropriate elective.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - ELECTRICAL SPECIALIZATION
Certificate - Level 1 SCH
First Semester - Fall
DFTG 1309 Basic Computer-Aided Drafting
DFTG 1305 Technical Drafting
Semester Total
Second Semester - Spring
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 1333 Mechanical Drafting
DFTG 1358 Electrical/Electronics Drafting
Semester Total
Third Semester - Summer
DFTG 2302 Machine Drafting
DFTG 2335 Advanced Technologies in Mechanical Design \& Drafting OR
DFTG 2340 Solid Modeling/Design
DFTG 1329 Electro-Mechanical Drafting
Semester Total
Total Minimum Credits for the Level 1 Certificate

3

3

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - MECHANICAL SPECIALIZATION

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall

## Second Semester - Spring

DFTG 1333 Mechanical Drafting

DFTG 2319 Intermediate Computer-Aided Drafting
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
DFTG 2340 Solid Modeling/Design
MATH 1316 Plane Trigonometry
Semester Total

SECOND YEAR
First Semester - Fall
DFTG 2335 Advanced Technologies in Mechanical Design \& Drafting 3
DFTG 2317 Descriptive Geometry 3
DFTG 2306 Machine Design 3
DFTG 2302 Machine Drafting 3
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective $\quad 3$
Semester Total 15
Second Semester - Spring
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) 3
DFTG 2338 Final Project - Advanced Drafting OR
DFTG 2381 Cooperative Education - Drafting \& Design Technology/Technician, General 3
DFTG 2358 Advanced Machine Design (Capstone) 3
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing 3
XXXX \#3\#\# ${ }^{2} \quad$ Program Approved Elective 3
Semester Total 15
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 Consult with an advisor to select an appropriate elective.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - MECHANICAL SPECIALIZATION
Certificate - Level 1 SCH
First Semester - Fall
DFTG 1309 Basic Computer-Aided Drafting
DFTG 1305 Technical Drafting
Semester Total
Second Semester - Spring
DFTG 1333 Mechanical Drafting
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2317 Descriptive Geometry
DFTG 2340 Solid Modeling/Design
Semester Total
Third Semester - Summer
DFTG 2306 Machine Design (Capstone)
DFTG 2302 Machine Drafting
DFTG 2335 Advanced Technologies in Mechanical Design \& Drafting
3
Semester Total
Total Minimum Credits for the Level 1 Certificate

9

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - PIPE SPECIALIZATION
Associate of Applied Science
FIRST YEAR
First Semester - Fall

| EDUC 1300 | Learning Framework | 3 |
| :--- | :--- | :--- |
| ENGL 1301 | Composition I | 3 |
| DFTG 1305 | Technical Drafting | 3 |
| DFTG 1309 | Basic Computer-Aided Drafting | 3 |
| MATH 1314 | College Algebra | 3 |


DFTG 1395 Special Topics in Mechanical Drafting \& Mechanical Drafting CAD/CADD 3

DFTG 2308 Instrumentation Drafting 3
XXXX \#3\#\# ${ }^{2}$ Program Approved Elective 3
MATH 1316 Plane Trigonometry 3
xxxx \#3\#\#1 $\quad$ Social/Behavioral Sciences Elective $\quad>\quad 3$
Semester Total 15
Second Semester - Spring
ENGL 1302 Composition II OR
ENGL 2311 Technical \& Business Writing 3
DFTG 2340 Solid Modeling/Design 3
DFTG 2345 Advanced Pipe Drafting(Capstone) 3
DFTG 1372 Smart Plant 3D Drafting OR
DFTG 2373 Piping Design Management Systems (PDMS) 3
ARCE 1352 Structural Drafting 3
Semester Total 15
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.
2 Consult with an advisor to select an appropriate elective.

## Workforce Degrees and Certificates

DRAFTING \& DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED DRAFTING - PIPE SPECIALIZATION

```
Certificate - Level }1\mathrm{ SCH
First Semester - Fall
DFTG }1309\mathrm{ Basic Computer-Aided Drafting3
DFTG 1305 Technical Drafting 3
    Semester Total
```

Second Semester - Spring
DFTG 2319 Intermediate Computer-Aided Drafting
DFTG 2323 Pipe Drafting
DFTG 1333 Mechanical Drafting
DFTG 2308 Instrumentation Drafting
Semester Total
Third Semester - Summer
ARCE 1352 Structural Drafting
DFTG 1395 Special Topics in Mechanical Drafting \& Mechanical Drafting CAD/CADD AutoPlant Isometrics OR

DFTG 1372 Smart Plant 3D Drafting
DFTG 2345 Advanced Pipe Drafting (Capstone)


3

Semester Total
9
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## ELECTRONICS ENGINEERING TECHNOLOGY

ELECTRONICS ENGINEERING TECHNOLOGY - BIOMEDICAL ELECTRONICS Associate of Applied Science

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework
MATH 1314 College Algebra
CETT 1321 Electronic Fabrication
CPMT 1449 Computer Networking Technology
Semester Total
Second Semester-Spring
CETT 1403 DC Circuits

CETT 1425 Digital Fundamentals
MATH 1316 Plane Trigonometry
XXXX \#3\#\# ${ }^{1}$ Social/Behavioral Sciences Elective
Semester Total
Third Semester - Summer
$\begin{array}{ll}\text { PHYS 1401 } & \text { College Physics I (Lecture \& Lab) } \\ \mathrm{XXXX} \# 3 \# \#^{1} & \begin{array}{l}\text { Humanities/Fine Arts Elective } \\ \\ \\ \end{array} \\ & \text { Semester Total }\end{array}$
First Semester - Fall
CETT 1405
AC Circuits4

CETT 1429

Solid State Devices ..... 4
BIOM 1309 Applied Biomedical Equipment Technology ..... 3
CETT 1431 Programming for Discrete Electronic Devices ..... 4
Semester Total ..... 15
Second Semester - Spring
BIOM 2331 Biomedical Clinical Instrumentation ..... 3
HPRS 1206 Essentials of Medical Terminology ..... 2
BIOM 2389 Internship-Biomedical Technology/Technician ..... 3
CETT 1357 Linear Integrated Circuits (Capstone) ..... 3
Semester Total ..... 11
Total Minimum Credits for the AAS Degree ..... 60

A list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

## ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER ENGINEERING

## Associate of Applied Science

FIRST YEAR


1 A list of electives appears in the Core Curriculum section of this catalog.
2 Any CETT or CPMT elective.

## Workforce Degrees and Certificates

## ELECTRONICS ENGINEERING TECHNOLOGY - BASIC ELECTRONICS

Certificate - Level 2
First Semester - Fall
EDUC 1300 Learning Framework 3
MATH 1314 College Algebra
CETT 1321 Electronic Fabrication
CPMT 1449 Computer Networking Technology
Semester Total
Second Semester - Spring
CETT 1403 DC Circuits
CETT 1425 Digital Fundamentals
MATH 1316 Plane Trigonometry
Semester Total
Third Semester - Summer
CETT 1405 AC Circuits
CETT 1429 Solid State Devices (Capstone)
CPMT 1303 Introduction to Computer Technology
XXXX \#4\#\# ${ }^{1}$ Program Approved Elective
XXXX \#4\#\# ${ }^{1}$ Program Approved Elective
Semester Total
19
Total Minimum Credits for the Level 2 Certificate
43
1 Any CETT or CPMT elective; TECM 1301 or 1303

## Workforce Degrees and Certificates

## ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER

## SERVICING/NETWORKS

Certificate - Level 1 SCH
First Semester - Fall

| CPMT 1303 | Introduction to Computer Technology | 3 |
| :--- | :--- | :---: |
| CPMT 1411 | Introduction to Computer Maintenance OR |  |
| XXXX \#4\#\#1 | Program Approved Elective | 4 |
|  | Semester Total | 7 |

Second Semester - Spring
CETT 1321 Electronic Fabrication
TECM 1301 Industrial Mathematics OR
XXXX \#3\#\# ${ }^{1}$ Program Approved Elective
CPMT 1449 Computer Networking Technology
Semester Total
Total Minimum Credits for the Level 1 Certificate
${ }^{1}$ Any CETT or CPMT elective; or TECM 1303.

## Workforce Degrees and Certificates

## EMERGENCY MEDICAL SERVICES

## EMERGENCY MEDICAL SERVICES

Associate of Applied Science
SCH

## FIRST YEAR

First Semester - Fall

| EMSP 1501 | Emergency Medical Technician |
| :--- | :--- |
| EMSP 1160 | Clinical-Emergency Medical Technology/Technician(EMT Paramedic) |
| EMSP 2205 | EMS Operations |
| EMSP 1338 | Introduction to Advanced Practice |
| EMSP 1356 | Patient Assessment \& Airway Management |
| EMSP 1355 | Trauma Management |
|  | Semester Total |

Semester Total
Second Semester - Spring
EMSP 1263 Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
EMSP 2306 Emergency Pharmacology
EMSP 2444 Cardiology
4
EMSP $2160 \quad$ Clinical - Emergency Medical Technology/Technician (EMT Paramedic) $\quad 1$
BIOL 2301 Anatomy \& Physiology I (Lecture) 3
BIOL 2101 Anatomy \& Physiology I (Lab) 1
XXXX \#3\#\# ${ }^{1} \quad$ General Education Elective
Semester Total 17

## SECOND YEAR

First Semester - Fall
EMSP 2434 Medical Emergencies 4
EMSP 2261 Clinical - Emergency Medical Technology/Technician (EMT Paramedic) 2
EMSP 2330 Special Populations 3
BIOL 2302 Anatomy \& Physiology M (Lecture) 3
BIOL 2102 Anatomy \& Physiology II (Lab) 1
XXXX \#3\#\#1 ${ }^{1}$ Social/Behavioral Sciences Elective 3
Semester Total 16
Second Semester - Spring
EMSP 2262 Clinical - Emergency Medical Technology/Technician(EMT Paramedic) 2
EMSP 2243 Assessment Based Management (Capstone) 2
EMSP $1191 \quad$ Special Topics in Emergency Medical Technology/Technician 1
XXXX \# \#\#\# $^{1}$ Humanities/Fine Arts Elective 3
EMSP 2252 Emergency Medical Services Research 2
Semester Total 10
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

| EMERGENCY MEDICAL SERVICES - ADVANCED TECHNICIAN |  |
| :--- | :--- |
| Certificate - Level 1 | SCH |
| First Semester - Fall |  |
| EMSP 1501 | Emergency Medical Technician |
| EMSP 1160 | Clinical - Emergency Medical Technology/Technician(EMT Paramedic) |
|  | Semester Total |
| Second Semester - Spring | 1 |
| EMSP 2205 | EMS Operations |
| EMSP 1338 | Introduction to Advanced Practice |
| EMSP 1356 | Patient Assessment \& Airway Management |
| EMSP 1355 | Trauma Management |
| EMSP 1263 | Clinical - Emergency Medical Technology/Technician(EMT Paramedic) |
|  | Semester Total |
| Total Minimum Credits for the Level 1 Certificate | 2 |

## Workforce Degrees and Certificates

EMERGENCY MEDICAL SERVICES - PARAMEDIC
Certificate - Level 1
FIRST YEAR
First Semester - Fall


## Workforce Degrees and Certificates

EMERGENCY MEDICAL SERVICES - RN TO PARAMEDIC
Enhanced Skills Certificate ..... SCH
First Semester - Fall
EMSP 1491 Special Topics in Emergency Medical Technology/Technician ..... 4
EMSP 2553 Emergency Medical Services Certification for Health Care Professionals ..... 5
Semester Total ..... 9Total Minimum Credits for the Enhanced Skills Certificate

## Workforce Degrees and Certificates

FASHION DESIGN

## FASHION DESIGN

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
FSHD 1313 Art for Fashion
FSHD 1322 Fashion Sketching
FSHD 1324 Ready-to-Wear Construction
XXXX \#3\#\#1 ${ }^{1}$ Humanities/Fine Arts Elective
Semester Total
Second Semester-Spring

| FSHD 1328 | Flat Pattern Design I |
| :--- | :--- |
| FSHN 1301 | Textiles |
| FSHD 1351 | Design Construction Techniques |
| FSHD 1311 | Fashion History |
| XXXX \#3\#\#1 | $\begin{array}{ll}\text { Math/Natural Science Elective } \\ & \text { Semester Total }\end{array}$ |
| Third Semester - Summer |  |
| FSHD 2306 | Draping |
| XXXX \#3\#\#1 | Social/Behavioral Sciences Elective |
|  | Semester Total |

SECOND YEAR
First Semester - Fall
FSHD 1355 Flat Pattern Design II 3
FSHD 1318 Apparel Computer Systems 3
FSHD 2343 Fashion Collection Design 3
XXXX \#3\#\#1 Social/Behavioral Sciences Elective 3
Semester Total 12

## Second Semester -Spring

FSHD 2341 Pattern Grading 3
FSHD 2388 Internship-Fashion/Apparel Design 3
FSHD 2344 Fashion Collection Production (Capstone) 3
XxxX\#3\#\#' $\quad$ Humanities/Fine Arts Elective 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## FASHION DESIGN - COMMERCIAL SAMPLE MAKER

Certificate - Level 1 SCH
First Semester - Fall
FSHD 1324 Ready-to-Wear Construction 3
FSHD 1318 Apparel Computer Systems 3
Semester Total
Second Semester - Spring
FSHD 1351 Design Construction Techniques
FSHD 1328 Flat Pattern Design I
FSHD 2306 Draping
FSHD 1291 Special Topics in Fashion Design \& Illustration (Knitwear)
Semester Total
Third Semester - Summer
$\begin{array}{ll}\text { FSHD } 1355 & \text { Flat Pattern Design II } \\ \text { FSHD } 2337 & \text { Couture Dressmaking }\end{array}$
FSHD 2341 Pattern Grading
FSHD 2388 Internship-Fashion/Apparel Design (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate29

## Workforce Degrees and Certificates

## FASHION DESIGN - DIGITAL DESIGN

Certificate - Level 1 SCH
First Semester - Fall
FSHD 1324 Ready-to-Wear Construction 3
FSHD 1318 Apparel Computer Systems
FSHD 1322 Fashion Sketching
Semester Total
Second Semester - Spring
FSHN 1301 Textiles
FSHD 1328 Flat Pattern Design I
FSHD 2305 Computer Aided Apparel Design
Semester Total
Third Semester - Summer
FSHN 2432 Advanced Pattern Drafting
FSHD 2388 Internship-Fashion/Apparel Design (Capstone)
FSHD 2341 Pattern Grading
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

FASHION DESIGN - MEN'S TAILORING \& ALTERATIONS
Certificate - Level 1 SCH
First Semester - Fall
FSHD 1302 Introduction to Fashion 3
FSHD 1318 Apparel Computer Systems
FSHD 1324 Ready-to-Wear Construction
FSHN 1301 Textiles
Semester Total
Second Semester - Spring
FSHN 1305 Apparel Alterations
FSHN 1329 Basic Men's Tailoring
FSHD 2388 Internship-Fashion/Apparel Design (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

FASHION DESIGN - PATTERNMAKING
Certificate - Level 1 SCH
First Semester - Fall
FSHD 1302 Introduction to Fashion 3
FSHD 1313 Art for Fashion
FSHD 1328 Flat Pattern Design I
FSHN 1301 Textiles
FSHD 1318 Apparel Computer Systems
Semester Total
Second Semester-Spring
FSHD 1332 Custom Patterns
FSHD 1355 Flat Pattern Design II
FSHD 2306 Draping
FSHD 2341 Pattern Grading
FSHD 2388 Internship-Fashion/Apparel Design (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

FASHION DESIGN - THEATRICAL COSTUME DESIGN
Certificate - Level 2 SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
FSHN 1301 Textiles 3
DRAM 1310 Introduction to Theater
FSHD 1313 Art for Fashion
FSHD 1322 Fashion Sketching
FSHD 1324 Ready-to-Wear Construction
Semester Total
Second Semester-Spring
FSHD 1235 Millinery
FSHD 1328 Flat Pattern Design I
FSHD 1351 Design Construction Techniques
FSHD 2215 Bustier Construction
FSHD 1332 Custom Patterns

FSHD 1311 Fashion History
Semester Total
Third Semester - Summer
FSHD 2306 Draping
FSHD 2310 Fabric Design
FSHN 1329 Basic Men's Tailoring
FSHD 2312 Theatrical Costume Design
FSHD 2388 Internship-Fashion/Apparel Design (Capstone)
Semester Total
Total Minimum Credits for the Level 2 Certificate

15

## Workforce Degrees and Certificates

## FASHION MERCHANDISING

## FASHION MERCHANDISING

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
FSHD 1302 Introduction to Fashion
FSHN 1301 Textiles
XXXX \#3\#\#1 General Education Elective
FSHD 1324 Ready-to-Wear Construction
Semester Total
Second Semester - Spring
FSHN 1320 Fashion Selling
FSHD 1311 Fashion History
FSHD 1318 Apparel Computer Systems
Semester Total
Third Semester - Summer

First Semester - Fall
FSHN $2303 \quad$ Fashion Buying
FSHN 2307 Fashion Advertising 3
FSHN 2320 VisualMerchandising 3
MRKG 1311 Principles of Marketing 3
Semester Total 12
Second Semester Spring
FSHN 2301 Fashion Promotion 3
FSHN 2305 Fashion Retailing 3
FSHN 2309 FashionImage 3
FSHN 2388 Internship-Fashion Merchandising (Capstone) 3
Semester Total 12
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

FASHION MERCHANDISING - FASHION IMAGE MERCHANDISING
Certificate - Level 1
First Semester - Fall
FSHD 1302 Introduction to Fashion 3
FSHN 1301 Textiles
FSHD 1313 Art for Fashion
FSHD 1324 Ready-to-Wear Construction
Semester Total
Second Semester - Spring
FSHN 1320 Fashion Selling
FSHN 2301 Fashion Promotion
FSHN 2309 Fashion Image
FSHD 1311 Fashion History
FSHD 1318 Apparel Computer Systems
Semester Total
Third Semester - Summer
FSHN 2388 Internship-Fashion Merchandising (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

FASHION MERCHANDISING - VISUAL MERCHANDISING
Certificate - Level 1
First Semester - Fall
FSHD 1302 Introduction to Fashion 3
FSHN 1301 Textiles
FSHD 1313 Art for Fashion

Second Semester - Spring
FSHN 2303 Fashion Buying
FSHN 2305 Fashion Retailing
FSHD 1318 Apparel Computer Systems
FSHD 1322 Fashion Sketching
FSHN 2301 Fashion Promotion
Semester Total
Third Semester - Summer
FSHN 2307 Fashion Advertising
FSHN 2320 Visual Merchandising
FSHN 2388 Internship-Fashion Merchandising (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

Semester Total
3
33

## Workforce Degrees and Certificates

## FILMMAKING

FILMMAKING - GENERAL
Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
RTVB 1321 TV/Video Field Production
RTVB 1309 Audio/Radio Production I
RTVB 2330 Film \& Video Editing
Semester Total
Second Semester - Spring
RTVB 2337 TV/Video Production Workshop I
RTVB 1329 Scriptwriting
FLMC 1300 Production Management
FLMC 1311 Survey of the Motion Picture
FLMC2344 Advanced Film \& Video Editing
Semester Total
15
Third Semester - Summer
FLMC1292 Special Topics in Film-Video Making/Cinematography \& Production 2
xxxX \#3\#\#1 $\quad$ Social/Behavioral Sciences Elective $\gg 3$
Semester Total 5
SECOND YEAR
First Semester - Fall
FLMC1304 Lighting for Film or Video 3
FLMC2333 Cinematography 3
FLMC2335 Screenwriting for Features, Shorts \& Documentaries 3
XXXX \#3\#\#1 ${ }^{1}$ Sociał $\neq$ Behavioral Sciences Elective 3
XXXX \#3\#\#1 Humanities/Fine Arts Elective 3
Semester Total 15
Second Semester -Spring
FLMC2334 Directing for Film or Video 3
FLMC2330 Audio Post Production 3
FLMC2336 Production Development - Producing 3
RTVB2164 Practicum (or Field Experience)-Radio \& Television(Capstone) 1
XXXX \#З\#\#1 Math/Natural Science Elective 3
Semester Total 13
Total Minimum Credits for the AAS Degree $\quad \mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

FILMMAKING - GENERAL
Certificate - Level 2 FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework 3
RTVB 1321 TV/Video Field Production
RTVB 1309 Audio/Radio Production I
RTVB 2330 Film \& Video Editing
Semester Total
Second Semester - Spring

| RTVB 2337 | TV/Video Production Workshop I |
| :--- | :--- |
| RTVB 1329 | Scriptwriting |
| FLMC 1300 | Production Management |
| FLMC 1311 | Survey of the Motion Picture |
| FLMC 2344 | Advanced Film \& Video Editing |
|  | Semester Total |
| Third Semester - Summer |  |
| FLMC 1292 | Special Topics in Film-Video Making/Cinematography \& Production |

Semester Total
SECOND YEAR
First Semester - Fall
FLMC 1304 Lighting for Film or Video
FLMC 2333 Cinematography3
FLMC 2335 Screenwriting for Features, Shorts \& Documentaries ..... 3
Semester Total ..... 9

Second Semester - Spring
FLMC 2330 Audio Post Production 3
FLMC2336 Production Development - Producing 3
FLMC 2334 Directing for Film or Video 3
RTVB $2164 \quad$ Practicum (or Field Experience) - Radio \& Television (Capstone) 1
Semester Total 10
Total Minimum Credits for the Level 2 Certificate 48

## Workforce Degrees and Certificates

FILMMAKING - EDITING SPECIALIZATION
Certificate - Level
First Semester - Fall
FLMC1311 Survey of the Motion Picture 3
RTVB 1321 TV/ Video Field Production
RTVB 1309 Audio/Radio Production I
RTVB 2330 Film and Video Editing
Semester Total
Second Semester - Spring
FLMC 1300 Production Management
FLMC 1331 Video Graphics \& Visual Effects I
FLMC2344 Advanced Film \& Video Editing (Capstone)
FLMC 2330 Audio Post Production
FLMC 1292 Special Topics in Film-Video Making/Cinematography \& Production
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

FILMMAKING - FILM/VIDEO PRODUCTION SPECIALIZATION

Certificate - Level 1
First Semester - Fall
RTVB 1309 Audio/Radio Production I 3
RTVB 1321 TV/ Video Field Production
RTVB 2330 Film \& Video Editing
FLMC 1311 Survey of the Motion Picture
Semester Total
Second Semester - Spring
FLMC 1300 Production Management
RTVB 1329 Scriptwriting
RTVB 2337 TV/Video Production Workshop I
FLMC2344 Advanced Film \& Video Editing (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate
SCH

3

## Workforce Degrees and Certificates

FILMMAKING - SCREENWRITING SPECIALIZATION
Certificate - Level
First Semester - Fall
FLMC 1311 Survey of the Motion Picture 3
RTVB 1321 TV/ Video Field Production
3
RTVB 1329 Scriptwriting
RTVB 2330 Film \& Video Editing
Semester Total
Second Semester - Spring
FLMC 2335 Screenwriting for Features, Shorts \& Documentaries (Capstone)
FLMC 1292 Special Topics in Film - Video Making/Cinematography \& Production
FLMC 1300 Production Management
FLMC 2336 Production Developing - Producing
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY

FIRE SCIENCE \& SAFETY - FIREFIGHTER
Associate of Applied Science SCH

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| FIRS 1301 | Firefighter Certification I | 3 |
| FIRS 1407 | Firefighter Certification II |  |
| FIRS 1313 | Firefighter Certification III | 3 |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| FIRS 1319 | Firefighter Certification IV |  |
| FIRS 1423 | Firefighter Certification V |  |
| FIRS 1329 | Firefighter Certification VI |  |
| FIRS 1433 | Firefighter Certification VII |  |
| FIRS 1203 | Firefighter Agility \& Fitness Preparation | 2 |
|  | Semester Total | 16 |
| First Semester - Fall |  |  |
| CHEM 1305 | Introductory Chemistry I (Lecture) | 3 |
| FIRT 1327 | Building Construction in the Fire Service | 3 |
| GOVT 2306 | Texas Government | 3 |
| XXXX \#3 \#\#' | Humanities/Fine Arts Elective | 3 |
| FIRT 2309 | Firefighting Strategies \& Tactics I | 3 |
| PSYC 2301 | General Psychology | 3 |
|  | Semester Total | 18 |
| Second Semester - Spring |  |  |
| FIRT 1309 | Fire Administration | 3 |
| FIRT 1338 | Fire Protection Systems | 3 |
| FIRT 1315 | Hazardous Materials | 3 |
| FIRT 1303 | Fire \& Arson Investigation I | 3 |
| FIRT 2188 | Internship Emergency Management (Capstone) | 1 |
|  | Semester Total | 13 |
| Total Minim | n Credits for the AAS Degree | 60 |

A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY - BASIC FIREFIGHTER

| Certificate - Level 1 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| FIRS 1301 | Firefighter Certification I | 3 |
| FIRS 1407 | Firefighter Certification II | 4 |
| FIRS 1313 | Firefighter Certification III | 3 |
| FIRS 1203 | Firefighter Agility \& Fitness Preparation | 2 |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| FIRS 1319 | Firefighter Certification IV | 3 |
| FIRS 1423 | Firefighter Certification V |  |
| FIRS 1329 | Firefighter Certification VI |  |
| FIRS 1433 | Firefighter Certification VII (Capstone) |  |
|  | Semester Total |  |
| Total Min | Credits for the Level 1 Certificate |  |

# Workforce Degrees and Certificates 

FIRE SCIENCE \& SAFETY - FIRE \& ARSON INVESTIGATION

## FIRST YEAR



## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY - FIRE \& ARSON INVESTIGATOR
Occupational Skills Award SCH
First Semester - Fall
FIRT 1301 Fundamentals of Fire Protection 3
FIRT 1303 Fire \& Arson Investigation I
3
FIRT 2333 Fire \& Arson Investigation II
Semester Total


## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY - FIRE OFFICER

| Certificate - Level 1 |  | SCH |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| FIRT 1307 | Fire Prevention Codes \& Inspections | 3 |
| FIRT 1309 | Fire Administration I | 3 |
| FIRT 1303 | Fire \& Arson Investigation I | 3 |
|  | Semester Total | 9 |
| Second Semester - Spring |  |  |
| FIRT 2309 | Firefighting Strategies \& Tactics I |  |
| FIRT 2305 | Fire Instructor I | 3 |
| FIRT 2351 | Company Fire Officer OR |  |
| FIRT 1342 | Fire Officer I (Capstone) |  |
|  | Semester Total | 9 |
| Total Mini | m Credits for the Level 1 Certificate |  |



## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY - FIRE INSTRUCTOR
Occupational Skills Award SCH
First Semester - Fall
FIRT 2305 Fire Instructor I
3
Semester Total
3
Second Semester - Spring
FIRT 2307 Fire Instructor II
Semester Total
Third Semester - Summer
FIRT 2459 Fire Instructor III
Semester Total
Total Minimum Credits for the Occupational Skills Award

## Workforce Degrees and Certificates

FIRE SCIENCE \& SAFETY - FIRE INSPECTOR
Occupational Skills Award SCH
First Semester - Fall
FIRT $1408 \quad$ Fire Inspector I
FIRT 1340 Fire Inspector II
4

FIRT 1202 Plan Examiner I
Semester Total
Total Minimum Credits for the Occupational Skills Award


## Workforce Degrees and Certificates

## GEOGRAPHIC INFORMATION SCIENCE

## GEOGRAPHIC INFORMATION SCIENCE

Associate of Applied Science SCH


# Workforce Degrees and Certificates 

GEOGRAPHIC INFORMATION SCIENCE - ANALYST
Certificate - Level 2
FIRST YEAR


## Workforce Degrees and Certificates

## GEOGRAPHIC INFORMATION SCIENCE - TECHNICIAN

Certificate - Level 1
First Semester - Fall
GISC 1411 Introduction to Geographic Information Systems (GIS)
COSC 1436 Programming Fundamentals I (using Python)
4

GISC 1401 Cartography \& Geography in Geographical Information Systems (GIS) \&
Global Positioning Systems (Capstone)
Semester Total
Second Semester - Spring
GISC 1421 Introduction to Raster-Based Geographic Information Systems (GIS)
GISC 2359 Web-Served Geographic Information Systems (GIS)
GISC 2364 Practicum - Cartography OR
GISC 2380 Cooperative Education-Cartography
Semester Total
Total Minimum Credits for the Level 1 Certificate
22

## Workforce Degrees and Certificates

## HEALTH INFORMATION TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY
Associate of Applied Science SCH
Prerequisite Semester
XXXX \#3\#\# ${ }^{1}$ General Education Elective
ENGL 1301 Composition I
Semester Total
FIRST YEAR
First Semester - Fall
BIOL 2301 Anatomy \& Physiology I (Lecture)
BIOL 2101 Anatomy \& Physiology I (Lab)
HPRS 1201 Introduction to Health Professions
HITT 1301 Health Data Content \& Structure
HITT 1166 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

POFI 1301 Computer Applications I
Semester Total
Second Semester - Spring
BIOL 2302 Anatomy \& Physiology II (Lecture)
BIOL 2102 Anatomy \& Physiology II (Lab)
HITT 1305
Medical Terminology I
HITT 1345
Health Care Delivery Systems
3
HITT 1167 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician
HITT 1255 Health Care Statistics $\quad>\quad 2$
Semester Total 13
Third Semester - Summer
HITT 1249 Pharmacology
HPRS 2201 Pathophysiology
Semester Total
SECOND YEAR
First Semester-Fall
HITT 1341 Coding \& Classification Systems 3
HIT1253 Legal \& Ethical Aspects of Health Information 2
HITT 2343 Quality Assessment \& Performance Improvement 3
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
Semester Total 11

## Workforce Degrees and Certificates

## Second Semester - Spring

HITT 2335 Coding \& Reimbursement Methodologies 3
HITT 2239 Health Information Organization \& Supervision 2
HITT $1211 \quad$ Health Information Systems 2
HITT 2166 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

XXXX \#3\#\#1 ${ }^{1}$ General Education Elective
Semester Total
Third Semester - Summer
HITT 2149 RHIT Competency Review
HITT 2167 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)

## Semester Total

Total Minimum Credits for the AAS Degree
1
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.


## Workforce Degrees and Certificates

HEALTH INFORMATION TECHNOLOGY - ANALYSIS

## Certificate - Level 1

 SCH
## Prerequisite Semester

HPRS 1201 Introduction to Health Professions
Semester Total
2
2
First Semester - Fall
HITT 1305 Medical Terminology I
HITT 1301 Health Data Content \& Structure
HITT 1166 Practicum (or Field Experience) - Health Information/Medical Records
Technology/Technician (Capstone)
POFI 1301 Computer Applications I
Semester Total
Second Semester - Spring
HITT 1345 Health Care Delivery Systems
HITT 1255 Health Care Statistics
HITT 1167 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


# Workforce Degrees and Certificates 

HEALTH INFORMATION TECHNOLOGY- CODING
Certificate - Level 2 FIRST YEAR
First Semester - Fall

| HPRS 1201 | Introduction to Health Professions | 2 |
| :---: | :---: | :---: |
| HITT 1301 | Health Data Content \& Structure | 3 |
| BIOL 2301 | Anatomy \& Physiology I (Lecture) | 3 |
| BIOL 2101 | Anatomy \& Physiology I (Lab) |  |
|  | Semester Total |  |
| Second Sem | ter - Spring |  |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) |  |
| BIOL 2102 | Anatomy \& Physiology II (Lab) |  |
| HITT 1345 | Health Care Delivery Systems |  |
| HITT 1253 | Legal \& Ethical Aspects of Health Information |  |
| HITT 1305 | Medical Terminology I |  |
|  | Semester Total |  |

Semester Total
Third Semester - Summer
$\begin{array}{lll}\text { HITT 1249 } & \text { Pharmacology } & \\ \text { HPRS 2201 } & \text { Pathophysiology } & \\ & \text { Semester Total } & \\ & & \text { SECONDYEAR }\end{array}$
First Semester - Fall
HITT $1341 \quad$ Coding \& Classification Systems
POFI 1301 Computer Applications I 3
Semester Total
Second Semester - Spring
HITT 2335 Coding \& Reimbursement Methodologies 3
HITT 1211 Health Information Systems 2
$\begin{array}{lll}\text { HITT } 2166 \quad \begin{array}{l}\text { Practicum (or Field Experience) - Health Information/Medical Records } \\ \text { Technology/Technician(Capstone) }\end{array} & 1\end{array}$
Semester Total 6
$\begin{array}{ll}\text { Total Minimum Credits for the Level } 2 \text { Certificate } & 37\end{array}$

## Workforce Degrees and Certificates

## HEATING, AIR CONDITIONING \& REFRIGERATION

Heating, Air conditioning \& Refrigeration
Associate of Applied Science
Associate of Applied Science SCH


3 EPA certification required.

# Workforce Degrees and Certificates 

HEATING, AIR CONDITIONING \& REFRIGERATION - BASIC
Certificate - Level 1
First Semester - Fall

| ELPT 1315 | Electrical Calculations I | 3 |
| :--- | :--- | :--- |
| HART 1301 | Basic Electricity for HVAC | 3 |
| HART $1356^{1}$ | EPA Recovery Certification Preparation | 3 |
|  | Semester Total | 9 |

## Second Semester - Spring

HART 1303 Air Conditioning Control Principles
HART 1307 Refrigeration Principles
HART 1341 Residential Air Conditioning (Capstone)
HART 1345 Gas \& Electric Heating
Semester Total
Total Minimum Credits for the Level 1 Certificate
1 Employment Ready (ER) certification required.

## Workforce Degrees and Certificates



## Workforce Degrees and Certificates

## HEAVY VEHICLE \& TRUCK REPAIR

HEAVY VEHICLE \& TRUCK REPAIR
Certificate - Level 1 SCH
First Semester - Fall
DEMR 1301 Shop Safety \& Procedures
DEMR 1317 Basic Brake Systems
DEMR 1310 Diesel Engine Testing \& Repair I
DEMR 2312 Diesel Engine Testing \& Repair II
Semester Total
Second Semester - Spring
DEMR 1305 Basic Electrical Systems
DEMR 2332 Electronic Controls
DEMR 2439 Advanced Electrical Systems
DEMR 1323 Heating, Ventilation, \& Air Conditioning (HVAC) Troubleshooting \& Repair
Semester Total
Third Semester - Summer
DEMR 1329 Preventative Maintenance
DEMR 1316 Basic Hydraulics
3
DEMR 1330 Steering \& Suspension I
DEMR 1342 Power Train Applications I $\ggg$
DEMR 1381 Cooperative Education-Diesel Mechanics Technology/Technician (Capstone)3

Semester Total ..... 15
Total Minimum Credits for the Level 1 Certificate ..... 40

## Workforce Degrees and Certificates

HEAVY VEHICLE \& TRUCK REPAIR - DIESEL PREVENTATIVE MAINTENANCE
Occupational Skills Award
First Semester - Fall
DEMR 1301 Shop Safety \& Procedures 3
DEMR 1317 Basic Brake Systems
3
DEMR 1310 Diesel Engine Testing \& Repair I
DEMR 2312 Diesel Engine Testing \& Repair II
Semester Total
Total Minimum Credits for the Occupational Skills Award


## Workforce Degrees and Certificates

## HISTOLOGIC TECHNICIAN

## HISTOLOGIC TECHNICIAN

Associate of Applied Science SCH
Prerequisite Semester

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| HPRS 1201 | Introduction to Health Professions |
| MATH 1314 | College Algebra |
| ENGL 1301 | Composition I |
| BIOL 1306 | Biology for Science Majors I ( Lecture) |
| BIOL 1106 | Biology for Science Majors I ( LAB) |
|  | Semester Total |

First Semester - Fall


BIOL 2302 Anatomy \& Physiology II (Lecture) 3
BIOL 2102 Anatomy \& Physiology II (Lab) 1
HLAB 1346 Functional Histology II 3
$\begin{array}{ll}\text { Semester Total } & 11\end{array}$
HLAB 1266 Practicum (or Field Experience) - Histologic Technology/Histotechnologist 2
HLAB 1443 Histotechnology II 4
$\square$ Semester Total 6

## Workforce Degrees and Certificates

## SECOND YEAR

First Semester - Fall
HLAB 1267 Practicum (or Field Experience) - Histologic Technology/Histotechnologist 2
HLAB 2434 Histotechnology III 4

XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
Semester Total
3
9
Second Semester - Spring
HLAB 1268 Practicum (or Field Experience) - Histologic Technology/Histotechnologist
HLAB 2341 Registry Review (Capstone)
Semester Total
Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## HOSPITALITY MANAGEMENT

HOSPITALITY MANAGEMENT
Associate of Applied Science

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framew |
| :--- | :--- |
| HAMG 1321 | Introduction to |
| ENGL 1301 | Composition I |
| MATH 1314 | College Algebra |

Second Semester - Spring

RSTO 1325 Purchasing for Hospitality Operations 3
HAMG 1324 Hospitality Human Resources Management ..... 3
HAMG 1340 Hospitality Legal Issues ..... 3
ACNT 1303 Introduction to Accounting I ..... 3
Semester Total ..... 12
Second Semester - Spring
HAMG 2305 Hospitality Management \& Leadership ..... 3
HAMG 2307 Hospitality Marketing \& Sales ..... 3
XXXX \# Z\#\#' $^{1}$ Humanities Elective OR
XXXX \# $3 \# \#^{1}$ Fine Arts Elective ..... 3
HAMG 2480 Cooperative Education- Hospitality Administration/Management, General (Capstone) ..... 4
Semester Total ..... 13
Total Minimum Credits for the AAS Degree ..... 60${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

HOSPITALITY MANAGEMENT - HOTEL MANAGEMENT
Certificate - Level
First Semester - Fall

| HAMG 1321 | Introduction to Hospitality Industry | 3 |
| :--- | :--- | :--- |
| ACNT 1303 | Introduction to Accounting I | 3 |
| HAMG 1313 | Front Office Management | 3 |
| HAMG 1324 | Hospitality Human Resources Management | 3 |
| ITSC 1309 | Integrated Software Applications I | 3 |
|  | Semester Total | 3 |
| Second Semester - Spring | 3 |  |
| HAMG 2305 | Hospitality Management \& Leadership | 3 |
| HAMG 1340 | Hospitality Legal Issues | 3 |
| HAMG 1342 | Guest Room Management | 3 |
| HAMG 2337 | Hospitality Facilities Management | 3 |
| HAMG | Cooperative Education- Hospitality Administration/Management, General |  |

HAMG 2280 Cooperative Education- Hospitality Administration/Management, General (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

HOSPITALITY MANAGEMENT - RESTAURANT MANAGEMENT
Certificate - Level 1 SCH
First Semester - Fall
HAMG 1321 Introduction to Hospitality Industry 3
ACNT 1303 Introduction to Accounting I
3
CHEF 1205 Sanitation \& Safety
HAMG 1324 Hospitality Human Resources Management
CHEF 1313 Food Service Operation/Systems
Semester Total
Second Semester - Spring
HAMG 2305 Hospitality Management \& Leadership
HAMG 1340 Hospitality Legal Issues
RSTO 1301 Beverage Management
RSTO 2301 Principles of Food and Beverage Controls
HAMG 2280 Cooperative Education- Hospitality Administration/Management, General (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## HUMAN SERVICE TECHNOLOGY

HUMAN SERVICE TECHNOLOGY
Associate of Applied Science
FIRST YEAR
First Semester - Fall

| XXXX \#3\#\#1 | Directed Elective |
| :--- | :--- |
| HPRS 1201 | Introduction to Health Professions |

PSYC 2301 General Psychology
SCWK 1321 Orientation to Social Services
DAAC $1417 \quad$ Basic Counseling Skills
Semester Total
Second Semester - Spring
CMSW 1313 Assessment \& Service Delivery
DAAC 2354 Dynamics of Group Counseling
ENGL 1301 Composition I
PSYC 2316 Psychology of Personality
XXXX \#3\#\# ${ }^{1}$ Directed Elective
Semester Total
Third Semester - Summer

Second Semester - Spring
CMSW 1353 Family Intervention Strategies 3

XXXX \#3\#\#² Math/Natural Science Elective 3
$X X X X \# 3 \# \#^{1} \quad$ Directed Elective 3
CMSW2266 Practicum-Clinical \& Medical Social Worker (Capstone) 2
Semester Total 11
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ Consult with an advisor to select an appropriate elective.
2 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - CHEMICAL DEPENDENCY COUNSELOR
Certificate - Level 1 SCH
First Semester - Fall
HPRS 1201 Introduction to Health Professions 2
DAAC 1304 Pharmacology of Addiction 3
DAAC $1417 \quad$ Basic Counseling Skills
CMSW 1313 Assessment \& Service Delivery
Semester Total
Second Semester - Spring
DAAC 1319 Substance-Related \& Addictive Disorders
DAAC 1305 Co-Occuring Disorders
XXXX \#3\#\# ${ }^{1}$ Directed Elective
XXXX \# $3 \# \#^{1}$ Directed Elective
Semester Total
Third Semester - Summer
DAAC 2267 Practicum-Substance Abuse/Addiction Counseling
Semester Total
Total Minimum Credits for the Level 1 Certificate
${ }^{1}$ Consult with an advisor to select an appropriate elective.

## Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - CERTIFIED PREVENTION SPECIALIST
Occupational Skills Award
First Semester - Fall
DAAC 2306 Substance Abuse Prevention I 3
DAAC 1304 Pharmacology of Addiction3

Semester Total
Second Semester - Spring
DAAC 2353 Substance Abuse Prevention II
Semester Total
Third Semester - Summer
DAAC 1264 Practicum-Substance Abuse/Addiction Counseling
Semester Total
Total Minimum Credits for the Occupational Skills Award


## Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - COMMUNITY HEALTH WORKER
Occupational Skills Award SCH
First Semester - Fall
CHLT 1302 Wellness \& Health Promotion 3
CHLT 1401 Introduction to Community Health
Semester Total
Second Semester - Spring
CHLT 1291 Special Topics in Community Health Liaison
CHLT 1342 Community Health Field Methods
Semester Total
Third Semester - Summer
CHLT 1266 Practicum (or Field Experience) - Community Health
Services/Liaison/Counseling
Semester Total
Total Minimum Credits for the Occupational Skills Award


## Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY

INDUSTRIAL ELECTRICITY - ELECTRICAL TECHNOLOGY
Associate of Applied Science
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ELPT 1321 Introduction to Electrical Safety and Tools
ELPT 1315 Electrical Calculations I
ELPT 1325 National Electrical Code I
ELPT 1370 Electrical Blueprint Reading
Semester Total
Second Semester - Spring
ECON 1301 Introduction to Economics
xxxx \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
ELPT 1311 Basic Electrical Theory
ELPT 1329 Residential Wiring
ELPT 1345 Commercial Wiring
Semester Total

SCH


3
15

## SECOND YEAR



## Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - ELECTRICAL HELPER
Certificate - Level 1
First Semester - Fall
ELPT 1321 Introduction to Electrical Safety and Tools 3
ELPT 1325 National Electrical Code I
3
ELPT 1311 Basic Electrical Theory
3

ELPT 1370 Electrical Blueprint Reading
ELPT 1345 Commercial Wiring
Cooperative Education - Electrical and Power Transmission
ELPT 1380 Installation/Installer, General
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - ELECTRICAL POWER TECHNOLOGY
Certificate - Level 1 SCH
First Semester - Fall
ELPT 1315 Electrical Calculations I 3
ELPT 1321 Introduction to Electrical Safety \& Tools
3
ELPT 1325 National Electrical Code I
ELPT 1370 Electrical Blueprint Reading
ELPT 1329 Residential Wiring
Semester Total
Second Semester - Spring

| ELPT 1341 | Motor Control |
| :--- | :--- |
| ELPT 1311 | Basic Electrical Theory |

ELMT 1301 Programmable Logic Controllers
ELPT 1345 Commercial Wiring
ELPT 1457 Industrial Wiring
Semester Total
Third Semester - Summer
ELPT 1355 Electronic Applications
ELPT 2337 Electrical Planning \& Estimating
Semester Total
Total Minimum Credits for the Level 1 Certificate

3

Consult with an advisor to select a program approved elective.

## Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - INDUSTRIAL AUTOMATION TECHNOLOGY
Certificate - Level 1
First Semester - Fall
ELPT 1315 Electrical Calculations I 3
ELPT 1321 Introduction to Electrical Safety \& Tools 3

HYDR 1345 Hydraulics \& Pneumatics
ELPT 1341 Motor Control
ELPT 1325 National Electrical Code I
Semester Total
Second Semester - Spring
ELPT $1311 \quad$ Basic Electrical Theory
ELMT 1301 Programmable Logic Controllers
INCR 1302 Physics of Instrumentation
ELPT 1457 Industrial Wiring
Semester Total
Third Semester - Summer
ELPT 2419 Programmable Logic Controllers I
ELPT 1355 Electronic Applications
ELPT 2449 Industrial Automation (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - SOLAR PHOTOVOLTAIC SYSTEM INSTALLER

## Certificate - Level 1

First Semester - Fall
ELPT 1315 Electrical Calculations I 3
ELPT 1321 Introduction to Electrical Safety \& Tools3

ELMT 1311 Solar Fundamentals
ELPT 1325 National Electrical Code I
Semester Total
Second Semester - Spring
ELPT $1311 \quad$ Basic Electrical Theory
ELMT 1402 Solar Photovoltaic Systems
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

INSTRUMENTATION \& CONTROLS ENGINEERING TECHNOLOGY

${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

INSTRUMENTATION \& CONTROLS ENGINEERING TECHNOLOGY
Certificate - Level 2 SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
PTAC 1302 Introduction To Process Technology 3
PTAC 1308 Safety, Health, \& Environment I 3
MATH 1314 College Algebra
INTC 1356 Instrumentation Calibration
Semester Total
Second Semester-Spring


## Workforce Degrees and Certificates

## INTERIOR DESIGN

INTERIOR DESIGNAssociate of Applied Science SCHPrerequisite Semester
EDUC 1300 Learning Framework ..... 3
XXXX \#3\#\#1 General Education Elective
Semester Total
FIRST YEAR
First Semester - Fall
INDS 1311 Fundamentals of Interior Design
INDS 1301 Basic Elements of Design
INDS 1319 Technical Drawing for Interior Designers
INDS 1370 History of Interiors
INDS 2321 Presentation Drawing
Semester TotalSecond Semester - Spring
INDS 1349 Fundamentals of Space Planning INDS 2307 Textiles for Interior Design ..... 3
INDS 2305 Interior Design Graphics ..... 3
INDS 2317 Rendering Techniques
Semester Total ..... 3 ..... 12
Third Semester - Summer
$\begin{array}{ll}\text { XXXX \#3\#\#1 } & \text { Math/Natural Science Elective } \\ & \text { Semester Total } \\ \text { SECOND YEAR }\end{array}$ ..... 3 ..... 3
First
Residential Design I ..... 3
INDS 1315 Materials, Methods \& Estimating ..... 3
INDS 2271 Digital Presentation Methods ..... 2
ARTS 1304 Art History II ..... 3
Semester Total ..... 11
Second Semester - Spring
INDS 1345 Commercial Design I ..... 3
INDS 2325 Professional Practices for Interior Designers ..... 3
INDS 2237 Portfolio Presentation (Capstone) ..... 2
INDS 2264 Practicum (or Field Experience) - Interior Design ..... 2
Semester Total ..... 10
Total Minimum Credits for the AAS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## INTERIOR DESIGN - INTERIOR DECORATING

## Certificate - Level 1

## Prerequisite Semester

TECM 1301 Industrial Mathematics
3
Semester Total
First Semester - Fall
INDS 1311 Fundamentals of Interior Design
INDS 1319 Technical Drawing for Interior Designers
INDS 1301 Basic Elements of Design
Semester Total
Second Semester - Spring
INDS 2307 Textiles For Interior Design
INDS 1315 Materials, Methods \& Estimating
INDS 2325 Professional Practices for Interior Designers (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## INTERIOR DESIGN - KITCHEN \& BATH DESIGN PROFESSIONAL

 Certificate - Level 2
## FIRST YEAR



## Workforce Degrees and Certificates

## INTERIOR DESIGN - INTERIOR DESIGN COMMUNICATION

Occupational Skills Award
First Semester - Fall
INDS 1319 Technical Drawing for Interior Designers 3
INDS 2321 Presentation Drawing
Semester Total
Second Semester - Spring
INDS 2305 Interior Design Graphics
INDS 2317 Rendering Techniques
Semester Total
Total Minimum Credits for the Occupational Skills Award
Total Minim Credits for the Occupational Skills Award

## Workforce Degrees and Certificates

## INTERNATIONAL BUSINESS

## INTERNATIONAL BUSINESS

Associate of Applied Science
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
ENGL 1301 Composition I
IBUS 1305 Introduction to International Business \& Trade
IBUS 1354 International Marketing Management
BUSG 1301 Introduction to Business
Semester Total
Second Semester - Spring


ECON 2302 Principles of Microeconomics 3
$\begin{array}{lll}\text { IBUS } 2280 & \text { Cooperative Education - International Business/Trade/Commerce OR } \\ \text { IBUS } 1291 & \text { Specialtopics in International Business } & 2\end{array}$
IBUS 2341 Intercultural Management (Capstone) 3
Semester Total 15
Total Minimum Credits for the AAS Degree $\mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## INTERNATIONAL BUSINESS

## Certificate - Level 1 <br> SCH

First Semester - FalIBUS 1354 International Marketing ManagementIBUS 1354 International Marketing Management33IBUS 1301 Principles of ExportsIBUS 1341 Global Supply Chain Management
Semester Total
Second Semester - Spring
IBUS 2335 International Business Law
IBUS 1302 Principles of ImportsIBUS 1291 Special Topics in International BusinessIBUS 2339 International Banking \& Trade FinanceIBUS 1191 Special Topics in International Business - Certified Global BusinessProfessional Exam (Capstone)
Semester TotaTotal Minimum Credits for the Level 1 Certificate24

## Workforce Degrees and Certificates

## INTERPRETING/SIGN LANGUAGE

## INTERPRETING/SIGN LANGUAGE - INTERPRETING TRANSLITERATION TECHNOLOGY

Associate of Applied Science
SCH
FIRST YEAR
First Semester - Fall
EDUC 1300 Learning Framework
SGNL 1401 Beginning American Sign Language I
SLNG 1317 Introduction to the Deaf Community
SLNG 1248 Vocabulary Development for Interpreters
ENGL 1301 Composition I
Semester Total


SLNG 2301 Interpreting I 3
SLNG 1211 Fingerspelling \& Numbers 2
PSYC2301 Generat Psychology 3
SLNG 1321 Introduction to the Interpreting Profession 3
Semester Total $>14$

## Workforce Degrees and Certificates

## Second Semester - Spring

SLNG 2302 Interpreting II 3
SLNG 2371 Specialized Signs 3
SLNG 1350 Sign-to-Voice 3
SGNL 2302 Intermediate American Sign Language (ASL) II 3
SLNG 1166 Practicum - Sign Language Interpretation \& Translation 1
Semester Total
Third Semester - Summer
SLNG 2331 Interpreting III
SLNG 2266 Practicum - Sign Language Interpretation \& Translation (Capstone)
Semester Total

## Total Minimum Credits for the AAS Degree

${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## LICENSED VOCATIONAL NURSING



## Workforce Degrees and Certificates

## SECOND YEAR

First Semester - Fall
XXXX \#3\#\#¹ ${ }^{1}$ General Education Elective 3
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
XXXX \#4\#\# ${ }^{1} \quad$ Math/Natural Science Elective

XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
Semester Total
Total Minimum Credits for the AAS Degree
.
3
4

3
13
60


## Workforce Degrees and Certificates

## LICENSED VOCATIONAL NURSING



# Workforce Degrees and Certificates 

## LOGISTICS \& GLOBAL SUPPLY CHAIN MANAGEMENT



## Workforce Degrees and Certificates

LOGISTICS \& GLOBAL SUPPLY CHAIN MANAGEMENT - GENERAL

## Certificate - Level 1

SCHFirst Semester - Fal

LMGT 1319 Introduction to Business Logistics 3
IBUS 1301 Principles of Exports
LMGT 1321 Introduction to Materials Handling3

IBUS 1341 Global Supply Chain Management
Semester Total
Second Semester - Spring
LMGT 1323 Domestic \& International Transportation Management
LMGT 1325 Warehouse \& Distribution Center Management
IBUS 1302 Principles of Imports
BMGT 1313 Principles of Purchasing
LMGT 1193 Special Topics in Logistics \& Materials Management (Capstone)

## Semester Total

Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## LOGISTICS \& GLOBAL SUPPLY CHAIN MANAGEMENT SPECIALIST

## Certificate - Level 1

First Semester - Fall
LMGT 1319 Introduction to Business Logistics 3
IBUS 1301 Principles of Exports3

Semester Total
Second Semester - Spring
LMGT 1323 Domestic \& International Transportation Management
IBUS 1302 Principles of Imports
LMGT 1325 Warehouse \& Distribution Center Management
LMGT 1193 Special Topics in Logistics \& Materials Management (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## LOGISTICS \& GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME TRANSPORTATION LOGISTICS SPECIALIZATION

Associate of Applied Science
FIRST YEAR

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| MART 1370 | Introduction to Maritime Shipping | 3 |
| IBUS 1341 | Global Supply Chain Management | 3 |
| ENGL 1301 | Composition I |  |
| MATH 1324 | Mathematics for Business \& Social Sciences | 3 |
|  | Semester Total | 15 |
| Second Semester - Spring |  |  |
| LMGT 1170 | Certified Logistics Associate |  |
| LMGT 1271 | Certified Logistics Technician |  |
| ENGL 1302 | Composition II OR |  |
| ENGL 2311 | Technical \& Business Writing | , |
| OSHT 1301 | Introduction to Safety \& Health | 3 |
| XXXX \#3\#\# | Humanities/Fine Arts Elective | 3 |
| IBUS 1301 | Principles of Exports | 3 |
|  | Semester Total | 15 |
| First Semester - Fall |  |  |
| IBUS 2335 | International Business Law | 3 |
| ECON 2302 | Principles of Microeconomics | 3 |
| LMGT 1345 | Economics of Transportation \& Distribution | 3 |
| IBUS 1302 | Principles of Imports | 3 |
| LMGT 1323 | Domestic \& International Transportation Management | 3 |
|  | Semester Total | 15 |
|  |  |  |
| LMGT 1325 | Warehouse \& Distribution Center Management | 3 |
|  | Internship-Logistics \& Materials Management (Capstone) | 3 |
| LMGT 1319 | Introduction to Business Logistics | 3 |
| XXXX \# ${ }^{\text {\# }}{ }^{1}$LMGT 1370 | General Education Elective | 3 |
|  | LMGT 1370 Equipment Operation | 3 |
| Semester Total |  | 15 |
| Total Minimum Credits for the AAS Degree |  | 60 |
|  | A list of electives appears in the Core Curriculum section of this |  |

## Workforce Degrees and Certificates

## LOGISTICS \& GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME LOGISTICS SPECIALIZATION

Certificate - Level 1 SCH
First Semester - Fall
LMGT 1323 Domestic \& International Transportation Management


# Workforce Degrees and Certificates 

MACHINING TECHNOLOGY
Associate of Applied Science

## FIRST YEAR



# Workforce Degrees and Certificates 

MACHINING TECHNOLOGY

## Certificate - Level 2 <br> FIRST YEAR



# Workforce Degrees and Certificates 

MACHINING TECHNOLOGY - BASIC MANUFACTURING/MACHINING

## Certificate - Level 1

First Semester - Fall
ENTC 1347 Safety \& Ergonomics 3
MCHN 1302 Print Reading for Machining Trades 3
MCHN 1338 Basic Machine Shop I
MCHN 1343 Machine Shop Mathematics
Semester Total
Second Semester - Spring
HYDR 1345 Hydraulics \& Pneumatics
MCHN 1308 Basic Lathe
MCHN 1313 Basic Milling Operations (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

## MANUFACTURING ENGINEERING TECHNOLOGY



# Workforce Degrees and Certificates 

MANUFACTURING ENGINEERING TECHNOLOGY - TECHNICIAN

## Certificate - Level 2

## FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
MCHN 1343 Machine Shop Mathematics
MCHN 1302 Print Reading for Machining Trades
ENTC 1347 Safety \& Ergonomics
MCHN 1338 Basic Machine Shop I
Semester Total
Second Semester - Spring
HYDR 1345 Hydraulics \& Pneumatics
ELPT 1311 Basic Electrical Theory
INMT 1372 Quality and Assessment
INMT 1345 Computer Numerical Controls
MCHN 2331 Operation of CNC Turning Centers
Semester Total
SECOND YEAR
First Semester - Fall

| INMT 1343 | Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) | 3 |
| :--- | :--- | :--- |
| INMT 1305 | Introduction to Industrial Maintenance | 3 |
| INMT 1317 | Industrial Automation | 3 |
| INMT 1370 | Lean Manufacturing | 3 |
| MCHN 2335 | Advanced CNC Machining (Capstone) | 3 |
|  | Semester Total | 15 |
| Total Minimum Credits for the Level 2 Certificate | 45 |  |

# Workforce Degrees and Certificates 

## MANUFACTURING ENGINEERING TECHNOLOGY - HIGH VALUE MANUFACTURING

## Certificate - Level 2

First Semester - Fall
ENTC 1347 Safety \& Ergonomics
MATH 1314 College Algebra
MCHN 1302 Print Reading for Machining Trades
MCHN 1338 Basic Machine Shop I
PTRT 1301 Introduction to Petroleum Industry
3


Semester Total
Second Semester - Spring
INCR 1302 Physics of Instrumentation
INMT 1345 Computer Numerical Controls
INMT 1371 Materials \& Applications
MCHN 1308 Basic Lathe
MCHN 1313 Basic Milling Operations
PTRT 1470 Petroleum Data Management
Semester Total
15


Third Semester - Summer

## Workforce Degrees and Certificates

## MARKETING

## MARKETING - GENERAL

Associate of Applied Science

## FIRST YEAR

First Semester - Fall

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| ENGL 1301 | Composition I |
| MRKG 1311 | Principles of Marketing |
| HRPO 1311 | Human Relations |
| IBUS 1354 | International Marketing Management |
|  | Semester Total |

Second Semester - Spring
BMGT 1327 Principles of Management
MRKG 1302 Principles of Retailing
MRKG 2312 e-Commerce Marketing OR
MRKG 2371 Services Marketing
MRKG 1391 Special Topics in Business Marketing \& Marketing Management 3
MATH 1324 Mathematics for Business \& Social Sciences 3
Semester Total
SECONDYEAR

First Semester - Fall
MRKG 2348 Marketing Research \& Strategies 3
ECON 2302 Principles of Microeconomics 3
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective $\quad 3$
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
ACNT 1303 Introduction to Accounting I OR
ACCT 2301 Principles of Financial Accounting 3
Semester Total 15
Second Semester - Spring
MRKG 2372 Consumer Behavior 3
MRKG 2333 Principles of Selling 3
MRKG 2349 Advertising \& Sales Promotion 3
MRKG 2380 Cooperative Education - Marketing/Marketing Management, General 3
MRKG 2374 Marketing Case Studies (Capstone) 3
Semester Total 15
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## MARKETING



## Workforce Degrees and Certificates

MARKETING - RETAILING

## Certificate - Level 1

First Semester - Fall
HRPO 1311 Human Relations 3
MRKG 1311 Principles of Marketing
3
MRKG 2333 Principles of Selling
MRKG 1302 Principles of Retailing
Semester Total
Second Semester - Spring
MRKG 2372 Consumer Behavior
XXXX \# 3 \#\# ${ }^{1}$ Program Approved Elective
XXXX \#3\#\# ${ }^{1} \quad$ Program Approved Elective
MRKG 2371 Services Marketing (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate
24
1 Program approved electives: Any BUSG, BMGT, HRPO, IBUS, MRKG, or LMGT course.

## Workforce Degrees and Certificates



## Workforce Degrees and Certificates

MARKETING - ENTERPRISE DEVELOPMENT

## Certificate - Level 1

First Semester - Fall

MRKG 1311 Principles of Marketing
BUSG 1307 Entrepreneurship \& Economic Development
3

MRKG 2370 Creativity \& Innovation
MRKG 2378 Franchising
MRKG 2376 Enterprise Opportunity Analysis (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## MARKETING - SOCIAL ENTERPRISE

## Certificate - Level 1

## FIRST YEAR

First Semester - Fall
MRKG 1311 Principles of Marketing
BUSG 1307 Entrepreneurship \& Economic Development
IBUS 1370 Economic Geography
MRKG 2372 Consumer Behavior
Semester Total
Second Semester - Spring
BUSG 2309 Small Business Management/Entrepreneurship
IBUS 2370
Global Issues for Enterprise
MRKG 2375 Social Enterprise
MRKG 2376 Enterprise Opportunity Analysis (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## MEDICAL

ALLIED HEALTH - MEDICAL ASSISTANT - SPECIALIZATION

Associate of Applied Science
SCH
Prerequisite Semester
XXXX \#3\#\# ${ }^{1}$ General Education Elective
HPRS 1201 Introduction to Health Professions
ENGL 1301 Composition I
Semester Total
FIRST YEAR
First Semester - Fall
HPRS 1304 Basic Health Profession Skills
MDCA 1205 Medical Law \& Ethics
MDCA 1213 Medical Terminology
Semester Total
Second Semester - Spring
MDCA 1409 Anatomy \& Physiology for Medical Assistants
MDCA 1343 Medical Insurance
MDCA 1352 Medical Assistant Laboratory Procedures
MDCA 1352 Medical Assistant Laboratory Procedures 3
MDCA 1417 Procedures in a Clinical Setting 4
Semester Total $\gg 14$
Third Semester - Summer
MDCA 1372 Electronic Medical Record Documentation for Scribes 3
MDCA 1321 Administrative Procedures 3
MDCA 1448 Pharmacology \& Administration of Medications 4
MDCA 1310 Medical Assistant Interpersonal \& Communication Skills 3
Semester Total 13
First Semester - Fall
MDCA 1254 Medical Assisting Credentialing Exam Review 2
MDCA 1264 Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone) 2
SemesterTotal 4
Second Semester - Spring
XXXX \#4\#\# ${ }^{1}$ General Education Elective 4
XXXX \#4\#\#1 Math/Natural Science Elective 4
XXXX \#3\#\#1 Humanities/Fine Arts Elective 3
XXXX \#3\#\#' General Education Elective 3
Semester Total 14
Total Minimum Credits for the AAS Degree $\quad 60$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## MEDICAL ASSISTANT- SPECIALIZATION

## Certificate - Level 2

## FIRST YEAR

## Prerequisite Semester



## Workforce Degrees and Certificates

MEDICAL ASSISTANT - MEDICAL SCRIBE
Certificate - Level 1

## Prerequisite Semester

HPRS 1201 Introduction to Health Professions 2
HPRS 1304 Basic Health Profession Skills
MDCA 1213 Medical Terminology
ITSC 1309 Integrated Software Applications I
Semester Total
First Semester - Fall
MDCA 1409 Anatomy \& Physiology for Medical Assistants
MDCA 1205 Medical Law \& Ethics
MDCA 1372 Electronic Medical Record Documentation for Scribes
MDCA 1343 Medical Insurance
Semester Total
Second Semester - Spring
MDCA 1265 Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## MEDICAL LABORATORY TECHNICIAN

MEDICAL LABORATORY TECHNICIAN
Associate of Applied Science SCH
Prerequisite Semester

| MLAB 1101 | Introduction to Clinical Laboratory Science |
| :---: | :---: |
| MATH 1314 | College Algebra |
| ENGL 1301 | Composition I |
| BIOL 2301 | Anatomy \& Physiology I (Lecture) |
| BIOL 2101 | Anatomy \& Physiology I (Lab) |
|  | Semester Total |
|  | FIRST YEAR |
| First Semester - Fall |  |
| EDUC 1300 | Learning Framework |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) |
| CHEM 1405 | Introductory Chemistry I OR |
| CHEM 1311 | General Chemistry I (Lecture) AND |
| CHEM 1111 | General Chemistry I (Lab) |
| MLAB 1235 | Immunology/Serology |
| MLAB 1270 | Hematology I |
| PLAB 1173 | Phlebotomy |
|  | Semester Total |
| Second Semester - Spring |  |

BIOL 2320 Microbiology for Non-Science Majors (Lecture) 3

MLAB 1127 Coagulation $\quad 1$
MLAB 1271 Hematology II 2
MLAB 2331 Immunohematology 3
MLAB 2270 Clinical Chemistry I 2
Semester Total 11
Third Semester - Summer
MLAB 1211 Urinalysis \& Body Fluids
MLAB 2271 Clinical Chemistry II 2
$\begin{array}{ll}\text { Semester Total } & 4\end{array}$
First Semester - Fall

| MLAB 1166 | Practicum (or Field Experience) - Clinical/Medical Laboratory Technician | 1 |
| :--- | :--- | :--- |
| MLAB 1167 | Practicum (or Field Experience) - Clinical/Medical Laboratory Technician | 1 |
| MLAB 2434 | Clinical Microbiology | 4 |
|  | Semester Total | 6 |

## Workforce Degrees and Certificates

## Second Semester - Spring

| MLAB 1231 | Parasitology/Mycology | 2 |
| :--- | :--- | :--- |
| MLAB 1266 | Practicum (or Field Experience)- Clinical/Medical Laboratory Technician | 2 |
| MLAB 1267 | Practicum (or Field Experience)- Clinical/Medical Laboratory Technician | 2 |
| XXXX \#3\#\# | Humanities/Fine Arts Elective | 3 |
|  | Semester Total | 9 |
| Third Semester - Summer |  |  |
| MLAB 2232 | Seminar in Medical Laboratory Technology | 2 |
| MLAB 2238 | Advanced Topics in Medical Laboratory Technician/Assistant | 2 |
|  | Semester Total | 4 |
| Total Minimum Credits for the AAS Degree | 60 |  |

## Workforce Degrees and Certificates

## MUSIC BUSINESS



## Workforce Degrees and Certificates

## MUSIC BUSINESS

## Certificate - Level 1

```
First Semester - Fall SCH
MUSB 1305 Survey of the Music Business3MUSB 2301 Music Marketing3MUSB 2309 The Record IndustryMUSB \#3\#\# \({ }^{1}\) Approved Music Business ElectiveMUSB 2355 Legal Aspects of the Entertainment IndustrySemester Total
```

Total Minimum Credits for the Level 1 Certificate

```
\({ }^{1}\) Consult with an advisor to select an appropriate elective.
```


## Workforce Degrees and Certificates

## MUSIC BUSINESS - ADMINISTRATION SPECIALIZATION

## Certificate - Level 2 <br> FIRST YEAR

First Semester - Fall
EDUC 1300 Learning Framework 3
MUSB 1305 Survey of the Music Business
MUSC 1270 Fundamentals of Music Production
MUSC 1335 Commercial Music Software
MUSB \#3\#\# ${ }^{1}$ Approved Music Business/Commercial Music
MUSB \#3\#\# ${ }^{1}$ Approved Music Business/Commercial Music
Semester Total


## Workforce Degrees and Certificates

## MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION Associate of Applied Science

## FIRST YEAR

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| XXXX \#3\#\# ${ }^{1}$ | General Education Elective | 3 |
| MUSI 1303 | Fundamentals of Music | 3 |
| MUSC 1321 | Songwriting I |  |
| MUSB 1305 | Survey of the Music Business |  |
|  | Semester Total | 15 |
| Second Semester - Spring |  |  |
| MUAP 1292 | Arranging \& Composition |  |
| MUSB 2355 | Legal Aspects of the Entertainment Industry |  |
| MUSC 1335 | Commercial Music Software |  |
| MUSC 1270 | Fundamentals of Music Production |  |
| XXXX \#3\#\# ${ }^{2}$ | Approved Music Business/Commercial Music Elective |  |
| XXXX \#3\#\#1 | Approved Math/Natural Science Elective | 3 |
|  | Semester Total | 16 |
| First Semester - Fall |  |  |
| MUAP 2292 | Arranging \& Composition | 2 |
| MUSB 1341 | Concert Promotion \& Venue Management | 3 |
| MUSB 2309 | The Record Industry | 3 |
| XXXX \#3\#\# ${ }^{1}$ | Approved Social/Behavioral Sciences Elective | 3 |
| XXXX \# 3 \#\# ${ }^{2}$ | Approved Music Business/Commercial Music Elective | 3 |
|  | Semester Total | 14 |
| Second Semester - Spring |  |  |
| MUAP 2293 | Arranging \& Composition | 2 |
| MUSI 1310 | American Music | 3 |
| MUSB 2345 | Live Music \& Talent Management | 3 |
| MUSB 1391 Special Topics in Music Business |  | 3 |
| MUSC 2141 Forum/Recital (Capstone) |  | 1 |
| XXXX \#3\#\# ${ }^{2}$ | Approved Music Business/Commercial Music Elective | 3 |
|  | Semester Total | 15 |
| Total Minim | Credits for the AAS Degree | 60 |
|  | A list of electives appears in the Core Curriculum section Consult with an advisor to select an appropriate elective. |  |

## Workforce Degrees and Certificates

MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION
Certificate - Level 2
FIRST YEAR

| First Semester - Fall |  |  |
| :---: | :---: | :---: |
| EDUC 1300 | Learning Framework | 3 |
| MUSI 1303 | Fundamentals of Music | 3 |
| MUSB 1305 | Survey of the Music Business | 3 |
| MUSC 1321 | Songwriting I |  |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| MUAP 1292 | Arranging \& Composition |  |
| MUSC 1335 | Commercial Music Software |  |
| MUSB 2355 | Legal Aspects of the Entertainment Industry |  |
| MUSC 1270 | Fundamentals of Music Production |  |
| XXXX \#2\#\#1 | Approved Music Business/Commercial Music Elective |  |
| Semester Total |  |  |
| SECOND YEAR |  |  |
| First Semester - Fall |  |  |
| MUAP \#2\#\#1 | Approved Applied Music Elective | 2 |
| MUAP 2292 | Arranging \& Composition | 2 |
| MUSB 2309 | The Record Industry | 3 |
| MUSB 1341 | Concert Promotion \& Venue Management | 3 |
| MUAP \#2\#\# ${ }^{1}$ | Approved Music Business/Commercial Music Electiv | 2 |
|  | Semester Total | 12 |
| Second Semester - Spring |  |  |
| MUAP 2292 | Arranging \& Composition | 2 |
| MUSC 2141 | Forum/Recital (Capstone) | 1 |
| MUSB 1391 | Special Topics in Music Business | 3 |
|  |  | 3 |
| MUAP \#3\#\#1 | Approved Music Business/Commercial Music Elective | 3 |
|  | Semester Total | 12 |
| Total Minimu | Credits for the Level 2 Certificate | 48 |
| ${ }^{1}$ Consult with an advisor to select an appropriate elective. |  |  |

## Workforce Degrees and Certificates

## NUCLEAR MEDICINE TECHNOLOGY



## Workforce Degrees and Certificates

## SECOND YEAR

First Semester - Fall
NMTT 2413 Nuclear Medicine Methodology II
NMTT 2266 Practicum (or Field Experience) IV - Nuclear Medical Technology/Technologist

2
ENGL 1301 Composition I
Semester Total
Second Semester - Spring
CTMT 2336 Computed Tomography Equipment \& Methodology
NMTT 2367 Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist (Capstone)

Semester Total
Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## NURSING

NURSING
Associate of Applied Science SCH
Prerequisite Semester
ENGL 1301 Composition I 3
BIOL 2301 Anatomy \& Physiology I (Lecture)
BIOL 2101 Anatomy \& Physiology I (Lab)
PSYC 2301 General Psychology
BIOL 2320 Microbiology for Non-Science Majors (Lecture)
BIOL 2120 Microbiology for Non-Science Majors (Lab)
Semester Total
FIRST YEAR
First Semester - Fall

| RNSG 1413 | Foundations for Nursing Practice | 4 |
| :--- | :--- | :--- |
| RNSG 1201 | Pharmacology | 2 |
| RNSG 1360 | Clinical - Registered Nursing/Registered Nurse-Foundations | 3 |
| RNSG 1105 | Nursing Skills I | 1 |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) | 3 |
| BIOL 2102 | Anatomy \& Physiology II (Lab) | 1 |
|  | Semester Total | $\mathbf{1 4}$ |

RNSG 1341 Common Concepts of Adult Health
RNSG 2360 Clinical - Registered Nursing/Registered Nurse 3
RNSG 2201 Care of Children \& Families 2
RNSG 2261 Clinical - Registered Nursing/Registered Nurse 2
PSYC 2314 Lifespan Growth \& Development 3
Semester Total 13
Third Semester - Summer
RNSG 1160 Clinical - Registered Nursing/Registered Nurse 1
RNSG 1251 Care of the Childbearing Family 2
RNSG 2213 Mental Health Nursing 2
RNSG 2160 Clinical - Registered Nursing/Registered Nurse 1
XXXX \#3\#\#¹ Humanities/Fine Arts Elective 3
Semester Total 9

## Workforce Degrees and Certificates

## SECOND YEAR

First Semester - Fall
RNSG 2221 Professional Nursing: Leadership \& Management 2
RNSG 1144 Nursing Skills II 1
RNSG 1343 Complex Concepts of Adult Health
3
RNSG 2361 Clinical - Registered Nursing/Registered Nurse-Adult II
RNSG 2130 Professional Nursing Review \& Licensure Preparation (Capstone)
Semester Total
Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.


## Workforce Degrees and Certificates

NURSING - TRANSITION TO REGISTERED NURSING
Associate of Applied Science SCH
Prerequisite Year

| BIOL 2301 | Anatomy \& Physiology I (Lecture) | 3 |
| :--- | :--- | ---: |
| BIOL 2101 | Anatomy \& Physiology I (Lab) | 1 |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) | 3 |
| BIOL 2102 | Anatomy \& Physiology II (Lab) | 1 |
| ENGL 1301 | Composition I | 3 |
| PSYC 2301 | General Psychology | 3 |
| XXXX \#3\#\# | Humanities/Fine Arts Elective | 3 |
| BIOL 2320 | Microbiology for Non-Science Majors (Lecture) | 3 |
| BIOL 2120 | Microbiology for Non-Science Majors (Lab) | 1 |
| PSYC 2314 | Lifespan Growth \& Development | 3 |
| RNSG 1201 | Pharmacology | 26 |

First Semester - Fall

| RNSG 1215 | Health Assessment | 2 |
| :--- | :--- | :--- |
| RNSG 1327 | Transition to Professional Nursing | 3 |
| RNSG 1163 | Clinical - Registered Nursing/Registered Nurse Transition | 1 |
| RNSG 2213 | Mental Health Nursing | 2 |
| RNSG 2160 | Clinical - Registered Nursing/Registered Nurse | 1 |
|  | Semester Total | 9 |

Upon successful completion of the first semester courses, the student will receive credit for:

RNSG 1360 Clinical Registered Nursing/Registered Nurse (Fundamentals) 3
RNSG 1413 Foundations for Nursing Practice 4
Semester Total 8
Second Semester - Spring
RNSG $2201 \quad$ Care of Children \& Families
RNSG 2261 Clinical-Registered Nursing/Registered Nurse 2
RNSG 1144 Nursing Skills II 1
RNSG 1251 Care of the Childbearing Family 2
RNSG $1160 \quad$ Clinical - Registered Nursing/Registered Nurse 1
$\begin{array}{ll}\text { Semester Total } & 8\end{array}$
Third Semester - Summer
RNSG 1343 Complex Concepts of Adult Health 3
RNSG 2361 Clinical - Registered Nursing/Registered Nurse-Adult II 3
RNSG2221 Professional Nursing: Leadership \& Management 2
RNSG 2130 Professional Nursing Review \& Licensure Preparation (Capstone) 1
Semester Total 9
Total Minimum Credits for the AAS Degree 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## OCCUPATIONAL THERAPY ASSISTANT



## Workforce Degrees and Certificates

## SECOND YEAR

First Semester - Fall
OTHA 1253 Occupational Performance for Elders


OTHA 2331 Physical Function in Occupational Therapy


Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

* Portions of the program's courses incorporate the use of technology and /or maybe offered in a distance learning format (online or hybrid).
Second Semester - Spring
OTHA 2330 Workplace Skills for Occupational Therapy Assistant
OTHA 2266 Practicum (or Field Experience) - Occupational Therapy Assistant
OTHA 2267 Practicum (or Field Experience) - Occupational Therapy Assistant (Capstone)


## Semester Total

$\qquad$

## Workforce Degrees and Certificates

## PARALEGAL TECHNOLOGY

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT
Associate of Applied Science
FIRST YEAR


1 Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.
2 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LAW OFFICE CLERK
Certificate - Level 1
FIRST YEAR
First Semester - Fall
LGLA 1303 Legal Research 3
ACNT 1303 Introduction to Accounting I
LGLA 1344 Texas Civil Litigation
Semester Total
Second Semester - Spring
LGLA 1345 Civil Litigation
LGLA 2307 Law Office Management
LGLA 1380 Cooperative Education - Legal Assistant/Paralegal (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT - GENERAL

## Certificate - Level 1

## FIRST YEAR

First Semester - Fall

| LGLA 1303 | Legal Research | 3 |
| :---: | :---: | :---: |
| LGLA 1344 | Texas Civil Litigation | 3 |
| LGLA 2309 | Real Property | 3 |
| LGLA \#3\#\# ${ }^{1}$ | Paralegal Technology Elective | 3 |
| ACNT 1303 | Introduction to Accounting I |  |
| Semester Total |  |  |
| Second Semester - Spring |  |  |
| LGLA 1305 | Legal Writing |  |
| LGLA 1345 | Civil Litigation |  |
| LGLA 2303 | Torts \& Personal Injury Law |  |
| LGLA 2307 | Law Office Management |  |
| LGLA 1380 | Cooperative Education-Legal Assistant/Paralegal (Capstone) |  |
|  | Semester Total | 15 |
| Total Minimum Credits for the Level 1 Certificate |  |  |

${ }^{1}$ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

## Workforce Degrees and Certificates

## PETROLEUM ENGINEERING TECHNOLOGY



## Workforce Degrees and Certificates

## Second Semester - Spring

PTRT 2331 Well Completions 3
XXXX \#3\#\# ${ }^{2}$ Social/Behavioral Sciences Elective 3
PTRT 2323 Natural Gas Production 3
XXXX \#3\#\#² ${ }^{2}$ Humanities/ Fine Arts Elective 3
Semester Total
. 3
 3 12

Third Semester - Summer
PTRT 2372 Internship-Petroleum Technology/Technician
PTRT 2470 Petroleum Data Management III - Facilities \& Performance (Capstone)
Semester Total
Total Minimum Credits for the AAS Degree
1 Consult with an advisor to determine the appropriate elective.
2 A list of electives appears in the Core Curriculum section of this catalog.
7

## Workforce Degrees and Certificates

## PETROLEUM ENGINEERING TECHNOLOGY

Certificate - Level 2 SCH
First Semester - Fall
EDUC 1300 Learning Framework 3
PTRT 1301 Introduction to Petroleum Industry
3
MATH 1314 College Algebra
PTRT 1313 Industrial Safety
CPMT 1303 Introduction to Computer Technology
Semester Total

## Second Semester - Spring

ENGL 1301 Composition I
PTRT 1470 Petroleum Data Management I-Exploration
MATH 1325 Calculus for Business \& Social Sciences
PTRT 1471 Exploration \& Production I
PTRT 1370 Petroleum Geology
Semester Total
Third Semester - Summer

| PTRT 1473 | Exploration \& Production II | 4 |
| :--- | :--- | :--- |
| PTRT 1472 | Petroleum Data Management II - Drilling \& Production | 4 |

PTRT 2370 Petroleum Operations (Capstone) 3
Semester Total $\ggg 11$
Total Minimum Credits for the Level 2 Certificate

## Workforce Degrees and Certificates

## PHARMACY TECHNICIAN-SPECIALIZATION

ALLIED HEALTH - PHARMACY TECHNICIAN Associate of Applied Science
FIRST YEAR

## Prerequisite Semester

| HPRS 1201 | Introduction to Health Professions <br> PHRA 1301 |
| :--- | :--- |
| Introduction to Pharmacy <br> Semester Total |  |
| First Semester - Fall |  |
| PHRA 1305 | Drug Classification |
| PHRA 1309 | Pharmaceutical Mathematics I |
| PHRA 1413 | Community Pharmacy Practice |
| PHRA 1272 | Professional Practices for Pharmacy Technicians |

## Semester Total

Second Semester - Spring
PHRA 1449 Institutional Pharmacy Practice
PHRA 1445 Compounding Sterile Preparations
PHRA 1247 Pharmaceutical Mathematics II

Third Semester - Summer
PHRA 1261 Clinical - Pharmacy Technician/Assistant 2
PHRA 2260 Clinical-Pharmacy Technician/Assistant 2
PHRA 2261 Clinical - Pharmacy Technician/Assistant (Capstone) 2
PHRA 1243 Pharmacy Technician Certification Review 2
Semester Total 8
First Semester - Fall
ENGL 1301 Composition I 3
XXXX \#4\#\# ${ }^{1}$ Math/Natural Science Elective 4
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective 3
XXXX \# ${ }^{2} \#^{1}$ Social/Behavioral Sciences Elective 3
Semester Total 13
Second Semester - Spring
ENGL 1302 Composition II 3
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
XXXX\#3\#\# ${ }^{1}$ General Education Elective 3
Semester Total 9
Total Minimum Credits for the AAS Degree $\mathbf{6 0}$
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## PHARMACY TECHNICIAN

| Certificate - Level 2 |  | SCH |
| :---: | :---: | :---: |
| Prerequisite Semester |  |  |
| HPRS 1201 | Introduction to Health Professions | 2 |
| PHRA 1301 | Introduction to Pharmacy | 3 |
|  | Semester Total | 5 |
| First Semester - Fall |  |  |
| PHRA 1305 | Drug Classification |  |
| PHRA 1309 | Pharmaceutical Mathematics I |  |
| PHRA 1413 | Community Pharmacy Practice | 4 |
| PHRA 1272 | Professional Practices for Pharmacy Technicians |  |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| PHRA 1449 | Institutional Pharmacy Practice |  |
| PHRA 1304 | Pharmacotherapy \& Disease Process |  |
| PHRA 1445 | Compounding Sterile Preparations |  |
| PHRA 1247 | Pharmaceutical Mathematics II | 2 |
|  | Semester Total | 13 |
| Third Semester - Summer |  |  |
| PHRA 1261 | Clinical - Pharmacy Technician/Assistant | 2 |
| PHRA 2260 | Clinical - Pharmacy Technician/Assistant | 2 |
| PHRA 2261 | Clinical - Pharmacy Technician/Assistant (Capston | 2 |
| PHRA 1243 | Pharmacy Technician Certification Review | 2 |
|  | Semester Total | 8 |
| Total Minir | m Credits for the Level 2 Certificate | 38 |

## Workforce Degrees and Certificates

PHARMACY TECHNICIAN - RETAIL
Occupational Skills Award SCH
First Semester - Fall
PHRA 1309 Pharmaceutical Mathematics I 3
PHRA 1413 Community Pharmacy Practice
PHRA 1243 Pharmacy Technician Certification Review
PHRA 1260 Clinical - Pharmacy Technician/Assistant
PHRA 1272 Professional Practices for Pharmacy Technicians
Semester Total
Total Minimum Credits for the Occupational Skills Award

## Workforce Degrees and Certificates

## PHYSICAL THERAPIST ASSISTANT

## PHYSICAL THERAPIST ASSISTANT

Associate of Applied Science
FIRST YEAR
First Semester - Fall

| PTHA 1301 | The Profession of Physical Therapy |
| :--- | :--- |
| BIOL 2301 | Anatomy \& Physiology I (Lecture) |
| BIOL 2101 | Anatomy \& Physiology I (Lab) |
| PTHA 1405 | Basic Patient Care Skills |
| PTHA 1413 | Functional Anatomy |
| HPRS 1206 | Essentials of Medical Terminology <br>  <br>  <br> Semester Total |

Second Semester - Spring
PTHA 1321 Pathophysiology
PTHA 1431 Physical Agents
PTHA 2301 Essentials of Data Collection
BIOL 2302 Anatomy \& Physiology II (Lecture)
BIOL 2102 Anatomy \& Physiology II (Lab)
Semester Total


## Workforce Degrees and Certificates

## Second Semester - Spring

| PSYC 2314 | Lifespan Growth \& Development | 3 |
| :--- | :--- | :---: |
| PTHA 1267 | Practicum (or Field Experience) - Physical Therapist Assistant II | 2 |
| PTHA 2266 | Practicum (or Field Experience) - Physical Therapist Assistant III | 2 |
| XXXX \#3\#\# |  |  |
| PTHA 2339 | Hromanities/Fine Arts Elective | 3 |
|  | Semester Total | 3 |
| Total Minimum Credits for the AAS Degree | 13 |  |
|  | 1 A list of electives appears in the Core Curriculum section of this catalog. | 66 |

## Workforce Degrees and Certificates

## PROCESS TECHNOLOGY

## PROCESS TECHNOLOGY

Associate of Applied Science
FIRST YEAR

| First Semester - Fall |  |
| :--- | :--- |
| EDUC 1300 | Learning Framework |
| PTAC 1302 | Introduction To Process Technology |
| ENGL 1301 | Composition I |
| MATH 1314 | College Algebra |
| PTAC 1308 | Safety, Health, \& Environment I |
| XXXX \#3\#\# | Social/Behavioral Sciences Elective |
|  | Semester Total |

## Second Semester - Spring

| Second Semester - Spring |  |
| :--- | :--- |
| SCIT 1418 | Applied Physics OR |
| PHYS 1401 | College Physics I (Lecture \& Lab) |
| SCIT 1414 | Applied General Chemistry I OR |
| CHEM 1311 | General Chemistry I (Lecture) AND |
| CHEM 1111 | General Chemistry I (Lab) |
| PTAC 1410 | Process Technology I - Equipment |
| PTAC 1332 | Process Instrumentation I <br>  <br>  <br> Semester Total |
| First Semester - Fall |  |

## First Semester - Fall

SPCH 1311 Introduction to Speech Communication $\longrightarrow 3$
PTAC 2314 Principles of Quality 3
PTAC 2420 Process Technology II - Systems 4
PTAC 1354 Industrial Processes 3
Semester Total 13
Second Semester- Spring
PTAC 2438 Process Technology III-Operations (Capstone) 4
PTAC 1350 IndustrialÉEonomics 3
XXXX\#3\#\#1 Humanities/Fine Arts Elective 3
PTAC2446 Process Troubleshooting 4
Semester Total 14
Total Minimum Credits for the AAS Degree 60
1 A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

PROCESS TECHNOLOGY - PROCESS OPERATOR

| Certificate - Level 2 SCH |  |  |
| :---: | :---: | :---: |
| First Semester - Fall |  |  |
| EDUC 1300 | Learning Framework | 3 |
| PTAC 1302 | Introduction To Process Technology | 3 |
| PTAC 1308 | Safety, Health, \& Environment I | 3 |
| MATH 1314 | College Algebra | 3 |
|  | Semester Total |  |
| Second Semester - Spring |  |  |
| PTAC 1410 | Process Technology I-Equipment |  |
| PTAC 1332 | Process Instrumentation I |  |
| PTAC 1354 | Industrial Processes |  |
| SCIT 1414 | Applied General Chemistry I OR |  |
| CHEM 1311 | General Chemistry I (Lecture) AND |  |
| CHEM 1111 | General Chemistry I (Lab) |  |
|  | Semester Total |  |
| Third Semester - Summer |  |  |
| PTAC 2420 | Process Technology II - Systems (Caps | 4 |
| PTAC 1350 | Industrial Economics | 3 |
| PTAC 2314 | Principles of Quality | 3 |
| SCIT 1418 | Applied Physics OR |  |
| PHYS 1401 | College Physics I (Lecture \& Lab) | 4 |
|  | Semester Total | 14 |
| Total Minim | $m$ Credits for the Level 2 Certificate | 40 |

## Workforce Degrees and Certificates

## RADIOGRAPHY

## RADIOGRAPHY



## Workforce Degrees and Certificates

## Second Semester - Spring

RADR 2217 Radiographic Pathology 2
RADR 2367 Practicum (or Field Experience) - Radiologic Technology/Science Radiographer3

RADR 2213 Radiation Biology \& Protection 2

Semester Total
Third Semester - Summer
RADR 2335 Radiologic Technology Seminar (Capstone)
RADR 2167 Practicum (or Field Experience) - Radiologic Technology/Science Radiographer

Semester Total
Total Minimum Credits for the AAS Degree
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

# Workforce Degrees and Certificates 

## RADIOGRAPHY - COMPUTED TOMOGRAPHY

Enhanced Skills Certificate SCH
First Semester - Fall
RADR 2340 Sectional Anatomy for Medical Imaging 3
CTMT 2336
Computed Tomography Equipment \& Methodology 3

CTMT 2360
Clinical - Radiologic Technology/Science - Radiographer
Clinical - Radiologic Technology/Science - Radiographer
Semester Total
Total Minimum Credits for the Enhanced Skills Certificate


## Workforce Degrees and Certificates

## REAL ESTATE

REAL ESTATE - General
Associate of Applied Science

FIRST YEAR
EDUC 1300 Learning Framework

RELE 1201 Principles of Real Estate I
ENGL 1301 Composition I
RELE 2201 Law of Agency
RELE 1211 Law of Contracts
RELE 1323 Real Estate Computer Application
RELE 1325 Real Estate Mathematics
Semester Total
Second Semester-Spring
RELE 1321 Real Estate Marketing
RELE 1238 Principles of Real Estate II
RELE 1200 Contract Forms \& Addenda
RELE 1219 Real Estate Finance OR
RELE 1224 Loan Origination \& Quality Control
RELE 1309 Real Estate Law
Semester Total

## SECONDYEAR

First Semester - Fall
ECON 2301 Principles of Macroeconomics
RELE 1303 Real Estate Appraisal ..... 3
RELE 1307 Real Estate Investments ..... 3
RELE 2331 Real Estate Brokerage ..... 3
RELE 1381 Cooperative Education - Real Estate ..... 3
Semester Total ..... 15
Second Semester-Spring
XXXX \#3\#\#1 Social/Behavioral Sciences Elective ..... 3
RELE 1329 Fundamentals of Environmental Issues OR
RELE 1315 Property Management ..... 3
XxxX \#3\#\#' Humanities/Fine Arts Elective ..... 3
GEOL 1305 Environmental Science ..... 3
RELE2381 Cooperative Education-Real Estate (Capstone) ..... 3
Semester Total ..... 15
Total Minimum Credits for the AAS Degree ..... 60${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## REAL ESTATE - PROPERTY MANAGEMENT

## Certificate - Level 1

First Semester - Fall
RELE 1335 Real Estate Construction 3
RELE 1315 Property Management
RELE 1307 Real Estate Investments
RELE 1309 Real Estate Law
RELE 1238 Principles of Real Estate II
Semester Total
Second Semester - Spring
RELE 1381 Cooperative Education-Real Estate (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Workforce Degrees and Certificates

## REAL ESTATE - RESIDENTIAL

## Certificate - Level 1

First Semester - Fall
RELE 1201 Principles of Real Estate I 2
RELE 1238 Principles of Real Estate II 2
RELE 1211 Law of Contracts
RELE 2201 Law of Agency
RELE 1200 Contract Forms \& Addenda
RELE 1219 Real Estate Finance
Semester Total
Second Semester - Spring
RELE 1381 Cooperative Education-Real Estate (Capstone)
RELE 1191 Special Topics in Real Estate
Semester Total
Total Minimum Credits for the Level 1 Certificate
16

## Workforce Degrees and Certificates

## RESPIRATORY THERAPY

## RESPIRATORY THERAPY - RESPIRATORY THERAPIST Associate of Applied Science

## FIRST YEAR

Prerequisite Semester

| EDUC 1300 | Learning Framework |
| :--- | :--- |
| RSPT 1201 | Introduction to Respiratory Care |
| BIOL 2301 | Anatomy \& Physiology I (Lecture) |
| BIOL 2101 | Anatomy \& Physiology I (Lab) |
| BIOL 2302 | Anatomy \& Physiology II (Lecture) |
| BIOL 2102 | Anatomy \& Physiology II (Lab) |
| MATH 1314 | College Algebra <br>  <br>  <br> Semester Total |

First Semester - Fall
RSPT 2258 Respiratory Care Patient Assessment RSPT 1310 Respiratory Care Procedures I

## Workforce Degrees and Certificates

## Second Semester - Spring

RSPT 2362 Clinical - Respiratory Care Therapy/Therapist 3
RSPT 2325 Cardiopulmonary Diagnostics 3
RSPT 2353 Neonatal/Pediatric Cardiopulmonary Care 3

Semester Total
Third Semester - Summer
RSPT 2262 Clinical - Respiratory Care Therapy/Therapist
RSPT 2230 Respiratory Care Examination Preparation (Capstone)
RSPT 2239 Advanced Cardiac Life Support
Semester Total
Total Minimum Credits for the AAS Degree


## Workforce Degrees and Certificates

## SURGICAL TECHNOLOGY

ALLIED HEALTH - SURGICAL TECHNOLOGY- SPECIALIZATION
Associate of Applied Science
Prerequisite Semester
XXXX \#3\#\# ${ }^{1}$ General Education Elective
HPRS 1201 Introduction to Health Professions
Semester Total
FIRST YEAR
First Semester - Fall
HPRS 1206 Essentials of Medical Terminology
SRGT 1361 Clinical-Surgical Technology/Technologist
SRGT 1409 Fundamentals of Perioperative Concepts \& Techniques
SRGT 1405 Introduction to Surgical Technology
SCIT 1407 Applied Human Anatomy \& Physiology I
Semester Total
Second Semester - Spring
$\begin{array}{lll}\text { SCIT 1408 } & \text { Applied Human Anatomy \& Physiology II } \\ \text { SRGT 1441 } & \text { Surgical Procedures I } \\ \text { SRGT 1463 } & \text { Clinical - Surgical Technology/Technologist } & 4 \\ & \text { Semester Total } \\ \text { Third Semester - Summer } \\ \text { SRGT } 1442 & \text { Surgical Procedures II }\end{array}$
SRGT 2463 Clinical - Surgical Technology/Technologist (Capstone) 4
Semester Total 8
SECOND YEAR
First Semester - Fall
ENGL 1301 Composition3
XXXX \#3\#\#1 ${ }^{1}$ Math/Natural Science Elective ..... 3
XXXX \# $3 \# \#^{1}$ Humanities/Fine Arts Elective ..... 3
XXXX \#3\#\# Social/Behavioral Sciences Elective ..... 3
Semester Total ..... 12
Second Semester-Spring
XXXX \#3\#\#¹ General Education Elective ..... 3
ENGL 1302 Composition II ..... 3
Semester Total ..... 6
Total Minimum Credits for the AAS Degree ..... 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## SURGICAL TECHNOLOGY

## Certificate - Level 2 <br> SCH

## Prerequisite Semester

HPRS 1201 Introduction to Health Professions
Semester Total
2 2

First Semester - Fall
HPRS 1206
Essentials of Medical Terminology
SRGT 1361 Clinical - Surgical Technology/Technologist
SRGT 1409 Fundamentals of Perioperative Concepts \& Techniques
SRGT 1405
Introduction to Surgical Technology
SRGT 1407 Applied Human Anatomy \& Physiology I
Semester Total
Second Semester - Spring
SRGT 1408 Applied Human Anatomy \& Physiology II
SRGT 1441 Surgical Procedures I
SRGT 1463 Clinical - Surgical Technology/Technologist
Semester Total
Third Semester - Summer
SRGT 1442 Surgical Procedures II4

SRGT 2463 Clinical - Surgical Technology/Technologist (Capstone)4

SRGT 2130 Professional Readiness $\gg$
Semester Total
9
Total Minimum Credits for the Level 2 Certificate 40

## Workforce Degrees and Certificates

## SURGICAL TECHNOLOGY - ENDOSCOPY TECHNICIAN I

## Certificate - Level 2

Prerequisite Semester


Second Semester - Spring
ENDO 1475 EGD Colonoscopy \& Enteroscopy

ENDO 1276 Practicum (or Field Experience) II
ENDO 1474 ERCP, EUS \& Bronchoscopy
SCIT 1408 Applied Human Anatomy and Physiology II OR
BIOL 2302 Anatomy \& Physiology II (lecture) AND
BIOL 2102 Anatomy \& Physiology II (lab)
Semester Total

# Workforce Degrees and Certificates 

## SURGICAL TECHNOLOGY - ACCELERATED ALTERNATIVE DELIVERY (AAD) <br> Occupational Skills Award <br> SCH

First Semester - Fall
HPRS 1206 Essentials of Medical Terminology
SRGT 1372 Comprehensive Anatomy \& Physiology for the Surgical Technologist
2

SRGT 1405 Introduction to Surgical Technology
SRGT 2130 Professional Readiness
Total Minimum Credits for the Occupational Skills Award

## Workforce Degrees and Certificates

## SURGICAL TECHNOLOGY - STERILE PROCESSING TECHNICIAN

Occupational Skills Award
First Semester - Fall
HPRS 1201 Introduction to Health Professions
2
HITT 1305
Medical Terminology I3

SRGT 1371 Sterile Processing
Semester Total
Second Semester - Spring
SRGT 1560 Clinical - Surgical Technology/Technologist
Semester Total


## Workforce Degrees and Certificates

## TRANSLATION \& INTERPRETATION <br> TRANSLATION \& INTERPRETATION

Associate of Applied Science
FIRST YEAR
First Semester - Fall SCH
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I
TRAI 1371 Fundamentals of the Theory \& Practice of Translation \& Interpretation
TRAI 1373 Intercultural Communication
TRAI 1374
Introduction to General linguistics
Semester Total

## Second Semester - Spring

XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
TRAI 1271 Technology for Translation \& Interpretation
TRAI 1272 Terminology Management \& Research
POFL 1305 Legal Terminology
TRAI 2271 Fundamentals of Specialized Written Translation(Sci-Tech)
TRAI 1372 Writing, Editing, \& Revising for Translation
Semester Total15

## SECOND YEAR

First Semester - Fall
HITT 1305 Medical Terminology I
XXXX \#3\#\# ${ }^{1}$ Humanities/Fine Arts Elective
TRAI 2278 Fundamentals of Specialized Written Translation (Medical) 2
TRAI 2375 Localization and Audiovisual Translation 3
XXXX \#3\#\# ${ }^{1}$ General Education Elective 3
TRAI 2277 Fundamentals of Specialized Written Translation (Legal) 2
Semester Total 16
Second Semester - Spring
TRAI 2279 Introduction to Interpreting I (Legal) 2
TRAI 2272 Introduction to Interpreting II (Medical) 2
TRAI 2273 Introduction to Interpreting III (Simultaneous) 2
XXXX \#3\#\# ${ }^{1} \quad$ Math/Natural Science Elective 3
TRAL 2275 Advanced Project in Translation 2
TRAI 2376 Internship-Translation \& Interpretation (Capstone) 3
Semester Total 14
Total Minimum Credits for the AAS 60
${ }^{1}$ A list of electives appears in the Core Curriculum section of this catalog.

## Workforce Degrees and Certificates

## TRANSLATION \& INTERPRETATION

## Certificate - Level 2

First Semester - Fall
EDUC 1300 Learning Framework 3
ENGL 1301 Composition I 3
TRAI 1371
Fundamentals of the Theory \& Practice of Translation \& Interpretation
TRAI 1372
TRAI 1373
Writing, Editing, \& Revising for Translation
Intercultural Communication
Semester Total
Second Semester - Spring
HITT 1305 Medical Terminology I
TRAI 1271 Technology for Translation \& Interpretation
POFL 1305 Legal Terminology
TRAI 1272 Terminology Management \& Research
TRAI 2271 Fundamentals of Specialized Written Translation (Scj-Tech)

TRAI 2277 Fundamentals of Specialized Written Translation (Legal)
Semester Total

Third Semester - Summer
TRAI 2279 Introduction to Interpreting I (Legal)


TRAI 2278 Fundamentals of Specialized Written Translation (Medical)
TRAI 2272 Introduction to Interpreting II (Medical) 2
TRAI 2273 Introduction to Interpreting III (Simultaneous) 2
TRAI 2376 Internship - Translation \& Interpretation(Capstone) 3
Semester Total 13
Total Minimum Credits for the Level 2 Certificate 42

## Workforce Degrees and Certificates

## Welding Technology

## WELDING TECHNOLOGY- STRUCTURAL WELDING <br> Certificate - Level 1 <br> SCH

First Semester - Fall
WLDG 1407 Introduction to Welding Using Multiple Processes
WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)
Semester Total
Second Semester - Spring
WLDG 1413 Introduction to Blueprint Reading for Welders
WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW)
WLDG 2447 Advanced Gas Metal Arc Welding(GMAW) (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate


## Workforce Degrees and Certificates

WELDING TECHNOLOGY - COMBINATION PIPE WELDING

## Certificate - Level 1

First Semester - Fall
WLDG 1407 Introduction to Welding Using Multiple Processes 4

WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1434 introduction to Gas Tungsten Arc Welding (GTAW)
Semester Total
Second Semester - Spring
WLDG 1413 Introduction to Blueprint Reading for Welders
WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW)
WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW)
Semester Total
Third Semester - Summer
WLDG 1435 Introduction to Pipe Welding
WLDG 2413 Intermediate Welding Using Multiple Processes
WLDG 2453 Advanced Pipe Welding (Capstone)
Semester Total
Total Minimum Credits for the Level 1 Certificate

## Description of Courses

ABDR 1207-Collision Repair Welding
Credits: 2. A study of collision repair welding and cutting procedures.
Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1215 - Vehicle Trim and Hardware Credits: 2 (2 lecture, 1 lab). An in depth study of vehicle trim and glass service. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1280 - Cooperative Education - Autobody / Collision and Repair Technology / Technician
Credits: 2 ( 1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: ABDR 1431,1441,1207, 1215,1458,1442, 2441; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1291 - Special Topics in Auto/Automotive Body Repairer
Credits: 2 ( 1 lecture, 2 lab). Advanced techniques in blending, matching and application in the refinishing process, including custom applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1431 - Basic Refinishing
Credits: 4 (2 lecture, 4 lab). An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of trim and replacement parts. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1441 - Structural Analysis and Damage Repair I Credits: 4 (2 lecture, 4 lab). Expanded training in the roughing and shaping procedures on automotive sheet metal necessary to make satisfactory body repairs.
Emphasis on the alignment of component parts such as doors, hood, front-end assemblies, and deck lids. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1442 - Structural Analysis and Damage Repair II Credits: 4 (2 lecture, 4 lab ). Continuation of general repair and replacement procedures for damaged structural parts and collision damage. Prerequisite: ABDR 1441. Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1458 - Intermediate Refinishing
Credits: 4 (2 lecture, 4 lab). Expanded training in mixing and spraying of automotive topcoats. Emphasis on formula ingredient, reducing, thinning, and special spraying techniques. Introduction to partial panel refinishing techniques and current industry paint removal techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2431 - Structural Analysis and Damage Repair III Credits: 4 (2 lecture, 4 lab ). Advanced concepts in the application of theories of auto body repair and replacement of major body units. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2441-Major Collision Repair and Panel Replacement
Credits: 4 (2 lecture, 4 lab). Instruction in preparation of vehicles for major repair processes. This course covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2449 - Advanced Refinishing
Credits: 4 (2 lecture, 4 lab). Skill development in multistage refinishing techniques. Further development in identification of problems and solutions in color matching and partial panel refinishing. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACCT 2301 - Principles of Financial Accounting Credits: 3 (3 lecture). This course covers the fundamentals of financial accounting, including doubleentry accounting and the accounting cycle. Other topics include cash, receivables, inventories, plant assets, liabilities, partnerships, corporation, investments, statements of cash flows and interpretation of financial statements. Prerequisite: Departmental Approval

ACCT 2302 - Principles of Managerial Accounting Credits: 3 ( 3 lecture). This course covers the fundamentals of managerial accounting including manufacturing operations and planning and control. Other topics include budgets, introduction to cost accounting, cost control techniques, methods of measuring performance and financial statement analysis. Prerequisite: ACCT 2301

ACNT 1303 - Introduction to Accounting I Credits: 3 (3 lecture). A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Coverage also includes the fundamental principles of double-entry bookkeeping, financial statements, trial balances, worksheets, special journals, adjusting entries and closing entries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1305 - Forensic Accounting Credits: 3 ( 3 lecture). Accounting fraud and examination designed to provide a basic understanding of the impact that fraud has on an organization. (This course is intended to help students understand the role of the Forensic Accountant. Upon completion of this course the students will learn special skills in accounting, auditing, finance, quantitative methods, certain areas of the law, research, and investigative skills to collect, analyze, and evaluate evidential matter and to interpret and communicate findings. Finance and quantitative skills will be addressed since they are especially important to Forensic Accountants who calculate damages. The complexity of Forensic Accounting has gained considerable attention over the past five years and will continue to gain momentum.) Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1313 - Computerized Accounting Applications Credits: 3 (2 lecture, 2 lab). A study of utilizing the computer to develop and maintain accounting recordkeeping systems, make management decisions, record daily business transactions, and generate financial statements using Peachtree or QuickBooks. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1329 - Payroll and Business Tax Accounting Credits: 3 (3 lecture). A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

## ACNT 1331 - Federal Income Tax: Individual

Credits: 3 (3 lecture). A study of the laws currently implemented by the IRS, providing a working knowledge of preparing taxes for the individual. Prerequisite: ACCT 2301; Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1335 - Accounting Ethics
Credits: 3 (3 lecture). Introduction to professional ethics in the accounting and business environments. This course may also be offered for qualifying education credit for CPA examination by Texas community colleges that meet Texas State Board of Accountancy standards. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT1347-Federal Income Tax for Partnerships and Corporations
Credits: 3 (3 lecture). Introduction to the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for a partnership, sub chapter $S$, and corporation. Prerequisite: ACNT 1331; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1382 - Cooperative Education-Accounting Technology/Technician and Bookkeeping Credits: 3 ( 1 lecture/seminar and 20-hours a week employment). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and workrelated activities in student's major. Prerequisite: Department Program Approval and 20 hours a week employment; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1391 - Special Topics in Accounting: Fraud Examinations
Credits: 3 (3 lecture). Course will provide an overview of how and why occupational fraud is committed, the principles and methodologies of prevention, detection and investigation of fraud using accounting, auditing and investigative skills. Prerequisite: Prerequisites: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1392 - Special Topics in Accounting : Small Business Accounting
Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include essential management skills and how to prepare a business plan and marketing strategies. Practical guidance is provided for selecting and maintaining a cost-effective accounting system, records retention, budgets and cash flow projections. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2303 - Intermediate Accounting I
Credits: 3 (3 lecture). Critical analysis of general accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis on current theory and practice. Covers the theoretical and practical basis for financial statements, present value applications, and the theory and practice of accounting for cash, receivables, inventories, liabilities, long-term investments, depreciable and depletable property, and intangible assets. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2304 - Intermediate Accounting II Credits: 3 (3 lecture). Continued in-depth analysis of generally accepted accounting principles underlying the preparation of financial statements including comparative analysis and statement of cash flows. Topics also included are bonds, leases, pension plans, corporate paid-in- capital, special purpose securities, retained earnings, tax allocation, inflation accounting, funds statement, and financial statement analysis. Prerequisite: ACNT 2303; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2309 Cost Accounting
Credits: 3 ( 3 lecture). A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing. Coverage also includes historical cost systems, work-in-process inventories, material and labor control, multiple products, budgeting, applying
overhead, standard costs, direct costing, evaluating profit performance, and distribution costs. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2330-Governmental and Not-for-Profit Accounting Credits: 3 ( 3 lecture). Basic concepts and techniques of fund accounting, financial reporting for governmental and not-for-profit entities. Accounting cycle for funds and account groups and related financial statements. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2331 - Internal Control and Auditing Credits: 3 ( 3 lecture). A study of internal control and auditing standards and processing used by internal auditors, managers, and independent public accountants. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2333 - Advanced Accounting Credits: 3 ( 3 lecture). Methods of measuring and communicating economic information, including consolidated statements, partnerships, real estate, foreign operations, and fund units. Prerequisite: ACNT 2304; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2382 - Cooperative Education-Accounting Technology/Technician and Bookkeeping Credits: 3 ( 1 lecture/seminar and 20-hours a week employment). Continuation of ACNT 1382. Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and workrelated activities in student's major. Prerequisite: ACNT 1382; 20 hours a week employment \& departmental approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AGRI 1309-Computers in Agriculture
Credits: 3 (2 lecture, 2 lab). Use of computers in agricultural applications. Introduction to programming languages, word processing, electronic spreadsheets and agricultural software.

ANTH 2101 - Physical Anthropology (Lab)
Credits: 1 (2 lab). ANTH 2101 is a 1 -unit laboratory course. Students use physical anthropological methods and tools to solve problems in the areas of genetics, human variation, human osteology, primate biology and behavior, and human evolution. A problem solving approach is stressed in applying scientific fundamentals including the techniques of observation, measurement, and critical thinking. Core Curriculum Course.

ANTH 2301 - Physical Anthropology (Lecture) Credits: 3 (3 lecture). Introduction to Physical Anthropology explores the relationship between culture and biology through the methods, theory and research of biological anthropology. Students learn about basic mechanisms of genetic change in populations and the relationships between humans and the other primates. The appearance of humans and their bipedal ancestors approximately four million years ago and their culture History, Civilization, through the Paleolithic age are examined in detail. Students learn about biological variation and adaptation in human populations, responses to the environment, race, and other issues and their applications. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2302 - Introduction to Archaeology Credits: 3 (3 lecture). Introduction to Archaeology provides a survey of the basic methods, theory and research of scientific archaeology. Human cultures and behaviors are identified and interpreted from material remains of over 2.5 million years of the human past. Students learn how anthropologists build cultural History, Civilization, from artifacts and material evidence of human activity, reconstruct past life ways, and explain similarities and differences of human cultures. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).


ANTH 2346 - General Anthropology
Credits: 3 (3 lecture). This introductory survey of the four subfields of anthropology focuses on the cultural and biological diversity of humans including hominid prehistory, Civilization, the emergence of Paleolithic cultures, and the agricultural and urban revolutions from an anthropological perspective. Past and present human adaptations and culture are surveyed and analyzed using the comparative and holistic approach of biological anthropology, archaeology, linguistics and ethnology. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take CUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2351 - Cultural Anthropology
Credits: 3 ( 3 lecture). This course focuses on culture, the ways people live and give meaning, form and organization to their lives as they adapt to various environments and conditions both in and beyond the borders of the U.S. Study of the descriptions and analysis of cultural diversity provide the basis for evaluating cultural components of eyeryday life including recognition of ethnocentrism, intercultural communication and understanding local and global culture in a multicultural and transforming world. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL0310/0349 as a co-requisite).

ANTH 2389 - Academic Cooperative in Anthropology Credits: 3 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in anthropology. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human culture and social behavior and/or institutions and processes.
Prerequisite: Must be placed into college-level reading and college-level writing.

ARAB 1411 - Beginning Arabic I
Credits: 4 (3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

ARAB 1412 - Beginning Arabic II
Credits: 4 (3 lecture, 2 lab). Continuation of ARAB 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: ARAB 1411 or department approval. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

ARCE 1352 - Structural Drafting Credits: 3 (2 lecture, 4 lab). A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARCE 2352 - Mechanical and Electrical Systems Credits: 3 (2 lecture, 4 lab). The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction. Prerequisite: DFTG 1405, DFTG 1309 and DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

ARTC 1302 - Digital Imaging ( (Photoshop )
Credits: 3 (2 lecture, 4 lab). Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1305 - Basic Graphic Design
Credits: 3 ( 2 lecture, 4 lab). Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1309 - Basie Illustration
Credits: 3 (2 lecture, 4 lab). Introduction to drawing techniques as they pertain to the commercial illustration industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1313 - Digital Publishing I
Credits: 3 (2 lecture, 4 lab). The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1317 - Design Communication
Credits: 3 (2 lecture, 4 lab). Study of design development relating to graphic design terminology, tools and media, and layout and design concepts. Topics include integration of type, images and other design elements, and developing computer skills in industry standard computer programs. Prerequisite: ARTC 1325 and ARTC 1305 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1321-Illustration Techniques I
Credits: 3 ( 2 lecture, 4 lab ). A study of illustration techniques in various media. Emphasis on creative interpretation and the discipline of draftsmanship for visual communication of ideas. Prerequisite: ARTC 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1325 - Introduction to Computer Graphics Credits: 3 (2 lecture, 4 lab). A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1353 - Computer Illustration (Illustrator) Credits: 3 (2 lecture, 4 lab). Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings. Prerequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1359 - Visual Design for New Media
Credits: 3 (2 lecture, 4 lab). Visual design elements as they relate to new media. Emphasizes aesthetics and visual problem solving such as typographic issues, color management, hierarchy of information, image optimization, and effective layout. Prerequisite: ARTC 1353, ARTV 2301

ARTC 2305 - Digital Imaging II
Credits: 3 (2 lecture, 4 lab). Principles of digital image processing and electronic painting. Emphasis on bitmapped or raster-based image marking and the creative aspects of electronic illustration for commercial or fine art applications. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2311 - History of Communication Graphics Credits: 3 . Survey of the evolution of graphic arts in relation to the history of art. Includes formal, stylistic, social, political, economic, and historical aspects. Emphasis on art movements, schools of thought, individuals, and technology as they interrelate with graphic arts.

ARTC 2313 - Digital Publishing II
Credits: 3 (2 lecture, 4 lab). Includes layout procedures from thumbnails and roughs to final comprehensive and print output. Emphasis on design principles for the creation of advertising and publishing materials and techniques for efficient planning and documenting projects. Prerequisite: ARTC 1305, ARTC 1313, ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2317 - Typographic Design Credits: 3 (2 lecture, 4 lab). Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography Prerequisite: ARTC 1302, 1305, 1353, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Co-requisite: ARTC 2313 or Department Approval

ARTC 2335 - Portfolio Development for Graphic Design Credits: 3 (2 lecture, 4 lab ). Preparation of a portfolio comprised of completed graphic design class projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study.
Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTC 2347 - Design Communication II Credits: 3 (2 lecture, 4 lab). An advanced study of the design process and art direction. Emphasis on form and content through the selection, creation, and integration of typographic, photographic, illustrative, and design elements. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTS 1301-Art Appreciation
Credits: 3 ( 3 lecture). A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. This introduction to the visual arts is a global investigation of artistic styles, methods of artistic production and media. Various works will be analyzed and defined in relation to the formal elements and the principles of design. Universal themes are studied within their historical, political, economic, theological, sociological, conceptual, and ethnic contexts. Students will also develop critical thinking and observational skills through the creation of hands-on art projects. This course satisfies the creative arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ARTS 1303-Art History I (Prehistoric to the $14^{\text {th }}$ Century) Credits: 3 ( 3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. This course is a global investigation of the styles and methods of artistic production covering Prehistoric through Gothic periods. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, and metal arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, and ethnic contexts. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

ARTS 1304 - Art History II ( $14^{\text {th }}$ Century to the Present) Credits: 3 ( 3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from the 14 th century to the present day. This course is a global investigation of the styles and methods of artistic production covering the Renaissance period to Present. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, metal arts, photography, and digital arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, conceptual and ethnic contexts. ARTS 1303 is not a prerequisite. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into collegelevel reading and college-level writing.

ARTS 1311 - Design I (2-Dimensional Design) Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of two-dimensional design. This beginning studio course explores the fundamentals of twodimensional design: line, shape, texture, value, color and composition. A variety of media will be used.
Recommended but not required as a first studio course.

ARTS 1312 - Design II (3-Dimensional Design) Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. A beginning studio course that explores the fundamentals of threedimensional design: line, plane, mass, surface, light and color in space. A variety of media will be used. Recommended but not required to be taken before Sculpture, Ceramics or Jewelry. Prerequisite: ARTS 1311

ARTS 1316 - Drawing I Credits: 3 (2 lecture, 4 lab). A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline. This beginning drawing course develops students' observation skills through experimentation with various approaches, styles, techniques, and media. Recommended but not required to be taken before Life Drawing, Painting or Printmaking. Foundation Drawing I is a pre-requisite for Foundation Drawing II.

ARTS 1317-Drawing II
Credits: 3 (2 lecture, 4 lab). A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline. This studio course builds upon the skills learned in Drawing I. Emphasis will be upon further media experimentation and development of a personal style. Drawing $I$ is a prerequisite. Prerequisite: ARTS 1316

ARTS 2311 - Design III (2D \& 3D)
Credits: 3 (2 lecture, 4 lab). Elements and principles of art using two- and three-dimensional concepts. This intermediate studio course further develops two and/or three-dimensional design skills in various media. Design skills may include: line, shape, texture, color, value, composition, plane, mass, surface, light and color in
space. A variety of media will be used. Prerequisite: Department approval after instructor review of student design portfolio

ARTS 2313 - Design Communications I Credits: 3. Communication of ideas through processes and techniques of graphic design and illustration.

ARTS 2316 - Painting I
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using painting media and techniques. A studio course which explores painting media with an emphasis on color, composition, subject matter and technique. Painting $I$ is a prerequisite for Painting II.

ARTS 2317 - Painting II
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using
painting media and techniques. This studio course builds
upon skills developed in Painting I with an emphasis on the development of personal style, subject matter, and individual expression. Painting $I$ is a prerequisite for Painting II. Prerequisite; ARTS 2316

## ARTS 2323-Life Drawing

Credits: 3 (2 lecture, 4 lab). Basic study of the human form. A drawing course focusing on the human form. Various media and techniques will be explored while drawing from a live model.

ARTS 2326 - Sculpture
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using sculpture media and techniques. This studio course will introduce the student to various materials, processes and elements of design. Media may include plaster, wood, clay, and found materials.

ARTS 2333 - Printmaking
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using various printmaking processes. An introduction to and exploration of various relief printing, mono-printing, and intaglio processes. Printmaking I is a prerequisite for Printmaking II.

ARTS 2341-Art Metals
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic techniques in jewelry and metal construction. Fundamentals of jewelry construction including design, fabrication, surface treatment, and stone setting.

ARTS 2346 - Ceramics I
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic ceramic processes. This studio course is an introduction to arts, using the clay medium. Sculptural approaches to clay (slab, pinch, coil wheel) as well as surface treatment will be investigated. Glaze making and kiln technology will be introduced. Ceramics I is a prerequisite for Ceramics II.

ARTS 2347 - Ceramics II
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic ceramic processes. This studio course builds on knowledge acquired in Ceramics I. Emphasis will be on form and surface experimentation, as well as development of personal expression. Traditional and nontraditional uses of clay will be explored. Ceramics I is a prerequisite for Ceramics II. Prerequisite: ARTS 2346

ARTS 2356 - Photography I (Fine Arts Emphasis) Credits: 3 (2 lecture, 4 lab ). Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. The focus of this class is on manual camera skills, making better photographs and becoming familiar with a Digital Single Lens Reflex Camera and the software Lightroom. Students will demonstrate the ability to critically talk about work in relationship to social, political and historical terms. Students will also demonstrate the ability to examine and explore photography's role in our changing visual culture. Photography is a prerequisite for Photography II.

ARTS 2357 - Photography II (Fine Arts Emphasis) Credits: 3 (2 lecture, 4 lab). Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. This course will build on previously acquired skills of black and white film exposure, processing and printing and guide students in developing personaloutlooks toward specific applications of the photographic process. Photography I is a prerequisite for Photography H. Prerequisite: ARTS 2356

ARTS 2366 - Watercolor
Credits: 3 (2 lecture, 4 lab). Exploration of ideas using water-based painting media and techniques. A studio course that explores watercolor media with an emphasis on color, composition, self-expression, and technique.

ARTV 1303 - Basic Animation
Credits: 3 (2 lecture, 4 lab). Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences.

ARTV 1341-3-D Animation I
Credits: 3 (2 lecture, 4 lab). Intermediate level 3-D course introducing animation tools and techniques used to create movement. Emphasis on using the principles of animation. Prerequisite: ARTV 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1345-3-D Modeling and Rendering I
Credits: 3 (2 lecture, 4 lab). Techniques of threedimensional (3-D) modeling utilizing industry standard software. Includes the creation and modification of 3-D geometric shapes, use of a variety of rendering techniques, camera, light sources, texture, and surface mapping. Prerequisite: ARTC 1302 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV1351-Digital Video
Credits: 3 (2 lecture, 4 lab). Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation. Prerequisite: IMED 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1371- Introduction to 3D Printing Technology Credits: 3 (2 lecture, 4 lab). The 3D Printing course is a hands-on, project-based learning (PBL) course which allows students to design and fabricate 3D objects using 3D computer applications and 3D printers. This course also focuses on prototyping an invention, creating artwork, and building a customized product of their choice. Students will analyze real industry cases, and apply 3D printing technology appropriately while gaining hands-on experience with two leading 3D printing technologies employed in today's industry.

## ARTV 2301-2-D Animation I

Credits: 3 (2 lecture, 4 lab). Skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentation.
Emphasis on conceptualization, creativity, and visual aesthetics. Prerequisite: IMED 1316, IMED 1341, ITSE 2313, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2330-2-D Animation II
Credits: 3 (2 lecture, 4 lab ). Advanced study of technical aspects of animation. Emphasizes aesthetic design and completion of an animation project. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2335 - Portfolio Development for Animation Credits: 3 (2 lecture, 4 lab ). A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques.

ARTV 2341 - Advanced Digital Video Credits: 3 (2 lecture, 4 lab). Advanced digital video techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: Must be placed into college-level reading, writing and math.

ARTV 2345-3-D Modeling and Rendering II Credits: 3 (2 lecture, 4 lab). A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software, modeling techniques, camera settings, lighting, and surfacing to develop detailed environments. Prerequisite: ARTC 1302 and ARTV 1345; must be placed into college-level reading, writing and math.

ARTV 2351-3-D Animation II Credits: 3. Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques.

ARTV 2355 - Character Rigging and Animation Credits: 3. Advanced work in 3-D animation. Emphasis on character modeling, rigging and animation.

ASTR 1303 - Stars and Galaxies (Lecture) Credits: 3 (3 lecture). An introduction to the present cosmological theories about the structure and eyolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher)in reading and placed into MATH 0312 (or take MATH0308 as a co-requisite).

ASTR 1304 - Solar System (lecture)
Credits: 3 (3 lecture). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

ASTR 1403 - Stars and Galaxies (Lecture \& Lab)
Credits: 4 (3 lecture, 3 lab). An introduction to the present cosmological theories about the structure and evolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. Laboratory includes an introduction to observational techniques using telescopes, in-class projects/exercises on spectroscopy, stellar positions, solarheating, planetary motions, solar and astrophotography, star clusters, galaxies, and cosmology. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

## ASTR 1404 - Solar System (lecture + lab)

Credits: 4 ( 3 lecture, 3 lab). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. Laboratory topics include planetary, lunar and solar observations with telescopes and/or the naked eye; measurements of the gravitational constant, gravitational acceleration and the speed of light; analysis of spectra and spacecraft images; and impact cratering simulations. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

AUMT 1305 - Introduction to Automotive Technology Credits: 3 (2 lecture, 2 lab). An introduction to the automotive industry including automotive History, Civilization, , safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automotive maintenance. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1306-Automotive Engine Removal and Installation Credits: 3 (2 lecture, 4 lab). Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1307-Automotive Electrical Systems Credits: 3 (2 lecture, 4 lab). An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1310 - Automotive Brake Systems Credits: 3 (2 lecture, 4 lab ). Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1316 Automotive Suspension and Steering Systems
Credits: 3 (2 lecture, 4 lab). A study of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific.
Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1319-Automotive Engine Repair Credits: 3 (2 lecture, 4 lab). Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1345 - Automotive Climate Control Systems Credits: 3 (2 lecture, 4 lab). Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Co-requisite: Prerequisite/Co-requisite: AUM个1307

AUMT 1380-Cooperative Education - Automobile / Automotive Mechanics Technology/Technician Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into CUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2310 - Automotive Service Consultant Credits: 3 (2 lecture, 2 lab). Automotive service consulting skills and procedures. Includes vehicle identification, product knowledge, shop operations, warranty service contracts, communications, customer relations, internal relations, and sales skills. Emphasizes courtesy, professionalism, and communications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2313 - Automotive Drive Train and Axles Credits: 3 (2 lecture, 4 lab). A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on the diagnosis and repair of transmissions/transaxles and drive lines. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2317 - Automotive Engine Performance Analysis I Credits: 3 (2 lecture, 4 lab ). Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2321 - Automotive Electrical Diagnosis and Repair Credits: 3 (2 lecture, 4 lab). Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific.
Prerequisite: Prerequisite/Co-requisite: AUMT 1307 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2325 - Automotive Automatic Transmission and Transaxle
Credits: 3 (2 lecture, 4 lab). A study of the operation, hydraulic principles, and related circuits of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and proper repair techniques. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2328-Automotive Service
Credits: 3 (2 lecture, 4 lab). Mastery of automotive vehicle service and component systems repair. Emphasis on mastering current automotive competencies covered in related courses. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2334 - Automotive Engine Performance Analysis Credits: 3 (2 lecture, 4 lab). A study of diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2380-Cooperative Education -
Automobile/Automotive Mechanics
Technology/Technician
Credits: 3 (1 lecture, 20 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

BARB 1307 - Introduction to Hair Design
Credits: 3. Introduction to hair styling with emphasis on the fundamentals of haircutting and related skills.

BARB 1391 - Special Topics in Barber/Styling
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 1402 - Barber Styling
Credits: 4 ( 2 lecture, 7 lab). Continued development in haircutting techniques and implementation of basic styling. Introduction to chemical reformation. Perform haircutting techniques including shear, razor, and clipper. Demonstrate a variety of styling techniques; demonstrate techniques used in chemical reformation. Practice safety and sanitation. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 1404-Introduction to Barber Styling
Credits: 4 (2 lecture, 7 lab). Basic techniques for hair cutting. Introduction to the related skills of shampooing and treatments, and of trimming beards and mustaches. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 1442 - Barber Styling II
Credits: 4 (2 lecture, 7 lab). Continuation of Barber Styling I with emphasis on intermediate hands-on application of skills. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2402 - Barber Styling III
Credits: 4 (2 lecture, 7 lab). Continued skill development in haircutting and styling. Emphasizes on advanced techniques in chemical procedures. Introduction to hairpieces and facials. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2431 - Advanced Barber Styling I
Credits: 4 (2 lecture, 7 lab). Advanced skills in all areas of haircutting hairstyling and skincare. Introduction to hair coloring techniques. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2432 - Barber Law and Shop Management I Credits: 4 (2 lecture, 7 lab). Introduction to Texas barber law and business management. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2441 - Advanced Barber Styling II Credits: 4 (2 lecture, 7 lab). Continuation of Advanced Barber Styling I with further refinement of all skills and theory for licensure. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2444 - Barber Law and Shop Management II Credits: 4 (2 lecture, 7 lab ). Continuation of Barber Law and Shop Management I. Includes advanced business management and preparation for the State Board Examination for a barber license. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BARB 2470 - Preparation for the State Licensing Examination
Credits: 4 (2 lecture, 7 lab ). In depth preparation of the theory and practical skills to pass the state licensing examination for a class A barber. Topics include: sanitation, disinfection, hair coloring, hair cutting, shampooing, conditioning, hair styling, chemical reformation services and shaving services. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0308 or higher).

BCIS 1305 - Business Computer Applications Credits: 3 ( 3 lecture, 3 lab). Computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Prerequisite: Must be placed into college level reading \& college level writing \& developmental mathematics (0312 or higher).

BIOL 1106 - Biology for Science Majors I (Lab) Credits: 1 (3 lab). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Lifeand Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college level reading and writing.

BiOL 1108 - Biology for Non-Science Majors I (Lab)
Credits: 1 ( 3 lab). Selected laboratory experiments related to topics in BIOL 1308 (Introductory Biology I) for nonmajors. Prerequisite: Prerequisite/Corequisite: BIOL 1308

BIOL 1109 - Biology for Non-Science Majors II Credits: 1 (3 lab). Selected laboratory experiments related to topics in BIOL 1309 (Introductory Biology I) for nonmajors. Prerequisite: Prerequisite/Co-requisite: BIOL 1309 BIOL 1306 - Biology for Science Majors I (Lecture) Credits: 4 (3 lecture). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: must be placed into college level reading and writing.

BIOL 1308 - Biology for Non-Science Majors I (Lecture) Credits: 3 ( 3 lecture). Topics include basic chemistry, cell morphology and physiology, photosynthesis and respiration, cell division, and classical and molecular genetics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1309 - Biology for Non-Science Majors II (Lecture) Credits: 3 (3 lecture). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physícal Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1308, Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1322 - Nutrition \& Diet Therapy
Credits: 3 (3 lecture). A course designed to teach the fundamentals of nutrition based on basic nutrition principles. Scientific standard recommendations of levels of nutrient intake for a healthy population are discussed. Sources and functions of carbohydrates, proteins, fats, vitamins and minerals are also studied. (cross listed with HECO 1322). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 1407 - Biology for Science Majors II (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1406, Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2101 - Anatomy \& Physiology I (lab)
Credits: 1 (3 lab). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2102 - Anatomy \& Physiology II (lab)
Credits: 1 (3 lab). Continuation of BIOL 2101 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2120 - Microbiology for Non-Science Majors (Lab) Credits: 1 (3 lab). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into collegelevel writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2301 - Anatomy \& Physiology I (Lecture) Credits: 3 ( 3 lecture). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2302 - Anatomy \& Physiology H (Lecture) Credits: 3 (3 lecture). Continuation of BIOL 2301 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2320 - Microbiology for Non-Science Majors (Lecture)
Credits: 3 (3 lecture). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into collegelevel writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2406-Environmental Biology (Lecture \& Lab) Credits: 4 ( 3 lecture, 3 lab). Human interaction with and effect upon plant and animal communities. Conservation, pollution, energy, and other contemporary ecological problems. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2416 - Genetics (Lecture \& Lab)
Credits: 4 (3 lecture, 3 lab). Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2421 - Microbiology for Science Majors (Lecture \& Lab)
Credits: 4 (3 lecture, 3 lab). Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Laboratory activities will reinforce principles of microbiology. Prerequisite: CHEM 1411 and BIOL 1406 and 1407 or BIOL 1411 and 1413.

BIOM1309 - Applied Biomedical Equipment Technology Credits: 3 (2lecture, 3 lab). Introduction to biomedical instrumentation as related to anatomy and physiology. Detailed coverage of anatomical systems that use medical equipment for monitoring, diagnosis, and treatment. Prerequisite: CETT 1403, CETT 1425 or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2331 - Biomedical Clinical Instrumentation Credits: 3 (2 lecture, 3 lab). A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory. Prerequisite: CETT 1403, CETT 1425, or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2389-Internship - Biomedical Technology / Technician
Credits: 3 ( 20 lab ). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: 30 credit hours of CETT courses and Department Approval; must be placed into college-level reading, writing and math.

BMGT 1301 - Supervision
Credits: 3 (3 lecture). A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1313 - Principles of Purchasing Credits: 3 (3 lecture). The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, negotiation techniques, and ethical issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1325-Office Management Credits: 3 (3 lecture). Systems, procedures, and practices related to organizing and planning office work, supervising employee performance, and exercising leadership skills. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1327 - Principles of Management Credits: 3 (3 lecture). Concepts, terminology, principles, theories, and issues in the field of management. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1341 - Business Ethics Credits: 3 ( 3 lecture). Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1370-Introduction to HR / PeopleSoft Applications Credits: 3 (2 lecture, 3 lab). A hands-on overview of the major areas of human resources/PeopleSoft, as illustrated by PeopleSoft software applications. Some topics will cover accessing PeopleSoft, navigating the PeopleSoft interface, understanding PeopleSoft panels, using PeopleSoft panels, and creating queries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BMGT 1371- Intermediate HR / PeopleSoft Applications Credits: 3 (2 lecture, 3 lab). A continuation of Introduction to Human Resources/PeopleSoft with intermediate PeopleSoft applications. Additional topics will include: understanding PeopleSoft processes, PeopleSoft HRMS (Human Resource Management Systems), PeopleSoft HRMS modules, and advanced query topics. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 2305 - Advanced Communications in Management Credits: 3 (2 lecture, 2 lab). Putting it all together/PeopleSoft: group projects, team applications, and implementation of results Prerequisite: BMGT 1371;
must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Computer Lab required)

BMGT 2310 - Financial Management Credits: 3 (2 lecture, 3 lab). Emphasis on the development and use of accounting information to support managerial decision-making processes in manufacturing, service, and for-profit settings. Topics include managerial concepts and systems, various analysis for decision making, and planning and control. Prerequisite: BMGT 1394; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. (Computer Lab required)

BMGT 2331 - Principles of Quality Management Credits: 3 (2 lecture, 3 lab). Quality of productivity in organizations using PeopleSoft Applications. Includes planning for quality PeopleSoft reports, implementation of reports, development of reports for business decisionmaking. Additional topics will include accessing and setting up queries, aggregating totals, using SQR with PeopleSoft, and reporting tables. Prerequisite: BMGT 2310; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. (Computer Lab required)

BNKG 1303-Principles of Bank Operation Credits: 3 (3 lecture). Overview of the fundamental banking functions and the role of regulation in the banking industry. Explanation of financial products and services to various markets. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1305-Teller Training
Credits: 3 (3 lecture). Application of the functions related to negotiable instruments, cash control, handling money, and balancing. Explanation of compliance and regulation issues affecting bank tellers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1340 - Money and Financial Markets Credits: 3 (3 lecture). Monetary policy and its related effects on financial intermediaries. Includes financial markets, regulatory functions, and structures. Addresses investment and funds management. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1343 - Law and Banking
Credits: 3 (3 lecture). Sources of law and banking regulation. Emphasis on the laws relating to contracts, negotiable instruments, secured transactions, and consumer credit. Prerequisite: BNKG 1303, Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1345-Consumer Lending Credits: 3 ( 3 lecture). A study of the different types of consumer loans. Identify the federal regulations and state laws pertaining to collection and serving of a consumer loan and relate consumer credit to the lending process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1349-Commercial Lending Credits: 3 (3 lecture). Overview of the commercial lending market and process with an emphasis on credit analysis, evaluation, federal regulation, and state laws related to business and industrial lending. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1351-Selling Bank/Financial Products and Services Credits: 3 (3 lecture). Characteristics and benefits of bank products and services. Emphasis on the personal selling process and quality customer service. Application of personal selling, cross-selling, and related product benefits to individual customer needs. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1356 - Analyzing Financial Statements Credits: 3 (3 lecture). A study of the process of evaluating financial statements, cash flow, and ratio analysis of individuals and businesses with an emphasis on the relationship of comparative analysis and industry standards. Prerequisite: ACCT 2301; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1373 - Teller Training Lab
Credits: 3 (2 lecture, 2 lab). An alternate continuation of BNKG 1305 Teller Training, this course affords the student practical, hands-onexperience in paying and receiving teller operations. Students develop skills such as cash handling, cash drawer setup, maintenance, security and daily balancing, processing of basic paying and receiving customer transactions, quoting funds availability, implementing security precautions, operating ten-key terminal, and using automated teller machines via daily practice in a lab setting. Prerequisite: BNKG 1305; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1380 - Cooperative Education - Banking and Financial Support Services
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2374 - Financial Business Administration
Credits: 3 (3 lecture). Course emphasizes the managerial responsibility of coordinating the many facets of a financial institution. The course covers administration in a regulatory environment, portfolio mix, and the various changes that are happening in this fast paced industry. Special attention is placed on investment areas in which customers are allowed to participate, which banks must have a working knowledge of but are not allowed to invest in. Prerequisite: BNKG 1340; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2380 -Cooperative Education - Banking and Financial Support Services
Credits: 3 (1 lecture, 20 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math

BNKG 2381 - Cooperative Education - Banking and Financial Support Services
Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BUSG 1301 - Introduction to Business
Credits: 3 (3 lecture). Fundamental business principles including structure, functions, resources, and operational processes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1303 - Principles of Finance
Credits: 3 (3 lecture). Financial dynamics of a business. Includes monetary and credit theory, cash inventory, capital management, and consumer and government finance. Emphasizes the time value of money. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1307 - Entrepreneurship and Economic Development
Credits: 3 (3 lecture). Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1370 - Personal Financial Planning Credits: 3 ( 3 lecture). An exploration of financial planning that emphasizes topics of personal interest but also have application to business financial planning topics. Topics include budgeting, bank accounts and account reconciliation, individual retirement accounts, loans, investments, debt management, real estate, insurance, wills, trusts, and taxes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1380-Cooperative Education - Business / Commerce-General
Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

BUSG 2305 -Business Law / Contracts Credits: 3 (3 lecture). Principles of lawwhich form the legal framework for business activity including applicable statutes, contracts, and agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSC 2309-Small Business Management/Entrepreneurship Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2370 - Legal Issues for Enterprise
Credits: 3 (3 lecture). Legal Aspects of Enterprise explores both the for- profit and not-for-profit legal requirements and provides applications activities to help the beginning business entrepreneur or social entrepreneur actually set up a new enterprise. Topics include: types of business structures, types of not-forprofit structures, legal forms and paperwork required to set up each type of structure, resources for assistance in setting up enterprises (such as legal clinics, lawyers who provide pro bono services for social enterprise); important considerations in retaining a lawyer, and legal pitfalls for the beginning entrepreneur to avoid. Prerequisite: Prerequisites: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2380 - Cooperative Education - Business / Commerce - General
Credits: 3 ( 1 lecture, 20 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

BUSG 2382 - Cooperative Education - Entrepreneurship / Entrepreneurial Studies
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSI 1301 - Business Principles
Credits: 3 ( 3 lecture). Fundamental business principles including structure, functions, resources, and operational processes.

BUSI 1307 Personal Finance
Credits: 3 (3 lecture). Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans. (Cross-listed as HECO 1307) NOTE: This course is not part of the business field of study and may not transfer toward a degree in business.

BUSI 2301 - Business Law I
Credits: 3 (3 lecture). Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency.

BUSI 2305 Business Statistics
Credits: 3 (3 lecture). Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the Business Field of Study.)

CDEC 1313 - Curriculum Resources for Early Childhood Programs
Credits: 3 (2 lecture, 3 lab). A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math

CDEC 1317 - Child Development Associate Training I Credits: 3 (2 lecture, 2 lab). Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observational skills, and child growth and development overview. The four functional areas of study are creative, cognition, physical and communication. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1319 - Child Guidance Credits: 3 (2 lecture, 2 lab). An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. Practical application through direct participation with children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

## CDEC 1321 - The Infant and Toddler

Credits: 3 (2 lecture, 3 lab). A study of appropriate infant and toddler (birth to 3), including an overview of development, quality care giving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1323-Observation and Assessment Credits: 3 (3 lecture). A study of observation skills, assessment techniques, and documentation of children's development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1339 - Early Childhood Development 0-3 Years Credits: 3 (2 lecture, 3 lab). Principles of normal growth and development from conception through three years of age. Emphasizes physical, intellectual, and social/emotional development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1356 - Emergent Literacy for Early Childhood Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. Prerequisite: Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1358 - Creative Arts for Early Childhood Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children music, movement, visual arts and dramatic play through process-oriented experiences to support divergent thinking. Prerequisite: Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1359-Children with Special Needs Credits: 3 (2 lecture, 2 lab). A survey of information regarding children with special needs including possible causes and characteristics of exceptionality, educational intervention, available resources, referral processes, the advocacy role and legislative issues. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1391 - Special Topics in Family Life and Relations Studies
Credits: 3 ( 3 lecture). A study of infants and toddlers and their families. Includes appropriate assessment strategies and communication techniques to be used with families. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2307 - Math and Science for Early Childhood Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. Prerequisite: Prerequisite/Corequisite: CDEC

1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2315 - Diverse Cultural/Multilingual Education Credits: 3. An overview of diverse cultural and multilingual education including familial relationships, community awareness, diversity, and the needs of each and every child.

CDEC 2326 - Administration of Programs for Children I Credits: 3 (3 lecture). Application of management procedures for early child care education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Prerequisite: CDEC 1356, 1358 or 2307; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.

CDEC 2328 - Administration of Programs for Children II Credits: 3 ( 3 lecture). An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personal management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Prerequisite: CDEC 2326; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.
CDEC 2341 - The School Age Child Credits: 3 (2 lecture, 3 lab). A study of appropriate programs for the school age child ( 5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Prerequisite: Must be placed into CUST0342 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2380 - Cooperative Education - Early Childhood Provider/Assistant
Credits: 3 (1 lecture, 15 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and theemployer, the student combines classroom learning with work experience. Includes a lecture component. (Lab hours must be completed in a NAEYC accredited center). Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

CETT 1321-Electronic Fabrication Credits: 3 (2 lecture, 4 lab). Formerly CPMT 1407 A study
of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math or Department Approval.

CETT 1357-Linear Integrated Circuits Credits: 3 (2 lecture, 4 lab). A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Applications include computation, measurements, instrumentation, and active filtering. Prerequisite: CETT1429 or Department Approval; must be placed into college-level reading, writing and math.

CETT 1403-DC Circuits
Credits: 4 (3 lecture, 3 lab). A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques. Prerequisite: Prerequisite/Co-requisite: Math 1314; must be placed into college-level reading, writing and math or Department Approval.

## CETT 1405-AC Circuits

Credits: 4 ( 3 lecture, 3 lab). A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance; introduction to filters. Prerequisite: CETT 1403 Co-requisite: Prerequisite/Corequisite: MATH 1316 or Departmental Approval. Must be placed into college-level reading, writing and math.

CETT 1409-DC-AC Circuits
Credits: 4 (2 lecture, 4 lab). Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308.
Departmental Approval

CETT 1425 - Digital Fundamentals
Credits: 4 ( 3 lecture, 3 lab). An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: Corequisite: CETT 1403 or Departmental Approval

CETT 1429 - Solid State Devices
Credits: 4 (3 lecture, 3 lab). A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, biasing-techniques, and thermal considerations of solid state devices. Prerequisite: Prerequisite/Corequisite: CETT 1405; must be placed into college-level reading, writing and math or Departmental Approval

CETT 1431 - Programming for Discrete Electronic Devices Credits: 4 (3 lecture, 3 lab). Introduction to a high level programming language .Includes structured programming and problem solving applicable to discrete electronic devices. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

CHEF 1205 - Sanitation and Safety
Credits: 2 (2 lecture). A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1301 - Basic Food Preparation Credits: 3 (2 lecture, 4 lab). A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, materials handling, heat transfer, sanitation, safety, nutrition, and professionalism. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 2201 and 2231

CHEF 1302 - Principles of Healthy Cuisine Credits: 3 (2 lecture, 4 lab). Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Prerequisite: CHEF 1301, 1305, 2201 and 2231, must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1310-Garde Manger
Credits: 3 (2 lecture, 4 lab). A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1313 - Food Service Operation/Systems
Credits: 3 (3 lecture). An overview of the information needs of food and lodging properties. Emphasis on both front, back, and material management utilizing computer systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1314 - A La Carte Cooking Credits: 3 (2 lecture, 4 lab). A course in a la carte or cooking to order concepts. Topics include menu and recipe interpretation and conversion, organization of a work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1471 - Introduction to Food Preparation for Hospitality
Credits: 2 ( 1 lecture, 4 lab). A study of the fundamental principles offood preparation to introduce hospitality students to basic culinary skills. Topics will include kitchen professionalism, proper station set up, basic knife skills, basic cooking techniques, proper handling and storage of various food items, and appropriate portions and plating techniques. Prerequisite: Must be placed into CUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2171- Culinary Capstone Projects Laboratory Credits: 1. Open laboratory for reinforcement of specific culinary skills and selected culinary projects based on an individualized learning plan.

CHEF 2201 - Intermediate Food Preparation Credits: 2 ( 1 lecture, 4 lab). Continuation of previous food preparation course. Topics include the concept of precooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Prerequisite: CHEF 1301 and 2231; Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2231 - Advanced Food Preparation
Credits: 2 ( 1 lecture, 4 lab). Topics include the concept of pre-cooked food items and the preparation of canapés, hors d'oeuvres, and breakfast items. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 1301 and 2201

CHEF 2265 - Practicum ( or Field Experience ) - Culinary Arts/Chef Training
Credits: 2 (18 Lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: CHEF 1301, 1305, 2201 and 2231, Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2302 - Saucier
Credits: 3 (2 lecture, 4 lab). Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Prerequisite: CHEF 1301, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEM 1105 - Introductory Chemistry Laboratory I (lab) Credits: 1. Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food / physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1111 - General Chemistry I (Lab) Credits: 1 (3 lab). Science and engineering majors study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1305- Introductory Chemistry I (lecture) Credits: 3 (3 lecture). General introduction to fundamental principles of chemistry includes atomic structure, chemical formulas, molecules, reactions, and elementary thermodynamics. This course is intended to be preparatory to CHEM 1411 for science majors who have no prior knowledge of chemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1311-General Chemistry I (Lecture)
Credits: 3 (3 lecture). Science and engineering majors study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1405 - Introductory Chemistry ) (lecture \& lab) Credits: 4 ( 3 lecture, 3 lab). A general introduction to the properties of matter. Topics include atomic structure, energy, chemical bonding, reactions, gas laws and elementary thermodynamics. This is a preparatory course to CHEM 1411 for science majors who have no prior knowledge of chemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1412 - General Chemistry II (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1411. Topics include solutions, chemical kinetics, equilibrium and equilibrium phenomena in aqueous solution, acids and bases, pH , thermodynamics, electrochemistry, nuclear chemistry, organic chemistry, and biochemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: CHEM 1411; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1413-College Chemistry I
Credits: 4 (3 lecture, 3 lab). Nursing and allied health science majors study atomic structure, electron configuration, periodic law, radioactivity and its effects on living organisms, chemical bonding, molecules, gases, solutions, solution concentration, acids and bases, and buffers. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

CHEM 1414 - College Chemistry II
Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1413. Topics include the organic chemistry of hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids, esters, amines, and amides; biochemistry topics include amino acids and proteins, enzymes, carbohydrates, and lipids. Prerequisite: CHEM 1413, Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 2423-Organic Chemistry I (Lecture \& Lab) Credits: 4 ( 3 lecture, 3 lab). Study of compounds of carbon. Topics include alkanes, alkenes, alkynes, alcohols, alkyl halides, stereochemistry, nucleophilic substitution, reaction mechanisms and synthesis. Study of the properties and behavior of hydrocarbon compounds and their derivatives. Designed for students in science or preprofessional programs. Prerequisite: CHEM 1412; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

CHEM 2425 - Organic Chemistry II (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 2423. Topics include aromaticity, benzene and EAS reactions, aldehydes, ketones, carboxyliacids and their derivatives, condensation reactions, amines, phenols, and infrared and NMR spectroscopy. Prerequisite: CHEM 2423; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

CHIN 1411 - Beginning Chinese I Credits: 4 (3 lecture, 2 lab). Introduction to Chinese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)


CHIN 1412 - Beginning Chinese II
Credits: 4 (3 lecture, 2 lab). Continuation of Chinese 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Chinese 1411 or satisfactory score on advanced placement examination or at least 2 years of high school Chinese within the last two years. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

CHLT 1266 - Practicum (or Field Experience) - Community Health Services/Liaison/Counseling
Credits: 2 (14 external hours). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1291 - Special Topics in Community Health Liaison Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1302 - Wellness and Health Promotion Credits: 3 (3 lecture). Overview of wellness theory and its application throughout the life span. Focus is on attitude development, impact of cultural beliefs, and communication of wellness. Includes health behavior theories and approaches to behavior modification. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1342 - Community Health Field Methods Credits: 3 (3 lecture). Preparation for field work with individuals, families, and groups emphasizing teaching and capacity-building skills. Topics include outreach methods, area canvassing, home visiting, group work, community events, and community organizing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1401 - Introduction to Community Health Credits: 4 (4 lecture). Designed to provide a basic understanding of variables that affect health sectors in the community. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CJLE 1506 - Basic Peace Officer I Credits: 5 (3 lecture, 8 lab). Introduction to fitness and wellness, History, Civilization, of policing, professionalism and ethics, United States Constitution and Bill of Rights, criminal justice system, Texas Penal Code, Texas Code of Criminal Procedure, civil process, and stress management. This course taken in conjunction with Basic Peace Officer II, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Training Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

## CJLE 1512 - Basic Peace Officer II

 Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers field note taking, report writing, use of force? law and concepts, problem solving, multiculturalism, professional policing approaches, patrol procedures, victims of crime, family violence, MHMR, crowd management, HAZMAT, and criminal investigation. This course taken in conjunction with Basic Peace Officer I, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.
## CJLE 1518 - Basic Peace Officer III

 Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers laws pertaining to controlled substances, crowd management, personal property, and crime scene investigation. This course taken in conjunction with Basic Peace Officer I, II, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.
## CJLE 1524 - Basic Peace Officer IV

Credits: 5 (3lecture, 8 lab). Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, and III to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BYTCLEOSE. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2484-Cooperative Education - Criminal Justice / Police Science
Credits: 3 (I lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: CRIJ 2328, Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

## CMSW 1266 - Practicum-Clinical and Medical Social

 WorkerCredits: 2 ( 14 lab ). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1267 - Practicum-Clinical and Medical Social Worker Credits: 2 (14lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1313 - Assessment and Service Delivery Credits: 3 ( 3 lecture). A study of interviewing and assessment instruments and approaches for working with multicultural population. Emphasis on service delivery systems. Topics include awareness of commonly used assessments, ethical standards of practice, awareness of multicultural issues and competence in service delivery. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1353 - Family Intervention Strategies Credits: 3 (3 lecture). Study of current family intervention strategies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

## CMSW 2266 - Practicum-Clinical and Medical Social Worker

Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CNBT 1300-Residential and Light Commercial Blueprint Reading
Credits: 3 (2 lecture, 2 lab). Introductory blueprint reading for residential and light commercial construction. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1301 - Introduction to the Construction Industry Credits: 3 ( 3 lecture). Identify types of construction and organizational structures; explain purposes for various construction documents; describe the responsibilities of the construction office and field operations; identify environmental health and safety agency requirements; identify the various construction crafts and trades; and describe green and sustainable building practices and standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1302 - Mechanical, Plumbing, \& Electrical Systems in Construction I
Credits: 3 (3 lecture). A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship. Prerequisite: Prerequisite: CNBT 1201 or ELPT 1221 and TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1311 - Construction Methods and Materials I Credits: 3 (3 lecture). Introduction to construction materials and methods and their applications. Prerequisite: Prerequisite/Corequisite: CNBT 1201, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1316 - Construction Technology
Credits: 3 (3 lecture). Introduction to site preparation, foundations, form work, safety, tools, and equipment. Prerequisite: Prerequisite: TECM 1301 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite:
Prerequisite/Corequisite: CNBT 1311

CNBT 1318 - Construction Tools and Techniques Credits: 3 (2 lecture, 2 lab). Comprehensive study of the selection and use of hand tools, portable and stationary power tools and related construction equipment. Emphasis on safety in the use of tools and equipment. Prerequisite: Prerequisites/Corequisites: CNBT 1201, TECM 1301; Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1342 - Building Codes and Inspections Credits: 3 ( 3 lecture). Building codes and standards applicable to building construction and inspection processes. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 1346 - Construction Estimating I
Credits: 3 (2 lecture, 2 lab). Fundamentals of estimating materials and labor costs in construction. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisites/Corequisite: CNBT 1311

CNBT 1391 - Special Topics in Construction/Building Technology/Technician
Credits: 3 (3 lecture). An introduction to the process of career decision-making and the foundation skills required for a variety of trades in construction and manufacturing technologies including Air Conditioning and Refrigeration, Building Maintenance, Carpentry, Construction, Industrial Electricity, Machining and Manufacturing, and Welding. Topics include educational planning and vocational requirements including analyzing personal career interests, values, and aptitudes; surveying and researching career fields with related educational and training requisites; appraising career opportunities, prevailing wages, employment outlook, advantages, challenges and limitations. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 2335 - Computer Aided Construction Scheduling Credits: 3 (2 lecture, 2 lab). Advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures. Prerequisite: Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2337 - Construction Estimating II Credits: 3 (2 lecture, 2 lab). Advanced estimating concepts using computer software programs for construction and crafts. Prerequisite: Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2342 - Construction Management I Credits: 3 (3 lecture). Management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making. Prerequisite: CNBT 1302, TECM 1301, CNBT 1300, CNBT 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

COMM 1336 - Video Production I
Credits: 3 (2 lecture, 2 lab). A concentrated course in the theory and application of principles, procedures, and techniques of television production. Uses lecture and laboratory setting with supervision by faculty. Prerequisite: COMM 1335

COMM 1307-Introduction to Mass Communication Credits: 3 (3 lecture). Analyzes communication theory and mass media in 21st century society. Surveys History, Civilization, operation, and structure of the American communication system. Identifies major legal, ethical, and sociocultural issues, studies basic communication theory, and the interrelations between media and the individual, media and society, and media and the future. Examines career potential and job prospects in today's and tomorrow's electronic culture. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

COMM 1335-Introduction to Electronic Media Credits: 3 ( 3 lecture). A survey and analysis of History, Civilization, and principles of radio and television broadcasting and production, including programming for varied audience segments and sponsorship. Studies History, Civilization, technology, regulation, audience, and economics of radio, television, and related electroni media. Studies basic skills and theories of image and sound, equips student to communicate through audio/visual media. Includes public cable, closed-circuit television, production workshops, and individualized instructional modules. Field trip and community media guest lectures included.

COMM 2300-Media Literacy
Credits: 3 (3 lecture). Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media.

COMM 2302 - Principles of Journalism Credits: 3 ( 3 lecture). Exploration of ethical and legal boundaries as well as issues and problems facing today's journalist. Prerequisite: Must be placed at college level reading and writing skills.

COMM 2303 - Audio / Radio Production Credits: 3 ( 3 lecture). Concepts and techniques of sound production, including the coordinating and directing processes. Hands-on experience with equipment, sound sources, and direction of talent.

COMM 2305 - Editing and Layout
Credits: 3 (3 lecture). Trains students in basic copy editing for publication and in handling production copy from manuscript to finished publication, including photography choice, sizing, cropping and/or handling of various types of graphic illustrations. Covers publication layout (rough, finished), type choice, color, and black/white rendering.

COMM 2311 - Media Writing Credits: 3 (2 lecture, 2 lab). Proyides training in news gathering, news writing, and editing. Develops skills in headline writing, layout, and newspaper production with experience on student newspaper or area print publications. Field trips and careers are explored. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: ENGL/301

COMM 2315 - News Reporting
Credits: 3 (2 lecture, 2 lab). Continuation of COMM 2311. Prerequisite: ENGL 1301, COMM 2311

COMM 2324 - Practicum in Electronic Media Credits: 3 ( 3 lecture). Lecture and laboratory instruction and participation.

COMM 2327-Introduction to Advertising Credits: 3 (3 lecture). Enables student to conceive ideas, tailor and lay out advertisements geared for TV commercials, radio, magazines, and newspapers.
Assignments are based on goals, objectives, product/service fact sheets, and marketing considerations. Course integrates vital ingredients that enhance or impede advertising outcomes: product research, consumer behavior, semantics, social science knowledge, copy research and copywriting, visualization, media strategy, advertising agency knowledge, handling of client relations, and preparation of a portfolio. Field trip.

COMM 2330 - Introduction to Public Relations Credits: 3 ( 3 lecture). Studies principles and practices of public relations. Provides hands-on techniques to influence positive public opinion within and outside of companies. Requires creation of feature and news articles, press releases, press kit, brochure, and brief work plan utilizing the four-step planning process for resolving PR problems. Trains students to write good copy, construct PR goals and objectives, conduct practical research to determine public attitudes and opinion, arrange and conduct press conferences, and develop positive media relationships. (Formerly COMM 2328).

COMM 2389-Academic Cooperative
Credits: 3 (1 lecture, 8 lab). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication.

COSC 1436 - Programming Fundamentals I Credits: 4 (3 lecture, 3 lab). Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science. Core curriculum course. Prerequisite: Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher, and have had high school computer literacy or equivalent.

COSC 1437 - Programming Fundamentals II Credits: 4 ( 3 lecture, 3 lab). This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. Prerequisite: COSC 1436 or ITSE 1402, and MATH 2412 and ENGL 1301.

COSC 2425 - Computer Organization Credits: 4 ( 3 lecture, 3 lab). The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite: COSC 1436, MATH 1314 and ENGL 1301.

COSC 2436 - Programming Fundamentals III Credits: 4 (3 lecture, 3lab). Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: MATH 2413 and COSC 1437

CPMT 1303-Introduction to Computer Technology Credits: 3 (2 lecture, 4 lab). A fundamental computer course that provides in-depth explanation of the
procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Department Approval.

CPMT 1411 - Introduction to Computer Maintenance Credits: 4 ( 3 lecture, 3 lab). Introduction to the installation, configuration, and maintenance of a microcomputer system. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Department Approval.

CPMT 1449-Computer Networking Technology Credits: 4 (3 lecture, 3 lab). Networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.
Department Approval.
CRIJ 1301 - Introduction to Criminal Justice Credits: 3 (3 lecture). History, Civilization, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 1306 - Court Systems \& Practices Credits: 3 ( 3 lecture). Study of the judiciary in the American criminal justice system and the adjudication processes and procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1307 - Crime in America Credits: 3 (3 lecture). American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1310 - Fundamentals of Criminal Law Credits: 3 (3 lecture). Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 2313 - Correctional Systems and Practices Credits: 3 (3 lecture). Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 2314 - Criminal Investigation
Credits: 3 (3 lecture). Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 2323 - Legal Aspects of Law Enforcement Credits: 3 (3 lecture). Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability. Designated as Criminal Justice Transfer Curriculum. Prerequisite:
Prerequisite/Corequisite: CRIJ 1301; must also be placed in college-level reading and writing or higher.

CRIJ 2328 - Police Systems and Practices
Credits: 3 (3 lecture). The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CSME 1308 - Principles of Eyelash Extension Credits: 3 (2 lecture, 4 lab). This course provides the student with the practical skills necessary to safely and effectively apply eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## CSME 1391 -Special Topics in

Cosmetology/Cosmetologist, General
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1405 - Fundamentals of Cosmetology Credits: 4 (2 lecture, 7 lab ). A course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, and comb out. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1410

CSME 1409-Application of Eyelash Extensions Credits: 4 (2 lecture, 6 lab). This course provides the student with the skills necessary to perform client services using current techniques and business practices. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1410 - Introduction to Haircutting and Related Theory
Credits: 4 (2 lecture, 7 lab). Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1405, CSME 1453

CSME 1420 Orientation to Facial Specialist Credits: 3 (3 lecture, 4 lab). An overview of the skills and knowledge necessary for the field of facials and skin care. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1421, CSME 1447

CSME 1421 - Principles of Facial and Skin Care Technology I Credits: 4 (2 lecture, 7 lab). An introduction to the principles of facial and skin care technology. Topics include anatomy, physiology, theory, and related skills of facial and skin care technology. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1420, CSME 1447

CSME 1447 - Principles of Skin Care / Facials and Related Theory
Credits: 3 (3 lecture, 4 lab). An in-depth coverage of the theory and practice of skin care, facials, and cosmetics. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1420, CSME 1421, CSME 1545

CSME 1451 - Artistry of Hair, Theory and Practice Credits: 4 (2 lecture, 6 lab). Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2410

CSME 1452 - Orientation to Hair Weaving \& Braiding Credits: 4 (2 lecture, 7 lab). An overview of the skills and knowledge necessary for the field of hair weaving and braiding. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1457

CSME 1453 - Chemical Reformation and Related Theory Credits: 4 (2 lecture, 7 lab). Presentation of the theory and practice of chemical reformation, including terminology, application, and workplace competencies. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2401

CSME 1491 - Special Topics in Cosmetology/Cosmetologist, General Credits: 4 (2 lecture, 4 lab). This course is designed to introduce the student to the principles of client relations dealing with diverse populations of clients and attitudes and behaviors pertinent to the occupation of cosmetology and relevant to the professional development of the student. This course is a 2 lecture and 4 lab hours ( 96 contact hours) course upon successful completion of the course, the student will be awarded 4 semester credit hours. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2343 CSME 2531

CSME1507-Orientation to Eyelash Extensions Credits: 5 (2 lecture, 7 lab). An overview of the skills and knowledge necessary for the field of eyelash extensions. Topics include the basic knowledge of chemistry, eyelash growth cycles, proper selection and application, supplies and equipment of the industry, safety, sanitation, and laws and rules of the state licensing agency as they relate to eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1534 - Cosmetology Instructor I
Credits: 5 (3 lecture, 5 lab). The fundamentals of
instruction of cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite:
Corequisite: CSME 1535, CSME 2514

CSME 1535-Orientation to the Instruction of Cosmetology
Credits: 5 (3 lecture, 5 lab). An overview of the skills and knowledge necessary for the instruction of cosmetology students. Prerequisite: A current Texas Cosmetology Operator License. Must have 3 years recent verifiable work experience. Must obtain department approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 2514

CSME 1545 - Principles of Facials and Skin Care Technology II Credits: 5 ( 3 lecture, 6 lab ). A continuation of the concepts and principles in skin care and other related technologies. Topics include advanced instruction in anatomy, physiology, theory, and related skills of facial and Skin care technology. Prerequisite: Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2531, CSME 1491, CSME 1447

CSME 1557 - Applications of Hair Weaving \& Braiding Credits: 4 (2 lecture, 7 lab). Emphasis on the application of hair weaving and braiding techniques and preparation for the Texas Department of Licensing and Regulation (TDLR) examination. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1452

CSME 2204-Introduction to the Theory and Chemistry of Hair Color
Credits: 3 (3 lecture, 1 lab). The introduction of basic theory and chemistry of hair color. Topics include the Law of Color, terminology and chemical composition of hair color products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 2337 - Advanced Cosmetology Techniques Credits: 3 ( 1 lecture, 8 lab). Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2439

CSME 2343 - Salon Development
Credits: 3 (2 lecture, 4 lab). Exploration of salon development. Topics include professional ethics and goals, salon operation, and record keeping. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491

CSME 2410 - Advanced Haircutting and Related Theory Credits: 4 (2 lecture, 7 lab). Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1451

CSME 2439 - Advanced Hair Design
Credits: 4 (2 lecture, 6 lab). Advanced concepts in the theory and practice of hair design Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2337

CSME 2501 - The Principles of Hair Coloring and Related Theory
Credits: 4 (2 lecture, 7 lab ). Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1453

CSME 2514 - Cosmetology Instructor II Credits: 5 (3 lecture, 5 lab). A continuation of the fundamentals of instructing cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 1535, CSME 2515

CSME 2531 - Principles of Facial / Skin Care Technology In Credits: 5 ( 3 lecture, 6 lab). Adyanced concepts and principles of skin care and other related technologies. Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491, CSME 1545

CSME 2541 - Preparation for the State Licensing Examination
Credits: 5 (3 lecture, 6 lab). Preparation for the state licensing examination. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME1451

CSME 2544 - Cosmetology Instructor IV Credits: 5 (3 lecture, 5 lab). Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math Corequisite: CSME 2515, CSME 2545,

CSME 2545 - Instructional Theory and Clinic Operation Credits: 5 (3 lecture, 5 lab). An overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2515, CSME 2544

CSME 2549-Cosmetology Instructor MI Credits: 5 (3 lecture, 5 lab). Presentation of lesson plan assignments and evaluation techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2544, CSME 2545 , CSME 2514

CTMT 2336 - Computer Tomography Equipment and Methodology
Credits: 3 (3 lecture). Skill development in the operation of computed tomographic equipment, focusing on routine protocols, image quality, quality assurance and radiation protection. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RADR 2340

CTMT 2360 - Clinical-Radiologic Technology / ScienceRadiographer
Credits: 3 ( 12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340, CTMT 2336, CTMT 2461

CTMT 2361 - Clinical-Radiologic Technology / ScienceRadiographer
Credits: 3 (12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340, CTMT 2336, CTMT 2460

DAAC 1264 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling
Credits: 2. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

DAAC 1304-Pharmacology of Addiction Credits: 3 (3 lecture). Describes the psychological, physiological, and sociological effects of mood-altering substances and behaviors. Emphasizes pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1305-Co-Occurring Disorders
Credits: 3 (3 lecture). Provides students with an understanding of co-occurring psychiatric and substance abuse disorders and their impact on the individual, family, and community. Includes an integrated approach to address the issues accompanying the illness. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 1311 - Counseling Theories Credits: 3 (3 lecture). An examination of the major theories and current treatment modalities used in the field of counseling. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 1319-Substance-Related and Addictive Disorders Credits: 3 ( 3 lecture). An overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor's code of ethics. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1417 - Basic Counseling Skills Credits: 4 (2 lecture, 8 lab). Presents the basic counseling skills necessary to develop an effective helping relationship with clients. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2267 - Practicum (or Field Experience) - Substance Abuse / Addiction Counseling
Credits: 2 (19lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-leyel writing and MATH 0308 in math.

DAAC 2306 - Substance Abuse Prevention I Credits: 3 ( 3 lecture, 1 lab). Focuses on aspects of substance abuse prevention from a public health model. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2353 - Substance Abuse Prevention II Credits: 3 (3 lecture, 1 lab). Focuses on the incorporation of research and evaluation methods into advanced program designs and outcomes, and research and application of ethics as applied to substance abuse prevention. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2354 - Dynamics of Group Counseling
Credits: 3 (3 lecture). Exploration of group counseling skills, techniques, and stages of group development. Prerequisite: DAAC 1417; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DANC 1110 - Tap Dance
Credits: 1 (3 lab). Instruction in the fundamental techniques and concepts associated with Tap dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1112 - Dance Practicum
Credits: 1 (o lecture, 3 lab). Practicum in dance related topics with emphasis on practical skills necessary for the field. May be repeated for credit once. Prerequisite: Department Approval required.

DANC 1128 - Ballroom and Social Dance
Credits: 1 (o lecture, 2 lab). Introductory instruction in the fundamental techniques and concepts associated with Ballroom and Social Dance. May be repeated for credit once.

DANC 1151-Freshman Dance Performance Credits: 1 ( 1 lecture, 3 lab). Instruction in dance performance through experiential projects at the freshman level. May be repeated for credit once. Prerequisite: Prerequisites: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1201- Dance Composition - Improvisation Credits: 2 (2 lecture). This introductory course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1241-Beginning Ballet
Credits: 2 ( 1 lecture, 3 lab). Instruction in the fundamental techniques and concepts associated with ballet. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1245 - Beginning Modern Dance
Credits: 2 ( 1 lecture, 3 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1247 - Beginning Jazz Dance Credits: 3 ( 1 lecture, 2 lab). Instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1301 - Dance Composition - Choreography Credits: 3 (3 lecture). This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1305 - World Dance
Credits: 3 (2 lecture, 2 lab). Students will learn cultural dances of Africa and the African Diaspora, with emphasis on rhythmic awareness and movement development. The cultural origins, significance, and motivation, as well as the use of costumes and music, will be explored in lecture and research through live performances, guest artists, and the use of multi-media sources. Instruction will include experiential and written assignments. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 2151 - Sophomore Dance Performance
Credits: 1 (1 lecture, 3 lab). Instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 2241 - Intermediate Ballet
Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with ballet. May be repeated for credit once.

DANC 2245 - Intermediate Modern Dance
Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance.

DANC 2247 - Intermediate Jazz Dance Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: DANC 1348 Jazz II or instructor's approval.

DANC 2303 - Dance Appreciation
Credits: 3 (3 lecture). A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and collegelevel writing.

DEMR 1301 - Shop Safety and Procedures
Credits: 3 (2 lecture, 2 lab). A study of shop safety, rules, basic shop tools, and test equipment. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1305 - Basic Electrical Systems
Credits: 3 (2 lecture, 4 lab). Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1310 - Diesel Engine Testing and Repair I Credits: 3 (2 lecture, 4 lab). An introduction to testing and repairing diesel engines including related systems specialized tools. Prerequisite: Prerequisite/Corequisite: DEMR 1313; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1316 - Basic Hydraulics
Credits: 3 (1 lecture, 4 lab). Fundamentals of hydraulics including components and related systems. Prerequisite: Prerequisite/Corequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1317 - Basic Brake Systems
Credits: 3 (2 lecture, 4 lab). Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair Credits: 3 (2 lecture, 4 lab). Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1329 - Preventative Maintenance Credits: 3 (2 lecture, 2 lab). An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1330-Steering and Suspension I Credits: 3 (2 lecture, 4 lab). A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1342 - Power Train Applications I Credits: 3 (2 lecture, 4 lab). In-depth coverage of the mechanics and theory of power trains. Emphasis on disassembly, inspection, and repair of power train components. Prerequisite: Prerequisite/Corequisite: DEMR 1349; must be placed into CUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1381 - Cooperative Education - Diesel Mechanics Technology/Technician Credits: 3 ( 1 lecture, 20 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite/Corequisite: DEMR 2312 and Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2312 - Diesel Engine Testing and Repair II Credits: 3 ( 2 lecture, 4 lab). Coverage of testing and repairing diesel engines including related systems specialized tools. Prerequisite: Prerequisite/Corequisite: DEMR 1342; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2332 - Electronic Controls
Credits: 3 (2 lecture, 4 lab). Advanced skills in diagnostic and programming techniques of electronic control systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2439 - Advanced Electrical Systems
Credits: 4 (2 lecture, 4 lab). A continuation of basic electrical systems to include lighting, computer controls and accessories. Emphasis on diagnosis, testing, and repair using the various diagnostic tools and procedures for current electronic systems. Prerequisite: Must be placed into GUST 0339 in reading, ENCL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1302 - Introduction to Technical Animation and Rendering
Credits: 3 (2 lecture, 4 lab ). Basic terminology and concepts associated with the development of computer modules used in technical computer animation. Topics include basic animation principles, model creation, light sources, camera positioning, rendering, importing and modification of external files. Prerequisite: DFTG 2319; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1305 - Technical Drafting
Credits! 3 (2 lecture, 4 lab ). Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1309- Basic Computer-Aided Drafting Credits: 3 (2 lecture, 4 lab). An introduction to computeraided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems and plot/print to scale. Corequisite: Co-requisite: DFTG 1405 or Departmental Approval; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1310 - Specialized Basic Computer Aided Drafting (CAD)
Credits: 3 (2 lecture, 4 lab). A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings.
Prerequisite: DFTG 1405 and DFTG 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1317-Architectural Drafting - Residential Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1329 - Electro - Mechanical Drafting Credits: 3 (2 lecture, 4 lab ). A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches. Emphasis on drawing of electronics enclosures, interior hardware, exterior enclosure, detailed and assembly drawings with a parts list, and flat-pattern layouts. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1333 - Mechanical Drafting Credits: 3 (2 lecture, 4 lab). Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings, including bill of materials. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1358 - Electrical / Electronic Drafting Credits: 3 (2 lecture, 4 lab). Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1372 - Smart Print 3D Drafting Credits: 3 . Use process, power and marine design software for 3D modeling design. Learn to define a workspace that opens a new 3D intelligent design world. Manipulate designed equipment, specialty items, piping and refining where required.

## DFTG 1376 - Revit Residential

Credits: 3 (2 lecture, 4 lab). Use architectural design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 1405, DFTG 1309, and DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD
Credits: 3 (2 lecture, 4 lab). The total method of building construction, focused on energy conservation, green and sustainable building, improved construction practices, accessibility, and whole-building design techniques. Topics address recently identified current eyents, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Prerequisite: DFTG 2319, DFTG 1317.

DFTG 1393 - Special Topics in Civil Drafting and Civil Engineering; Civil 3D
Credits: 3 (2 lecture, 4 lab). Use Civil 3D software to enhance alignment layout of civil engineering projects. Use tools that enable easier sharing of drafting and design standards across organizations. Prerequisite:
DFTG 2330. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1394 - Special Topics in Electrical/Electronics Drafting and Electrical/Electronics CAD / CADD Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD / CADD AutoPlant Isometrics Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2323 and DFTG 2371. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2300 - Intermediate Architectural Drafting Residential
Credits: Credit 3 (2 lecture, 4 lab). Continued application of principles and practices used in residential construction. Prerequisite: DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2302 - Machine Drafting
Credits: 3 (2 lecture, 4 lab). Production of detail and assembly drawings of machine, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings. Prerequisite: DFTG 1333; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2305 - Printed Circuit Board Design Credits: 3 (2 lecture, 4 lab). Course includes single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to layout printed circuit board and manufacturing documentation. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2306 - Machine Design
Credits: 3 (2 lecture, 4 lab). Theory and practice of design. Projects in problem solving, including press fit, bolted and welded joints, and transmission components. Prerequisite: DFTG 2302. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2307-Electrical Drafting Credits: 3. A study of area lighting, control systems and power layouts, electrical and safety codes, load factors and distribution requirements.

DFTG 2308 - Instrumentation Drafting
Credits: 3 (2 lecture, 4 lab). Prínciples of instrumentation as applicable to industrial applications; fundamentals of measurements and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout, and drafting practices. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## DFTG 2317 -Descriptive Geometry

Credits: 3 (2 lecture, 4 lab). Graphical solutions to problems involving points, lines, and planes in space. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2319 - Intermediate Computer-Aided Drafting Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3dimensional drawings, interfacing 2-D and 3-D environments and extracting data. Prerequisite: DFTG 1309 and DFTG 1405. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2321 - Topographical Drafting
Credits: 3. Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses.

DFTG 2323 - Pipe Drafting
Credits: 3 (2 lecture, 4 lab ). A study of pipe fittings, symbols, specifications, and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2328 - Architectural Drafting - Commercial Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Prerequisite: DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2330 - Civil Drafting
Credits: 3 (2 lecture, 4 lab). An in-depth study of drafting methods and principles used in civil engineering.
Prerequisite: DFTG 1405 and DFTG 1309. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2331 - Advanced Technologies in Architectural Design and Drafting
Credits: 3 (2 lecture, 4 lab). Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Prerequisite: DFTG 1376. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2332 - Advanced Computer-Aided Drafting Credits: 3 (2 lecture, 4 lab). Advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as threedimensional solids modeling and linking graphic entities to external non-graphic data. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2335 - Advanced Technologies in Mechanical Design and Drafting
Credits: 3 (2 lecture, 4 lab). Use parametric based mechanical design software for mechanical assembly design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2338 - Final Project - Advanced Drafting Credits: 3 (2 lecture, 4 lab). A drafting course in which students participate in a comprehensive project from conception to conclusion. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1405 and DFTG 1309. Must be at the last semesters before obtaining Drafting Certificate or AAS Degree.

DFTG 2340 - Solid Modeling/Design Credits: 3 (2 lecture, 4 lab). A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2345 - Advanced Pipe Drafting
Credits: 3 (2 lecture, 4 lab). A continuation of pipe drafting concepts building on the basic principles acquired in pipe drafting. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2358 - Advanced Mãchine Design Credits: 3 ( 2 lecture, 4 lab ). Design process skills for the production of complete design package, which includes jig and fixture design, extrusion dies, and injection mold design. Prerequisite: DFTG 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2370 - Intermediate CAD (Microstation)
Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in the basic computer-aided drafting (Microstation), emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of three (3) dimensional drawings, interfacing 2D and 3D environments and extracting data. Prerequisite: DFTG 1310. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2371 - Advanced Technologies in Process Plant Design-(AutoPlant)
Credits: 3 (2 lecture, 4 lab). Use process plant based mechanical desigh software for specific applications in industrial design and drafting. Prerequisite: Prerequisite: DFTG 2323, DFTG 2319 or 2370 ; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2372 - Piping Plans and Process Equipment Credits: 3 (2 lecture, 4 lab). A continuation of process pipe design concepts, building on the principles acquired in Process Plant Layout. Prerequisite: DFTG 2319 or DFTG 2370 or Departmental Approval. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTC 2373 - Piping Design Management System (PDMS) Credits: 3 (2 lecture, 4 lab). Uses process plant management systems based Piping design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2374 - Civil 3-D
Credits: 3 (2 lecture, 4 lab). DFTG 2374 Civil 3D covers the essentials of Autodesk Civil 3D. Students learn how to work with point data in Autodesk Civil 3D, how to create and analyze a surface, how to develop a site, how to model roads, corridors, and pipe networks, how to work with survey data, and how to import and export data. Hands-on exercises throughout the course explore how to create 2D and 3D drawings. Prerequisite: DFTG 1405, DFTG 1309, DFTG 2330; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2375 - Introduction to GIS
Credits: 3 (2 lecture, 4 lab). DFTG 2375 Introduction to GIS is designed to teach students: general application of GIS software, acquire qualitative methods skills in data and document gathering, analyzing information, and presenting results. Prerequisite: DFTG 1405 and DFTG 1309. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2380 - Cooperative Education - Drafting and Design Technology / Technician, General Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Completed at least 12 semester hours in Drafting Certificate Program and Departmental Approval.

DFTG 2381 - Cooperative Education - Drafting and Design Technology / Technician, General Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Completed at least 32 semester hours in Drafting Certificate Program and Departmental Approval.

DHYG 1207-General \& Dental Nutrition Credits: 2 (2 lecture). General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health. Prerequisite: BIOL 2301, 2101, CHEM 1305, ENGL 1301, SOCI 1301; Completion of the prerequisites and first semester of the dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1211 - Periodontology
Credits: 2 (2 lecture). Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1215 - Community Dentistry
Credits: 2 (1 lecture, 3 lab). The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings. Prerequisite: Completion of first year of dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 1227 - Preventive Dental Hygiene Care
Credits: 2 (2 lecture, 1 lab). The role of the dental hygienist as a therapeutic oral health care provider with emphasis on concepts of disease management, health promotion, communication, and behavior modification. Prerequisite: BIOL 2301, 2101; CHEM 1305, ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1235 - Pharmacology For The Dental Hygienist Credits: 2 (2lecture). Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYC 1260 - Clinical - Dental Hygiene / Hygienist Credits: 2 ( 12 lab ). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 1261 - Clinical - Dental Hygiene / Hygienist Credits: 2 ( 12 lab ). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 1301 - Orofacial Anatomy, Histology \& Embryology Credits: 3 (2 lecture, 4 lab). The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1304 - Dental Radiology
Credits: 3 (2 lecture, 4 lab). Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

DHYG 1319 - Dental Materials Credits: 3 (2 lecture, 3 lab). Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Prerequisite: Completion of first/second semester dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 1331 - Preclinical Dental Hygiene
Credits: 3 ( 1 lecture, 7 lab). Foundational knowledge for performing clinical skills on patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care.
Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1339-General And Oral Pathology Credits: 3 (3 lecture). Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisite: Completion of first semester dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 2153 - Dental Hygiene Practice Credits: 1 (1 lecture, Nlab). Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Practice settings for the dental hygienist, office operations, and preparation for employment. Explain the Dental Practice Act governing the dental and dental hygiene profession; evaluate ethical and moral issues affecting dental hygiene practice; describe traditional and non-traditional dental hygiene practice settings; and prepare for employment. Prerequisite: DHYG 2201; Completion of first semester dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 2201 - Dental Hygiene Care I
Credits: 2 (2 lecture, 1 lab). Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques. Prerequisite: Completion of first semester dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 2231 - Dental Hygiene Care II Credits: 2 (2 lecture). A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 2260 - Clinical - Dental Hygiene/Hygienist
Credits: 1 (12 lab). Intermediate Level: A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DHYG 2261-Clinical - Dental Hygiene/ Hygienist (\#Capstone Course)
Credits: 3 ( 12 lab ). Advanced Level: A health-related workbased learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with $75 \%$ or higher in all dental hygiene courses.

DMSO 1202 - Basic Ultrasound Physics
Credits: 2 ( 1 lecture, 3 lab). Basic acoustical physics and acoustical waves in human tissue. Emphasis is on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission and resolution of sound beams. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1210 - Introduction to Sonography Credits: 2 (1 lecture, 2 lab). An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and History, Civilization, of the profession. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1266 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite: DMSO 1302, 1355, 1441,1451; must be placed into college-level reading, writing and math.

DMSO 1342 - Intermediate Ultrasound Physics Credits: 3 ( 3 lecture, 1 lab). Continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis. Prerequisite: DMSO 1302; must be placed into college-level reading, writing and math.

DMSO 1355 - Sonographic Pathophysiology Credits: 3 (2 lecture; 2 lab). Pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1441 - Abdominopelvic Sonography Credits: 4 (3 lecture, 4 lab). Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1451 - Sonographic Sectional Anatomy Credits: 4 (3 lecture, 2 lab). Sectional anatomy of the male and female body. Includes anatomical relationships of organs, vascular structures, and body planes and quadrants. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 2130 -Advanced Ultrasound and Review Credits: 1 (3 lab). Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 2243 - Advanced Ultrasound Physics Credits: 2 (2 lecture). Theory and application of ultrasound principles. Includes advances in ultrasound technology. Prerequisite: DMSO 1302, DMSO 1342 and DMSO 2351; must be placed into college-level reading, writing and math.

DMSO 2253 - Sonography of Superficial Structures Credits: 2 (1 lecture, 2 lab). Detailed study of normal and pathological superficial structures as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 2405; must be placed into collegelevel reading, writing and math.

DMSO 2266 - Practicum (or Field Experience)- Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1266; must be placed into college-level reading, writing and math.

DMSO 2342 - Sonography of High Risk Obstetrics Credits: 3 ( 3 lecture). Maternal disease and fetal abnormalities. Includes scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Prerequisite: DMSO 2405; must be placed into college-level reading, writing and math.

DMSO 2351 - Doppler Physics
Credits: 3 ( 3 lecture). Doppler and hemodynamic principles relating to arterial and venous imaging and testing. Prerequisite: DMSO 1342; must be placed into college-level reading, writing and math.

DMSO 2405 - Sonography of Obstetrics / Gynecology Credits: 4 (4 lecture, 1 lab). Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 1355, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2441 - Sonography of Abdominopelvic Pathology Credits: 4 ( 3 lecture, 2 lab). Pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Emphasizes endocavitary sonographic anatomy and procedures including pregnancy. Prerequisite: DMSO 1355, DMSO 1441, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2467 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
Credits: 4 (32 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All DMSO courses; must be placed into college-level reading, writing and math. Corequisities: DMSO 2243, DMSO 2245

DNTA 1102 - Communication and Behavior in the Dental Office
Credits: 1 ( 1 lecture). The study of human interaction and communication in the dental office. Prerequisite: DNTA 1167; ENGL 1301, MATH 0306

DNTA 1167 - Practicum (or Field Experience) - Dental Assisting/Assistant
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1305, DNTA 1245, DNTA 1401, DNTA 1411, DNTA 1415, ENGL 1301, MATH 0306

DNTA 1245 - Preventive Dentistry Credits: 2 (2 lecture, 1 lab). The study of nutrition and preventable dental disease and community dental health. Prerequisite: Program Admittance, ENGL 1301, MATH 0306

DNTA 1305 - Dental Radiology Credits: 3 (2 lecture, 3 lab). Introduction to radiation physics, radiation protection, and the operation of radiographic equipment. Instruction in exposure, processing and mounting of dental radiographs, and study of federal and state safety and standard practices. Prerequisite: Program Admittance, ENGL 1301

DNTA 1349 - Dental Radiology in the Clinic Credits: 3 (2 lecture, 3 lab). The practical application of exposing, processing, and mounting diagnostically acceptable radiographs obtained by utilizing various radiographic techniques. Prerequisite: DNTA 1305, ENGL 1301

DNTA 1351 - Dental Office Management Credits: 3 ( 3 lecture). Use computers and or manual systems to process dental information and interpret and practice learned dental office management skills.
Prerequisite: DNTA 1415, ENGL 1301

DNTA1401- Dental Materials
Credits: 4 (3 lecture, 2 lab). Composition, properties, procedures and safety standards related to dental materials. Prerequisite: Program Admittance, ENGL 1301

DNTA 1411 - Dental Science
Credits: 4 (4 lecture). A fundamental study of anatomical systems with emphasis placed on head and neck anatomy. Topics include embryology of the teeth along with basic dental terminology. Prerequisite: Program Admittance, ENGL 1301

DNTA 1415 - Chairside Assisting Credits: 4 (3 lecture, 3 lab). A study of pre-clinical chairside assisting procedures, instrumentation, OSHA and other regulatory agencies standards. Prerequisite: Program Admittance, ENGL1301

DNTA 1447 - Adyanced Dental Science
Credits: 4 (4 lecture). An advanced study of anatomical systems, pharmacology, oral pathology, and
developmental abnormalities. Prerequisite: DNTA 1411, ENGL 1301

DNTA 1453 -Dental Assisting Applications
Credits: 4 (3 lecture, 3 lab). Course Description should be: An extended study of dental assisting techniques with emphasis on four-handed dentistry and utilization of armamentarium for general practice and specialty procedures. Prerequisite: DNTA 1401, DNTA 1415, ENGL 1301

DNTA 2130 - Seminar for the Dental Assistant Credits: 1 (1 lecture). Analysis of case studies during the clinical phase of practicum/clinical. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453, ENGL 1301

DNTA 2267 - Practicum (or Field Experience) -Dental Assisting/Assistant
Credits: 2 ( 15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453; ENGL 1301

DRAM 1120-Theater Practicum I
Credits: 1 (o lecture, 4 lab ). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1121 - Theater Practicum II
Credits: 1 (o lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1310-Introduction to Theater
Credits: 3 (3 lecture). Basic principles of theatre, including the various styles of theatrical production and present practices in the theatre. Required of majors. Open to nonmajors. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1322 - Stage Movement
Credits: 3 (2 lecture, 2 lab). A course to develop the actor's expressive use of the body through pantomime, tumbling, acrobatics, fencing, and stage fighting. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1330-Stagecraft I
Credits: 3 (2 lecture, 2 lab). Stagecraft, stage properties, and makeup. Practical experience on technical crews is provided. Laboratory hours may be arranged. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1341-Makeup
Credits: 3 (3 lecture). Principles of straight and character makeup. Student must purchase basic makeup kit. Theatre attendance and/or assistance in college productions required. Required of majors. Open to nonmajors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1351-Acting I
Credits: 3 (2 lecture, 2 lab). An introduction to the problems of internal acting technique, creation of visual images, reaction to stimulus, and creation of inner life of character. Scene work: finding beats, developing subtext, and playing intentions. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1352 - Acting II
Credits: 3 (2 lecture, 2 lab ). An introduction to the problems of external acting technique with emphasis on characterization using animal, color and inanimate object improvisational techniques. Scene work focuses on comedic technique including analyzing incongruities, playing opposites, and timing. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. DRAM 1351

DRAM 2120 - Theater Practicum III
Credits: 1 (o lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2361 - History of the Theater Credits: 3 ( 3 lecture). Survey of the theatre from its beginning. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2366 - Introduction to cinema
Credits: 3 ( 3 lecture). Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of harrative films, and historical growth and sociological effect of film as an art. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

ECON 1301- Introduction to Economics
Credits: 3 ( 3 lecture). Examination of the structure and operation of the American economic system.
Introduction to selected economic principles essential to the understanding of contemporary issues. May not be substituted for ECON 2301 or ECON 2302.

ECON 2301 - Principles of Macroeconomics Credits: 3 ( 3 lecture). Macroeconomics examines the fundamentals of the American economy as it relates to social welfare. Emphasis is on basic concepts and theories as they affect domestic and international markets. This course integrates behavioral social sciences to present solutions to real world problems. Macroeconomics includes measurements of GDP, fiscal and monetary policy. Core Curriculum Course. Prerequisite: Must be placed into college-level reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

ECON 2302 - Principles of Microeconomics Credits: 3 ( 3 lecture). Microeconomics examines the fundamentals of the American economy as it relates to business and individual welfare. Emphasis is on basic concepts and theories as they affect domestic and international markets. Microeconomics includes cost and production decisions and discusses the role of competition, monopolies and oligopolies. Core Curriculum Course. Prerequisite: Must be placed into college-level reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

EDUC 1300 - Learning Framework
Credits: 3 ( 3 lecture). EDUC 1300 is a study of the research and theory in the psychology of learning, cognition, and motivation; factors that impact learning; and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. In addition, the course focuses on numerous college, career, and life management topics necessary for students to make the most of their college investment. Core curriculum course. Prerequisite: Must be placed into GUST 0341 (or higher).

EDUC 1301 - Introduction to the Teaching Profession Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of $P$ 12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in $\mathrm{P}-12$ classrooms. Prerequisite: Must be placed into college-level reading and college-level writing.

EDUC 2301 - Introduction to Special Populations Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectiyes of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of $\mathrm{P}-12$ special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in $\mathrm{P}-12$ classrooms with special populations. Prerequisite: EDUC 1301, Must be placed into college-level reading and college-level writing.

ELMT 1301- Programmable Logic Controllers Credits: 3 (2 lecture, 3 lab). An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisite:
Prerequisite/Corequisite: ELPT 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELMT 1311 - Solar Fundamentals
Credits: 3 (2 lecture, 3 lab ). Study of heat transference, motors, pumps and other mechanical devices; solid state switches; photovoltaic plates and energy conversion, thermal dynamícs; and solar energy.

ELMT 1402 - Solar Photovoltaic Systems
Credits: 4 (3 lecture, 4 lab). Design and installation of solar photovoltaic systems and their applications.
Prerequisite: Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1221 - Introduction to Electrical Safety and Tools Credits: 2. Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians

ELPT 1311 - Basic Electrical Theory
Credits: 3 (2 lecture, 3 lab). Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Prerequisite: Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1315 - Electrical Calculations I
Credits: 3 (3 lecture). Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry Prerequisite:
Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1321 - Introduction to Electrical Safety and Tools Credits: 3 (2 lecture, 2 lab). A comprehensive overview of safety rules and regulations and the selection, inspection, use, and maintenance of common tools for electricians. Emphasis is given to safety rules and accepted safety practices in the workplace, the use of hand tools, power tools and the proper selection, function and operation of common electrical measuring instruments. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1325 - National Electrical Code I
Credits: 3 (3 lecture). An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations. Prerequisite: Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1329 - Residential Wiring Credits: 3 (2 lecture, 3 lab). Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.
Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: ELPT 1221 or CNBT 1201;

ELPT 1341 - Motor Control Credits: 3 (2 lecture, 3 lab). Operating principles of solidstate and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Prerequisite: Prerequisite/Corequisite: ELPT 1311 or HART 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1345 - Commercial Wiring
Credits: 3 ( 2 lecture, 3 lab ). Commercial wiring methods. Includes overcurrent protection, raceway panel board
installation, proper grounding techniques, and associated safety procedures. Prerequisite:
Prerequisites/Corequișites: ELPT 1221 and ELPT 1329; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite:
Corequisite: ELPT 1325

ELPT 1355 - Electronic Applications
Credits: 3 (2 lecture, 3 lab). Electronic principles and the use of electronic devices. Includes diodes, transistors, and rectifiers Prerequisite: Prerequisite: ELPT 1311, TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1357 Industrial Wiring
Credits: 3 (2 lecture, 3 lab). Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures.

ELPT 1370 Electrical Blueprint Reading
Credits: 3 ( 3 lecture, 1 lab). Students in this award are required to learn how to read master blueprints for all structure and installations requiring electrical wiring from commercial buildings to installing solar panels. This course focuses on the electrician's responsibilities to follow the blueprint "electrical map" of all wires for all switches, fans, lighting, and all other electrical components required for each project while adhering to all regulatory codes, engineering, and architectural specifications.
Other courses are either to generic or focus on other sub contractor's perspectives not the electrician.

ELPT1380 Cooperative Education - Electrical and Power Transmission Installation/Installer, General Credits: 3. (1 lecture)Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 1391 Special Topics: Commercial Construction Technology
Credits: 3. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

## ELPT 2305 Motors and Transformers

Credits: 3 (2 lecture, 2 lab). Operation of single- and threephase motors and transformers. Includes transformer banking, power factor correction, and protective devices.

ELPT 2337 - Electrical Planning and Estimating Credits: 3 (2 lecture, 2 lab). Planning and estimating for residential, commercial, and industrial wiring systems. Includes a variety of electrical techniques.

ELPT 2343 Electrical Systems Design
Credits: 3 (2 lecture, 2 lab). Electrical design of commercial and/or industrial projects including building layout, types of equipment, placement, sizing of electrical equipment, and all electrical calculations according to the requirements of the National Electrical Code (NEC).

ELPT 2347 Electrical Testing and Maintenance Credits: 3 (2 lecture, 2 lab). Proper and safe use of electrical power equipment test devices and the interpretation of test results. Includes protective relay testing and calibration, direct current (DC) testing, insulation power factor testing, and medium voltage switchgear.

ELPT 2380 Cooperative Education - Electrical and Power Transmission Installation/Installer, General Credits: 3 (1 lecture). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 2381 Cooperative Education - Electrical and Power Transmission Installation/Installer, General Credits: 3 ( 1 lecture). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 2419 - Programmable Logic Controllers I Credits: 4 (3 lecture, 2 lab). Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. Prerequisite: Prerequisite: ELMT 1301, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ELPT 2449 - Industrial Automation
Credits: 4 (3 lecture, 2 lab). Electrical control systems, applications, and interfacing utilized in industrial automation. Prerequisite: Prerequisite/Corequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

EMSP 1160 - Clinical-Emergency Medical Technology/Technician (EMT Paramedic) Credits: 1 ( 4 lab ). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1501; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1191 - Special Topics in Emergency Medical Technology/Technician
Credits: 1. The course will examine the role of EMS in the US health care delivery system including current and past issues and topics that framed the current practice of emergency medical services profession. Topics will include recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the delivery of health care and relevant to the professional development of the student and in preparation for the Associate Degree in EMS to assume a leadership role in with EMS with the US health care system. This is a Hybrid program - students will be doing the majority of the coursework online-using computers, reading and interpreting information, and show responsibility + self-management to be successful in the course.

EMSP 1263 - Clinical - Emergency Medical
Technology/Technician (EMT Paramedic)
Credits: 2 ( 9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1355; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1338 - Introduction to Advanced Practice Credits: 3 (2 lecture, 3 lab). An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Prerequisite: EMSP 1160; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1355 - Trauma Management
Credits: 3 (2 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Prerequisite: EMSP 1356; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1356 - Patient Assessment and Airway Management Credits: 3 (2 lecture, 3 lab). A detailed study of the knowledge and skills required to perform patient assessment and airway management. Prerequisite: EMSP 1338; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1491 - Special Topics in Emergency Medical Technology/Technician Credits: 1 (3 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: EMSP 2243; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1501 - Emergency Medical Technician - Basic Credits: 5 (3 lecture, 8 lab). Preparation for certification as an Emergency Medical Technician (EMT)-Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

EMSP 2160 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2444; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite:

## EMSP 2205 - EMS Operations

 Credits: 2 (2 lab). Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Prerequisite: EMSP 1356; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.EMSP 2243 - Assessment Based Management Credits: 2 (1lecture, 4 lab). A capstone course covering comprehensive, assessment based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special-needs patients.
Prerequisite: EMSP 2262; must be placed into collegelevel reading, ENGL. 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2252 - Emergency Medical Services Research Credits: 2 ( 1 lecture, 3 lab). Primary and/or secondary research in current and emerging issues in EMS. Basic research principles, scientific inquiry, and interpretation of professional literature are emphasized. Prerequisite: EMSP 2243; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic) Credits: 2 ( 9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2434; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: EMSP 2430

EMSP 2262 - Clinical - Emergency Medical
Technology/Technician (EMT Paramedic)
Credits: 2 ( 9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2330; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Co-requisite: Co-requisite:

EMSP 2306 - Emergency Pharmacology
Credits: 3 (2 lecture, 4 lab). A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Prerequisite: EMSP 1263; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2330 - Special Populations
Credits: 3 (2 lecture, 2 lab). A detailed study of the knowledge and skills necessary to assess and manage ill or injured patients in diverse populations. Prerequisite: EMSP 2261; must be placed into college-level reading,
ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2434 - Medical Emergencies
Credits: 4 (3 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Prerequisite: EMSP 2160; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## EMSP 2444 - Cardiology

Credits: 4 (3 lecture, 4 lab). Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Prerequisite: EMSP 2348; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2553 - Emergency Medical Services Certification for Health Care Professionals
Credits: 5. An equivalency course for Emergency Medical Services (EMS) certification under Texas Administrative Code for EMS Personnel Certification.

ENDO 1176 Practicum (or Field Experience)। Credits: 1. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

ENDO 1276 Practicum (or Field Experience) II Credits: 2. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

ENDO 1371 The Art of Team Work and Professional Skills Credits: 3 (3 lecture). This course introduces Human Factors science as applied to the system of care, teaching students about the skills needed to function effectively and safely in teams in a modern surgical environment. The course covers the background psychology of interpersonal interactions and evidence from other industries on the barriers to safe and effective team communications loops, use of checklists and standard operating procedures, how to deal with team dysfunction, leadership, followership, effective briefing and debriefing, models of risk and error in health care, and the principles of risk minimization in systems involving humans.

ENDO 1472 Endoscopic Technology Theory Credits: 4 (2 lecture, 4 lab). In depth coverage of the endoscopy equipment and accessories used for basic endoscopy procedure and assisting in the procedure during their use in patients: Topics include operating different types of endoscopes and processors; accessories such forceps, injection needle, snare, dilators, band ligatures, and clips.

ENDO 1473 Fundamentals of Aseptic Technique Credits: 4 (2 lecture, 4 lab). In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, would healing. In-depth understanding of and apply wellness and disease concepts. Recognize and practice infection control procedures. To give students basic knowledge of blood borne diseases, including HIV/AIDS.

ENDO 1474 ERCP, EUS \& Bronchoscopy Credits: 4 (2 lecture, 4 lab). Introduction to gastrointestinal and pulmonary pathology and its relationship to endoscopic procedures. Emphasis on endoscopic procedures and related to the investigation and treatment of the bile duct, pancreas, and respiratory tract incorporating instruments, equipment, and supplies required for safe patient care.

ENDO 1475 EGD Colonoscopy \& Enteroscopy Credits: 4 (2 lecture, 4 lab). Introduction to gastrointestinal pathology and its relationship to endoscopic procedures. Emphasis on endoscopic procedures related to the investigation and treatment of the esophagus, stomach, duodenum, colon, rectum, and anal canal incorporating instruments, equipment, and supplies required for safe patient care.

ENGL 0100 - Development Writing
Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrate high proficiency but do not meet state requirements for placement into college level course work. This course will present a concentrated review of the Writing Process and basic grammar and sentence structure. Department Chair approval required. Prerequisite: Prerequisite: Department Chair approval

ENGL 0310 - Fundamentals of Grammar and Composition II Credits: 3 (3 lecture). A course designed to prepare students for ENGL 1301. Students will ordinarily proceed to ENGL 0310 after taking ENGL 0300. Some students may, however, test directly into ENGL 0310 (ENGL 0300 is not a prerequisite for ENGL 0310). ENGL 0310 provides a basic review of the principles of grammar, usage and mechanics and utilizes the writing process to teach the students to write short essays (350-500 words). Prerequisite: Must be placed into ENGL 0310 or completion of ENGL 0300.

ENGL 0340 - English Grammar and Conversation for Foreign Speakers I
Credits: 3 (3 lecture, 1 lab). A course in English grammar and conversation. This course is intended to aid foreign students in acquiring fluency in spoken English. The approach is communicative, involving grammar study, oral exercises, dialogues, and role playing. All four language skills (listening, speaking, reading, and writing) are developed. Prerequisite: A satisfactory score on the CELSA Test

ENGL 0341 - English Grammar and Conversation for Foreign Speakers II
Credits: 3 (3 lecture, 2 lab). An intermediate course in English grammar and conversation. This course is a continuation of the skills acquired in ENGL 0340 and uses the same approach. It should be taken prior to ENGL 0346, although some students whose assessment score qualifies them for ENGL 0346 may be advised to take ENGL 0341 as a companion course. Prerequisite: A satisfactory score on the CELSA Test or completion of ENGL 0340

ENGL 0343 - Advanced Conversation for Foreign Speakers Credits: 3 (3 lecture, 2 lab). Students discuss current events and cultural topics in English. Pronunciation, vocabulary development, and group discussion skills are stressed. May be taken concurrently with other English courses. Prerequisite: English 0341 or sufficient assessment score for English 0346 or above

ENGL 0346 - Grammar and Composition for Foreign Speakers I
Credits: 3 (3 lecture, 1 lab). An intermediate course in English grammar and composition designed to help the student acquire a greater facility in written English. This course is designed for the student who already possesses adequate conversational skill and is pursuing a college career. This course emphasizes grammar, vocabulary, sentence composition, and paragraph writing. It may be taken with ENGL 0341 or 0343 if the student placed into 0346 wishes more proficiency in conversation. Important: This course is now offered as ESOL 0351/0354. Prerequisite: A satisfactory score on the CELSA Test or completion of ENGL 0341

ENGL 1301-Composition I Credits: 3 (3 lecture). Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Note: ENGL 1301 is a pre-requisite for all 2000-leyelliterature courses. Core Curriculum Course. Prerequisite: Appropriate score on TSI/ACT/SAT/STAAR, INRW 0420, Grade of C or better in ELA College Prep course from participating ISDs

ENGL 1302 - Composition II
Credits: 3 (3 lecture). Intensive study of and practice in the strategies and techniques for developing researchbased expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Core Curriculum Course. Prerequisite: Composition 1301 or its equivalent

ENGL 2311 - Technical \& Business Writing Credits: 3 (3 lecture). Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, e-mail messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Core Curriculum Course. Prerequisite: Prerequisite: ENGL 1301

ENGL 2322 - British Literature
Credits: 3 (3 lecture). A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite:
Prerequisite: ENGL 1301
ENGL 2323 - British Literature II
Credits: Credit 3 ( 3 lecture). A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2327-American Literature I
Credits: 3 (3 lecture). A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2328 - American Literature II
Credits: 3 (3 lecture). A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2332 - World Literature I
Credits: 3 (3 lecture). A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2333 - World Literature II
Credits: 3 (3 lecture). A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2341 Forms of Literature
Credits: 3 (3 lecture). The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film.

ENGL 2351-Mexican - American Literature Credits: 3 (3 lecture). A survey of MexicanAmerican/Chicano/a literature including fiction, nonfiction, poetry, and drama. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGR 1201 - Introduction to Engineering Credits: 2 (2 lecture). Introduction to engineering as a discipline and a profession. Includes instruction in the application of mathematical and scientific principles to the solution of practical problems for the benefit of society. Prerequisite: MATH 1314 or higher with a grade of


Credits: 2 (2 lecture, Nab ). Introduction to basic engineering graphics using the latest version of AutoCAD. Basic AutoCAD commands will be introduced and emphasized throughout this course. Development of technical drawing skills including: freehand sketching, text, orthographic projection, dimensioning, sectional views, and other viewing conventions. Required for all ASES degrees. Prerequisite: Prerequisite: MATH 1314 or equivalent academic preparation

ENGR 2301 - Engineering Mechanics - Statics
Credits: 3 (3 lecture, 1 lab). Composition and resolution of forces, free body diagrams, analysis of forces acting on structures and machines, friction, centroids, and moments of inertia. Prerequisite: PHYS 2425 and MATH 2414

ENGR 2304 - Programming for Engineers Credits: 3 (2 lecture, 2 lab). Course designed for students who intend to obtain a degree in an engineering discipline. Course covers problem solying, algorithm development for advanced topics in engineering and mathematics Prerequisite: Prerequisite: MATH 2413; Recommended co-enrollment in MATH 2414.

ENGR 2405 - Electrical Circuits I
Credits: 4 (3 lecture, 3 lab). Principles of electrical circuits and systems. Basic circuit elements.(resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisite: MATH 2414 or higher and PHYS 2326/2126 (or 2426) with grades of C or higher.

ENTC 1347 - Safety and Ergonomics
Credits: 3 (2 lecture, 2 lab). Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues. Prerequisite:
Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 2331-Manufacturing Materials
Credits: 4 (2 lecture, 3 lab). Identification of various materials used in manufacturing including metals, plastics, composite materials, concrete, ceramics, and wood. Examination of the properties of these materials and standards for quality measurement. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ESOL 0307 - Integrated Reading \& Writing Course for ENGL 1301
Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301 for ESOL students:
Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Prerequisite: ESOL 0353, 0354 and 0355 with a C grade or better or have a satisfactory score.

ESOL 0349 - Advanced Intermediate Conversation for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0345. This course is designed to further develop conversational skills by incorporating more complicated vocabulary and grammatical structures. Students are also required to present oral reports at various times during the semester. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0345. Corequisite: ESOL 0350, ESOL 0351 and ESOL 0352

ESOL 0350 - Advanced Intermediate Reading for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0346. An advanced intermediate course in reading academically oriented English. This course further develops reading comprehension skills and expands vocabulary. Emphasis is on distinguishing main ideas from supporting details and drawing conclusions. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0346. Corequisite: ESOL 0349, ESOL 0351 and ESOL 0352

ESOL 0351 - Adyanced Intermediate Composition for Foreign Speakers
Credits: 3 ( 3 lecture, 2 lab). A continuation of ESOL 0347. This course concentrates on the development of writing skills, reviews the paragraph and its essential elements, and introduces the multi-paragraph essay. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0347. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0352

ESOL 0352 - Advanced Intermediate Grammar for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0348. This course provides a review of essential grammatical and structural features while introducing their finer points. Emphasis is placed on compound and complex sentence structures and is designed to lead students toward active mastery of the patterns and principles of formal written English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0348. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0351

ESOL 0353 - Advanced Reading for Foreign Speakers Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0350. An advanced course designed to develop reading and critical thinking skills for college-bound students. Reading skills are refined to guide students towards mastery of deduction, inference, and figurative language.
Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0350. Corequisite: ESOL 0354, ESOL 0355 and ESOL 0356

ESOL 0354 - Advanced Composition for Foreign Speakers Credits: 3 ( 3 lecture, 2 lab). A continuation of ESOL 0351. This course concentrates on elements of essay organization. Students are required to produce wellorganized, well-substantiated essays. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or sucçessful completion of ESOL 0351. Corequisite: ESOL 0353, ESOL 0355 and ESOL 0356

ESOL 0355 - Advanced Grammar for Foreign Speakers Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0352. This course provides a review of both essential and finer points of the grammatical structural features of formal written English. Emphasis is placed on active production and error analysis of standard English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0352. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0356

ESOL 0356 - Advanced Conversation for Foreign Speakers Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0349. This course is designed to encourage student's use of high-level grammatical structures and vocabulary skills. Students are required to present an oral book report, an oral report of a personal, off-campus interview, and an oral research report. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0349. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0355

ESOL 0360 - Integrated Reading/Writing for Non-Native Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0345. This course is designed to further develop conversational skills by incorporating more complicated vocabulary and grammatical structures. Students are also required to present oral reports at various times during the semester. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0345. Corequisite: ESOL 0350, ESOL 0351 and ESOL 0352

ESOL 0370 - ESL Integrated Read/Write Course for ENGL 1301
Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301 for ESOL students: Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

ETWR 1302 - Introduction to Technical Writing Credits: 3 . Introduction to the principles, techniques, and skills needed for scientific, technical, and business writing.

FIRS 1203 - Firefighter Agility and Fitness Preparation Credits: 2 ( 1 lecture, 2 lab). Physical ability testing methods. Rigorous training in skills and techniques needed in typical fire department physical ability tests. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1301 - Fire Fighter Certification I Credits: 3 (2 ecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VIIt to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1313 - Fire Fighter Certification III
Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LLCENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1407; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1319 - Fire Fighter Certification IV
Credits: 3 (2 lecture, 2 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1313; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1329-Fire Fighter Certification VI
Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1423; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1407 - Fire Fighter Certification II
Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1301; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1423 - Fire Fighter Certification V
Credits: 4 (3 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1319; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1433 - Fire Fighter Certification VII Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course \#100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION***
Prerequisite: Prerequisite or Corequisite: FIRS 1329; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1202 - Plan Examiner I
Credits: 2 (2 lecture). Examination of plans submitted for approval by businesses, industry, or other regulated entities. Includes applicable codes and/or standards that meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1301 - Fundamentals of Fire Protection Credits: 3 (3 lecture). Orientation to the fire service, career opportunities, related fields. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1303- Fire and Arson Investigation I Credits: 3 (2 lecture, 3 lab). Basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT1307 - Fire Prevention Codes and Inspections Credits: 3 ( 3 lecture). Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0306 in math.

FIRT 1309 - Fire Administration I
Credits: 3 (3 lecture). Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1315 - Hazardous Materials I
Credits: 3 (3 lecture). The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1327 - Building Construction in the Fire Service Credits: 3 (3 lecture). Components of building construction that relate to life safety. Includes relationship of construction elements and building design impacting fire spread in structures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1338 - Fire Protection Systems Credits: 3 ( 3 lecture). Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1340 - Fire Inspector II
Credits: 3 (2 lecture, 3 lab). Fire inspection rules, procedures, and inspection practices to meet the Texas Commission on Fire Protection requirements for Fire Inspector II. Prerequisite: FIRT 1408; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1342 - Fire Officer I
Credits: 3 (3 lecture). Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. **THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION** Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0306 in math.

FIRT 1345 - Hazardous Materials II
Credits: 3 (3 lecture). Mitigation practices and techniques to effectively control hazardous material spills and leaks. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1408 - Fire Inspector I
Credits: 4 (2 lecture, 4 lab). Fire inspection including rules, codes, and field inspection practices to meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0306 in math.

FIRT 2188 - Internship-Emergency Management Credits: 1. A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2305 - Fire Instructor I Credits: 3 (3 lecture, 1 lab). Preparation of fire and emergency services personnel to deliver instruction from a prepared lesson plan. Includes the use of instructional aids and evaluation instruments to meet the Texas Commission on Fire Protection requirements for Fire Instructor I certification. Prerequísite: Prerequisite: FIRS 1433 or proof of Firefighter II level certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2307 - Fire Instructor II Credits: 3 (3 lecture, 1 lab). Development of individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments. Includes techniques for supervision and coordination of activities of other instructors to meet Texas Commission on Fire Protection requirements for Fire Instructor II certification. Prerequisite: Prerequisite: FIRT 2305, or proof of Fire Instructor / certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2309 - Fire Fighting Strategies and Tactics I Credits: 3 ( 3 lecture). Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2333 - Fire \& Arson Investigation II
Credits: 3 (2 lecture, 3 lab). Fire Investigation techniques and defense of findings in a court room setting.
Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2351 - Company Fire Officer
Credits: 3 ( 3 lecture). A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties. Prerequisite: Must be placed into college-level reading, college-level writing and MATH0306 in math.

FIRT 2380-Cooperative Education Fire Protection and Safety Technology / Technician
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: 15 semester hours of FIRT/FIRS and Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2459 - Fire Instructor III
Credits: 4 (3 lecture, 2 lab). Development of comprehensive training curriculum and programs. Includes organization of needs analysis and development of training goals and implementation strategies to meet Texas Commission on Fire Protection requirements for Fire Instructor III. Prerequisite: Prerequisite: FIRT 2307, or proof of the Fire Instructor II Certification

FLMC 1292 - Special Topics in Film - Video Making / Cinematography and Production
Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0310 in writing and MATH 0312 in math.

FLMC 1300 - Production Management
Credits: 3 (2 lecture, 4 lab). Managing above- and below-the-line film or video production costs. Emphasizes analysis of scripts and treatments to determine production costs, crewing requirements, location needs, equipment rentals, and associated production costs. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FLMC 1304 - Lighting for Film or Video Credits: 3 (2 lecture, 4 lab). Lighting techniques for 16 mm film or video production. (This class demonstrates advanced lighting techniques for 16 mm film and video productions. Using a variety of lab projects and location settings, students will use lights, filters, in-camera special effects and mood setting techniques to enhance shot composition and camera movement. Topics also include operating film cameras, light meters and selecting film stock. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0312 in math.

FLMC 1311 - Survey of the Motion Picture Credits: 3 (2 lecture, 4 lab). Overview of film History, Civilization, and techniques including introduction to cinematic elements and approaches to analysis and criticism. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 1331 - Video Graphics and Visual Effects I Credits: 3 (2 lecture, 4 lab). A course in the applications of computers for video production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2330-Audio Post Production Credits: 3 (2 lecture, 4 lab). The technology, creative application and requirements for producing audio soundtracks for film and video. (This course explores the technology, creative application and requirements for producing audio soundtracks for film and video projects. Topics include time code, synchronization, mixing, Foley, dialog replacement, sound effects and location sound. The students will work on computerized workstations to produce finished audio tracks for various projects. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337 and RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2333-Cinematography
Credits: 3 (2 lecture, 4 lab). Theoretical elements and practical applications of cinematography. (This class teaches theoretical elements and practical application of cinematography. While learning techniques of film production, students study historical and contemporary trends and styles. Theoretical topics include differences in film stocks, exposure, color theory and filters. Professional techniques that alter an image's character are demonstrated and discussed. Practical tests and scenes are shot using color and black and white film stocks. Students are required to attend additional lab hours outside of class.)
Prerequisite: FLMC 1304; Must be placed into collegelevel reading, writing and math.

FLMC 2334 - Directing for Film or Video Credits: 3 (2 lecture, 4 lab). Directing to lead a production team. (This course teaches the craft of directing to students who aspire to lead a production team. By analyzing the work of classic and contemporary directors, the class investigates the art and language of filmmaking. Topics include framing and composition, camera angles, camera movement, blocking of actors, visualizing action, and creating a sequence, script breakdown, and techniques for establishing mood, character, and conflict.) Prerequisite: FLMC 1300; must be placed into college-level reading, writing and math.

FLMC 2335 - Screenwriting for Features, Shorts and Documentaries
Credits: 3 (2 lecture, 4 lab). Screenwriting for the principle genres of film. (This class emphasizes screenwriting for the principle genres of film. Students will create treatments from dramatic concepts, turn these treatments into screenplays and complete full shooting scripts by the course's end. Topics include scriptwriting, formatting conventions and structural analysis of comedies, dramas, documentaries and short films. At the conclusion of the course students will submit an original script to a scriptwriting contest. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 1429; must be placed into college-level reading, college-level writing and MATH 0308 in math.

FLMC 2336 - Production Development - Producing Credits: 3 (2 lecture, 4 lab). Sequential steps of supervision in all phases of film production and distribution. Includes resource acquisition and allocation. (During this class the student will address three primary questions posed when developing an idea for a film: What are you going to film? How are you going to film it? How are you going to structure the production? This class will teach students how to explore these questions fully before production begins. Class discussions, student projects and instructor analysis will emphasize the preproduction process: storyboarding shot lists, scheduling, location scouting, stock footage and budgeting. The class will also address design and aesthetic decisions in costuming, makeup and set design. Students are required to attend additional lab hours outside of class.) Prerequisite: FLMC 1300, RTVB 2337; must be placed into college-level reading, writing and math.

FLMC 2344 - Advanced Film and Video Editing Credits: 3 (2 lecture, 4 lab). Exploration of the creative possibilities of non-linear film and video editing. Includes editing aesthetics, titles, graphic design, compositing, and special effects. Prerequisite: Prerequisite: FLMC 1331, RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FREN 1411 - Beginning French I Credits: 4 (3 lecture, 2 lab). Introduction to the French language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

FREN 1412 - Beginning French II
Credits: 4 (3 lecture, 2 lab). Continuation of FREN 1411. Further development of listening comprehension, speaking, reading and writing skills and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: FREN 1411 or satisfactory score on an advanced placement examination or at least two years of high school French within the last two years; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing. Corequisite: Or take ENGL 0310/0349 as a co-requisite

FREN 2311 - Intermediate French I
Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning French. Introduction of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in French. Prerequisite: FREN 1412 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

FREN 2312 - Intermediate French II
Credits: 3 (3 lecture). Continuation of FREN 2311 but with special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in French. Prerequisite: FREN 2311 or equivalent; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing Corequisite: Or take ENGL 0310/0349 as a co-requisite FSHD 1235 - Millinery
Credits: 2 (2lecture, 1 Nab ). A study of the basic skills and methods used to create hats. An application of the techniques used to design and produce hats for fashion, theater, historic reproduction and educational instruction purposes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1291 - Special Topics in Fashion Design and Illustration: Knitwear
Credits: 2 (2 lecture). An introductory course in the construction of masks through several techniques. The students will use their creativity to put their own spin on a traditional craft. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1302 - Introduction to Fashion
Credits: 3 (3 lecture). Survey of the world of fashion businesses. Introduction to the creation and merchandising of fashion through the study of fashion vocabulary, the fashion process, fashion publications and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHD 1311 - Fashion History
Credits: 3 (3 lecture). Survey of the evolution of fashion change traced through garment development from ancient times to present day. A study of customs and silhouettes of each historical period and their modern day adaptations. Examination of twentieth century fashion designers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1313 - Art for Fashion
Credits: 3 ( 3 lecture, 1 lab). A study of the basic elements and principles of art applied to the design of clothing for the human form. Emphasis on the basic body types; clothing silhouettes; fabric weights; and the use of line, movement, proportion, and color to achieve flattering, marketable fashion design.

FSHD 1318 - Apparel Computer Systems Credits: 3 ( 3 lecture, 1 lab). An introduction to apparel computer systems used in wholesale and retail fashion businesses. Applications demonstrated include computer-aided garment and textile design, fashion illustration, pattern making, pattern grading, marker making, newsletters, brochures, advertisements and catalogs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHD 1322 - Fashion Sketching Credits: 3 (3 lecture, 1 lab). Fundamentals of quick sketching to communicate design ideas. Instruction in drawing the male and female fashion figure. Emphasis on simple methods for making quick sketches to illustrate style information

FSHD 1324 - Ready -To - Wear Construction Credits: 3 (2 lecture, 4 lab). Fundamentals of mass production of apparel, focusing on the operation of industrial sewing and pressing equipment. Survey of materials selection and construction techniques used at all price levels of mass produced apparel. Introduction to industry seam allowances. Identification of differences between ready-to-wear and couture construction. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1328 - Flat Pattern Design I
Credits: 3 (2 lecture, 3 lab). An introduction to the creative design of clothing through the flat pattern method. General principles of pattern making using the basic five-piece dress sloper. A study of dart manipulation, slashing and spreading the pattern and contouring sew lines. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1332 - Custom Patterns
Credits: 3 (2 lecture, 3 lab). Skill development in taking body measurements. Instruction in developing custom fittings for customized patterns. In depth coverage of the process of transferring a custom body fitted canvas to a basic dress form and padding it for custom sizing. Prerequisite: FSHD 1328 and FSHD 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1351-Design Construction Techniques
Credits: 3 (2 lecture, 4 lab). A continuation of Ready-to-
Wear Construction with emphasis on design details Instruction in basic manipulation of a commercial pattern to create individual design details, dressmaking and fully lined unstructured garments in intermediate level fabrics. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1355-Flat Pattern Design II
Credits: 3 (2 lecture, 3 lab). A continuation of Flat Pattern Design I with emphasis on patterns for tailored garments. Instruction in creating a jacket sloper with a two piece suit sleeve to make patterns for a variety of jacket silhouettes. Adding shoulder pad allowance, drafting patterns for jacket linings and interfacing pieces, lapel and collar variations and various pants shapes. Prerequisite: Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2215 - Bustier Construction
Credits: 2 ( 1 lecture, 3 lab). Instruction in the skills and techniques for creating a boned bodice. Production of strapless bodices from fashion and theatrical sources through the pattern-making and construction process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2305 - Computer Aided Apparel Design Credits: 3 (3 lecture, 3 lab). Fundamentals of computerized pattern design and marker making, as they pertain to the industrial production of apparel products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2306 - Draping
Credits: 3 (2 lecture, 3 lab). A study of three-dimensional fashion design conceptualizing by draping in muslin or fashion fabric directly on the dress form. Skill development in observing grain of fabric, identifying drapable fabrics and creating designs suitable for draping. Presentation of major fashion designers draping techniques. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2310 - Fabric Design
Credits: 3 (2 lecture, 3 lab). Fundamentals of fabric design. Instruction in silk screen, batik, tie-dye, painting, resist dye, block print, stenciling and weaving. Skill development in fabric design and production suitable for fashion apparel. Prerequisite: FSHD 1324, FSHN 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2312 - Theatrical Costume Design Credits: 3 (2 lecture, 3 lab). A study of garment design for the theater in which costumes are researched and designed for theatrical productions. Instruction in the effect of lighting and staging in relationship to costuming. Prerequisite: Prerequisite: DRAM 1310; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2337 - Couture Dressmaking Credits: 3 (2 lecture, 4 lab). A study of advanced apparel construction addressing couture dressmaking techniques, the traditional highest-quality methods for planning, cutting, sewing and pressing garments. Instruction in designing and producing couture fashion garments in advanced level fabrics. Prerequisite: Prerequisite: FSHD 1351; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2341 - Pattern Grading
Credits: 3 (3 lecture, 1 lab). Instruction in sizing standard patterns larger and smaller for the mass production of apparel. A study of $1^{\prime \prime}, 1-1 / 2^{\prime \prime}$, and 2 " and S-M-L-XL grade rules and their applications. Skill development in grading basic and fashion patterns with the ruler, the grading machine, and the computer. Prerequisite: Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2343 - Fashion Collection Design
Credits: 3 (2 lecture, 3 lab). Advanced concepts in designing a collection of marketable apparel. Instruction in developing a design work board for a specific target market and selecting the most marketable ideas for the collection. Projects in resource development, fabric selection, estimating wholesale costs and initial pattern and garment production. Prerequisite: FSHD 1351, FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2344 - Fashion Collection Production
Credits: 3 (2 lecture, 3 lab). A continuation of the Fashion Collection Desigh course. Emphasis on the production, costing and marketing of a cohesive collection of fashion apparel. Instruction in completing production patterns for all collection garments. Prerequisite: Prerequisite: FSHD 2343; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2388 - Internship - Fashion / Apparel Design Credits: 3 ( 16 lab) ( 256 hours work experience). A workbased learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0306 in math.

FSHN 1301 - Textiles
Credits: 3 (3 lecture, 1 lab). A general study of textiles with emphasis on factors that affect the hand, appearance and performance in clothing use. Examination of the properties of natural and man-made fibers, how yarn is formed, methods of production and the properties of a wide variety of fabrics. Application of textiles used in the apparel industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1305 - Apparel Alterations
Credits: 3 (2 lecture, 3 lab). Skill development in fitting, altering, conserving and restyling apparel for men, women and children. Preparation for fitting, alterations, conservation and restoration work for a retail store, dry cleaning establishment, wedding gown business or historical costume collection. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1320 - Fashion Selling
Credits: 3 (3 lecture). Examination of selling techniques for fashion apparel and accessories in retail and wholesale settings. Identification of buying motives, sales psychology, customer approach and closure. Instruction in product analysis, building a regular clientele, developing a fashion vocabulary and training and motivating a sales staff. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 1329- Basic Men's Tailoring Credits: 3 (2 lecture, 3 lab). An introduction to tailoring men's structured apparel including fundamentals of sewing machine operations, fabric preparation and cutting, machine and hand sewing techniques, and pressing proficiency including instruction in pattern and alterations, assembling men's jackets, vests and pants, and fitting and alterations procedures. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2301 - Fashion Promotion Credits: 3 (3 lecture). A survey of fashion direction, publicity and fashion event coordination. Emphasis on fashion show production from idea to runway, including theme development, stage/set design, choreography, music coordination, lighting, lineup, model fittings, rehearsal and press kit development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2303 - Fashion Buying Credits: 3 (3 lecture). Fundamentals of fashion buying with instruction in planning, pricing, and purchasing retail fashion inventories. Identification of wholesale merchandise resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 2305-Fashion Retailing Credits: 3 (3 lecture). An overview of fashion retailing procedures used in various types of retail fashion companies. A study of profit and loss, pricing, markup, inventory control, shortages, forecasting, store organization, and events. Examination of the wide variety of job opportunities available in the retail fashion industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2307 - Fashion Advertising
Credits: 3 (3 lecture). General principles and practices of fashion advertising and consumer directed communication. A study of persuasive media approaches for public relations induced publicity and advertising produced sales promotions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2309 - Fashion Image
Credits: 3 (3 lecture). Instruction in the techniques used to analyze the fashion image of individual clients. Emphasis on personal coloring, color harmonies, appropriate fabric textures, body proportion and silhouette, figure, facial and hair analysis, and wardrobe coordination. Study of fashion image consultant business practices and job qualifications. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2320-Visual Merchandising
Credits: 3 (2 lecture, 3 lab). Skill development in the creation of showroom or retail store window/interior displays that sell merchandise. Study of the basic techniques of store planning, mannequin dressing, alternate form design, and display space conceptualization and implementation. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2388 - Internship - Fashion Merchandising Credits: 3 (16 lab) ( 256 hours work experience). Principles and practices in resume and cover letter A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0308 in math.

FSHN 2432 - Advanced Pattern Drafting Credits: 4 (4 lecture, 1 lab). Advanced techniques for drafting patterns.) Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

GAME 1212 - Game Theory
Credits: 2 ( 1 lecture, 3 lab). Game and simulation design. Application of design theories to production-based projects from the conceptual stage to a completed project. Prerequisite: GAME1306; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1302 - Interactive Storyboarding Credits: 3 (2 lecture, 4 lab). In-depth coverage of storyboarding for the development of interactive media. Addresses target audience analysis, purpose, goals and objectives, content outline, flow chart, and interactive storyboarding. Prerequisite: Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. .

GAME 1303 - Introduction to Game Design and Development
Credits: 3. Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry

GAME 1304-Level Design
Credits: 3 (2 lecture, 4 lab). Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1306 - Design and Creation of Games Credits: 3 (2 lecture, 4 lab). Introduction to game and simulation development. Includes analysis of existing applications and their play elements. In-depth coverage of the elements of the application and examination of social issues, genres, and trends. Also covers creation of design documents, investigation of why people play games, review of technological and cultural History, Civilization, of electronic games, survey of the major innovators and historical figures of the industry, and examination of the trends and taboos that motivate game design. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1314 - Character Sculpting Credits: 3 (2 lecture, 4 lab). Creation of original characters from the drawing stage to sculpting clay status. Explores a variety of poses using clay and aluminum armatures. Prerequisite: GAME 1336; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1336 - Introduction to 3D Game Modeling Credits: 3 (2 lecture, 4 lab). Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting a game level to function in real time. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1373 - Introduction to Perspective Drawing Credits: 3. An introduction to perspective drawing, lighting and object shading for the purpose of producing art for games and simulations.

GAME 1374 - Introduction to 3D Game Animation Credits: 3 (2 lecture 4 lab ). Introduce industry software tools used in creating game and simulation animation. Introduce techniques used to create movement of game assets; covers the principles of animation and their application in 3D space. Introduces animation issues such as animation hierarchies, game combat timing, and ingame storytelling. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH0306 in math.

GAME 1375 - Principles of Game Concept Art
Credits: 3 (2 lecture, 4 lab). A study of traditional art techniques and its applications to game concept art. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1378-Art For 2D Games
Credits: 3 (2 lecture, 4 lab). Introduction to industry tools for the purpose of creating 2D game assets for gaming and simulation. Includes the art of spriting, 2D animation, 2D texturing, color theory, image manipulation, custom user interface, weapon designs, character design, heads up display, game user interface, file formatting, proper importing and exporting for games, understanding of design principles for games and marketing for games

GAME 1379 - Introduction to Game Programming Credits: 3 (2 lecture, 4 lab. Examines the role of a programmer in the development of a game and translation of game design to code. Includes hands-on programming using a high level language. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2302-Mathematical Applications for Game Development
Credits: 3 (2 lecture 4 lab). Presents applications of mathematics and science in game and simulation programming. Includes the utilization of matrix and vector operations, kinematics, and Newtonian principles in games and simulations. Also covers code optimization. Prerequisite: GAME 1306 and programming; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2304-Level Design II
Credits: 3 (2 lecture, 4 lab). Intermediate approach to the tools and concepts used to develop levels of games and simulations. Incorporates an intermediate exploration of level design, architecture theory, concepts of critical path and flow, balancing, play testing and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: GAME 1304; must be placed into collegelevel reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2308 - Portfolio for Game Development Credits: 3 (2 lecture 4 lab ). Design and management of an industry standard portfolio. Includes techniques in selfpromotion, resume writing, portfolio distribution systems, and interviewing. Prerequisite: GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2319-Game Engine Credits: 3 (2 lecture, 4 lab). Commercial and open source gaming engines. Includes discussions and recommendations for game engines to fit industry specifications. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2332 - Project Development I Credits: 3 (2 lecture, 4 lab). Skill development in an original modification based on a current game engine. Includes management of version control; development of project timeliness; integration of sound, models, and animation; production of demos; and creation of original levels, characters, and content for a real-time multiplayer game. Applies skills learned in previous classes in a simulated real-world design team experience. Prerequisite: GAME 1371, GAME 1372, GAME 1212; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2334-Project Development II
Credits: 3 (2 lecture, 4 lab). Continuation of an original modification based on a current game engine with an emphasis on new content and significant changes in game play over the base game experience. Includes creation of original levels, characters, and content for a real-time multiplayer game applying skills learned in previous classes. (formerly GAME 2375) Prerequisite: GAME 1336, GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2336 - Lighting, Shading and Texture
Credits: 3 (2 lecture, 4 lab). Lighting, shading, and texture painting for 3D models using digital painting techniques. Emphasizes lighting, shading, and texture creation of limited resolution to increase system performance for digital games and simulation training models. Prerequisite: GAME 1336; must be placed into collegeleyel reading, ENGL 0310 or 0349in writing and MATH 0308 in math.

GAME 2341-Game Scripting
Credits: 3 (2 lecture, 4 lab). Scripting languages with emphasis on game concepts and simulations.
Prerequisite: GAME 1372; must be placed into collegelevel reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2342 - Game Development Using C++ Credits: 3 (2 lecture, 4 lab). Skill development in C++ programming for games and simulations. Examines realworld C++ development issues. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2347 - Advanced Game Programming Credits: 3 (2 lecture, 4 lab). Optimization of studentcreated games. Includes performance tuning, debugging, designing for test, software architecture design, objectoriented practices for game play, asset management, and coding best practices.
Prerequisite: GAME 2347; must be placed into collegelevel reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2373-2D Game Programming
Credits: 3 (2 lecture, 4 lab). Design and development of 2D games and simulations. Includes the design of the user interface, animation, and software development techniques using industry standard development tool. Prerequisite: GAME 1372; must be placed into collegelevel reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2374-3D Rigging for Games and Simulation Credits: 3 (2 lecture, 4 lab). An introduction to bone rigs and morph targets to properly set up a character for animation. In addition, rig bipedal characters, quadrupedal characters and props
Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2378 - Techniques of Game Art Credits: 3 (2 lecture, 4 lab). A study of industry-used, game-art techniques and its applications of 3D game art assets. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GEOG 1301 - Physical Geography Credits: 3 (3 lecture). An introduction to the earth's physical elements. Emphasis is placed on the interrelationships within and between the atmosphere, hydrosphere, lithosphere, and biosphere. Map applications and other tools are used to help understand topics such as weather and climate, soils, ecosystems, and natural resources (Non Lab Natural Science). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

GEOG 1302 - Human Geography Credits: 3 ( 3 lecture). A survey of the cultural diversity found on earth. Topics include population, language, religion, ethnicity, and popular culture, with a special focus on spatial attributes and expressions of culture. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-levelreading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL0310/0349 as a co-requisite).

GEOG 1303-World Regional Geography Credits: 3 ( 3 lecture). A study of the world's regions with an emphasis on prevailing conditions and developments. Using a spatial lens, the course looks at cultural, physical, and historical characteristics of regions around the world, and develops awareness of the diversity of ideas and practices found in these regions. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

GEOL 1301 - Earth Sciences for Non-Science Majors I (Lecture)
Credits: 3 (3 lecture). Survey of geology, meteorology, oceanography, and astronomy. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

GEOL 1305 - Environmental Science (Lecture) Credits: 3 (3 lecture). A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

GEOL 1345 - Oceanography (Lecture)
Credits: 3 ( 3 lecture). An introduction to the world's oceans, emphasizing the geological, physical, biological, chemical, and ecological aspects of the marine environment. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1347 - Meteorology (Lecture)
Credits: 3 (3 lecture). The study of basic principles of weather and climate and the pervasive effects of weather conditions on daily lives, commerce, agriculture, urban planning and other human activity. The course offers basic scientific theory with applications familiar to the student. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1403 - Physical Geology (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1404 - Historical Geology (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). A comprehensive survey of the History, Civilization, of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the History, Civilization, of life and major events in the physical development of Earth from rocks and fossils. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: GEOL 1403

GERM 1411 - Beginning German I
Credits: 4 (3 lecture, 2 lab). Introduction to German language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST. 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

GERM 1412 - Beginning German II Credits: 4 (3 lecture, 2 lab). Continuation of GERM 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: GERM 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school German within the last two years; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and bé placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

GISC 1401 - Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems
Credits: 4 (2 lecture, 4 lab). Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation. Prerequisite: GISC 1411 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1411 - Introduction to GeographicInformation Systems (GIS)
Credits: 4 (2 lecture, 4 lab). Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1421 - Introduction to Raster - Based Geographic Information Systems (GIS)
Credits: 4 (2 lecture, 4 lab). Instruction in GIS data sets including raster- based information such as images or photographs, acquisition of such data, and processing and merging with vector data. Prerequisite: GISC 1411 or Department Approval; must be placed into college-level reading, writing and math.

GISC 1491 - Special Topics in Cartography
Credits: 4 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2250 - Scripting for Geographic Information Systems (GIS)
Credits: 2 ( 1 lecture, 2 lab). Using scripting languages (Python) to automate tasks in Geographic Information Systems (GIS) environments. Introduces scripting and model building techniques used to enhance and customize GIS applications Prerequisite: GISC 1401, GISC 1411; must be placed into college-level reading, writing and math.

GISC 2359 - Web-Served Geographic Information Systems (GIS)
Credits: 3 (2 lecture, 3 lab). Delivery of geographic data via the Internet. Includes composition of the map features distributed and introduction on the use of markup languages to customize web-based Geographic Information Systems (GIS). Prerequisite: GISC 1401, GISC 1491; must be placed into college-level reading, writing and math.

GISC 2364 - Practicum (or Field experience) - Cartography Credits: 3 (2 lecture, 3 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2380 - Cooperative Education - Cartography Credits: 3 (1 lecture, 20 external hours). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2401 - Data Acquisition and Analysis in Geographic Information Systems (GIS)
Credits: 4 (2 lecture, 4 lab ). Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis. Prerequisite: GISC 1401 or Department Approval; must be placed into college-level reading, writing and math.


## Applications

Credits: 4 (2 lecture, 4 lab). Application of GIS technology to real workplace applications from public and private sectors. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises. Prerequisite: GISC 1401, 1421, or Department Approval; must be placed into college-level reading, writing and math.

GOVT 2304 Introduction to Political Science Credits: 3 (3 lecture). An introduction to the History, Civilization, scope, and methods of political science. Among the topics covered are the different conceptions of politics and ssience and the relationships between them, the major controversies over the possibility and shape of political science, and the different approaches employed in the sturdy of politics. Prerequisite: Must be placed into college-level reading and college-level writing.

GOVT 2305 - Federal Government
Credits: 3 (3 lecture). Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a co-requisite.

GOVT 2306-Texas Government
Credits: 3 ( 3 lecture). Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a corequisite.

GOVT 2311 - Mexican American and Latino Politics Credits: 3. The study of Mexican American and Latino politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latino populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.

GUST 0100 - Developmental Reading
Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrate high proficiency but do not meet state requirements for placement into core course work. This course will present a concentrated review of basic Reading and Vocabulary Skills. Department Chair approval is required. Prerequisite: Department Approval

GUST 0339 - Introduction to Reading Credits: 3 (3 lecture, 1 lab). A basic reading course designed to improve student's overall reading skills. Emphasis is on reading comprehension, vocabulary development, study techniques, career planning and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Prerequisite: Must be placed into GUST 0339 (or higher) in reading.

GUST 0341 - Developmental Reading I Credits: 3 ( 3 lecture, 1 lab). Developmental Reading 1 is designed to address the developmental readers need for direct instruction in basic reading behaviors that are essential to the acquisition of knowledge in the content areas. Instruction is based on an interactive reading method with emphasis on learning to learn. These key skills include previewing chapters, selecting and organizing the information read and critical reading, making informed decisions about that information. Prerequisite: Must be placed into GUST 0341 in reading or completion of GUST 0339 or 0340.

GUST 0342 - Developmental Reading II Credits: 3 (3 lecture, 1 lab). Developmental Reading II is a continuation of reading skills introduced in GUST 0341. Stronger emphasis is on critical reading and thinking skills. The goal of GUST 0342 is to teach students to analyze materials thoughtfully, synthesize materials from various sources, and apply this information to their reading. Prerequisite: Must be placed into GUST 0342 in reading or completion of GUST 0341.

GUST 3040 - Developmental Reading for Non - Native Speakers of English
Credits: 3 (3 lecture, 1 lab). A basic reading course for nonnative English speakers designed to improve student's overall reading skills. Emphasis on reading comprehension, vocabulary development, study techniques, and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Recommended on the basis of CELSA test scores. Prerequisite: Satisfactory score on CELSA test

HALT 1306 - Introduction to Landscape Maintenance Credits: 3 (2 lecture, 2 lab). An introductory course related to the care of landscapes, including the selection, installation, care and maintenance of plants.

HALT 1319 - Landscape Construction Credits: 3 (2 lecture, 2 lab). Exploration of landscape construction materials and methods of installation. Topics on soil preparation, including wood, concrete, masonry construction and landscape lighting including pools, spas, and general construction details. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1322 - Landscape Design
Credits: 3 (2 lecture, 2 lab). A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and plan preparation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1324 - Turfgrass Science \& Management Credits: 3 (2 lecture, 2 lab). Coverage of various species of warm and cool season grasses including their uses, application, adaptability, enyironmental tolerances, anatomy, and physiological responses. Discuss turfgrass quality, selection, and adaptation; describe cultural practices of major cool and warm season turfgrasses; examine turfgrass responses to different environmental conditions; and identify cultural practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT1325-Landscape Plant Material
Credits: 3 (2 lecture, 2 lab ). Study of the identification, characteristics, cultural requirements, and landscape uses of native and adapted plants. Identify plants; select plants for various landscape situations; list characteristics of plants; and describe cultural requirements of plants.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1327 - Horticultural Equipment Management Credits: 3 (2 lecture, 2 lab). Application of various types of powered equipment used in the horticulture industry. Presentation of functions, operations, troubleshooting techniques, and repair of equipment. Describe the functions, operations, and maintenance of various types of equipment; and troubleshoot problems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## HALT 1331 - Woody Plant Materials

Credits: 3 (2 lecture, 2 lab). Study of woody plant materials used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Identify woody plants in various growth stages; describe morphological, anatomical, or other botanical features; and explain cultural requirements of woody plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1351 - Landscape Business Operations Credits: 3 (2 lecture, 2 lab). Instruction in the structure of the landscape business including cost estimation; organization; equipment needs; interpretation of financial reports; and material, labor, and equipment management. Emphasis on the types of landscape operations, marketing, legal forms, construction law, and safety. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1380 - Cooperative Education - Applied Horticulture/Horticultural Operations, General Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1491 - Special Topics in Horticulture Services Operations and Management, General Credits: 4. Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

HALT 2315 -Landscape Management Credits: 3 (2 lecture, 2 lab). A study of the procedures and practices used in the horticulture industry for proper landscape maintenance. Topics include landscape installation, lawn maintenance, shrub and tree care, and management practices. Prerequisite: Must be placed into CUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2323 - Horticultural Pest Control
Credits: 3. Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; integrated pest management (IPM); and chemical, natural, and biological controls.

HALT 2331 - Advanced Landscape Design
Credits: 3 (2 lecture, 2 lab). In-depth coverage of advanced practices in landscape planning for commercial and residential landscapes. Topics include advanced design analysis, architectural elements, space articulation, and land engineering concepts. Prerequisite: HALT 1322; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1166 - Practicum (or Field Experience) - Hospitality Administration/Management, General Credits: 1. Practical, general workplace training supported by an
individualized learning plan developed by the employer, college, and student.

HAMG 1313 - Front Office Management Credits: 3 ( 3 lecture, 1 lab). A study of the flow of activities and functions in today's lodging operation.
Topics include a comparison of manual, machine assisted, and computer based methods for each front line function. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1321 - Introduction to Hospitality Industry Credits: 3 ( 3 lecture). Introduction to the elements of the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1324 - Hospitality Human Resources Management Credits: 3 ( 3 lecture). A study of the principles and procedures of managing people in the hospitality workplace. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1340 - Hospitality Legal Issues Credits: 3 ( 3 lecture). A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1342 - Guest Room Maintenance
Credits: 3 (2 lecture, 3 lab). Demonstrates the working relationship in the lodging industry between housekeeping and maintenance. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2305 Hospitality Management \& Leadership Credits: 3 (3 lecture). An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formulation, communications, motivation and team building.

HAMG 2307 - Hospitality Marketing and Sales Credits: 3 (3 lecture). Identification of the core principles of marketing and their impact on the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2337 - Hospitality Facilities Management Credits: 3 (3 lecture). Identification of building systems, facilities management, security and safety procedures Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2380 - Cooperative Education - Hospitality Administration/Management, General Credits: 3 (1 lecture, 20 hours work experience). related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: HAMG 1324 Hospitality Human Resources Management; Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Corequisite: 20 hours or more a week of approved hotel or restaurant related employment HART 1301-Basic Electricity for HVAC Credits: 3 (2 lecture, 3 lab). Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1303 - Air Conditioning Control Principles Credits: 3 (2 lecture, 3 lab). A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1307-Refrigeration Principles
Credits: 3 (2 lecture, 3 lab). An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components. Prerequisite: Prerequisites/Corequisites: TECM1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1341-Residential Air Conditioning Credits: 3 ( 2 lecture, 3 lab). A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems.
Prerequisite: HART 1301, 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: TECM 1301

HART 1345 - Gas and Electric Heating Credits: 3 (2 lecture, 3 lab). A study of components, applications and installation of mechanical air conditioning systems including operating conditions, troubleshooting repair, and charging of air conditioning systems. Prerequisite: Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: HART 1341

HART 1356 - EPA Recovery Certification Preparation Credits: 3 (2 lecture, 3 lab). Certification training for HVAC refrigerant recovery and recycling. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. Prerequisite: Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: TECM 1301;

HART 2302 - Commercial Air Conditioning System Design Credits: 3. Advanced study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers' data; and preparation of shop drawings and submittals.

HART 2334 - Advanced Air Conditioning Controls Credits: 3 (2 lecture, 3 lab). Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2336 - Air Conditioning Troubleshooting Credits: 3 (2 lecture, 3 lab). An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Prerequisite: HART 1341, HART 1345, HART 2342; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2341 - Commercial Air Conditioning Credits: 3 (2 lecture, 3 lab). Apply and describe the sequence of operation for commercial air conditioning systems and their accessories; identify components relative to commercial air conditioning; and explain energy efficient and renewable energy technologies. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisites/Corequisite: HART 1345

HART 2342 - Commercial Refrigeration Credits: 3 (2 lecture, 3 lab). Theory of and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines. Prerequisite: HART1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite:

## Prerequisites/Corequisite: HART 1345

HART 2345 - Residential Air Conditioning System Design Credits: 3 ( 2 lecture, 3 lab). Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2349 - Heat Pumps
Credits: 3 (2 lecture, 3 lab). A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: HART 1345

HART 2374 - Building Control Systems and Automation Credits: 3. Theory and application of building control systems and automation, components, hardware and software.

HIST 1301 - United States History I
Credits: 3 ( 3 lecture). The American nation from the English colonization to the close of the Civil War through Reconstruction. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and collegelevel writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.

HIST 1302 - United States History II
Credits: 3 (3 lecture). The American nation from the end of the Reconstruction Era to the present. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.?

## HIST 2301-Texas History

Credits: 3 ( 3 lecture). A survey of the political, economic, social, cultural, and intellectual development of Texas from the period of Spanish discovery to the present. History, Civilization, of Texas may be substituted for either HIST 1301 or HIST 1302. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301(Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.?

HIST 2311 - Western Civilization I
Credits: 3 ( 3 lecture). Development of ancient, medieval, and early modern civilizations to 1660 . This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and collegelevel writing.

HIST 2312 - Western Civilization II
Credits: 3 (3 lecture). Development of modern western civilization from 1660 to 1945 . This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2321 - World Civilizations I Credits: 3 ( 3 lecture). A survey of the major western and non-western civilizations which developed from Sumeria to the end of the Middle Ages. Centered around a series of themes, particular emphasis is placed on the commonality of the human experience as illustrated in Europe, the Middle East, Asia and Sub-Saharan Africa. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2322 - World Civilizations II Credits: 3 (3 lecture). This course analyzes the effect on the world of the changing relationship between the Wes and the non-West over the past 500 years. Emphasis will be placed on the social, political and economic dynamics of this interchange. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2327 - Mexican-American History I
Credits: 3 ( 3 lecture). A survey of the role of the MexicanAmerican in United States history. Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be coenrolled in ENGL 1301 as a co-requisite.

HIST 2328 - Mexican-American History II Credits: 3 (3 lecture). A survey of the role of the MexicanAmericans in United States History, Civilization. Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core.
Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a corequisite.?

HIST 2371 - Women in American History, Civilization, Credits: 3 (3 lecture). The course explores the History, Civilization, of women's experience in American Society. The course will introduce students to the field of American women's History, Civilization, Women's History, Civilization, is the study of women in past times and across cultures. Its goals are to find women missing from the pages of our History, Civilization, books; to analyze and understand their experience as lived, felt, and understood; to integrate that knowledge into the History, Civilization, of particulartimes, places, and societies; and to develop from that knowledge conceptual frameworks with which to understand the role and significance of gender in American culture and society. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2381 - African-American History
Credits: 3 (3 lecture). A survey of the role of the AfroAmerican in United States History, Civilization; Emphasis willbe placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and collegelevel writing. Must have passed ENGL 1301 (Composition l) or be co-enrolled in ENGL 1301 as a co-requisite.

HITT 1166 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1 ( 8 lab ). Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1167 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

HITT 1211 - Health Information Systems Credits: 2 (2 lecture, 1 lab). Concepts of computer technology related to health care data. Prerequisite: POFI 1301 or ITSC 1309; must be placed into college-level reading, college-level writing and MATH 0312 in math.

## HITT 1249 - Pharmacology

Credits: 2 (2 lecture). Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems. Prerequisite: HITT 1305, HITT 1345, BIOL 2302, 2102; must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

HITT 1253 - Legal and Ethical Aspects of Health Information
Credits: 2 (2 lecture, 1 lab). Apply local, state, and federal standards and regulations for the control and use of health information; demonstrate appropriate health information disclosure practices; and identify and discuss ethical issues in health care. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

## HITT 1255 - Health Care Statistics

Credits: 2 ( 1 lecture, 3 lab). General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data with overview of guidelines for Texas Department of Health Vital Statistics and Studies Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1301 - Health Data Content and Structure Credits: 3 (2 lecture, 2 lab). Introduction to system and processes for collecting, maintaining and disseminating primary and secondary health related information. Introduction in delivery and organizational structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1305-Medical Terminology I
Credits: 3 (2 lecture, 4 lab ). Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

HITT 1341 - Coding and Classification Systems Credits: 3 (2 lecture, 4 lab). Application of basic coding rules, principles, guidelines, and co As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry inventions. Prerequisite: HPRS 2301, HITT 1349; must be placed into college-level reading, college-level writing and MATH 0312 in math.

## HITT 1345 - Health Care Delivery Systems

Credits: 3 (3 lecture). Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. Prerequisite: HITT 1301; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2149-RHIT Competency Review
Credits: 1 (3 lab). Review of HIT competencies, skills, and knowledge base pertinent to the technology and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2166 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

HITT 2167 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2239 - Health Information Organization and Supervision
Credits: 2. Principles of organization and supervision of human, financial, and physical resources.

HITT 2335 - Coding and Reimbursement Methodologies Credits: 3 (2 lecture, 3 lab). Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisite: HITT 1341; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2343 Quality Assessment \& Performance Improvement
Credits: 3. Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

HLAB 1266 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

HLAB 1267 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 ( 15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1266; Department Approval; must be placed into collegelevel reading, writing and math.

HLAB 1268 -Practicum (or Field Experience) - Histologic Technology/Histotechnologist Credits: 2 ( 15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1267; Department Approval; must be placed into collegelevel reading, writing and math.

HLAB 1301-Introduction to Histotechnology Credits: 3 (3 lecture, 1 lab). Introduction to the healthcare environment and the histology laboratory. Includes laboratory safety and infection control; healthcare professionals; medical terminology; basic anatomy and physiology; laboratory mathematics; communication; and ethics, legal, and professional issues. Prerequisite: Must be placed into college-level reading, writing and math.

HLAB 1305 - Functional Histology I
Credits: 3 (3 lecture, 1 lab). Recognition, composition, and function of cells, cell life cycles, blood, and basic tissue types. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1346 - Functional Histology II Credits: 4 (4 lecture). A continuation of Functional Histology I. Emphasis on the recognition, composition, and function of organ systems. Includes skeletal tissues, central nervous system, circulatory system, endocrine glands, and reproductive system. Prerequisite: HLAB 1405; must be placed into college-level reading, writing and math.

HLAB 1402 - Histotechnology I
Credits: 4 (3 lecture, 3 lab). Introduction to the basic theories and practices of histotechnology. Includes laboratory safety, fixation, tissue processing, embedding, microtomy and cryotomy, and routine staining. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1443 - Histotechnology II
Credits: 4 (3 lecture, 3 lab). A continuation of Histotechnology I. Introduces both theory and practice of common histochemical staining techniques. Topics include laboratory safety; laboratory mathematics and reagent preparation; basic tissue/dye bonding; differentiation and quality control; and nuclear, connective tissue, and carbohydrate staining techniques. Prerequisite: HLAB 1402; must be placed into college-level reading, writing and math.

HLAB 2341 - Registry Review
Credits: 3 (3 lecture). Review of the major theoretical/practical applications in histotechnology. Includes fixation, processing, embedding, microtomy, frozen cryotomy, routine and special stains, tissue identification, immunohistochemistry, enzyme histochemistry, and electron microscopy. Emphasis on employment skills, review of ethical and legal behavior, and professional development. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

HLAB 2434 - Histotechnology III
Credits: 4 ( 3 lecture, 3 lab). A continuation of Histotechnology II. Further introduces theory and practice of routine histochemical staining techniques.
Techniques include microorganisms, tissue pigments and minerals, and neural tissue. Includes specialized techniques such as electron microscopy, immunohistochemistry, and muscle enzyme histochemistry. Prerequisite: HLAB 1443; must be placed into college-level reading, writing and math.

HPRS 1201-Introduction to Health Professions Credits: 2 (2 lecture, 1 lab). An overview of roles of various members of the health care system, educational requirements, and issues affecting the delivery of health care. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HPRS 1206 - Essentials of Medical Terminology Credits: 2 (2 lecture). A study of medical terminology, word origin, structure, and application. Prerequisite: Must be placed into college-level reading, writing and math.

HPRS 1304 - Basic Health Profession Skills
Credits: 3 (2 lecture, 3 lab). A study of concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring and health documentation. Includes CPR, OSHA safety guidelines, universal health precautions, emergency preparedness and response to basic medical emergencies. Prerequisite: Must be placed into collegelevel reading, writing and math.

HPRS 2201 - Pathophysiology
Credits: 2 (2 lecture). Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reaction to diseases and injuries. Prerequisite: Prerequisite: BIOL 2402; must be placed into college-level reading, writing and math.

HPRS 2232 - Health Care Communications Credits: 2. Methods of communication with clients, client support groups, health care professionals, and external agencies. Prerequisite: PTHA 1305, PTHA 1413, PTHA 1301, HPRS 1206; must be placed into college-level reading, writing and math.

HRPO 1302 - Human Resources Training and Development Credits: 3 (3 lecture). An overview of the human resource development function specifically concentrating on the training and development component. Topics include training as related to organizational mission and goals; budgeting; assessment; design, delivery, evaluation, and justification of training. Included are new trends in training, including distance and virtual education. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1305 - Management and Labor Relations Credits: 3 (3 lecture). The development and structure of the labor movement including labor legislation, collective bargaining, societal impact, labor/management relationships and international aspects. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1311 - Human Relations Credits: 3 (3 lecture). Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 2301 - Human Resources Management
Credits: 3 (3 lecture). Behavioral and legal approaches to the management of human resources in organizations.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306.

HRPO 2303 - Employment Practices Credits: 3 (3 lecture). A study of employment issues including techniques for human resource forecasting, selection, and placement including interview techniques, pre-employment testing and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans.

HRPO 2306 - Benefits and Compensation Credits: 3 ( 3 lecture). An overview of employee compensation systems. Topics include compensation systems, direct and indirect compensation, internal and external determination of compensation, benefits administration, managing and evaluating for effectiveness, legal and regulatory issues, pay equity, job analysis affecting job compensation and competencies. Prerequisite: Must be placed into college-level reading, writing and MATH 0312 in math.

HRPO 2307-Organizational Behavior Credits: 3 (3 lecture). The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts and the integration of interdisciplinary concepts from the behavioral sciences. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HUMA 1301-Introduction to Humanities I
Credits: 3 ( 3 lecture). This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed at or passed appropriate coursework to qualify for college-level reading and college-level writing requirements.

HUMA 1305 - Introduction to Mexican American Studies Credits: 3 (3 lecture). This interdisciplinary survey examines the different cultural, artistic, economic, historical, political, and social aspects of the MexicanAmerican/Chicano/a communities. It also covers issues such as dispossession, immigration, transnationalism, and other topics that have shaped the Mexican-American experience. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must qualify to take college-level reading and writing OR take INRW 0420 (or GUST 0349 and ENGL 0310) as a co-requisite.

HUMA 1311 - Mexican American Fine Arts Appreciation Credits: 3 ( 3 lecture). This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, drama, and dance) and the ways in which they express the values of the MexicanAmerican/Chicano/a experience. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Prerequisite Engl. 0310/0349, GUST 0342

HUMA 2319-American Minority Studies Credits: 3 ( 3 lecture). This interdisciplinary survey examines the diverse cultural, artistic, economic, historical, political, and social aspects of American minority communities. Topics may include race/ethnicity, gender, socioeconomic class, sexual orientation, national origin, age, disability, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HUMA 2323 - World Cultures Credits: 3 ( 3 lecture). This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HYDR 1345 - Hydraulics and Pneumatics
Credits: 3 (2 lecture, 2 lab). Discussion of the
fundamentals of hydraulics and pneumatics, components of each system and the operations, maintenance, and analysis of each system. Prerequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1191 - Special Topics in International Business Credits: 1 ( 1 lecture). This course prepares students to sit for the Certified Global Business Professional (CGBP) credential exam. The CCBP designation is recognized internationally as a professional credential for people who work in all fields related to international trade. This course must be taken in the last semester of any International Business program and it was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1291 - Special Topics in International Business Credits: 2 (1 lecture, to lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. (This course substitutes for IBUS 2280.) Prerequisite: Must be placedinto college-level reading, college-level writing and MATH 0312 in math. .

IBUS 1300-Global Logistics Management Credits: 3. Global logistics, management processes, procedures, and regulations used in transportation, physical distribution, warehousing, inventory control, materials handling, packaging, plant and warehouse location, risk management, customer service, and networks for logistics, suppliers, and information. Includes decision making and case resolution techniques to solve problems and to develop logistical and information networks for supply chain management appropriate for global corporations

## IBUS 1301 - Principles of Exports

Credits: 3 ( 3 lecture). Export management processes and procedures. Includes governmental controls and compliance, licensing of products, documentation, commercial invoices, and traffic procedures. Emphasizes human and public relations, management of personnel, finance, and accounting procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1302 - Principles of Imports Credits: 3 (3 lecture). Practices and processes of import management operations. Includes government controls and compliance. Emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1305 - Introduction to International Business and Trade
Credits: 3 ( 3 lecture). The techniques for entering the international marketplace. Emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1341 - Global Supply Chain Management Credits: 3 (3 lecture). International purchasing or sourcing. Includes the advantages and the barriers purchasing internationally, global sourcing, procurement technology, and purchasing processes. Emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. Prerequisite: LMGT 1319; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

IBUS 1354 - International Marketing Management Credits: 3 ( 3 lecture). Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing and distribution factors. Development of an international export/import marketing plan. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. IBUS 1370-Economic Geography Credits: 3 (3 lecture). A study of material management, government regulations and distribution systems throughout the world as related to economic factors regarding agriculture, manufacturing, and materials utilization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2280 - Cooperative Education - International Business / Trade / Commerce
Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. **Requires Departmental approval Prerequisite: IBUS 1305; must be placed into college-level reading, college-level writing and MATH 0312 in math.
**Requires Departmental approval.
IBUS 2332 - Global Business Simulation
Credits: 3 (3 lecture). A simulation of a global
environment. Students will engage in business practice and theory. The simulation may include researching foreign business cultures and importing and exporting products. Emphasizes participation in all business decisions related to running a simulated company. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2335 - International Business Law Credits: 3 ( 3 lecture). A course in law as it applies to international business transactions in the global politicallegal environment. Study of inter-relationships among laws of different countries and the legal effects on individuals and business organizations. Topics include agency agreements, international contracts and administrations, regulations of exports and imports, technology transfers, regional transactions, intellectual property, product liability, and legal organization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Must complete IBUS 1301 \& 1302 OR IBUS 1305.

IBUS 2339 - International Banking and Trade Finance Credits: 3 ( 3 lecture). A course in international monetary systems, financial markets, flow of capital, foreign exchange, and financial institutions. Topics include export-import payments and financing the preparation of letters of credit, related shipping documentation, and electronic transfers. An introduction to multinational financial decisions, such as financing foreign investment or working capital. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

IBUS 2341- Intercultural Management Credits: 3 (3 lecture). Cross-cultural comparisons of management and communications processes. Emphasizes cultural geographic distinctions and antecedents that affect individual, group, and organizational behavior. May include sociocultural demographics, economics, technology, political-legal issues, negotiations, and processes of decision making in the international cultural environment. Prerequisite: IBUS 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2370-Global Issues for Enterprise Credits: 3 (3 lecture). Global Issues in Enterprise provides an overview of the challenges and opportunities that exist in different countries for creating social enterprise organizations. Topics include: lack of resources, lack of infrastructure, differing legal systems, cultural and social taboos on certain products or means of earning a living, corruption, lack of education as well as upcoming changes such as the impact of the Internet on education in lesser developed countries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1316 - Web Design I
Credits: 3 (2 lecture, 4 lab). Instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers. Prerequisite: Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1341 - Interface Design Credits: 3 (2 lecture, 4 lab). Interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Prerequisite: Prerequisites/corequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1345 - Interactive Digital Media I
Credits: credit3 (2 lecture, 4 lab ). Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. Prerequisite: ARTC 1302/1325 Corequisite: IMED 1341

IMED 1359 - Writing for Digital Media
Credits: 3 (2 lecture, 4 lab). Written communication for digital media environments including professional websites or other digital content. Prerequisite:
Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

IMED 2309 - Internet Commerce Credits: 3 (2 lecture, 4 lab). An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2313 - Project Analysis and Design Credits: 3 (2 lecture, 4 lab). Application of the planning and production processes for digital media projects.
Emphasis on copyright and other legal issues, content design and production management. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

IMED 2315 - Web Design II
Credits: 3. Mark-up language and advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites, according to accessibility standards, cultural appearance, and legal issues.

IMED 2345 Interactive Digital Media II Credits: 3 (3 lecture). Instruction in the use of scripting languages to create interactive digital media applications. A study of formal, Professional, and individual uses of VR that teaches the skills and knowledge for VR Development specifically for High-Immersion. It is ideal for developers who want to learn new skills, make informed choices about career goals, and set themselves up for success with a career in VR development. Co-Requisite: ARTV 2345

IMED 2351 - Digital Media Programming Credits: 3 (2 lecture, 4 lab). Advanced topics in digital media programming including custom scripts for data tracking. Emphasis on developing digital media programs customized to the client's needs. Prerequisite: IMED 1316 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2357 Interactive Digital Media III
Credits: 3 (3 lecture). Development of interactivity using advanced scripting techniques for digital media. A study of formal, professional, and individual uses of VR that teaches the skills and knowledge for VR Development specifically for Mobile 360 . It is ideal for developers who want to learn new skills, make informed choices about career goals, and set themselves up for success within a career in Mobile 360 VR Development.
Prerequisite: IMED 2345; Co-Requisite: ARTV 2345

IMED 2359 - Interactive Web Elements
Credits: 3 (2 lecture, 4 lab). Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming.
Select and utilize web animation and graphic programs applicable to specified business conditions and applications, create and add animation to a website; stream a video segment to/from a website; and utilize World Wide Web Consortium (W3C) standards.

IMED 2371 - Content Management System (Joomla and Wordpress) Credits: 3. An advanced class in Web Design that explores designing and developing server-side web pages that incorporate text, graphics, and other supporting elements using current technologies (content management systems) and authoring tools.

IMED 2388 - Internship - Digital Communication and Media / Multimedia Credits: 3 (13 lab). A work-based learning experience tha enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INCR 1302 - Physics of Instrumentation
Credits: 3 ( 2 lecture, 2 lab). An introduction to a simple pneumatic control loop. Introduction to pressure, temperature, level, and flow transmitters and the various transducers used in the detection of changes in process variables. This course is designed to familiarize the student with the instrumentation devices utilized in industrial automation and process control environments. Prerequisite: Prerequisite/Corequisite: ELPT 1311; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INDS 1301 - Basic Elements of Design
Credits: 3 (2 lecture, 3 lab). A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1311 - Fundamentals of Interior Design Credits: 3 ( 1 lecture, 3 lab). An introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1315 - Materials, Methods and Estimating Credits: 3 (2 lecture, 3 lab). A study of materials, methods of construction and installation, and estimating for interior design applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1319 - Technical Drawing for Interior Designers Credits: 3 (2 lecture, 4 lab). An Introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1341 - Color Theory and Application
Credits: 3 (2 lecture, 3 lab). A study of color theory and its application to interior design. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1345 - Commercial Design I
Credits: 3 (2 lecture, 4 lab). A study of design principles applied to furniture layout and space planning for commercial interiors. Prerequisite: INDS 2313; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1349 - Fundamentals of Space Planning Credits: 3 (2 lecture, 3 lab). The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations. Prerequisite: INDS 1301, INDS 1319 and INDS 1311 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1352 - History, Civilization, of Interiors II Credits: 3 (3 lecture, 1 lab). A multi-cultural historical survey of design in architecture, interiors, furnishings, and decorative elements from the post-Renaissance period to present time. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1370 - History of Interiors Credits: 3 ( 3 lecture, 1 lab). The course is a multi-cultural, historical survey of various styles and periods of antiquities, architecture, interiors, and furnishings with consideration of Asia, Egypt, Greece, Italy, Spain, France, post-Renaissance through the present. It offers a critical overview of the History, Civilization, of interior design, its connection $t$ different periods and cultures, and its integral relationship with architecture and decorative arts. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2237 - Portfolio Presentation Credits: 3 (2 lecture, 3 lab). A course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. Prerequisite: Approval of course instructor or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.
INDS 2264 - Practicum (or Field Experience) - Interior Design
Credits: 2 (o lecture, 18 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

## INDS 2270 - Photoshop for Interior Design

Credits: 3 (2 lecture, 6 lab). An exploration of Adobe Photoshop and its application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: Prerequisite: INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2271- Digital Presentation Methods
Credits: 2. An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations.

INDS 2305 - Interior Design Graphics
Credits: 3 (2 lecture, 4 lab). Skill development in computer-generated graphics and technical drawings for interior design applications. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2307 - Textiles for Interior Design
Credits: 3 (2 lecture, 3 lab). The study of interior design textiles including characteristics, care, codes, and applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2310 - Kitchen and Bath Design
Credits: 2 (o lecture, 5 lab ). The study and application of the National Kitchen and Bath Association's Guideline and Planning Standards and Safety Critería for residential kitchens and bathrooms including Universal Design concepts. Also includes the study and selection of kitchen and bath materials, equipment and cabinetry. Computer aided kitchen and bath design software is introduced. Prerequisite: Prerequisite: INDS 1349, INDS 2305 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2311 - Interior Environment Factors
Credits: 3 (2 lecture, 4 lab). A study of human factors affecting the interior environment, including proxemics, ergonomics, and universal design. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2313-Residential Design I
Credits: 3 (2 lecture, 4 lab). The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Prerequisite: INDS 1311, INDS 1341, INDS 1349, INDS 2330 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2315 - Lighting for Interior Designers
Credits: 3 (2 lecture, 3 lab). Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2317 - Rendering Techniques
Credits: 3 (2 lecture, 3 lab). A study of rendering techniques for formal interior design presentation, using a variety of media. Prerequisite: INDS 2321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2321 - Presentation Drawing
Credits: 3 (2 lecture, 3 lab). An introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2325 - Professional Practices for Interior Designers Credits: 3 ( 3 lecture, 1 lab). A study of business practices and procedures for interior designers, including professional ethics, project management, marketing, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2330 - Interior Design Building Systems Credits: 3. An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings.

INDS 2370 - Digital Presentation Methods Credits: 2 (2 lecture, 4 lab). An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: Prerequisite: INDS 2321

INDS 2371 - Advanced Kitchen and Bath Design Credits: 3 . Kitchen and bath design students upon completion of this course demonstrate the knowledge of advanced approaches to their solutions including knowledge of NKBA Planning Guidelines for the kitchen and bath, and NKBA Access Planning Guidelines used in universal design projects. Upon completion students acquire mastery of solving problems, mastery of developing a concept and theme design, mastery of producing professional working documents, mastery of presenting the idea, and mastery of processing NKBA forms through development of an advanced kitchen project and an advanced bathroom project from inception to completion.

INDS 2386 - Internship - Interior Design
Credits: 3 (18 lab) ( 288 hours Work Experience). An experience external to the college for an advanced student in the specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Internship is done the final semester upon completion of the program. Consent of program advisor is required. Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306.

INEW 1340 - ASP.NET Programming
Credits: 3 (2 lecture, 4 lab). Theory of server side web programming concepts to implement solutions for common web programming tasks. Includes Basic ASP.Net web controls, user management and authentication, state management, and development of database-driven web applications. Prerequisite: ITSE 1447 or ITSE 1430; must be placed into college-level reading, writing and math.

INEW 2332 - Comprehensive Software Project: Coding, Testing and Implementation Credits; 3 (2 lecture, 4 lab). A comprehensive application of skills learned in previous semesters in a simulated workplace. Includes coding, testing, maintenance, and documentation of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisite: Must be placed into college-level reading, writing and math.

INEW 2434 - Advanced Web Programming Credits: 3 (2 lecture, 4 lab). Web programming using industry-standard languages and data stores. Prerequisite: Must be placed into college-level reading, writing and math.

INEW 2438 - Advanced Java Programming Credits: 4 (2 lecture, 4 lab). A continuation of advanced JAVA programming techniques such as servlets and advanced graphical functions. Prerequisite: ITSE 2417 or COSC 1437 and ITSE 1356; must be placed into collegelevel reading, writing and math.

INEW 2475-SharePoint Administration I
Credits: 4. Plan, design, and deploy SharePoint farm. Create Web applications, site collections, libraries, content types, and workflows. Design sites. Manage SharePoint security and permissions. Configure search feature.

INEW 2476 - SharePoint Administration II Credits: 4. A continuation of SharePoint technology: administer SharePoint farm, security, and performance. Create new site, content types, and list \& library templates. Develop Workflows. Design Document Set. Administer SharePoint with SharePoint Designer.

INMT 1305 Introduction to Industrial Maintenance Credits: 3. Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out/tagout.

INMT 1311-Computer Integrated Manufacturing Credits: 3 (2 lecture, 3 lab). A study of the principles and application of computer integrated manufacturing. Employs all aspects of a system including but not limited to integration of material handling, manufacturing, and computer hardware and programming.
Prerequisite: TECM 1301, ITSC 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1317-Industrial Automation Credits: 3 (2 lecture, 3 lab). A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1343 - Computer Aided Design / Computer Aided Manufacturing (CAD/CAM) Credits: 3 (2 lecture, 3 lab). Computer-assisted applications in integrating engineering graphics and manufacturing. Emphasis on the conversion of a working drawing using computer aided design/computer aided manufacturing (CAD/CAM) software and related input and output devices to translate into machine code. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite:
Prerequisites/Corequișite: ITSC 1309

INMT 1345 - Computer Numerical Controls Credits: 3 (2 lecture, 3 lab). A study of numerical controlled machine operations. Emphasis on standard and computer numerical controlled (CNC) procedures for planning, preparing, and operating a computer-assisted program. Prerequisite: Prerequisites/Corequisites: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INMT 1370 - Lean Manufacturing - Manufacturing Engineering
Credits: 3 (2 lecture, 3 lab). Study of principles of lean manufacturing - manufacturing engineering; including a systematic approach to reducing costs and lead-time. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL0300 or 0347 in writing and MATH 0308 in math.

INMT 1371 - Materials and Applications
Credits: 3 (2 lecture, 3 lab). Introduction to metallic and non-metallic materials assessment and characterization. Examination of the selection and applications of materials, and processing characteristics on materials properties. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT1372-Quality and Assessment
Credits: 3 (2 lecture, 3 lab). Introduction to statistical tools and techniques required for solving industrial problems and for the continuous improvement of processes. The laboratory component provides hands-on experience with modern metrology tools and techniques. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1373-Machine Shop Logistics
Credits: 3 ( 3 lecture). Study of concepts, issues, and techniques used to plan, analyze, and maximize the productivity of machine shop logistics; examination of key production planning decision making areas such as inventories, layout, capacity, and supply chain management. Particular interest will be the study of techniques and technologies for managing and optimizing the materials supply chain in a manufacturing domain. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 2370 - Project Management Credits: 3 (3 lecture). Provide principles of project management directed toward supervisory and project management duties and responsibilities in technology based organizations and the methods required to fulfill these functions. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INRW 0100-INRW 0410 Companion Course Credits: 1 ( 1 lecture). This course is a combined 1 hour lecture/ lab performance-based companion course designed to develop student's critical reading and academic writing skills. Students who enroll in this course are required to enroll in INRW 0410. INRW 0100 is a companion course to INRW 0410. The content of this course is based upon the needs of the accompanying INRW 0410 course. The focus is to prepare, support, and enable students to successfully perform in INRW 0410. The course integrates complementary reading and writing assignments with special emphasis given to reasoning and responding to issues arising from class readings. Students who successfully complete this course and INRW 0410 will qualify to take INRW 0420.

INRW 0300 - Integrated Reading \& Writing Course for ENGL 1301
Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301: Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

INRW 0301 Integrated Reading and Writing Credits: 3 ( 3 lecture). A co-requisite course in support of History 1301: A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History /includes the study of preColumbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government.
TSI Scores for College Level Reading and Writing : WRITE: 310-349 and ABEWD:4-6 AND WS:5-8 (i.e. and passing reading) OR Write: 340-390 and WS:4-8 (i.e. and passing reading) READ 351-390

INRW 0410 - Integrated Read \& Write I
Credits: 4 (3 lecture, 2 lab). This course is a combined 3 hour lecture) 2 hour lab ( 1 hour technology lab \& 1 hour writing lab), performance-based course designed to develop student's critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required. Students who successfully complete this course will qualify to take INRW 0420 .

INRW 0420 - Integrated Read and Write II
Credits: 4 ( 3 lecture, 2 lab). This course is a combined 3 hour lecture/ 2 hour lab ( 1 hour technology lab \& 1 hour writing lab), performance-based course designed to develop student's critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required.

INSR 1117 - Insurance Customer Service Representative Credits: 1 ( 1 lecture). Fundamental front-line customer service support for the delivery of information and quality service. Includes information about general insurance policies, terminology, and customer service procedures. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance.

INSR 1205 - Personal Insurance
Credits: 2 (2 lecture). Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. At the end of the course the student would be able to describe the types of property loss exposures, the financial consequences of a property loss, and the insurance available for each; describe liability loss exposures and the insurance available for these losses; describe human loss exposures and the life, health, and disability insurance available; and identify covered losses and calculate the amount of insurance payable in various situations. This course helps prepare for the Insurance (INS) 22 exam.

INSR 1209 - Principles of Insurance Credits: 2 (2 lecture). Organization of insurance companies, state regulations, types of policies, and career opportunities in the field. Topics include concepts of risk, insurance protection, and prohibited practices. Discuss the differences between the types of insurance companies; describe the state regulatory environment for the insurance industry; explain the concept of risk and risk management; differentiate between the types of insurance coverage; and describe the professional career opportunities in the insurance industry. This course helps prepare for the Insurance (INS) 21 exam. Corequisite: INSR 1205

INSR 1217 - Insurance Customer Service Representative Credits: 2 (2 lecture). Prepares participants to work in insurance agencies as entry-level customer service representatives. Includes information about policies, terminology, and customer service procedures. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Define insurance terms and concepts; identify and explain violations of insurance regulations; and explain applicable policy provisions.

## INSR 1301 - Commercial Insurance

Credits: 3 (3 lecture). Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. Describe the types of property loss exposures, the financial consequences of a property loss, and the insurance available for each; describe liability loss exposures and the insurance available for these losses; describe human loss exposures and the life, health, and disability insurance available; and identify covered losses and calculate the amount of insurance payable in various situations. This course helps prepare for the Insurance (INS) 22 exam.

INSR 1371 - Sales and Marketing/Multiline Insurance Sales Credits: 3 (3 lecture). For agents who market property and/or casualty insurance; Includes prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowners coverage. Also covers sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities. Basic telemarketing including selling strategies, prompters, and communication skills. Development of a positive attitude to create a personal selling style. A study of marketing, sales techniques, promotions, and advertising theories as applied to the insurance industry.

INSR 2340 - Multiline Insurance Sales and Marketing Credits: 3 (3 lecture). Prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowners coverage. Includes information related to sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities.

INTC 1343 - Application of Industrial Automatic Controls Credits: 3 (3 lecture). Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument drawings. Includes connection and troubleshooting of loops. Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 1356 - Instrumentation Calibration
Credits: 3 (2 lecture, 4 lab). Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners. Prerequisite: Must be placed into college-level reading, writing and math.

INTC 1441 - Principles of Automatic Control Credits: 4 (3 lecture, 3 lab). Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations. Prerequisite: CETT 1403, INTC 1312, INTC 1456, MATH 1314 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 2330 - Instrumentation Systems Troubleshooting Credits: 3 (2 lecture, 4 lab). Techniques for troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 2336 - Distributed Control and Programmable Logic Credits: 3 (2 lecture, 2 lab). An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Prerequisite: INTC 1343 or Department Approval; must be placed into college-level reading, writing and math.

ITCC 1414-CCNA 1: Introduction to Networks Credits: 4 (2 lecture, 4 lab). This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Prerequisites: Must be placed into college-level reading, writing and math.

ITCC 1440-CCNA 2: Routing and Switching Essentials Credits: 4 (2 lecture, 4 lab). Describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks Prerequisite: ITCC 1414; must be placed into college-level reading, writing and math.

ITCC 2412 - CCNA 3: Scaling Networks Credits: 4 (2 lecture, 4 lab). CCNA R\&S: Scaling Networks (ScaN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols. Prerequisites: ITCC 1414; must be placed into college-level reading, writing and math.


Credits: 4 (2lecture, 4 lab). WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Prerequisites: ITCC 1414, ITCC 2412; must be placed into college-level reading, writing and math.

ITCC 2441-CCNA Security
Credits: 4 (3 Lecture, 3 Lab). Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

ITCC 2454 - CCNP R \& S ROUTE
Credits: 4 (2 lecture, 4 lab). How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers.

ITCC 2455-CCNP R \& S SWITCH
Credits: 4 (2 lecture, 4 lab ). How to implement, monitor, and maintain switching in converged enterprise campus networks. How to plan, configure, and yerity the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks.

ITCC 2456 - CCNP R \& S TSHOOT
Credits: 4 (2 Lecture, 4 Lab). How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches.

ITMT 1305-Configuring Advanced Window Server Operating Systems
Credits: 3 (2 lecture, 4 lab). Advanced configuration tasks required to deploy, manage, and maintain a Windows Server operating system infrastructure. Additional topics include fault tolerance, certificate services, and identity federation. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 1350 - Implementing, Managing , and Maintaining a Microsoft Windows Server 2003 Network Infrastructure Network Services
Credits: 3 (2 lecture, 4 lab). Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. Prerequisite: Prerequisite: ITMT 1300; must be placed into college-level reading, writing and math.

ITMT 1357 - Administering a Windows Server Operating System
Credits: 3 (2 lecture, 4 lab). A study of administrative tasks needed to maintain a Windows Server operating system including user and group management, network assess and data security. Topics include how to implement, configure and manage Group Policy infrastructure, Group Policy objects (GPOs) using links, security groups, WMI filters, loopback processing, preference targeting and troubleshooting policy application. Prerequisite: must be placed into collegelevel reading, writing and math.

ITMT 1358 - Windows Client Operating System Credits: 3 (2 lecture, 4 lab). A study of Windows operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hand-on experience. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 1371 - Windows 7 Configuration Credits: 3 (2 lecture, 4 lab). A study of Windows 7 operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hands-on experience. Prerequisite: ITNW 1358: Network or ITNW 1425 or Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITMT 2301 - Windows Server 2008 Network Infrastructure Configuration Credits: 3 ( 2 lecture, 4 lab). A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. Prerequisite: ITMT 1371, ITMT 2302 (70-640); must be placed into college-level reading, writing and math.

ITMT 2302 - Windows Seryer 2008 Active Directory Configuration
Credits: 3 (2 lecture, 4 lab). A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. Prerequisite: ITMT 1371; must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITMT 2304 - Implementing an Advanced Server Infrastructure
Credits: 3 (2 lecture, 4 lab). This course covers managing and maintaining a server infrastructure, planning and implementing a highly available enterprise infrastructure planning and implementing a server virtualization infrastructure, and designing and implementing identity and access solutions.
Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2305 - Designing and Implementing a Server Infrastructure
Credits: 3 (2 lecture, 4 lab). This course covers planning and deploying a server infrastructure; designing and implementing network infrastructure services; designing and implementing network access services and Active Directory infrastructure. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2403 - Administering a Microsoft SQL Server Database
Credits: 3 (2 lecture, 4 lab). In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITNW 1308 - Implementing \& Supporting Client Operating Systems
Credits: 3 (2 Lecture, 4 lab). The fundamentals of managing and configuring network clients. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1313 - Computer Virtualization
Credits: 3 (2 lecture, 4 lab). Implement and support virtualization of clients of servers in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

## ITNW 1358 - Network+

Credits: 3 (2 lecture, 4 lab). Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTIA) Network+ certification exam. Prerequisite: ITNW 1425 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math. Corequisite: MATH 1314

ITNW 1380 - Cooperative Education - Computer Systems Networking \& Telecommunications
Credits: 3. Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ITNW 1425 - Fundamentals of Networking Technologies Credits: 4 (2 lecture, 4 lab). Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Prerequisite: College ready for English and math (i.e. no remediation needed) and high school computer literacy or equivalent.

ITNW 1492 - Special Topics in Computer Systems Networking and Telecommunications Credits: 4 (4 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to technology or occupation and relevant to the professional development of the student. Prerequisite: Prerequisite: Department Approval

ITNW 2335 - Network Troubleshooting and Support Credits: 3 (2 Lecture, 4 ab). Troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software. Prerequisite: ITMT 2301 with a minimum grade of C or better or ITCC 2408 with a minimum grade of C or better or ITSY 2300 with a minimum grade of $C$ or better Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in mat Corequisite: Department Approval

## ITNW 2432 UNIX Network Integration

 Credits: 4 (2 lecture, 4 lab). Installation, configuration, management, and support of a network infrastructure in a large computing environment that uses a version of the UNIX server operating system. Includes connectivity requirements, network services, and applications including file, print, database, messaging, proxy server, firewall, Dynamic Host Configuration Protocol, Network Time Protocol, Domain Name Service, and Internet Protocol Version 6 configuration and use. Prerequisite: ITSC 1458 Must be college-level in reading, writing and math.ITSC 1301 - Introduction to Computers
Credits: 3 (2 lecture, 2 lab). Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1307 - UNIX Operating System Credits: 3 (2 lecture, 4 lab). A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisite: Prerequisite/Corequisite: COSC 1436 or Department Approval; must be placed into college-level reading, writing and math.

ITSC 1309 - Integrated Software Applications I
Credits: 3 (2 lecture, 2 lab). Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/orpresentation media software. Emphasis is on developing end-user proficiency skills for the workplace. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1316 - LINUX Installation and Configuration Credits: 3 (2 lecture, 4 lab). Open-source Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application development. Emphasizes hands-on setup, administration, and management of Linux. Also covers maintaining and securing reliable Linux systems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITSC 1319 - Internet / Web Page Development Credits: 3 (2 lecture, 4 lab). Instruction in the use of Internet concepts and the introduction to web page design and web site development. Prerequisite: BCIS 1405 or ITSC 1309 or ITSC 1301; must be placed into collegelevel reading, writing and math.

ITSC 1321 - Intermediate PC Operating Systems Credits: 3 (2 lecture, 4 lab). Continued study in advanced installation and configuration troubleshooting, advanced file management, memory and storage management. Update peripheral device drivers, and use of utilities to increase system performance. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSC 1358 - UNIX System Administration I Credits: 4 (2 lecture, 4 lab). Provide new system administrators the basics of administering UNIX workstations. Students will perform basic system administration tasks, such as installing a standalone system, adding users, backing up and restoring file systems, and adding new printer support. Emphasis on the procedures needed to perform these system administration tasks. Introduces the concept of the system and disk management. Prerequisite: ITSC 1307; must be placed into college-level reading, writing and math.

ITSC 1380-Cooperative Education - Computer and Information Sciences, General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSC 1391 Special Topics in Computer and Information Sciences, General Credits: 3 (3 lecture). The Internet of Things (IOT) describes a growing industry of digital technology being harnessed to the Internet in ways that will improve the lives of every person on this planet. We car only guess at the number and types of jobs it will create. Maybe you would like a career in the IoT. Prerequisite: ITNW 1425

ITSC 1425 - Personal Computer Hardware Credits: 4 (2 lecture, 4 lab). Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting. Prerequisite: Must be placed into college-level reading, writing and math.

ITSC 1447-UNIX System Administration II
Credits: 4 (2 lecture, 4 lab). Provides students with the
necessary skills to administer UNIX workstations in a network environment. System security features will be presented. Prerequisite: ITSC 1458; must be placed into college-level reading, writing and math.

ITSC 1458 - UNIX System Administration I
Credits: 4. Basic UNIX administration. Includes installing a standalone system, adding users, backing up and restoring file systems, and adding printer support. Perform system administration tasks. Introduces the concept of system and disk management.

ITSC 1491 Special Topics in Computer and Information Sciences, General
Credits: 4 (4 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITSC 2339 - Personal Computer Help Desk Support Credits: 3 ( 2 lecture, 4 lab ). Diagnosis and solution of user hardware and software related problems with on-the-job projects in either a Help Desk lab or in short-term assignments for local business. Topics include planning, diagnostic techniques, problem resolution, call tracking, staffing, training, knowledge engineering, work orders, service level agreements, metrics, telephony, scheduling, management issues, customer expectation, selling your services.

ITSC 2425-Advanced Linux
Credits: 4 (2 lecture, 4 lab). Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services. Prerequisite: ITSC 1458, ITSC 1447

ITSE 1345 - Introduction to Oracle SQL
Credits: 3 (2 lecture, 4 lab ). An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). Prerequisite: COSC 1436, ENGL 1301, and MATH 1314; must be placed into college-level reading, writing and math.

ITSE 1346 - Database Theory and Design
Credits: 3 (2 lecture, 4 lab). Introduction to the analysis and utilization of data requirements and organization intro normalized tables using the four normal forms of database design. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSE 1380 - Cooperative Education - Computer Programming/Programmer, General
Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSE 1402 - Computer Programming-Swift I
Credits: 4 (2 lecture, 4 lab). Introduction to computer programming with emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Prerequisite: Must be placed into college-level reading, writing and math.

ITSE 1411 Beginning Web Programming Credits: 4 (4 lecture). Skills development in web programming including mark-up and scripting languages.

ITSE 1456 - Extensible Markup Language (XML) Credits: 4 (2 lecture, 4 lab). Introduction of skills and practices related to Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-formed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Prerequisite: BCIS 1405, ITSC 1309, or ITSE 1301; must be placed into college-level reading, writing and math.

ITSE 2333 - Implementing a Database on Microsoft SQL Server
Credits: 3 (2 lecture, 4 lab). Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system.

ITSE 2343 - Advanced Mobile Programming Credits: 3 (2 lecture, 4 lab). Programming for mobile devices including file access methods, data structures, modular programming, program testing and documentation. Design, write, and document mobile programs. Prerequisite: ITSE 2005, ITSE 2305/2405

ITSE 2402 - Intermediate Web Programming Credits: 4 (2 lecture, 4 lab). Server-side and client-side techniques for Web development.

ITSE 2453 - Advanced C\# Programming Credits: 4 (2 lecture, 4 lab). Continuation of C\# programming using advanced features of the .NET Framework Class Library. Prerequisite: ITSE 1430 and ITSE 1356; must be placed into college-level reading, writing and math.

ITSE 2456-Oracle Database Administration I Credits: 4 (2 lecture, 4 lab ). Fundamentals of the tasks and functions required of a database administrator using Oracle. Prerequisite: ITSE 1345; must be placed into college-level reading, writing and math. Corequisite: ITSC 1307

ITSE 2458 - Oracle Database Administration II Credits: 4 (2 lecture, 4 lab). A continuation of Oracle Database Administration I. Topics include recovery procedures, logical backups, standby database capabilities, and performance tuning of the Oracle Server. Common performance problems and the use of diagnostic tools to troubleshoot and optimize throughout will be discussed. Prerequisite: ITSE 2456; must be placed into college-level reading, writing and math.

ITSE 2471 - Mobile Application Programming I Credits: 4. Install and configure development tools, identify and follow different phase of mobile application development life cycle, use appropriate programming language and API to develop apps for one or more mobile device platforms, and test and deploy apps using emulator and physical devices

4TSE 2472 - Mobile Application Programming II Credits: 4. Develop mobile apps focusing on features, such as Location Services API, SQLite for data intensive problems, Connectivity for the Cloud, Media and Camera for multimedia experience, and Voice Typing, Speech, and multi-touch for input.

ITSE 2473 Cloud Computing I- Solutions Architect Credits: 4 (4 lecture). The course covers the fundamentals of building IT infrastructure on cloud platforms (e.g.Amazon AWS), including identifying cloudbased serves and service types; designing and implementing virtual private clouds including instances, subnets, gateways, and end-points; leveraging cloud services for scalability, reliability, and high availability; securing cloud environments with different security layers; and exploring how to increase performance and reduce cost.

ITSE 2474 Cloud Computing I- Developer Credits: 4 (4 lecture). Understand and Identify Cloud Computing Architecture and services; design and develop cloud based applications, web services, micro services, and Web APIs; program for the cloud using API calls; build and deploy server-side applications for the cloud.

ITSW 2334 - Advanced Spreadsheets
Credits: 3 (2 lecture, 2 lab). Advanced techniques for developing and modifying spreadsheets. Includes macros and data analysis functions. Prerequisite: ITSC 1309 or BCIS 1405; must be placed into college-level reading, writing and math.

ITSY 1342 - Information Technology Security Credits: 3 (2 lecture, 4 lab). Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Prerequisite: ITMT 2301; must be placed into college-level reading, writing and math.

ITSY 1491 - Special Topics in Computer Systems Network \& Telecommunications
Credits: 4. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the information security technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITSY 2330-Intrusion Detection
Credits: 3 (2 lecture, 4 lab). Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team. Prerequisite: Prerequisite: ITSY 1342; must be placed into college-level reading, writing and math.

ITSY 2401 - Firewalls and Network Security
Credits: 4 (2 lecture, 4 lab). Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities.

ITSY 2443 - Computer System Forensics
Credits: 4 (3 lecture, 3 lab). In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Prerequisite: Prerequisite: ITCC 1401; must be placed into college-level reading, writing and math.

ITSY 2471-Cyber Competitions
Credits: This course provides an in-depth understanding of how to effectively protect computer networks. Students will learn the tools and penetration testing methodologies used by ethical hackers. Prerequisite: Departmental Approval

JAPN 1411 - Beginning Japanese I
Credits: 4 (3 lecture, 2 lab). Introduction to Japanese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

JAPN 1412 - Beginning Japanese II Credits: 4 (3 lecture, 2 lab). Continuation of JAPN 1411 Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: JAPN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Japanese within the last two years. Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

## KINE 1100-Golf

Credits: 1 ( 1 lecture, 2 activity). The student will learn the basic fundamental skills of golf and become familiar with the basic rules, tournament play and terminology involved with beginning golf.

## KINE 1103 - Yoga

Credits: 1 ( 1 lecture, 2 activity). This class will acquaint the student with history, development, branches and practices of yoga with emphasis on physical practice of individual postures, sets of postures, breathing techniques, meditation and relaxation techniques.

## KINE 1105 - Jogging

Credits: 1 (1 lecture, 2 activity). The student will learn proper and safe walking/jogging/running techniques to begin a cardiovascular training program and will learn the basic physiological principles for distance walking/jogging/running.

KINE 1146 - Beginning Bowling
Credits: 1 ( 1 lecture, 2 activity). This course includes everything the beginning bowler needs to know about the game of bowling; rules, regulations, and techniques. In addition to the basics of bowling, this course attempts to give each student a better understanding of the elements involved in the game and enhance his or her enjoyment and performance of the number one indoor participant lifetime sport in the United States.

KINE 1164 - Introduction to Physical Fitness and Wellness Credits: 1 ( 1 lecture, 2 activity). This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. INRW 0420

KINE 1301 - Foundations of Kinesiology Credits: 3 ( 3 lecture). The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KINE 1304 - Personal/Community Health Credits: 3 (3 lecture). This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being. Prerequisite; Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KINE 1306 - First Aid Credits: 3 ( 3 lecture). Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may
enable the student to receive a certificate from a nationally recognized agency

KINE 1338-Concepts of Physical Fitness Credits: 3 ( 3 lecture). This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs.

KINE 1346 - Drug Use \& Abuse
Credits: 3 (3 lecture). Study of the use, misuse and abuse of drugs and other harmful substances in today's society. Physiological, sociological, pharmacological and psychological factors will be emphasized.

KINE 2111 - Weight Training \& Conditioning
Credits: 1 (1 lecture, 2 activity). Basic fundamental skills and techniques of a strength and conditioning program. Emphasis is placed on correct procedures and use of equipment.
KINE 2113 - Individual Fitness Training Credits: 1 (1 lecture, 2 activity). Provides opportunity to accomplish fitness objectives at own pace. Some knowledge of concepts of fitness and weight training recommended.

KINE 2115 - Weight Training and Conditioning II Credits: 1 (1 lecture, 2 activity). Emphasis is placed on acquiring advanced training techniques for improving muscular strength, including competitive lifting skills. Prerequisite: Prerequisite: Weight training experience is required.

KORE 1411-Beginning Korean I
Credits: 4 ( 3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KORE 1412 - Beginning Korean II
Credits: 4 (3 lecture, 2 lab). Continuation of fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

LANG 1311 - Beginning Foreign Language I
Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1312 - Beginning Foreign Language II Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 1411 - Beginning Foreign Language I Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1412 - Beginning Foreign Language II Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 1511 - Beginning Foreign Language I Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1512 - Beginning Foreign Language II Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 2311 - Intermediate Foreign Language I Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2312 - Intermediate Foreign Language I Credits: 3 . This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LANG 2411 - Intermediate Foreign Language I
Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2412 - Intermediate Foreign Language I Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LGLA 1303 - Legal Research
Credits: 3 (3 lecture). This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, computer assisted legal research, citation forms, briefs, and court opinion discussions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1305 - Legal Writing
Credits: 3 ( 3 lecture). This course provides a working knowledge of the fundamentals of effective legal writing. Topics ínclude briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles.
Prerequisite: LGLA 1303; must be placed into GUST 0342
in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1344 - Texas Civil Litigation
Credits: 3 (3 lecture). Fundamental concepts and procedures of Texas civil litigation with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1345 - Civil Litigation
Credits: 3 (3 lecture). This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post trial phases of litigation. Prerequisite: LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1351 - Contracts
Credits: 3 (3 lecture). This course presents fundamental concepts of contract law with emphasis on the paralegal's role. Topics include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1353 - Wills , Trusts and Probate Administration Credits: 3 ( 3 lecture). This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1355 - Family Law
Credits: 3 (3 lecture). This course presents fundamental concepts of family law with emphasis on the paralegal role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parentchild relationship. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1370 - Pro Doc for Paralegals Credits: 3 (3 lecture). The Pro Doc class in Paralegal Technology will include instruction using the automated legal document assembly computer software. The software generates a finished work product for Texas Legal Practitioners. Pro Doc certification is also available for students after passing an exam offered by Pro Doc. Prerequisite: LGLA 1303; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1380 - Cooperative Education-Legal Assistant / Paralegal Credits: 3 (1lecture, 19 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303 and LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2303 - Torts and Personal Injury Law
Credits: 3 (3 lecture). This course presents fundamental concepts of tort law with emphasis on the paralegal role. Topics include intentional torts, negligence, and strict liability. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

## LGLA 2307 - Law Office Management

Credits: 3 (3 lecture). This course presents the fundamentals of principles and structure of management, administration, and substantive systems in the law office including law practice technology as applied to paralegals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2309 - Real Property
Credits: 3 (3 lecture). This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

## LGLA 2311 - Business Organizations

Credits: 3 (3 lecture). This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations, and other emerging business entities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2313 - Criminal Law and Procedure
Credits: 3 ( 3 lecture). This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2315 - Oil and Gas Law
Credits: 3 (3 lecture). This course presents fundamental concepts of oil and gas law including the relationship between landowners and oil and gas operators, government regulation, and documents used in the industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2381 - Cooperative Education - Legal Assistant / Paralegal
Credits: 3 (1 lecture, 19 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303, LGLA 1305, LGLA 1344, LGLA 1345, or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LMGT 1170 - Certified Logistics Associate Credits: 1 (1 lecture, 1 lab). This course satisfies the requirements for a student to take the national Manufacturing Skill Standards Council (MSSC) test for certification as a Certified Logistics Associate. Major topics include understanding the life cycle of global chain logistics, the logistics environment and familiarization with different material handling equipment, introduction to safety principles and safe equipment handling, quality control principles, workplace communications, teamwork and problem solving. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1193 - Special Topics in Logistics and Materials Management
Credits: 1 (1 lecture). An overview of Workplace Essentials, Supply Chain Management, Transportation Management, Warehouse Management and Computer Systems utilizing SAP ERP. Prerequisites: Students must be in the last semester of completing the requirements for either a certificate or an AAS degree in Logistics and Global Supply Chain Management. Students with a background in Logistics must have at least one year experience in the field Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1271 - Certified Logistics Technician
Credits: 2 (2 lecture). Students who have successfully completed the first level logistics associate course are prepared for the second level certification. The focus of the course is on product receiving, storage order processing, packaging and shipment, inventory control, evaluation of transportation modes and dispatch and tracking. This second course is a second level certification from the Manufacturing Skills Standards Council, (MSSC). These are industry led nationally validated skills standards. The assessment for certification will be at the conclusion of the course. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1319 - Introduction to Business Logistics Credits: 3 (3 lecture). A systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing, and materials handling. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0306 in math.

LMGT 1321 - Introduction to Materials Handling Credits: 3 ( 3 lecture). Introduces the concepts and principles of materials management to include inventory control and forecasting activities. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1323 - Domestic and International Transportation Management
Credits: 3 (3 lecture). An overview of the principles and practices of transportation and its role in the distribution process. Emphasis on the physical transportation systems involved in the United States as well as on global distribution systems. Topics include carrier responsibilities and services, freight classifications, rates, tariffs, and public policy and regulations. Also includes logistical geography and the development of skills to solve logistical transportation problems and issues. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1325 - Warehouse and Distribution Center Management
Credits: 3 (3 lecture). Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time manufacturing, continuous replenishment, and third party. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1345 - Economics of Transportation and Distribution
Credits: 3 (3 lecture). A study of the basic economic principles and concepts applicable to transportation and distribution. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1370 - Equipment Operation
Credits: 3 ( 3 lecture). This course provides students with skills to demonstrate proficiency in the use of equipment used in material handling. Topics include forklift truck safety principles and driving, lifting and delivery proficiency with the forklift. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2288 - Internship: Logistics and Materials Management
Credits: 2 (12 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2389 - Internship: Logistics and Materials Management Credits: 3 (1 lecture, 17 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer as applicable to maritime transportation logistics. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MART 1370 - Introduction to Maritime Shipping Credits: 3 (3 lecture). This program will introduce the students to the unique role of the Maritime industry in logistics. Topics include port operations, modes of cargo handling and stowage, general shipping, ship construction, types of transport ships, tankers, shipboard nomenclature and the mission of merchant ships. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MATH 0309 - Introductory Algebra Credits: 3 (3 lecture) Topics include real numbers, introduction to Logic, polynomials, basic factoring, linear equations, linear models, percentage models, order of operations, set operations, and an introduction to other topics which may include linear and quadratic modelling and math for financial management. A departmental final examination must be passed with a score of $60 \%$ or more in order to pass the course. Prerequisite: TSIA ABE level 5 or 6; TSIA Math Score 336-347 with Elementary Algebra Score 5 15 and Intermediate Algebra Diagnostic Score o-6; Math 0106: Pass with "C" or better.


MATH 0314 Intermediate Algebra Credits: 3 (3 lecture, o lab) Topics include factoring techniques, radicals, algebraic fractions, absolute values, complex numbers, graphing linear equations and inequalities, quadratic equations, systems of equations, graphing quadratic equations and an introduction to functions. Emphasis is placed on algebraic techniques needed in order to successfully complete MATH 1314: College Algebra. A departmental final examination must be passed with a score of $60 \%$ or more in order to pass this course.
Corequisite for College Algebra A corequisite course in support of MATH 1314: Topics include factoring techniques, radicals, algebraic fractions, absolute values, complex numbers, graphing linear equations and inequalities, quadratic equations, systems of equations, graphing quadratic equations and an introduction to functions. Emphasis is placed on algebraic techniques needed in order to successfully complete MATH 1314: College Algebra. A departmental final examination must be passed with a score of $60 \%$ or more in order to pass this course.

MATH 0324 Basic Concepts for Business Math Credits: 3 ( 3 lecture, o lab) Basic Concepts for Business Math is a developmental math course whose topics include: An intro to real numbers including the order of operations with integers, decimals and fractions; An intro to algebra including the simplification and solving of linear equations in one variable along with the use and manipulation of formula; Graphs of linear equations in two variables, slopes, and intercepts; An intro to functions with a focus on function notation using linear, quadratic, and exponential equations; Polynomials including their addition, subtraction, multiplication, division, and basic factoring; and Linear inequalities in one variable and in two variables; A departmental final examination must be passed with a score of $60 \%$ or more. Pre-requites and /or Co-Requisites: MATH 0324 requires either a TSIA ABE level 5 or 6 OR TSIA Math Score 336 349 with Intermediate Algebra Diagnostic Score o-3 OR Math 0106: Pass with "C" or better.
MATH 0324 is a co-requisite to MATH 1324. Since MATH 0324 is co-requisite with MATH 1324, withdrawing from MATH 0324 will necessitate withdrawal from MATH 1324 as well.

MATH 0332 Introductory Algebra
Credits; 3 (3 lecture). Introductory Algebra is a developmental math course whose topics include real numbers, introduction to Logic, polynomials, basic factoring, linear equations, linear models, percentage models, order of operations, set operations, and an introduction to other topics which may include linear and quadratic modelling and math for financial management. A departmental final examination must be passed with a score of $60 \%$ or more in order to pass the course. Pre-requites and /or Co-Requisites: MATH 0332 requires either a TSIA ABE level of 5 or 6 OR TSIA Math Score 336 - 349 with Intermediate Algebra Diagnostic Score o-3 OR Completion of MATH 0106 with a C or better. MATH 0332 is a co-requisite to MATH 1332. Since MATH 0332 is co-requisite with MATH 1332, withdrawing from MATH 0332 will necessitate withdrawal from MATH 1332 as well.

MATH 0342 Basic Concepts for Statistics Credits: 3 (3 Lecture). Basic Concepts for Statistics is a developmental math course whose topics include: An intro to real numbers including the order of operations with integers, decimals, and fractions; An intro to algebra including the simplification and solving of linear equations in one variable, use and manipulation of formula, and translation and solving of application problems; Linear inequalities and compound linear inequalities in one variable; Equations and graphs of linear equations in two variables; An intro to functions with a focus on function notation using linear, quadratic, and exponential equations; and Polynomials including their addition, subtraction multiplication, and division. A departmental final examination must be passed with a score of $60 \%$ or more in order to pass the course. Pre-requites and /or Co-Requisites: MATH 0342 requires either a TSIA ABE level 5 or 6 OR TSIA Math Score 336 349 with Intermediate Algebra Diagnostic Score o-3 OR Math 0106: Pass with "C" or better.
MATH 0342 is a co-requisite with MATH 1342. Since MATH 0342 is co-requisite with MATH 1342, withdrawing from MATH 0342 will necessitate withdrawal from MATH 1342 as well.

MATH 1314 - College Algebra
Credits: 3 (3 lecture). Topics include quadratics, polynomial, rational, logarithmic and exponential functions, system of equations, progression, sequences and series, matrices and determinants. A departmental final examination will be given in this course. Core Curriculum Course. Prerequisite: Prerequisite: Must be placed into college-level mathematics or completion of MATH 0312.

MATH 1316 - Plane Trigonometry
Credits: 3 ( 3 lecture). Topics include solutions of triangles, Euler identity, graphing of trigonometric and inverse trigonometric functions, identities, trigonometric equations and an introduction to vector analysis. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1324 - Mathematics for Business \& Social Sciences Credits: 3 ( 3 lecture). A survey of finite mathematics and its application to problems of business and the natural and social sciences. Topics include set theory, probability, an introduction to matrices, linear programming, and an introduction to statistics. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into collegeJevel mathematics.

MATH 1325 - Calculus for Business \& Social Sciences Credits: 3 ( 3 lecture). A survey of differential and integral calculus including the study of functions and graphs from a calculus viewpoint as applied to problems in business and the natural and social sciences. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1332 - Contemporary Mathematics Credits: 3 ( 3 lecture). Mathematics for Liberal Arts is a course designed for liberal and fine arts, nonmathematics, non-science, and non-business majors. The course provides students with an appreciation of the History, Civilization, art, and beauty of mathematics in the world around us. Topics include an examination of sets with applications, probability, and statistics, financial management, mathematical modeling, and fundamentals of geometry and its application. Core Curriculum Course. Prerequisite: Prerequisite: Must be placed into collegelevel mathematics or completion of MATH 0312.

MATH 1342 - Elementary Statistical Methods Credits: 3 (3 lecture). Topics include histograms, probability, binomial and normal distributions and their applications, correlation and prediction, and tests of statistical hypotheses. Core Curriculum Course. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Core curriculum course Prerequisite: Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1350 - Mathematics for Teachers I Credits: 3 ( 3 lecture). Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real numbers systems with an emphasis on problem-solving and critical thinking. Field of Study Course. Core Curriculum Course. Prerequisite: Prerequisite: MATH 1314 or equivalent; must be placed into college-level mathematics.

MATH 2320 - Differential Equations
Credits: 3 (3 lecture). Topics include initial value problems for first order and linear second order equations, Picard iteration, series solutions, boundary value problems, Laplace transforms and numerical methods. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2414

MATH 2412 - Pre-Calculus Math
Credits: 4 (4 lecture). Topics include elementary theory of functions and equations, analytic geometry, vectors, introductory logic, mathematical induction, sequences and finite series. Core Curriculum Course. Prerequisite: Prerequisite: MATH 1314 and MATH 1316 or Department Approval

MATH 2413 - Calculus I
Credits: 4 (4 lecture). An integrated study of differential calculus with analytic geometry including the study of functions, limits, continuity, differentiation, and an
introduction to integration. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2412 or consent of the Department Chair

MATH 2414 - Calculus II
Credits: 4 (4 lecture). Integral calculus including discussions of transcendental functions, applications of integration, techniques and improper integrals, infinite series, Taylor series, plane curves, and polar coordinates. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2413
MATH 1442 - Stat II: Statistics for Non-STEM Majors Credits: 4 (4 lecture). Topics include probability, binomial and normal distributions, and their applications, random sampling, statistical inference, estimation, confidence intervals, and tests of statistical hypotheses, and analysis of variance. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Prerequisite: Prerequisite: Must pass MATH 0311 with a grade of $C$ or higher.

MATH 2305 - Discrete Mathematics
Credits: 3 (3 lecture). Topics selected from logic, set theory, combinatories and graph theory. Prerequisite: Prerequisite: MATH 2318

MATH 2318 - Linear Algebra
Credits: 3 (3 lecture). Topics include systems of linear equations, vector spaces, matrices, linear mappings, and determinants. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2413

MATH 2415 - Calculus III
Credits: 4 (4 lecture). A survey of advanced topics in calculus including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, Jacobians, divergence and Stoke's theorems. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2414

MCHN 1302 - Print Reading for Machining Trades Credits: 3 (3 lecture). A study of blueprints for machining trades with emphasis on machine drawings. Use of sketching techniques to create pictorial and multipleview drawings. Offered as an 8 week hybrid course. Corequisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1338 Basic Machine Shop. This class should be taken before MCHN 1320 Precision Tools \& Measurements. Prerequisite: Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301; MCHN 1338

MCHN 1305-Metals and Heat Treatment Credits: 3 (2 lecture, 2 lab). Designed for students going into the workforce as manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. Prerequisite: TECM 1301, MCHN 1302; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 1308 - Basic Lathe
Credits: 3 (1 lecture, 7 lab). An introduction to the common types of lathes. Emphasis on basic parts, nomenclature, lathe operations, safety, machine mathematics, blueprint reading, and theory. Prerequisite: Prerequisites: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MCHN 1313 - Basic Milling Operations Credits: 3 (1 lecture, 7 lab). An introduction to the common types of milling machines, part nomenclature, basic machine operations and procedures, safety, machine mathematics, blueprint reading, and theory. Prerequisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1302 Blueprint Reading for Machine Trades, and MCHN 1338 Basic Machine Shop. Prerequisite: Prerequisites/Corequisites: TECM 1301, MCHN 1302, MCHN 1338, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MCHN 1320 - Precision Tools and Measurement Credits: 3 ( 3 lecture, 1 lab). An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools. Offered as an 8 week hybrid course. Lecture/Lab combination more accurately reflects class. Prerequisite class introduced - MCHN 1302 Print Reading for Machine Trades. Prerequisite: MCHN 1302, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in


MCHN 1338 - Basic Machine Shop I
Credits: 3 (2 lecture, 4 lab). An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Prerequisite: Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301, MCHN 1302, MCHN 1320

## MCHN 1343 - Mâchine Shop Mathematics

Credits: 3. Designed to prepare the student with
technical, applied mathematics that will be necessary in future machine shop-related courses.

MCHN 2331- Operation of CNC Turning Centers Credits: 3 ( 2 lecture, 3 lab). Continuation of Fundamentals of CNC Machine Controls with an emphasis on turning centers. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite:
Prerequisites/Corequisite: ITSC 1309
MCHN 2333 -Advanced Lathe Operations Credits: 3 (1 lecture, 7 lab). A study of advanced lathe operations. Identify and use of special cutting tools and support tooling, such as form tools, carbide inserts, taper attachments, follower and steady rest. Close tolerance machining required. Prerequisite: MCHN 1308, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2335 - Advanced CNC Machining Credits: 3. Advanced CNC operation with an emphasis on programming and operations of machining and turning centers.

MCHN 2337 - Advanced Milling Operations Credits: 3 (1 lecture, 7 lab ). An advanced study of milling machine operations. Identification and/or use of milling cutters and support tooling. Prerequisite: MCHN 1313, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2341 - Advanced Machining I
Credits: 3 (2 lecture, 4 lab). A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Prerequisite: Must be placed into GUST

0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: MCHN 2333, MCHN 2337

MDCA 1205 - Medical Law and Ethics Credits: 2 (2 lecture). Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1213 - Medical Terminology
Credits: 2 (2 lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1254 - Medical Assisting Credentialing Exam Review
Credits: 2 (1 lecture, 2 lab). A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: Corequisite: MDCA 1360 or Department Approval

MDCA 1264 - Practicum (or Field Experience) - Medical / Clinical Assistant
Credits: 2 ( 15 hours externship perweek). A healthrelated work-based external learning experience that enables the student to apply specialized occupational theory, skills and concepts relating to specific occupational outcomes. Practical workplace training is supported by an individualized learning plan developed by the employee, college and student. Direct supervision is provided by the clinical (workplace) professional. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1265 - Practicum (or Field Experience)
Medical/Clinical Assistant
Credits: 2 ( 7 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1310-Medical Assistant Interpersonal and Communication Skills
Credits: 3 (3 lecture). Emphasis on the application of basic psychological principles and the study of behavior as they apply to special populations. Topics include procedures for self-understanding and social adaptability in interpersonal communication with patients and coworkers in an ambulatory care setting. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1313-Medical Terminology
Credits: 3 ( 3 lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347in writing and MATH 0306 in math.

MDCA 1321-Administrative Procedures
Credits: 3 (2 lecture, 3 lab). Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1343 - Medical Insurance
Credits: 3 (2 lecture, 2 lab). Emphasizes medical office coding procedures for payment and reimbursement by patient or third party payers for ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1352 - Medical Assistant Laboratory Procedures Credits: 3 (2 lecture, 4 lab). Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1372 - Electronic Medical Record Documentation for Scribes
Credits: 3 (2 lecture, 3 lab). This course addresses the basics of history and physical documentation in the electronic medical record. Provides practical application utilizing dictation and/or activities developed for the scribe industry in an ambulatory care setting. Topics include fundamentals of the Electronic Medical Record related to billing and coding. The course prepares students for hands-on skills of medical scribing. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1409 - Anatomy and Physiology for Medical Assistants
Credits: 4 (4 lecture). Emphasis on normal human anatomy and physiology of cells, tissues, organs, and systems with overview of common pathophysiology. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1417 - Procedures in a Clinical Setting Credits: 4 ( 3 lecture, 3 lab). Emphasis on patient-centered assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for the ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1448 - Pharmacology and Administration of Medications
Credits: 4 (2 lecture, 4 lab). Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medicolegal responsibilities of the medical assistant. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

METL 1301 - Introduction to Metallurgy Credits: 3 (3 lecture). A study of refining mechanical and physical properties of ferrous and nonferrous materials including: the theory of alloys, heat treatment, and testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 1313 - Introduction to Corrosion Credits: 3 ( 3 lecture). An introduction to internal, external, and atmospheric corrosion including terminology, causes of common problems in industry, and generic remedies such as cathodic protection, protective coatings, material selection, and chemical treatments. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 2405-Atmospheric Corrosion Control Credits: 4 (3 lecture, 3 lab). An in-depth study of atmospheric corrosion control by coatings which includes surface preparation, coating selection, coating application, inspection, and failure analysis. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 2441 - Cathodic Protection
Credits: 4 (3 lecture, 3 lab). An in-depth study of corrosion control of buried or submerged metallic structures utilizing both impressed and galvanic cathodic protection systems. Emphasis on regulatory compliance for pipelines and underground storage tanks. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

MLAB 1101 - Introduction to Clinical Laboratory Science Credits: 1 (1 lecture, 1 lab). Introduction to medical laboratory science, structure, equipment, and philosophy. Prerequisite: Must be placed into collegelevel reading, writing and math.

MLAB 1127 - Coagulation
Credits: 2 (1 lecture, 4 lab). A course in coagulation theory, procedures, and practical applications. Includes laboratory exercises which rely on commonly performed manual and semiautomatic methods. Prerequisite: MLAB 1270

MLAB 1166 - Practicum (or Field Experience) -
Clinical/Medical Laboratory Technician
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 2270, 2271, 1211.

MLAB 1167 - Practicum (or Field Experience) Clinical/Medical Laboratory Technician Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 1235, 2331.

MLAB 1211 - Urinalysis and Body Fluids
Credits: 2 ( 1 lecture, 4 lab). An introduction to urinalysis and body fluid analysis, including the anatomy and physiology of the kidney, and physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids. Prerequisite: Admittance into the MLT Program.

MLAB 1231 - Parasitology/Mycology
Credits: 2 ( 1 lecture, 4 lab). A study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures. Prerequisite: Admittance into the MLT Program.

MLAB 1235-Immunology/Serology
Credits: 2 (1 lecture, 4 lab). An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures. Prerequisite: Admittance into the MLT Program.

MLAB 1266 - Practicum (or Field Experience) Clinical/Medical Laboratory Technician Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 2270, 2271, 1211.

MLAB 1267 - Practicum (or Field Experience) Clinical/Medical Laboratory Technician Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
Prerequisite: Department Approval; and MLAB 2434, 1231.

## MLAB 1270 - Hematology I

Credits: 2 (1 lecture, 4 lab). Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated, red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. This course is the first part of a two-part course and concentrates on red cell disorders. Prerequisite: Admittance into the MLT Program.

MLAB 1271 - Hematology II
Credits: 2 ( 1 lecture, 4 lab). Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated, red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. This course is the first part of a two-part course and concentrates on white blood cell disorders. Prerequisite: MLAB 1270.

MLAB 1371-Registry Review
Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2232 - Seminar in Medical Laboratory Technology Credits: 2 (4 lab). Designed to reinforce didactic information with laboratory methodologies and to allow exploration of advanced techniques in medical laboratory technology Prerequisite: Must be placed into college level reading, writing and math.

MLAB 2238 - Advanced Topics in Medical Laboratory Technician/Assistant Credits: 2 ( 1 lecture, 2 lab). This course examines the integration of all areas of the clinical laboratory and correlates laboratory test data with diagnostic applications and pathophysiology using critical thinking skills. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2270 - Clinical Chemistry I
Credits: 2 (1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, proteins, carbohydrates, lipids and NPNs. Prerequisite: General College Chemistry; Admittance into the MLT program.

MLAB 2271 - Clinical Chemistry II
Credits: 2 ( 1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, enzymes, cardiac, pancreatic, and liver function, vitamins and endocrinology. Prerequisite: MLAB 2270.

MLAB 2331 - Immunohematology
Credits: 3 (2 Lecture, 4 lab). A study of blood antigens and antibodies. Performance of routine blood banking procedures, including blood group and Rh typing, antibody screens, antibody identification, cross matching, elution, and absorption techniques. Presents quality control, basic laboratory technique and safety. Includes the principles, procedures and clinical significance of test results in genetics, blood group systems, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn. Prerequisite: MLAB 1235.

MLAB 2434-(Clinical) Microbiology
Credits: 4 (3 lecture, 4 lab). Instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures. Prerequisite: BIOL 2120 and BIOL 2320; must be placed into college-level reading, writing and math.

MRKG 1302 - Principles of Retailing Credits: 3 (3 lecture). Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1311 - Principles of Marketing Credits: 3 (3 lecture). Introduction to the marketing functions: identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1370 - Enterprise Mindset Credits: 3 (3 lecture). Enterprise Skills provides an overview of the crucial skills needed for individuals to excel at developing both for profit and not-for profit (social) enterprise ventures. All the pertinent skills will be covered, including action oriented activities to provide students with skills necessary to succeed. Topics will include: creativity, experimentation, risk-taking, selfreliance, character, self-leadership, growth mindset, action orientation, persistence, resourcefulness, collaboration and empathy. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1391 - Special Topics in Business Marketing and Marketing Management
Credits: 3 (3 lecture). Sports and Entertainment Marketing introduces the basic principles of marketing, economic impact, the History, Civilization, of sports and entertainment, careers, as well as legal and business risks involved in the industry. Students will also learn characteristics and buying behaviors of sports consumers as well as entertainment consumers Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2312 - e-Commerce Marketing
Credits: 3. Explore electronic tools utilized in marketing; focus on marketing communications in developing customer relationships.

MRKG 2333 - Principles of Selling Credits: 3 ( 3 lecture). Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2348 - Marketing Research and Strategies Credits: 3 (3 lecture). A simulated marketíng environment for experience in marketing decision-making. Provides practical experiences in analyzing marketing cases.
Includes dynamic interrelationships among marketing price, channels of distribution, promotion, and product responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2349 - Advertising and Sales Promotion Credits: 3 ( 3 lecture). Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2370 - Creativity and Innovation
Credits: 3 ( 3 lecture). Creativity and Innovation will introduce the concepts of creativity and how those concepts spur innovation and the economy. Processes for the development of individual and organizational creativity will be covered as well as importance of innovation in economic communities, strategies for systematic development of innovative products/services/ideas, and topics related to using innovation in marketing to create demand, drive growth and build new industries. Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2371 - Services Marketing Credits: 3 (3 lecture). An analysis of the principles, methods and problems of marketing for both professional and consumer services. A study of competition, customer service, services design, pricing, services promotion and distribution strategies. Prerequisite: Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2372 - Consumer Behavior
Credits: 3 (3 lecture). A study of buyer motives, reference groups, social class, culture, and family and social interrelationships are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2374 - Marketing Case Studies
Credits: 3 ( 3 lecture). A study of marketing problems and challenges through the use of case histories and actual marketing situations involving advertising, prices, distribution, product selection, client or consumer behavior, marketing training, market segmentation and international marketing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2375-Social Enterprise
Credits: 3 (3 lecture). Social Enterprise is a comprehensive overview of the important aspects of enterprise as related to social needs and the development of not-forprofit organizations. Topics will include: the development of enterprise skills related to the creation of not-for profit social organizations such as fund-raising, public affairs, analyses of social needs (market assessment for social interests); organizational planning, marketing and leadership for the social organization, building community support, social media strategy and other topics related to not-for-profit social organizations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2376 - Enterprise Opportunity Analysis Credits: 3 (3 lecture). A comprehensive overview of all aspects of opportunity analysis, including how to differentiate a good idea from a lucrative idea, how to analyze current and future markets for products/services, how to develop marketing and operations strategies based on the analyses. The course will culminate in an Enterprise Plan (similar to a business plan, but with more emphasis on analysis for innovation, strategies for taking action and being flexible as the market changes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2377 -Financial Management/Budgeting for Enterprise Marketing
Credits: 3 (3 lecture). Financial Management/Budgeting for Enterprise Marketing provides a comprehensive overview of the budgeting needs and processes of financial management that relate specifically to marketing the start-up enterprise (profit or not-forprofit). Enterprises have different financial needs and issues related directly to the development of innovation. This course will teach the students how to market and manage an enterprise will little or no funds, as well as
options for obtaining capital with which to launch new ventures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2378 - Franchises
Credits: 3 (3 lecture). Franchising is a comprehensive course that explores all aspects of utilizing the franchise model for developing a new venture. The pros and cons of the franchising model are explored. The financial requirements and risks, the legal pitfalls and obligations of franchises, and the process for expanding into franchises (for both franchisee and franchisor) are explored. Prerequisite: Must be placed into GUST 0342 in reading, ENGLO 300 or 0347 in writing and MATH0306 in math.

MRKG 2380 - Cooperative Education - Marketing /Marketing Management, General
Credits: 3 ( 1 lecture, 20 lab ). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRMT 1307-Medical Transcription I
Credits: 3 (2 lecture, 3 lab). Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as History, Civilization, and physicals, discharge summaries, consultations, operative reports, and other medical reports. Utilizes transcribing and information processing equipment compatible with industry standards. Designed to develop speed and accuracy. Prerequisite: MDCA 1313, POFT 1329; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## MUAP and MUAP Studio Catalog Descriptions

Lessons course descriptions: Hour lessons require ten practice hours per week. Hour lessons may be divided into two 30-minute lessons by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate major(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUAP Studio co-requisite is required. Private instruction is offered to music majors only. Hour lessons earn one credit ( 1 lecture).

Studio course descriptions: Studio Class is required for all students registered in private instruction (MUAP) courses. The Studio Class meets weekly to provide performance experience for music students. Hour studio lessons earn one credit (1 lecture).

## MUAP and MUAP Studio Catalog Listings

MUAP 1101, 1102, 2101, 2102. Violin.
MUAP 1103, 1104, 2103, 2104. Violin Studio.
MUAP 1105, 1106, 2105, 2106. Viola.
MUAP 1107, 1108, 2107, 2108. Viola Studio.
MUAP 1109, 1110, 2109, 2110. Cello.
MUAP 1111, 1112, 2111, 2112. Cello Studio.
MUAP 1113, 1114, 2113, 2114. Bass.
MUAP 1115, 1116, 2115, 2116. Bass Studio.
MUAP 1117, 1118, 2117, 2118. Flute/Piccolo.
MUAP 1119, 1120, 2119, 2120. Flute/Piccolo Studio.
MUAP 1121, 1122, 2121, 2122. Oboe/English Horn.
MUAP 1123, 1124, 2123, 2124. Oboe/English Horn Studio.
MUAP 1125, 1126, 2125, 2126. Bassoon.
MUAP 1127, 1128, 2127, 2128. Bassoon Studio.
MUAP 1129, 1130, 2129, 2130. Clarinet.
MUAP 1131, 1132, 2131, 2132. Clarinet Studio MUAP 1133, 1134, 2133, 2134. Saxophone. MUAP 1135, 1136, 2135, 2136. Saxophone Studio. MUAP 1137, 1138, 2137, 2138. Trumpet/Cornet. MUAP 1139, 1140, 2139, 2140. Trumpet/Cornet Studio. MUAP 1141, 1142, 2141, 2142. French Horn. MUAP 1143, 1144, 2143, 2144. French Horn Studio. MUAP 1145, 1146, 2145, 2146. Trombone. MUAP 1147, 1148, 2147, 2148. Trombone Studio.
MUAP 1149, 1150, 2149, 2150. Euphonium/Baritone.
MUAP 1151, 1152, 2151, 2152. Euphonium/Baritone Studio.
MUAP 1153, 1154, 2153, 2154. Tuba.
MUAP 1155, 1156, 2155, 2156. Tuba Studio.
MUAP 1157, 1158, 2157, 2158. Percussion.
MUAP 1159, 1160, 2159, 2160. Percussion Studio.
MUAP 1161, 1162, 2161, 2162. Guitar.
MUAP 1163, 1164, 2163, 2164. Guitar Studio.
MUAP 1165, 1166, 2165, 2166. Organ.
MUAP 1167, 1168, 2167, 2168. Organ Studio.
MUAP 1169, 1170, 2169, 2170. Piano.
MUAP 1171, 1172, 2171, 2172. Piano Studio.
MUAP 1173, 1174, 2173, 2174. Harp.
MUAP 1175, 1176, 2175, 2176. Harp Studio.

MUAP 1177, 1178, 2177, 2178. Voice.
MUAP 1179, 1180, 2179, 2180. Voice Studio.
MUAP 1181, 1182, 2181, 2182. Improvisation.
MUAP 1183, 1184, 2183, 2184. Improvisation Studio. MUAP 1185, 1186, 2185, 2186. Arranging and Composition. MUAP 1187, 1188, 2187, 2188. Arranging and Composition Studio.
MUAP 1189, 1190, 2189, 2190. Conducting. MUAP 1191, 1192, 2191, 2192. Condúcting Studio.

MUEN 1121 - Symphonic Orchestral
Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 1122 - Symphonic Orchestra 1 I
Credits: 1 ( 3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 1124-Symphonic Band
Credits: 1 ( 3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 1125 - Symphonic Band
Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 1127 - Major Jazz Ensemble I
Credits: 1 (o lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1128 - Major Jazz Ensemble II
Credits: 1 (o lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1130-Guitar Ensemble I
Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

MUEN 1134 - Small Jazz Ensemble I
Credits: 1 (o lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1135 - Small Jazz Ensemble II
Credits: 1 (o lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1137 - Chamber Ensemble I Credits: 1 (o lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1138 - Chamber Ensemble II Credits: 1 (o lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1140 - Guitar Ensemble II Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

## MUEN 1141 Concert Choir I

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 1142 Concert Choir II
Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 1154 - Show Choir I Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 1155 - Show Choir II
Credits: 1 (3 lab). Examples of small vocal ensembles may
include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2121 - Symphonic Orchestra III
Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2122 - Symphonic Orchestra IV
Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2124 - Symphonic Band Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 2125 - Symphonic Band
Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience.

MUEN 2127 - Major Jazz Ensemble III
Credits: 1 (olecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 2128 - Major Jazz Ensemble IV
Credits: 1 (o lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 2134 - Small Jazz Ensemble III Credits; 1 (o lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2135 - Small Jazz Ensemble IV
Credits: 1 (o lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2137 - Chamber Ensemble III Credits: 1 (o lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 2138 - Chamber Ensemble IV Credits: 1 (o lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

## MUEN 2141 Concert Choir III

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

## MUEN 2142 Concert Choir IV

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 2154 - Show Choir III
Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2155 - Show Choir IV
Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUSB 1305 - Survey of the Music Business Credits: 3 (3 lecture). An overview of the music industry including song writing, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSB 1341 - Concert Promotion and Venue Management Credits: 3 ( 3 lecture, 1 lab). A course in the basics of concert promotion and venue management including considerations in purchasing a club; concert promotion and advertising; talent buying; city codes; insurance Texas Alcoholic Beverage Commission Regulation; American Society of Composers, Arrangers, and Publishers (ASCAP/BMI) licenses; personnel management; and concert production and administration. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 1391 - Special Topics in Music Business Credits: 3 ( 3 lecture). Students will define and implement a music marketing strategy that defines career goals and creates online branding; utilizes various forms of social media to enforce online presence, build fan base and drive sales in the digital environment. Students will also participate in a self-directed course of independent study that constitutes one hour per week. Proof of participation will be provided by submissions of blog posts that reflect a meaningful contribution each week. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2301 - Music Marketing
Credits: 3 (3 lecture). A study of the methods of distribution, retailing, and wholesaling. Topics include the basics of purchasing, inventory control, shipping and receiving, returns, pricing and cost analysis, merchandising, retail display, sales promotion, advertising, security and shrinkage, personnel management, and relationships between retailers and distributors. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2305 - Music Publishing Credits: 3 ( 3 lecture). A study of the administrative and marketing aspects of music publishing including the application of current copyright law, developing song writers, rights exploration, and royalty collection. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2309- The Record Industry
Credits: 3 (3 lecture). Overview of the record industry and the organization of large and small record companies. Emphasizes record company functions such as artist and repertoire (A \& R), promotion, marketing, business affairs, and administration and distribution including Internet-based distribution. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2345 - Live Music and Talent Management Credits: 3 (3 lecture). An examination of the role, scope, and activities of the talent manager including establishing the artist/manager relationship; planning the artist's career; and developing goals, strategies, and tactics with an overall view of the live music business. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2355 - Legal Aspects of the Entertainment Industry Credits: 3 ( 3 lecture). Copyright law and the various agreements used in the entertainment industry. Emphasizes contracts used by music publishers, record companies, artist managers, record producers, film and television producers, and booking agencies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2380 - Cooperative Education - Music Business Management and Merchandising Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.
Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2381- Cooperative Education - Music Management Credits: 3 (1 lecture 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component
Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSC 1249 - Applied Music: Conducting Credits: 2 ( 1 lecture, 4 lab). Private lessons in conducting. Development of technique through the practice of basic beat patterns, beginning beats, gesturing, and cueing. Emphasis on score reading and knowledge of musical terminology.
Prerequisite: Commercial Music Theory I and II; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1270 - Fundamentals of Music Production Credits: 2 ( 1 lecture, 3 lab). An introduction to the art of producing music in the modern recording studio. The focus of the course will be on the process involved in taking a song idea from initial inception to final commercial release. Topics will include appropriate choice of genre, song construction, demoing material, producing charts and lead sheets, digital tempo and rhythmic manipulation, managing musicians during sessions, mixing aesthetics, and final mastering and packaging of a product. Prerequisite: MUSC 1427, 1331, grade of c or higher. Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1305 - Live Sound I
Credits: 3. An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system.

MUSC 1309 - Conducting Class
Credits: 3 (2 lecture, 2 lab). Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experience. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1321 - Songwriting I Credits: 3 ( 3 lecture). Introduction to techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical hooks, analyzing the marketplace, and developing a production plan for a song demo. Prerequisite: Mûst be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1323 - Audio Electronics
Credits: 3 ( 2 lecture, 4 lab). Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting audio problems. Topics include soldering techniques, audio electronic alignment procedures for tape machines, console maintenance, and sound reinforcement equipment maintenance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1325 - Acoustics
Credits: 3 (2 lecture, 4 lab). Principles of sound in air, sound in recording, and sound reinforcement. Topics include acoustical properties of studios, live performance facilities, resonance, and electronic and acoustic control. Students will be able to describe specific characteristics of sound in air; describe acoustical properties of halls, rooms, and studios; measure and quantify sound characteristics; and utilize electronic and acoustic control measures.
Prerequisite: MUSC 1427 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MUSC 1327 - Audio Engineering I
Credits: 3 (2 lecture, 4 lab). The tools, personnel and standard workflow of a recording studio. Topics include fundamentals of sound and overview of tracking, editing, and mixing audio. Prerequisite: MUSC 1335, Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1330 - Computer Music Notation I Credits: 3 ( 1 lecture, 4 lab). Survey of music notation software and applications with skill development in computer music notation.
Prerequisite: Basic computer skills; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1331-MIDI I
Credits: 3 (2 lecture, 4 lab). An overview of the Musical Instrument Digital Interface (MIDI) system and applications. Topics include the History, Civilization, and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language, and typical implementation of MIDI applications in the studio environment using softwarebased sequencing programs. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1335 - Commercial Music Software Credits: 3 (2 lecture, 4 lab)). Specialized training in commercial music software applications. This course includes integration of computer-based hardware and software with an emphasis on the utilization of DAW (digital audio workstation) technology in the professional studio environment. Prerequisite: Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1350 - Remixing Credits: 3 (2 lecture, 4 lab). Basic techniques necessary to produce finished remixes of previously recorded musical compositions. Includes using audio and MIDI "beats" and "loops." Prerequisite: MUSC 1331 or Department Approval

MUSC 1396 - Special Topics in Recording Arts Technology / Technician: Advanced Mixing and Mastering in Protools Credits: 3 (2 lecture, 4 lab). Topics address advanced mixing and mastering concepts within the ProTools digital software environment. Topics include analysis of mixes by genre, use of advanced effects processing to emphasize depth, clarity, and frequency balance, and time-based editing processes such as time stretching. Students will also practice software-based mastering techniques to optimize mixes for various digital distribution methods.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1405 -Live Sound I
Credits: (3 lecture, 2 lab). An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system. Prerequisite: Must be placed into CUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2141 - Forum/Recital
Credits: 1 (1 lecture). Stylistic analysis of commercial music performances presented by students, faculty, and guest artists. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2201 - Audio Engineering Practices
Credits: 2 ( 1 lecture, 2 lab). Application of the concepts and techniques presented in Audio Engineering I and II. (May be repeated three times for credit. Students are required to attend additional lab hours outside of class.) Prerequisite: MUSC 2447, RTVB 2232; must be placed into college-level reading, writing and math. Corequisite: Corequisite: MUSC 2448, 2457 or 2458

MUSC 2214-Improvisation Theory I
Credits: For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided in. A study of the chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2230 - Commercial Music Arranging and Composition
Credits: 2 (1 lecture, 4 lab). Presentation of arranging and composition for projects in industry recognized genres including song writing, show writing, video, and film.
Prerequisite: MUSC 1321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2234 - Improvisation Theory II
Credits: 2 (2 lecture, 1 lab). A continuation of the study of chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance.
Prerequisite: MUSC 2214; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2249 - Applied Music : Conducting II
Credits: 2 ( 1 lecture, 4 lab). Advanced private lessons in conducting. Continues development of conducting techniques, score reading abilities, and study of musical terminology.
Prerequisite: MUSC 1249; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2319- Orchestration
Credits: (3 lecture). Exploration of writing for voices and instruments to include ranges, transportation, and idiosyncrasies of each instrument with emphasis on commercial music chord voicings.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2345 - Synthesis II
Credits: 3 (2 lecture, 3 lab). Course emphasizes technology that integrates MIDI sequencing with digital audio. Topics include computer based hard disk recording systems, MIDI machine control, advanced techniques in synthesizer editing, digital transfers of audio data and CD mastering. The student will demonstrate advanced skill in FM and hybrid synthesis techniques; explain and utilize digital sampling; complete projects using advanced synthesis techniques; and edit samples and synthesizer voices. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2350 - Computer Music Notation II Credits: 3 ( 1 lecture, 4 lab). Study and practices in music notation software at a professional level, including large score notation.
Prerequisite: MUSC 1330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2355 - MIDI II
Credits: 3 (2 lecture, 4 lab ). A continuation of MIDI I with emphasis on advanced sequencer operation, and SMPTE based synchronization in the interaction of multiple recording and playback systems. Prerequisite: MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2403 - Live Sound II Credits: 4 (3 lecture, 3 lab). Overview of stage monitor systems. Includes monitor systems set-up and operation and stage management. Also covers interactivity between sound management, performance quality, and audience experience. Prerequisite: Must be placed into college-level reading, writing and math.

MUSC 2427 -Audio Engineering II
Credits: 4 (3 lecture, 2 lab). Major topics include the recording process, microphones and placement techniques, audio console operation, multitrack recording and signal processors. Audio software includes Pro Tools and Digital Performer, Spark and Peak audio editors, Toast and Jam CD editors, Acid looping software. Students learn basic tracking techniques, studio set up and break down and participate in 32 hours of recording sessions. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 1427 and MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2433 - Scoring for Video and Film
Credits: 4 (3 lecture, 3 lab). Advanced concepts of technology to score and synchronize audio with video or film productions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2447 - Audio Engineering III
Credits: 4 (3 lecture, 2 lab). Advanced practice of procedures and techniques in recording and manipulating audio. Includes digital audio editing, advanced recording techniques, and advanced engineering projects. Prerequisite: MUSC 1270, MUSC 2427, RTVB 1240 and MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2448 - Audio Engineering IV
Credits: 4 (3 lecture, 3 lab). Examination of the role of the producer including recording, mixing, arranging, analyzing projects, session planning, communications, budgeting, business aspects, technical consideration, and music markets. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into college-level reading, writing and math.

MUSC 2457 - Audio Engineering V Credits: 4 (3lecture, 4 lab). Analysis and practice of the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to tracking.
Prerequisite: MUSC 2448, 2201, 2355; must be placed into college-level reading, writing and math.

## MUSC 2458 - Audio Engineering VI

Credits: 4 (3 lecture, 4 lab ). Analysis and practice in the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to mixing.
Prerequisite: MUSC 2457, 2201; must be placed into college-level reading, writing and math.

MUSI 1116 - Sight Singing \& Ear Training I
Credits: 1 (3 lab). Corequisite: MUSI 1311 - Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony. Required of majors.
Corequisite: MUSI 1311

MUSI 1117 - Sight Singing \& Ear Training II Credits: 1 (o lecture, 3 lab). Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony. Required of majors. Corequisite: MUSI 1312

MUSI 1157-Opera Workshop
Credits: 1 (3 lab). A study of the synthesis of singing and acting through the performance of opera.

MUSI 1160 - Italian Diction
Credits: 1 (1 lecture, 1 lab). Study of Italian phonetic sounds to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 1161 - International Phonetic Alphabet (IPA) for Singers
Credits: 1 (1 lecture, 1 lab). A study of the International Phonetic Alphabet (IPA) and its application to singing in English, Italian, German, and French.

MUSI 1181 - Piano Class I
Credits: 1 (o lecture, 3 lab). Class instruction in the fundamentals of keyboard technique for beginning piano students only. A skills course. May be repeated. Required of majors. Open to non-majors. Prerequisite: Prerequisite: MUSI 1101 or Department Approval

MUSI 1182 - Piano Class II
Credits: 1 (o lecture, 3 lab). Continuation of MUSI 1181. May be repeated. Required of majors. Open to nonmajors.

MUSI 1183 - Voice Class I
Credits: 1 (o lecture, 3 lab). Class instruction in fundamentals of singing: tone production, breath production, diction and standard music repertoire. Designed for students with little or no previous vocal training.

MUSI 1192 - Guitar Class Credits: 1 (o lecture, 3 lab). This class is designed to provide students the fundamentals of guitar, aiding them as they learn or improve their reading of music. Consult with instructor concerning instrument availability. A knowledge of music is not required, but helpful. Open to all students.

MUSI 1303 Fundamentals of Music
Credits: 3 ( 3 lecture). Introduction to the basic elements of music theory, including scales, intervals, keys, triads, elementary ear training, notation, meter, and rhythm. Course does not apply to a music major degree.

MUSI 1306 - Music Appreciation
Credits: 3 (3 lecture). A foundation course in understanding and enjoyment of music through the use of recorded music and song literature. Elements of music and analysis of music form and how they relate to compositional technique are explored. Open to all students. This course satisfies the Creative Arts or

Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1307-Music Literature Credits: 3 (3 lecture). A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation. This course satisfies the Creative Arts or Component Area Option of the HCC Core.
Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1310 - American Music
Credits: 3 (3 lecture). Ceneral survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary music. This course satisfies the Creative Arts or Component Area Option of the HCC Core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1311-Music Theory I Credits: 3 (3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Required of majors. Corequisite: MUSI 1116

MUSI 1312 - Music Theory II
Credits: 3 ( 3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Required of majors. Corequisite: MUSI 1117

MUSI 2116 - Sight Singing \& Ear Training III Credits: 1 (3 lab). Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures. Required of majors. Corequisite: MUSI 2311

MUSI 2117 - Sight Singing \& Ear Training IV Credits: 1 (3 lab). Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony. Required of majors. Corequisite: MUSI 2312

## MUSI 2160-German Diction

Credits: 1 ( 1 lecture, 1 lab). Study of phonetic sounds of German to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2161 - French Diction
Credits: 1 (1 lecture, 1 lab). Study of phonetic sounds of French to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2181 - Piano Class III
Credits: 1 (o lecture, 3 lab). Continuation of MUSI 1182. May be repeated. Required of majors. Open to nonmajors.

## MUSI 2182 - Piano Class IV

Credits: 1 (o lecture, 3 lab). Continuation of MUSI 2181. May be repeated. Required of majors. Open to nonmajors.

MUSI 2258 - Opera Workshop Credits: 2 (1 lecture, 2 lab). Designed to provide young singers practical operatic experience in the entire operas or operatic excerpts. May fulfill ensemble requirement for degree. May be repeated. Performance required. Prerequisite: Audition or Department Approval.

MUSI 2311 - Music Theory III Credits: 3 (3 lecture). Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Required of majors. Corequisite: MUSI 2116
 chromaticism and survey of analytical and compositional procedures in post-tonal music. Required of majors. Corequisite: MUSI 2117

MUSP 1201 - Applied Commercial Music: Arranging and Composition
Credits: 2 ( 1 lecture, 4 lab). Private instruction in arranging and composition with goals related to jazz or commercial music. The student will demonstrate proficiency in commercial music repertoire and technique; develop a professional, disciplined approach to performance skills; and present a juried performance for faculty.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1203 - Applied Commercial Music: Acoustic Bass Credits: 2 ( 1 lecture, 4 lab). Private instruction in acoustic bass with goals related to jazz or commercial music. Prerequisite: Mûst be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1204 - Applied Commercial Music: Bass Guitar Credits: 2 ( 1 lecture, 4 lab). Private instruction in bass guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1205 - Applied Commercial Music: Commercial Guitar
Credits: 2 (1 lecture, 4 lab). Private instruction in commercial guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1206 - Applied Commercial Music: Dobro Guitar Credits: 2 ( 1 lecture, 4 lab). Private instruction in Dobro guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1207 - Applied Commercial Music: Electric Guitar Credits: 2 (1 lecture, 4 lab). Private instruction in electric guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1210 - Applied Commercial Music: Piano Credits: 2 ( 1 lecture, 4 lab). Private instruction in piano with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1211 - Applied Commercial Music: Fiddle Credits: 2 ( 1 lecture, 4 lab). Private instruction in fiddle with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1215 - Applied Commercial Music: Mandolin Credits: 2 ( 1 lecture, 4 lab). Private instruction in mandolin with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1217 - Applied Commercial Music: Percussion Credits: 2 ( 1 lecture, 4 lab ). Private instruction in percussion with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1221 - Applied Commercial Music: Steel Guitar Credits: 2 (1 lecture, 4 lab). Private instruction in steel guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MUSP 1223 - Applied Commercial Music: Synthesizer Credits: 2 ( 1 lecture, 4 lab). Private instruction in the synthesizer with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1225 - Applied Commercial Music: Trumpet Credits: 2 ( 1 lecture, 4 lab). Private instruction in the trumpet with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1227-Applied Commercial Music: Voice Credits: 2 (1 lecture, 4 lab). Private instruction in voice with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL. 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1240 -Large Commercial Music Ensemble : Band Credits: 2 ( 1 lecture, 2 lab). Participation in a large band concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1241 - Large Commercial Music Ensemble :
Symphony Orchestra
Credits: 2 ( 1 lecture, 2 lab). Participation in a large symphony orchestra concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1242 - Small Commercial Music Ensemble Credits: 2 ( 1 lecture, 2 lab). Participation in a small commercial music ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1250 - Small Commercial Music Ensemble : Jazz Credits: 2 (1 lecture, 2 lab). Participation in a jazz ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1255 - Small Commercial Music Ensemble : Studio Orchestra
Credits: 2 (1 lecture, 2 lab). Participation in a studio orchestra concentrating on commercial music pefformance styles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1292 - Special Topics in Music - Piano and Organ Performance
Credits: 2 ( 1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1293 - Special Topics in Music - Voice and Choral /Opera Performance
Credits: 2 ( 1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1308 - Music Theater I
Credits: 3 (1 lecture, 8 lab). Presentation of literature from the musical theater including operetta, revues, and musical comedy with emphasis on vocal and movement skills. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 2203 - Commercial Class Piano
Credits: 2 (2 lecture, 1 lab). Development of keyboard skills for commercial music majors including blues progressions and scales, model harmony, and extensive use of the ii-V7-I progression with appropriate keyboard voicing. Prerequisite: Prerequisite: college-level piano skills Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2206 - Commercial Vocal Ensemble: General Credits: 2 ( 1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2207 - Commercial Vocal Ensemble: Jazz Credits: 2 ( 1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal jazz performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2231 - Applied Commercial Music: Arranging and Composition
Credits: 2 (1 lecture, 4 lab). Private instruction in arranging and composition with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2304 - Piano Studio I Credits: 3 ( 3 lecture, 1 lab). Presentation of keyboard, theoretical, and aural instructional strategies. Survey of beginning methods; series, solo, and technique books; basic techniques of improvisation, and professional affiliations. Prerequisite: Prerequisite: college-level piano performance Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. MUSP 2338 - Music Theater II
Credits: 3 ( 1 lecture, 8 lab). Advanced presentation of literature from the musical theater including operetta, revues, and/or musical comedy with emphasis on high level vocal and movement skills and an advanced leadership role in a production. Prerequisite: MUSP 1308; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

NDTE 1305 - Introduction to Ultrasonics
Credits: 3 (2 lecture, 4 lab). Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

NMTT 1166 - Practicum (or Field Experience)-Nuclear Medicine Technology/Technologist
Credits: 2 (10 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1211 - Nuclear Medicine Patient Care
Credits: 2 (1 lecture, 4 lab). Introductionto medical terminology, health care ethics and legal issues, communication and patient interaction skills, patient assessment, and procedures involving transport, infection control, emergency, safety, phlebotomy and injections. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1267 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 2 ( 14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1266; must be placed into college-level reading, collegelevel writing and MATH 1314 in math.

NMTT 1301 - Introduction to Nuclear Medicine Credits: 3 (2 lecture, 4 lab ). Introduction to the field of nuclear medicine with emphasis on the principles of radiation safety, health physics, ethics, and the various studies performed in a nuclear medicine area. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1409- Nuclear Medicine Instrumentation Credits: 4 (3 lecture, 4 lab). Application of instrumentation used in the measurement and analysis of ionizing radiation with emphasis on gamma spectrometry and quality assurance. Prerequisite: SCIT 1420, Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2167 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist Credits: 1 ( 10 lab ). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1267; must be placed into college-level reading, collegelevel writing and MATH 1314 in math.

NMTT 2201 - Radiochemistry and Radiopharmacy Credits: 2 ( 1 lecture, 4 lab). Basic concepts of radiochemistry and radiopharmacy including the atomic structure, radioactive decay, and production of various radionuclides. Emphasis on radiopharmaceuticals and their ideal characteristics, biodistribution, and clinical applications; the various dosage forms in which they may be dispensed; quality control tests; and their formation and dispensing. Prerequisite: CHEM 1405, NMTT 1409; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2266 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist Credits: 2 (20 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2167; must be placed into college-level reading, collegelevel writing and MATH 1314 in math.

NMTT 2309 - Nuclear Medicine Methodology Credits: 3 (2 lecture, 4 lab). Principles and practices involved in nuclear medicine regarding cardiovascular, genitourinary, respiratory systems, and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic value. Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-levelreading, college-level writing and MATH 1314 in math.

NMTT 2367 -Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist Credits: 2 (20 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2266; must be placed into college-level reading, collegelevel writing and MATH 1314 in math.

NMTT 2413 - Nuclear Medicine Methodology II Credits: 4 (2 lecture, 6 lab). Principles and practices involved in nuclear medicine regarding gastrointestinal, central nervous system, skeletal system, tumor and inflammation processes and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, pathology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic values. Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-level reading, college-level writing and MATH 1314 in math.

OSHT 1301 - Introduction to Safety and Health Credits: 3 (3 lecture). An introduction to the basic concepts of safety and health. Prerequisite: Mustbe placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

OTHA 1161 - Clinical - Occupational Therapist Assistant Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312.

OTHA 1162 - Clinical - Occupational Therapist Assistant Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1201 - Introduction to Occupational Therapy Credits: 2 (2 lecture, 2 lab). Introduction to the historical development and philosophy of the profession of occupational therapy. Emphasis on the roles and functions of the occupational therapy assistant in current health care environments including moral, legal, and ethical issues. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

OTHA 1241 - Occupational Performance from Birth through Adolescence
Credits: 2 (2 lecture, 3 lab). Occupational performance of newborns through adolescents. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1253 - Occupational Performance for Elders Credits: 2 (2 lecture, 3 lab). Occupational performance of elders. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1305 - Principles of Occupational Therapy Credits: 3 (2 lecture, 4 lab). Introduction to occupational therapy including the historical development and philosophy. Emphasis on the roles of the occupational therapy assistant. Topics include occupation in daily life; education and functions; occupational therapy personnel; current health care environment; and moral, legal and ethical issues. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

OTHA 1309 - Human Structure and Function in Occupational Therapy
Credits: 3 (2 lecture, 4 lab). Study of biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1311 - Occupational Performance Throughout the Lifespan
Credits: 3 ( 3 lecture, 1 lab). General principles of occupational performance throughout the lifespan. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1315 - Therapeutic Use of Occupations or Activities I Credits: 3 (2 lecture, 4 lab). Various occupations or activities used as therapeutic interventions in occupational therapy. Emphasis on awareness of activity demands, contexts, adapting, grading, and safe implementation of occupations or activities. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1319-Therapeutic Interventions I
Credits: 3 (2 lecture, 4 lab). Concepts, techniques, and assessments leading to proficiency in skills and activities used as treatment interventions in occupational therapy (OT). Emphasizes the Occupational Therapy Assistant's role in the OT process. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2209-Mental Health in Occupational Therapy Credits: 2 (2 lecture, 3 lab). Promotion of mental health through occupational therapy. Emphasis on theory and intervention strategies to enhance occupational performance. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

OTHA 2266 - Practicum (or Field Experience)-Occupational Therapy Assistant
Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math

OTHA 2267 Practicum (or Field Experience) -Occupational Therapy Assistant
Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2301-Pathophysiology in Occupational Therapy Credits: 3 ( 3 lecture, 1 lab). Pathology and general health management of diseases and injuries across the lifespan encountered in occupational therapy treatment settings. Includes etiology, symptoms, and the client's physical and psychological reactions to disease and injury. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

OTHA 2302 - Therapeutic Use of Occupations or Activities II

Credits: 3 (2 lecture, 4 lab ). Continuation of OTHA 1315/1415: Therapeutic Use of Occupations or Activities I. Emphasis on advanced techniques and applications used in traditional and non-traditional practice settings.
Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2305 - Therapeutic Interventions II Credits: 3 (2 lecture, 4 lab). Continuation of Therapeutic Interventions I. Emphasis on current rehabilitative interventions. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2311 - Abnormal Psychology in Occupational Therapy
Credits: 3 (3 lecture, 1 lab). Fundamental principles and techniques of psychological diagnosis with emphasis on mental health issues including theories, etiology, and treatment intervention. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2330 - Workplace Skills for the Occupational Therapy Assistant
Credits: 3 ( 3 lecture). Seminar-based course designed to complement Level II fieldwork by creating a discussion forum addressing events, skills, knowledge, and/or behaviors related to the practice environment.
Application of didactic coursework to the clinic and testtaking strategies for certification exams. Prerequisite: All OTHA courses - simultaneous with Clinical II courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2331 - Physical Function in Occupational Therapy Credits: 3 (2 lecture, 4 lab). Physical function to promote occupational performance. Includes frames of reference, assessment/evaluation tools and techniques, patient/client education, and intervention strategies. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

PHIL 1301 - Introduction to Philosophy Credits: 3 (3 lecture). This course is a theoretically diverse introduction to the study of ideas, including arguments and investigations about abstract and real phenomena, particularly in the areas of knowledge, ethics, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 1304 - Introduction to World Religions Credits: 3 ( 3 lecture). This course is a diverse survey of world traditions and religions, including African traditions, Native American traditions, Hinduism, Buddhism, Islam, Tao and Chinese Philosophy, Christianity and Judaism. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2303 - Introduction to Formal Logic
Credits: 3 ( 3 lecture). An introduction to symbolic logic, focusing on both propositional and predicate logic, emphasizing the rules of translating language into symbols, the rules of inference and replacement, and the mechanism of reasoning used by computers. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PHIL 2306 - Introduction to Ethics
Credits: 3 ( 3 lecture). A philosophical reflection of the basic principles of the moral life, including traditional and contemporary views concerning the nature of goodness, happiness, duty, and freedom as they apply to individual right, business, medicine, and community well-being. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1302 or Department Approval

PHIL 2307 - Introduction to Social and Political Philosophy Credits: 3 ( 3 lecture). This course is a critical analysis of political theories and social issues. Consideration will be given to historically significant and contemporary systems, problems, and thinkers. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2316 - Classical Philosophy
Credits: 3 (3 lecture). An historic survey of critical and reflective thinking as applied to the basic problems of existence and the meaning of human life and institutions; begins with the Greek and Roman philosophers, continues through the Middle Ages, and ends with the Renaissance; a study of the nature of philosophy as applied to the development of the scientific method, the existence of God, and the political structures of society. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1302 or Department Approval

PHIL 2321 - Philosophy of Religion
Credits: 3 (3 lecture). A critical investigation of major religious ideas, experiences, and questions that form the basis for a philosophy of religion. Prerequisite: ENGL 1301 or Department Approval

PHRA 1243 - Pharmacy Technician Certification Review Credits: 2 (2 lecture). A review of major topics covered on the National Pharmacy Technician Certification examination (PTCE). Prerequisite: Successful completion of all 1st \& 2nd semester PHRA courses.

PHRA 1247 - Pharmaceutical Mathematics II Credits: 2 (2 lecture, 1 lab). Advanced concepts of Pharmaceutical Mathematics. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1260 - Clinical - Pharmacy Technician / Assistant Credits: 2 (10 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: HPRS 1201, PHRA 1309, PHRA 1413

PHRA 1261 - Clinical - Pharmacy Technician / Assistant Credits: 2 (8 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: PHRA 1102, PHRA 1205, PHRA 1309, and PHRA 1313 (with a minimum grade of $C$ or better); Admission to the Pharmacy Technician Program; must be placed into college- level reading, college-level writing and MATH 0308 in math.

PHRA 1272 - Professional Practices for Pharmacy Technicians
Credits: 2 (2 lecture, 1 lab). Development of the necessary interpersonal and professional skills and abilities needed to become a successful entry-level pharmacy technician. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program

PHRA 1301 - Introduction to Pharmacy Credits: 3 (3 lecture). An overview of the qualifications, operational guidelines, and job duties of a pharmacy technician.

PHRA 1304 - Pharmacotherapy and Disease Process Credits: 3 (3 lecture). A study of the disease state and therapeutic properties of drugs used in pharmaceutical therapy Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1305 - Drug Classification Credits: 3 (3 lecture). A study of pharmaceutical drugs, abbreviations, classifications, dosages, side effects, and routes of administration. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college- level reading, college-level writing and MATH 0308 in math.

PHRA 1309 - Pharmaceutical Mathematics I
Credits: 3 (3 lecture). Solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1413 - Community Pharmacy Practice Credits: 4 (2 lecture, 4 lab). Introduction to the skills necessary to process, prepare, label, and maintain records of prescriptions in a community pharmacy to include customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, inventory management and legal parameters. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1445 - Compounding Sterile Preparations Credits: 4 (2 lecture, 6 lab ). The process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP <797> standards. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1449 - Institutional Pharmacy Practice Credits: 4 (2 lecture, 6 lab). Fundamentals of the diverse roles and practice of pharmacy technicians in an institutional pharmacy setting. In-depth coverage of hospital pharmacy organization, work flow and personnel, safety techniques, data entry, packaging and labeling operations, inpatient drug distribution systems including investigational drugs, continuous quality improvement and inventory control. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 2260 - Clinical - Pharmacy Technician / Assistant Credits: 2 (8 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHRA 2261 - Clinical - Pharmacy Technician / Assistant Credits: 2 (10 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHTC 1311 - Fundamentals of Photography Credits: 3 (2 lecture, 4 lab). An introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1343 - Expressive Photography Credits: 3 (2 lecture, 4 lab). A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Prerequisite: PHTC 1311

PHTC 1345 - Illustrative Photography I Credits: 3 (2 lecture, 4 lab). Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1351 - Photojournalism I Credits: 3 (2 lecture, 4 lab). Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Prerequisite: Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1353 - Portraiture I Credits: 3 (2 lecture, 4 lab). Photographic principles applied to portrait lighting, posing, and subject rapport. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1371 - Adobe Photoshop Lightroom CC Credits: 3 (2 lecture, 4 lab). Introductory concepts in the use of the computer software for photographic manipulation, batch processing, printing and output.

PHTC 2340 - Photographic Studio Management Credits: 3 ( 3 lecture). Photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2343 - Portfolio Development
Credits: 3 (2 lecture, 4 lab ). A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, skills in resume creation, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest. Prerequisite: Prerequisite: All PHTC courses; must be placed into CUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2349 - Photo Digital Imaging II
Credits: 3 (2 lecture, 4 lab). Advanced concepts in the use of the computer and software for photographic manipulation and output.

PHTC 2353 - Portraiture II
Credits: 3 (2 lecture, 4 lab). Advanced concepts in the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Prerequisite: PHTC 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHYS 1305 - Elementary Physics I (Lecture)
Credits: 3 ( 3 lecture). General introduction to basic and fundamental principles in physics (with minimal or no computations) including: motion, gravity, momentum, energy, relativity, structures of matter, thermal energy, waves and sound. This course is intended as a non-labbased preparatory course for students wishing to take PHYS 1401 and PHYS 1402, and also for those students wishing to take PHYS 2325 who have no prior knowledge of physics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

PHYS 1401-College Physics I (Lecture \& Lab)
Credits: 4 (3 lecture, 3 lab). Non-calculus based course for medical related majors, architecture majors, technology majors, and other non-engineering and non-science majors. Topics include motion and forces, work and energy, momentum and collision, and the thermal properties of matter. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: MATH 1314, 1316; must also be placed into GUST 0341 (or higher) in reading.

PHYS 1402 - College Physics II (Lecture \& Lab) Credits: 4 (3 lecture, 3 lab). Continuation of non-Calculus based physics for medical related majors, architecture majors, technology majors and other non-engineering and non-science majors. Topics include wave motion, electricity, magnetism, electromagnetic waves, optics, and topics in modern physics. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PHYS 1401; must also be placed into GUST 0341 (or higher) in reading.

PHYS 2125 - University Physics I (Lab)
Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2325 (University Physics I) for science and engineering majors. Core Curriculum Course. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2126 - University Physics I (Lab)
Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2326 (University Physics II) for science and engineering majors. Core Curriculum Course. Prerequisite: Prerequisite/Corequisite: PHYS 2326; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher).

PHYS 2325 - University Physics I (Lecture) Credits: 3 ( 3 lecture, 1 lab). A calculus-based physics course designed specifically for chemistry, physics, and engineering majors. Topics include principles of mechanics, sound, wave phenomena, kinetic theory, fluid flow, and thermal physics.(formerly PHYS 2425) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2326 University Physics II (Lecture) Credits: 3 (3 lecture, 1 lab). Continuation of calculus based physics. Course designed specifically for chemistry, physics, and engineering majors. Includes principles of electricity and magnetism, optics, electromagnetic waves, relativity, kinetic theory, introduction to quantum theory, thermal physics, and other physics topics.(formerly PHYS 2426) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: PHYS 2425 or 2325 ; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher) in math.

PLAB 1173 - Phlebotomy
Credits: 1 (1 lecture, 4 lab). Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Topics include professionalism, ethics, and medical terminology. Prerequisite: Must be placed into college-level reading, writing and math.

POFI 1301-Computer Applications 1
Credits: 3 (2 ecture, 3 lab). Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1341 - Computer Applications II Credits: 3 (2 lecture, 3 lab). Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, and procedures. The student will demonstrate proficiency in commonly used software applications and identify and explain the concepts involved in producing documents using advanced features of software applications. Emphasis is on developing end-user proficiency skills for office environments. Prerequisite: POFI 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1349-Spreadsheets
Credits: 3 (2 lecture, 3 lab). Spreadsheet software for business applications. Prerequisite: POFT 1329 or POFI 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1380-Cooperative Education - Business / Office Automation / Technology / Data Entry
Credits: 3 ( 1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 semester hours of business technology courses and program approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 2331 - Desktop Publishing
Credits: 3 (2 lecture, 3 lab). In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications. Prerequisite: Prerequisite: POFI 1341, POFI 1349; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 1305 - Legal Terminology
Credits: 3 (3 lecture). An introduction to legal terminology including spelling, pronunciation, and definition of legal terms and an overview of the law and the professions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 1359 - Legal Transcription
Credits: 3 (2 lecture, 3 lab). Skill development in comprehensive vocabulary, listening, organizing, and transcribing client-quality documents used in a legal office. Prerequisite: POFL 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 2305 - Introduction to Legal Research Credits: 3 ( 3 lecture). Exploration of legal issues utilizing current and emerging research techniques. Prerequisite: Prerequisite: POFL 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFM 1300-Basic Medical Coding Credits: 3 (2 lecture, 3 lab). Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Prerequisite: MDCA 1313; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFM 1370 Office Specialist Medical Terminology Credits: 3 (3 Lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347in writing and MATH 0306 in math

POFM 2333 - Medical Document Production
Credits: 3 (2 lecture, 3 lab). Study of advanced concepts of medical office activities, practices, and procedures. Topics include advanced medical reports, transcription, coding, billing, insurance activities, and records management. This course is designed to provide practical applications of the linkage of the CPT-4 coding system. Medical references will be used for research and verification. MEDISOFT software applicable. Prerequisite: Prerequisite: POFM 1300; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1319 - Records and Information Management Credits: 3 (3 lecture). Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules. The student will identify the stages in the life cycle of a record; file and retrieve records using alphabetic, numeric, geographic, and subject filing systems, input, index, code, and crossreference records; use tickler file, requisition, and chargeout procedures; and differentiate between manual and electronic filing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1325-Business Math Using Technology Credits; 3 (3 lecture). Skill development in the use of electronic calculators and business mathematical functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1329-Beginning Keyboarding
Credits: 3 (2 lecture, 3 lab). Skill development in the operation of the keyboard by touch, applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1345 - Shorthand / Notetaking I
Credits: 3 (2 lecture, 3 lab). An introduction to shorthand/notetaking principles. Mastery of accurate reading and writing of notes to produce mailable documents from dictation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1370 - Introduction to Office Technology Credits: 3 (2 lecture, 3 lab). An introduction to present and future resources used to facilitate handling of office information. Study will be made of equipment applications and procedures, terminology and environmental factors affecting productivity and career paths.
Prerequisites: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1380 - Cooperative Education - Administrative Assistant and Secretarial Services, General Credits: 3 (1 lecture/seminar and 20 hours a week employment). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.
Prerequisite: Prerequisite: Completion of 12 semester hours and Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 2301 - Intermediate Keyboarding Credits: Credit 3 (2 lecture, 3 lab). A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, following instructions, and keying documents from various copy. Prerequisite: Prerequisite: POFT 1329; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 2331 - Administrative Project Solutions Credits: 3 (2 lecture, 3 lab). Experience in project management and office procedures utilizing integration of previously learned skills. Prerequisite: Prerequisite: POFT 1329 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.


POFT 2380-Cooperative Education - Administrative Assistant and Secretarial Science, General Credits: 3 ( 1 lecture/seminar and 20 hours a week employment). An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: POFT 1380 and Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PREM 0100 - Test Prep - Math
Credits: 1 . Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

## PREM 0200 - Test Prep - Math

Credits: 2. Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education

PREP 0100 - Test Prep and Skill Building
Credits: 1 ( 16 lab). Gives students a head start in basic skill
building in reading, writing, and mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREP 0200 - Test Prep and Skill Building Credits: 1 (16 lab). Gives students a head start in basic skill building in reading, writing and mathematics by providing a targeted review of basic skills, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREP 0300 - Test Prep and Skill Building Credits: 1 ( 16 lab). To provide students information and skills in preparation for college, including orientation, test preparation, and completion of the HCC application.

PSTR 1301 - Fundamentals of Baking Credits: 3 (2 lecture, 4 lab). Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1305 - Breads and Rolls
Credits: 3 (2 lecture, 4 lab). Concentration on fundamentals of chemically- and yeast-raised breads and rolls. Instruction on commercial preparation of a wide variety of products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1306-Cake Decorating I
Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1310 - Pies, Tarts, Teacakes and Cookies Credits: 3 (2 lecture, 4 lab). Focus on preparation of American- and European-style pie and tart fillings and dough, cookies, teacakes, custard and batters. Instruction in finishing and presentation techniques. Prerequisite: Must be placed into GUST 0339 in reading ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1312 - Laminated Dough, Pate a Choux and Donuts Credits: 3 (2 lecture, 4 lab). Focus on preparation of laminated doughs to include puff pastry, croissant, and Danish and a variety of pate a choux (eclair paste) products and donuts. Fillings and finishing techniques included. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## PSTR 1340-Plated Desserts

Credits: 3 (2 lecture, 4 lab). Preparation and service of hot and cold desserts with a focus on individual desserts, a la minute preparations, and numerous components within one preparation. Emphasis on station organization, timing, and service coordination for restaurant dessert production. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1343 - Bakery Operations and Management Credits: 3. Introduction to management, marketing, supervision, and sanitation principles required in retail bakery operations. Emphasis on cost control, pricing, computer usage, and personnel issues.

PSTR 1471 - Baking for Special Dietary
Credits: 4. Focus on baking methods and principles from a nutritional and chemical/physical point of view. Topics to be covered include: diets such as yegan, diabetic, low carbohydrate and gluten-free, nutritional analyses, and preparation of items for persons with special dietary needs. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products

PSTR 2301 - Chocolates and Confections Credits: 3 (2 lecture, 4 lab). Production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolate, caramels, nougats, and pate de fruit. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2307 - Cake Decorating II
Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2331 - Advanced Pastry Shop
Credits: 3 (2 lecture, 4 lab). A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Prerequisite: PSTR 1301, PSTR 1310; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2350 - Wedding Cakes
Credits: 3 (2 lecture, 4 lab). Skills, concepts, and techniques for preparing wedding cakes. Includes marzipan, plastic chocolate-rolled fondant, chocolate garnish, flower making, and royal icing piping work. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2370 - Supervised Study: Capstone Study in Baking \& Pastry Arts
Credits: 3. Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Provides the student and instructor an opportunity to work together to identify the critical areas of need in the student's repertoire. An individualized plan will be developed to address the student's weaknesses and to lead progressively to a group demonstration of critical skills. Individual assessment constitutes the majority of this course. Lab, lecture, research, and out-ofclass projects will be utilized.

PSYC 2301-General Psychology
Credits: 3 (3 lecture). A survey of the basic principles underlying human behavior and mental processes. Emphasis will be placed on major areas of study in the field of psychology, such as motivation, development, thought processes, and personality. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take college-level reading and writing OR take INRW 0420 (or ESOL 0360) as a co-requisite.

PSYC 2306 - Human Sexuality Credits: 3 (3 lecture). This course is designed to provide an understanding of human sexuality, identity, orientation, and behavior, and the variations in these dimensions of this important aspect of human experience. It includes information on physical, cognitive, and psychosocial changes associated with sexuality. Theory, research methods, and applieations of research to the facilitation of gender identity development and understanding of the human sexual response are covered. The course also provides information on the treatment of sexual dysfunction, and the prevention of sexually transmitted diseases and irresponsible sexual behavior. Prerequisite: Must be placed into college-level reading.


Credits: 3 (3 lecture). Psychology of adolescence is a study of the relationships among the physical, emotional, social and psychological factors that influence growth and development from puberty to early adulthood (ages 12-18).

PSYC 2308 - Child Psychology
Credits: 3 (3 lecture). A study of normal physiological, intellectual, and emotional development and functioning of the child from conception through adolescence. Emphasis on normal child development, the family, parent-child interaction, and the psychological and cultural forces affecting them.

PSYC 2314 - Lifespan Growth \& Development Credits: 3 (3 lecture). A developmental psychology course designed to provide an understanding of human behavior and characteristics from conception through death. This course includes information on physical, cognitive, and psychosocial changes throughout the lifespan. Theory, research, and applications are covered. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301 or Department Approval; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PSYC 2315 - Psychology of Adjustment Credits: 3 (3 ecture). A study of human behavior, applying psychological theory to the development of the well-adjusted individual. Techniques for managing stress, reducing anxiety, coping with anger, increasing assertiveness, and achieving self-control are considered. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PSYC 2316 - Psychology of Personality
Credits: 3 ( 3 lecture). This course covers personality theories that apply to both normal personality and abnormal behavior. Some of the theories covered are psychoanalytic, cognitive, learning, and sociocultural. Current research on the biological foundations of mental health and illness is covered in detail. These theories are related to mental disorders such as major depression, phobias, obsessive-compulsive disorder, bipolar disorder and schizophrenia. Case studies of individuals enhance comprehension of mental disorders. Treatment by psychotherapy and drugs is discussed as well as ethical, legal and social issues relating to the mentally ill. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite).

PSYC 2317 - Statistical Methods in Psychology Credits: 3 ( 3 lecture). An introduction to the use of scientific methods in psychology and to the statistical analysis of data. Attention is given to descriptive and inferential statistical methodology including t-tests, analysis of variance, correlation and regression. Core Curriculum Course. Prerequisite: Prerequisite: MATH 0312(Or Higher), Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite) and be placed into MATH 0312 (or higher).

PSYC 2319-Social Psychology
Credits: 3 (3 lecture). A study of social cognition, social behavior, interpersonal relations, and group membership. Emphasis on theories, research, and applications. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite).

## PSYC 2320 Abnormal Psychology

Credits: 3 (3 lecture). This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. (PSYC 2320 is included in the Psychology Field of Study.)

PSYC 2330 Biological Psychology
Credits: 3 ( 3 Lecture). An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. (PSYC 2330 is included in the Psychology Field of Study.)

PTAC 1302 - Introduction To Process Technology Credits: 3 ( 3 lecture). Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations, plant organizations, plant process and utility systems, and the physical and mental requirements of the process technician. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

PTAC 1308 - Safety, Health, and Environment I
Credits: 3 (3 lecture). Development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Prerequisite: Prerequisite or Corequisite: PTAC 1302 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 oro349 in writing and MATH 0312 in math.

PTAC 1332 - Process Instrumentation
Credits: 3 (2 lecture, 2 lab). Study of the instruments and instrument systems used in the process industry including terminology, primary variables, symbology, control loops, and basic troubleshooting. Prerequisite: PTAC 1308, PTAC 1302 and MATH 1314 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

PTAC 1350 - Industrial Economics
Credits: 3 (3lecture). Examination of the profitability factors of plant operations including personnel and business strategies. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0308 in math.

PTAC 1354 - Industrial Processes Credits: 3 (3 lecture). Study of the processes employed in process plant operations. Prerequisite: PTAC 1302 and PTAC 1308; must be placed into GUST 0342 in reading, college-level writing and MATH 0308 in math.

PTAC 1410 - Process Technology I-Equipment Credits: 4 ( 3 lecture, 3 lab). Instruction in the use of common process equipment. Prerequisite: Prerequisite: PTAC 1302 PTAC 1308 or Department Approval; must be placed into GUST 0342 in reading, college-level writing and math.

PTAC 2314 - Principles of Quality
Credits: 3 ( 3 lecture). Study of the background and application of quality concepts. Topics include team skills, quality tools, and economics and continuous improvement.
Prerequisite: PTAC 1302 and MATH 1314; must be placed into college-level reading, writing and math.

PTAC 2420 - Process Technology II - Systems Credits: 4 ( 3 lecture, 3 lab). Study of the interrelation of process equipment and process systems including related scientific principles. Prerequisite: Prerequisite: PTAC 1410 PTAC 1332, SCIT 1414, SCIT 1418 or Department Approval; must be placed into college-level reading, writing and math.

PTAC 2438 - Process Technology III - Operations Credits: 4 (3 lecture, 3 lab). This course combines systems into operational processes with emphasis on operations under various conditions. Prerequisite: Prerequisite: PTAC 2420; must be placed into college-level reading, writing and math.

PTAC 2446 - Process Troubleshooting Credits: 4 (3 lecture, 3 lab). Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause effect relationships, and reasoning. Prerequisite: Prerequisite: PTAC 2420 or Department Approval; must be placed into college-level reading, writing and math.

PTHA 1266 - Practicum (or Field Experience) - Physical Therapist Assistant
Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: PTHA 2205, PTHA 2509; HPRS 2232, must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

PTHA 1267 - Practicum (or Field Experience)- Physical Therapist Assistant Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 1266, PTHA 2435, PTHA 2431; must be placed into collegelevel reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239.

PTHA 1301-The Profession of Physical Therapy Credits: 3 (2 lecture, 2 lab). Introduction to the profession of physical therapy and the role of the physical therapist assistant. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math

PTHA 1321 - Pathophysiology for the PTA
Credits: 3 ( 3 lecture, 1 lab). Study of the pathophysiology of diseases/conditions encountered in physical therapy. Prerequisite: Prerequisite: PTHA 1413, PTHA 1301; HPRS 1206; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

PTHA 1405 - Basic Patient Care Skills
Credits: 4 (3 lecture, 4 lab). Introduction to the theory and application of basic patient handling, functional skills, assessment techniques, and measurement techniques. The student will distinguish and examine the theory, principles, and techniques of patient handling and functional skills; perform basic patient handling, functional skills, assessment techniques, and measurement techniques; and utilize relevant communication techniques. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 0312 in math.
Prerequisites: PTHA 1321, PTHA 1413.
PTHA 1413 - Functional Anatomy
Credits: 4 (3 lecture, 4 lab ). The relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: Corequisite: BIOL 2401

PTHA 1431 - Physical Agents
Credits: 4 (2 lecture, 6 lab). Biophysical principles, physiological effects, efficacy, and application of physical agents.
Prerequisite: PTHA 1413, PTHA 1405, PTHA 1301, PTHA 1405, HPRS 1206; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2205-Neurology
Credits: 2 (2 lecture, 1 lab). Study of neuroanatomy and neurophysiology as it relates to commonly encountered neurological conditions. Prerequisite: PTHA 1321; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2266 - Practicum (or Field Experience) - Physical Therapist Assistant
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 2435, PTHA 2431, PTHA 1267; must be placed into collegelevel reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239.

PTHA 2301 - Essentials of Data Collection Credits: 3 (2 lecture, 4 lab). Data collection techniques used to assist in patient/client management. Prerequisite: PTHA 1405, PTHA 1321, PTHA 1413, PTHA 1301, HPRS 1106; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1431, HPRS 2332

PTHA 2339 - Professional Issues
Credits: 2 (2 lecture, 1 lab). Discussion of professional issues and behaviors related to clinical practice; preparation for transition into the workforce. Prerequisite: PTHA 2431, PTHA 2435; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1267, PTHA 2266.

PTHA 2431 - Management of Neurological Disorders Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Prerequisite: PTHA 2205, PTHA 2509, PTHA 2435; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

PTHA 2435-Rehabilitation Techniques
Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected musculoskeletal, neuromuscular, cardiopulmonary, and integumentary disorders. Prerequisite: PTHA 2205, PTHA 2509; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

PTHA 2509 - Therapeutic Exercise Credits: 5 (3 lecture, 6 lab). Concepts, principles, and application of techniques related to therapeutic exercise and functional training.
Prerequisite: PTHA 1321, PTHA 1431, PTHA 2301, CoRequisite HPRS 2332; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTRT 1301 - Introduction to Petroleum Industry Credits: 3 ( 3 lecture). An introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing, and chemical processing industries.

PTRT 1313 - Industrial Safety
Credits: 3 (3 lecture). An overview for petroleum and manufacturing workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R 1910, 1926 standards.

PTRT 1370 - Petroleum Geology
Credits: 3 ( 3 lecture). Principles of geological patterns, rock shapes and structures, and reservoir formations associated with petroleum operations. Prerequisite: PTRT 1301, MATH 1314

PTRT 1470 - Petroleum Data Management I - Exploration Credits: 4 (2 lecture, 4 lab). Overview of computer applications in exploration; covers the History, Civilization, fundamentals, terminology and software for exploration; introduction to the principles of geology, geophysics and petro-physics. Prerequisite: PTRT 1301, PTAC 1308, MATH 1314 OR Departmental Approval

PTRT 1471 - Exploration and Production I
Credits: 4 (2 lecture, 4 lab). Overview of various aspects of deepwater operations deepwater exploration, drilling and completing wells, development of production systems. Prerequisite: PTRT 1301

PTRT 1472 - Petroleum Data Management II-Drilling and Production
Credits: 4 (2 lecture, 4 lab). Overview of computer applications in drilling and production. Covers the History, Civilization, fundamentals, terminology and software for drilling and production. Introduction to the principles of drilling, production and reservoir. Prerequisite: PTRT 1470

RTRT 1473 - Exploration and Production II
Credits: 4 (2 lecture, 4 lab). Continue with exploration and production principles including drilling rigs, giant oil and gas fields, beam pumpers, and geological classifications. Prerequisite: PTRT 1470

PTRT 2323 - Natural Gas Production
Credits: 4 (2 lecture, 4 lab). An overview of the aspects of natural gas and oil production including various aspects of hydrocarbon production, processing equipment, and gas compression/transportation systems. Prerequisite: PTRT 2331

## PTRT 2331 - Well Completions

Credits: 3 (3 lecture). Drilling and wellbore analysis data to develop a well completion plan. Prerequisite: PTRT 1473, MATH 1325

PTRT 2370 - Petroleum Operations
Credits: 3 ( 3 lecture). Course covers the principles and fundamentals of onshore and offshore operations implemented in oil recovery. Prerequisite: PTRT 1470

PTRT 2372 - Internship - Petroleum Technology / Technician
Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: PTRT 2331, Department Approval

PTRT 2470 - Petroleum Data Management III - Facilities and Performance
Credits: 4 (2 lecture, 4 lab). Overview of computer applications in surface facilities and automation. Covers the History, Civilization, fundamentals, terminology and software for surface facilities and automation.
Prerequisite: PTRT 2331

RADR 1160 - Clinical - Radiologic Technology / Science Radiographer
Credits: 1 (5 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1266 - Practicum (or Field Experience) - Radiologic Technology / Science - Radiographer Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1160, RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RADR 1303 - Patient Care Credits: (3 lecture). An introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Prerequisite Admission to the program; must be placed into collegelevel reading, writing and math.

RADR 1313 - Principles of Radiographic Imaging I Credits: 3 (3 lecture, 1 lab). Radiographic image quality and the effects of exposure variables. Prerequisite: Admission to the program; must be placed into collegelevel reading, writing and math.

RADR 1411 - Basic Radiographic Procedures Credits. 4 (2 lecture, 4 lab). An introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 2167 - Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2213, RADR 2217, RADR 2367; must be placed into college-level reading, writing and math.

RADR 2213 - Radiation Biology and Protection Credits: 2 (2 lecture). Effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Prerequisite: RADR 2309; must be placed into college-level reading, writing and math.

RADR 2217 - Radiographic Pathology
Credits: 2 (2 lecture). Disease processes and their appearance on radiographic images. Prerequisite: RADR 2331; must be placed into college-level reading; writing and math.

RADR 2260 - Clinical - Radiologic Technology / Science Radiographer
Credits: 2 (8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RADR 2309, RADR 2401, RADR 1266; must be placed into college-level reading, writing and math.

RADR 2309 - Radiographic Imaging Equipment Credits: 3 ( 3 lecture). A study of the equipment and physics of x-ray production, basic x-ray circuits and relationship of equipment components to the imaging process. Prerequisite: RADR 2305, RADR 2331; must be placed into college-level reading, writing and math.

RADR 2331 - Advanced Radiographic Procedures Credits: 3 (2 lecture, 2 lab). Continuation of positioning; alignment of the anatomical structure and equipment, evaluation of images for proper demonstration of anatomy and related pathology. Prerequisite: Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2333 - Advanced Medical Imaging Credits: 3 (3 lecture). Specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis. Prerequisite: Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2335 - Radiologic Technology Seminar Credits: 3 (3 lecture, 1 lab). A capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning. Prerequisite: All RADR courses or by Department Approval; must be placed into college-level reading, writing and math.

RADR 2340 - Sectional Anatomy for Medical Imaging Credits: 3 ( 3 lecture). Anatomic relationships that are present under various sectional orientations as depicted by computed tomography or magnetic resonance imaging. Prerequisite: RADR 2333; must be placed into college-level reading, writing and math.

RADR 2366 - Practicum (or Field Experience) - Radiologic Technology / Science - Radiographer Credits: 3 (24 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1267, RADR 2233; must be placed into college-level reading, writing and math.

RADR 2367 - Practicum (or Field Experience) - Radiologic Technology / Science - Radiographer Credits: 3 ( 24 lab ). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2333, RADR 2366; must be placed into college-level reading, writing and math.

RADR 2401 - Intermediate Radiographic Procedures Credits: 4 ( 3 lecture, 4 lab). A continuation of the study o the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of anatomy. Prerequisite: RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RBTC 1301 Programmable Logic Controllers Credits: 3 (2 lecture, 4 lab). A study in programmable logic controllers (PLC). Topics include processor units, numbering systems, memory organization, relay type devices, timers, counters, data manipulators, and programming. Emphasis will be placed on converting ladder diagrams into programs; explaining digital/analog devices used with programmable logic controllers; and executing and evaluating control system operation. Prerequisite: CETT 1425 or INTC 1441 or Department Approval, Must be placed into college-level reading, writing and math.

RCCR 0310 - Reading College and Career Readiness Credits: 3 . Is designed to prepare students that possess a secondary education credential, have a TSIA test placement score below 315 in Reading or a score of " 1 ", "0", or "no score" on the TSIA writing sample and wish to enter an academic program course of study.

RCCR 0323 - Reading College \& Career Readiness Credits: 3 . Is designed to prepare students that possess a secondary education credential, have a TSIA test
placement score of 316-335 in Reading or a score of "2" on the TSIA writing sample \& wish to enter an academic or career training or education program course of study.

RELE 1191-Special Topics in Real Estate Credits: 1 . This course contains instruction on good study habits and an overview to better prepare the student to take their State Examination to obtain a Texas Real Estate License. Topic covered include principles of real estate, real estate law, landlord tenant relationships, ownership and transfer of real property, legal descriptions, taxes, closing disclosures and procedures, fair housing, real estate appraisal, financing, and genera overview of both State and Federal laws regarding the real estate industry. Students will be given a review of both the Texas Real Estate License Act and The Rules and Regulations of the Texas Real Estate Commission.

RELE 1200 - Contract Forms and Addenda
Credits: 2 (2 lecture). Promulgated Contract Forms, which shall include but is not limited to unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use forms and case studies involving use of forms. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE1201 - Principles of Real Estate I
Credits: 2 (2 lecture). A beginning overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1211 - Law of Contracts
Credits: 2 (2 lecture). Elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms, and owner disclosure requirements. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1219-Real Estate Finance
Credits: 2 (2 lecture). Monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending, Community Reinvestment Act, and the state housing agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1238 - Principles of Real Estate II Credits: 2 (2 lecture). Overview of licensing as a broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing, discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1291 - Special Topics in Real Estate Credits: 3 (3 lecture). Commercial Real Estate is an overview of the commercial real estate industry which includes: commercial real estate culture, real estate professionalism and ethics, types of properties, investors, end users, leasing, developing, marketing psychology, advertising, time management, negotiating and closing, financing and characteristics of a successful salesperson. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1303-Real Estate Appraisal Credits: 3 ( 3 lecture). A study of the central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. Accredited: Texas Appraiser Licensing and Certification Board. (Formerly REAL 2301) Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1307-Real Estate Investments
Credits: 3 ( 3 lecture). Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and non-discounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

## RELE 1309-Real Estate Law

Credits: 3 (3 lecture). Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence oftitle. Prerequisite: Mûst be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1315 - Property Management
Credits: 3 ( 3 lecture). A study of the role of the property manager, landlord policies, operating guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1321 - Real Estate Marketing
Credits: 3 (3 lecture). A study of real estate
professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiating and closing financing; and the Deceptive Trade Practice Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1323 - Real Estate Computer Applications Credits: 3 ( 3 lecture). A study of the availability of technology, current software, and its ability to help a real estate agent become more productive. Includes database, mapping, mortgage interest, contact management, presentation and real estate related software application packages. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1324 - Loan Origination and Quality Control Credits: 3 (3 lecture). An introduction to the mortgage loan application process. Topics include regulatory compliance and documentation; real estate contracts; the mortgage application process, interview techniques; credit, income and property qualification, quality controls and procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1325 - Real Estate Mathematics Credits: 3 (3 lecture). Basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statements.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1329 - Fundamentals of Environmental Issues Credits: 3 (3 lecture). A study of environmental issues affecting the real estate industry including hazardous substances, underground storage tanks, wetlands, radon, asbestos, lead, endangered species protection, sick building syndrome and electromagnetic fields. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1335 - Real Estate Construction
Credits: 3 (3 lecture). A study of the basic principles of design and construction of real estate properties. This course meets part of the educational requirements, as determined by The Texas Real Estate Commission, to become a licensed inspector. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1371 - Loan Processing Credits: 3 ( 3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and processing. Also includes the role of lenders, residential loan appraisals, closing, and funding the loan. This course emphasizes workforce training in the areas of loan processing and originating procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1381 - Cooperative Education - Real Estate Credits: 3 ( 1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Department Approval and RELE 2301; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1391 - Special Topics in Real Estate
Credits: 3 . Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

## RELE 2201 - Law of Agency

Credits: 2 (2 lecture). A study of Law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying representation procedures, and the disclosure of an agency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 2307 - Real Estate Title and Settlement
Credits: 3 (3 lecture). Examines the procedural aspects required to research land titles, establish and administer title closings, escrow, determination of settlement requirements, and filing. In addition, the lender's closing instructions, document review, funding procedures, post closing audit and file set up will be presented. This course emphasizes workforce training in the area of closing and funding procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2311 - Fundamentals of Mortgage Lending Credits: 3 ( 3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and underwriting. Also includes the role of lenders, security instruments, residential loan appraisals, and closing and funding the loan. This course emphasizes workforce training in the areas of loan processing and underwriting procedures as determined by the needs of industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

## RELE 2331-Real Estate Brokerage

Credits: 3 ( 3 lecture). A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2381-Cooperative Education-Real Estate Credits: 3 (1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. The student is required to work a minimum of 20 hours a week and attend a weekly seminar. An approved project and final report is required. Prerequisite: Prerequisite: Department Approval and RELE 1381; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RNSG 1105 - Nursing Skills I Credits: 1 (3 Lab). Study of concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission to the A.D.N program. Corequisite: RNSG 1413, RNSG 1360

RNSG 1144 - Nursing Skills II Credits: 1 (3 Lab). Study of concepts and principles necessary to perform intermediate or advanced nursing skills; and demonstrate competence in the performance of nursing procedures. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213 Corequisite: RNSG 1343, RNSG 2221, RNSG 2130, RNSG 236

RNSG 1160 - Clinical - Registered Nursing/Registered Nurse
Credits: 1. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1161-Clinical Registered Nursing/Registered Nurse Credits: 1. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1163 - Clinical - Registered Nursing/Registered Nurse Credits: 1 (3 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: RNSG 1327, RNSG 1215

RNSG 1201 - Pharmacology
Credits: 2 (2 lecture). Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework.

RNSG 1215 - Health Assessment
Credits: 2. Development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 1251-Care of the Childbearing Family Credits: 2 (2 lecture). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 2201, RNSG 1341, RNSG 2360 Corequisite: 1160, RNSG 2213

RNSG 1327 - Transition to Professional Nursing Credits: 3 (3 lecture). Topics include health promotion, expanded assessment, analysis of data, nursing process, pharmacology, multidisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the life span. Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: Corequisite: RNSG 1163

RNSG 1341 - Common Concepts of Adult Health Credits: 3 ( 3 lecture). Basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of the profession. Study of the common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1360, RNSG 1413 Corequisite: RNSG 2360, RNSG 2201, RNSG 2261

RNSG 1343 - Complex Concepts of Adult Health Credits: 3 (3 lecture). Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession in the care of adult clients/families in structured health care settings with complex medicalsurgical health care needs associated with each body system. Emphasis on knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: RNSG 2213, RNSG 1251 Corequisite: RNSG 2361, RNSG 1144

RNSG 1360 - Clinical - Registered Nursing/Registered Nurse - RNT Foundations
Credits: 3 ( 9 Clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Prerequisite: Admission to the ADN program. Corequisite: Corequisite: RNSG 1115 , RNSG 1413

RNSG 1413 - Foundations for Nursing Practice Credits: 4 (3 lecture, 2 lab). Introduction to the role of the professional nurse as provider of care, coordinator of care, and member of the profession. Topics include but are not limited to the fundamental concepts of nursing practice, History, Civilization, of professional nursing, a systematic framework for decision-making, mechanisms of disease, the needs and problems that nurses help patients manage, and basic psychomotor skills. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: Admission to the ADN program. Corequisite: RNSG 1115, RNSG 1360, BIOL 2402, PSYC 2314

RNSG 2130 - Professional Nursing Review and Licensure Preparation
Credits: 1 (1 lecture). Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes application of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. This course lends itself to either a blocked or integrated approach. Prerequisite: RNSG 2213, RNSG 1251 Corequisite: RNSG 1343 or Department Approval

RNSG 2160 - Clinical-Registered Nursing/Registered Nurse Credits: 1 ( 6 clinical). A health related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG 1341, RNSG 2201, 1413, RNSG 1360 Corequisite: RNSG 2213, RNSG 1251

RNSG 2201 - Care of Children and Families Credits: 2 (2 lecture). Study of concepts related to the provision of nursing care for children and families, emphasizing judgment, and professional values within a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 1105 Corequisite: RNSG 1341, RNSG 2360, RNSG 2261

RNSG 2213 - Mental Health Nursing
Credits: 2 (2 lecture). Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families. Prerequisite: RNSG 2201, RNSG 1341 Corequisite: RNSG 1251, RNSG 2160

RNSG 2221 - Professional Nursing: Leadership and Management
Credits: 2 (2 lecture). Exploration of leadership and management principles applicable to the roles of the professional nurse. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213

RNSG 2261 - Clinical - Registered Nursing/Registered Nurse
Credits: 2 (6 clinical). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, , RNSG 1105 Corequisite: RNSG 2360, RNSG 2201, RNSG 1341

RNSG 2314 - Integrated Care of the Patient with Complex Health Care Needs
Credits: 3. Application of a systematic problem-solving process, critical thinking skills and concepts to provide comprehensive nursing care to patients and families across the lifespan with complex health care needs including, but not limited to, complex childhood/adolescent diseases, complicated perinatal care, acute mental illness, complex perioperative care, serious adult health problems and health issues related to aging. Emphasis on tertiary disease prevention, health maintenance/restoration and collaboration with members of the interdisciplinary health care team. Content includes the roles of the professional nurse and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to an integrated approach. Prerequisite: Integrated Care of the Patient with Common Health Care Needs: 2404, 2504

RNSG 2360 - Clinical - Registered Nursing/Registered Nurse
Credits: 3 ( 9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG413, RNSG 1360 Corequisite: RNSG 1341

RNSG 2361 - Clinical - Registered Nursing/Registered Nurse
Credits: 3 ( 9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG, 1251, RNSG 2213 Corequisite: RNSG 1144, RNSG 1343

RSPT 1201 - Introduction to Respiratory Care Credits: 2 (2 lecture). An introduction to the field of respiratory care. Topics include the History, Civilization, of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Prerequisite: Must be placed into college-level reading, writing and math.

RSPT 1213 - Basic Respiratory Care Pharmacology Credits: 2 (2 lecture). A study of basic pharmacological principles/practices of respiratory care drugs. Emphasis on classification, routes of administration, dosages/calculations, and physiological interaction. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1225

RSPT 1225 - Respiratory Care Sciences
Credits: 2 (2 lecture, 1 lab). Physics, mathematics, and chemistry as related to respiratory care. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1213

RSPT 1240 - Advanced Cardiopulmonary Anatomy and Physiology
Credits: 2 (2 lecture). Provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system. Prerequisite: BIOL 2301 BIOL 2101, BIOL 2302, BIOL 2102; must be placed into college-level reading, writing and math.

RSPT 1262 - Clinical - Respiratory Care Therapy/Therapist Credits: 2 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RSPT 1361, RSPT 1225; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2314

RSPT 1310 - Respiratory Care Procedures I Credits: 3 (2 lecture, 3 lab). Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Content areas include: oxygen therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, pulse oximetry, arterial blood gas sampling and interpretation. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1361

RSPT 1311 - Respiratory Care Procedures II
Credits: 3 (2 lecture, 3 lab). Provides essential knowledge of airway care and mechanical ventilation. Airway care includes indications, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Prerequisite: RSPT 1361, RSPT 1310; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1362

RSPT 1360 - Clinical - Respiratory Care Therapy / Therapist Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1201 Corequisite: Corequisite: RSPT 1310

RSPT 1361 - Clinical - Respiratory Care Therapy / Therapist Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: RSPT 1310

RSPT 2210 - Cardiopulmonary Disease Credits: 2 (2 lecture). A discussion of pathogenesis, pathology, diagnosis, History, Civilization, prognosis, manifestation, treatment, and detection of cardiopulmonary diseases. Prerequisite: RSPT 1240; RSPT 2361; must be placed into college-level reading, writing and math.

RSPT 2230 - Respiratory Care Examination Preparation Credits: 2 ( 1 lecture, 4 lab). Theory and History, Civilization, of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination respiratory care. Prerequisite: RSPT 2325 Corequisite: RSPT 2262

RSPT 2239 - Advanced Cardiac Life Support Credits: 2 ( 1 lecture, 2 lab). Advanced Cardiac Life Support (ACLS) with an emphasis on airway management. Designed to develop skills for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May inclưde certification. Prerequisite: RSPT 2317, RSPT 2325, RSPT 2255, RSPT 2258; must be placed into college-level reading, writing and math.

RSPT 2255 - Critical Care Monitoring Credits: 2 (2 lecture). Advanced monitoring techniques used to assess a patient in the critical care setting. Prerequisite: RSPT 2260; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2266

RSPT 2258 - Respiratory Care Patient Ässessment Credits: 2 (2 lecture). Integration of patient examination techniques, including patient History, Civilization, and physical exam, lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and noninvasive hemodynamics. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math.

RSPT 2262 - Clinical - Respiratory Care Therapy/Therapist Credits: 2 ( 8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2362 Corequisite: RSPT 2230

RSPT 2314 - Mechanical Ventilation
Credits: 3 (3 lecture, 1 lab). The study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Includes indications, complications, and physiologic effects/principles of mechanical ventilation. Emphasizes initiation, management, and weaning of ventilatory support. Prerequisite: RSPT 1213 Corequisite: Corequisite: RSPT 1262

RSPT 2325 - Cardiopulmonary Diagnostics Credits: 3 (3 lecture). A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patiênt. Prerequisite: RSPT 2255, RSPT 2310; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2233

RSPT 2353 - Neonatal/Pediatric Cardiopulmonary Care Credits: 3 ( 3 lecture). A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2267

RSPT 2361 - Clinical - Respiratory Care Therapy/Therapist Credits: 3 ( 16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1262 Corequisite: Corequisite: RSPT 2255

RSPT 2362 - Clinical-Respiratory Care Therapy/Therapist Credits: 3 ( 16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2361; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2353

RSTO 1301 - Beverage Management
Credits: 3. A study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods.

RSTO 1325 - Purchasing for Hospitality Operations Credits: 3. Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls and record keeping at each stage of the purchasing cycle.

RSTO 2301 - Principles of Food and Beverage Controls Credits: 3 (3 lecture). A study of financial principle and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and internal and regulatory reporting procedures.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RTVB 1240 - Audio/Radio Production Practices Credits: 2 ( 1 lecture, 3 lab). Introduces through practical hands-on experience the equipment and procedures used in multitrack recording. Includes basic tracking, simple overdubs and operation of specific recording equipment commonly found in audio facilities, mixing, and equalization. Prerequisite: MUSC 1427, MUSC 1331; must be placed into GUST 0342, ENGL 0310 or 0349 and MATH 0308 in math. Corequisite: Corequisite: MUSC 2427

## RTVB 1309 - Audio/Radio Production I

 Credits: 3 (2 lecture, 4 lab). Concepts and techniques of sound production including basic recording, mixing, and editing techniques. Prerequisite: Must be placed into college-level reading, writing and math.RTVB 1321 - TV/Video Field Production Credits: 3 (2 lecture, 4 lab). Video field camera set up and operation for broadcast and digital media. Incorporates basic editing and field audio techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 1329 - Scriptwriting
Credits: 3 (2 lecture, 4 lab). Writing scripts for film and electronic media. Emphasizes format and style for commercials, publie service announcements, promos, news, and documentaries. Prerequisite: Prerequisite: ENGL 1301

RTVB 2164 - Practicum (or Field Experience) - Radio and Television
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: FLMC 1304, FLMC 2333, FLMC 2344

RTVB 2232 - Audio/Radio Production Practices II Credits: 2 ( 1 lecture, 3 lab). Topics include special effects, automated overdubbing, operation of specific recording equipment commonly found in large format multi-track audio facilities, mixing, and equalization. Complete one recording project using the lab time and facilities Prerequisite: MUSC 2427, MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: Corequisite: MUSC 2447

RTVB 2282 - Cooperative Education - Radío and Television Brôadcasting Technology/Technician
Credits: 2 ( 1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: MUSC 2447; must be placed into college-level reading, writing and math.

RTVB 2330 - Film and Video Editing
Credits: 3 (2 lecture, 4 lab). Film and broadcast editing for the preparation and completion of shorts, trailers, documentaries, and features. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 2337 - TV/Video Production Workshop I
Credits: 3 (2 lecture, 4 lab). Application and design of video productions in location or studio shoots with real deadlines and quality control restrictions. Prerequisite: Must be placed into college-level reading, writing and math.

RTVB 2343-Commercial Recording Techniques Credits: 3 (2 lecture, 4 lab). Student will operate audio production and editing equipment, coordinate and direct music production projects from booking to postproduction, and characterize the music industry and surrounding labor market. This class provides a capstone experience during which the student will use all of the skills acquired throughout this program. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2447; must be placed into collegelevel reading, writing and math.

RTVB 2386 - Internship - Radio and Television Broadcasting Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: RTVB 1317 and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SCIT 1320 - Physics for Allied Health
Credits: 2 (2 lecture, 2 lab). An introduction to physics with emphasis on applications to health related fields of study. Topics include forces, motion, work and energy, fluids, heat, electricity and magnetism, wave motion, sound, electromagnetic radiation, and nuclear radiation. Prerequisite: Must be placed into college-level reading, writing and math.

SCIT 1407 - Applied Human Anatomy and Physiology I Credits: 4 (4 lecture, 1 lab). An applied systematic study of the structure and function of the human body designed for students considering a career in the health field. Includes anatomical terminology, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and endocrine. Emphasis on homeostasis. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1408 - Applied Human Anatomy and Physiology II Credits: 4 (4 lecture, 1 lab). A continuation of Applied Human Anatomy and Physiology I designed for students considering a career in the health field. The following body systems are included: digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Emphasis is on homeostasis. Prerequisite: SCIT 1407; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1414 - Applied General Chemistry I Credits: 4 (3 lecture, 3 lab). Applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. Addresses supporting chemical theories including atomic and molecular structure, nomenclature, chemical reactivity, g'as laws, acids and bases, and solutions. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1418 - Applied Physics
Credits: 4 (3 lecture, 3 lab). Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics. Prerequisite: MATH 1314 or Department Approval; must be placed into college-level reading, writing and math.

SCWK 1321 - Orientation to Social Services
Credits: 3 ( 3 lecture). Introduction to the basic concepts, information, and practices within the field of social services. Topics include a survey of the historical development of social services; social, legal, and clinical definitions; and review of current information regarding indications for and methods of treatment and/or services. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SGNL 1401 - Beginning American Sign Language I
Credits: 4 ( 3 lecture, 2 lab ). An introduction to the basic skills in production and comprehension of American Sign Language (ASL). Includes the manual alphabet and numbers. Develops conversational ability, culturally appropriate behaviors, and exposes students to ASL grammar. Student must complete the course with a B or better. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SGNL 1402 - Beginning American Sign Language II Credits: 4 (3 lecture, 2 lab). Develops receptive and expressive ability and allows recognition and demonstration of more sophisticated grammatical features of American Sign Language (ASL). Increases fluency and aecuracy in fingerspelling and numbers. Provides opportunities for interaction within the deaf community. Student must complete the course with a B or better. Prerequisite: Prerequisite: SLNG 1307, SLNG 1311, SGNL 1401; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SGNL 2301 - Intermediate American Sign Language I Credits: 3 (2 lecture, 2 lab). Integrates and refines expressive and receptive skills in American Sign Language (ASL), including recognition of sociolinguistic variation. A practice oriented approach to language acquisition. Student must complete the course with a B or better. Prerequisite: Prerequisite: SLNG 1311, SGNL 1401, SGNL 1402; must be placed into college-level reading, collegelevel writing and MATH 0312 in math.

SGNL 2302 - Intermediate American Sign Language II (4 ${ }^{\text {th }}$ semester ASL)
Credits: 3 (2 lecture, 2 lab). An integration of expressive and receptive skills in American Sign Language (ASL) with emphasis on grammar, linguistics, literature, and discourse styles at an intermediate level. Provides students with information on linguistic and cultural variations. Prerequisite: Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SLNG 1311; must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

SLNG 1166 Practicum (or Field Experience) - Sign Language Interpretation and Translation Credits: 1. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.
As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

SLNG 1207 Intra-lingual Skills Development for Interpreters
Credits: 2 (2 lecture, 1 lab). Development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistic and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multitasking, vocabulary, and cultural literacy.

SLNG 1211 Fingerspelling \& Numbers Credits: 2 (2 lecture, 1 lab) Development of expressive and receptive skills in fingerspelling and numbers. Receptive skills focus on whole word phrase recognition and fingerspelling/number comprehension in context Expressive skills focus on the deyelopment of speed, clarity, and fluency.
Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1248 - Vocabulary Development for Interpreters Credits: 2 ( 1 lecture, 3 lab). A course in vocabulary building in English and American Sign Language for interpreters. Prerequisite: Must be placed into collegelevel reading, college-level writing and MATH 0312 in math.

SLNG 1317- Introduction to the Deaf Community Credits: 3 (3 lecture). An overview of the physical, educational, social, and cultural implications within the context of a deaf or hard-of-hearing individual's personal life, family, and community in today's multicultural world. Emphasis on current educational and vocational programs, legislation, technology, oppression, and other issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1321 - Introduction to the Interpreting Profession Credits: 3 (3 lecture). An overview of the field of sign language interpretation. Provides a historical framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1350-Sign-To-Voice Credits: 3 (2 lecture, 2 lab). Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peetr evaluation.

SLNG 2266 Practicum (or Field Experience)- Sign Language Interpretation and Translation Credits: 2. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

SLNG 2301 - Interpreting I
Credits: 3 (2 lecture, 4 lab). An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2302 - Interpreting II
Credits: 3 (2 lecture, 4 lab). Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, SLNG 1321, SLNG 2401; Department Approval. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2315 - Interpreting in Educational Settings Credits: 3 (2 lecture, 2 lab). Overview of education programs ( K -12 and post secondary), focusing on the roles and skills of the interpreter as a member of the educational team. Includes current practices, communication methods, legislation, trends, and ethical issues. Introduces resources for content-specific vocabulary Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2331 - Interpreting III
Credits: 3 (2 Lecture, 4 lab). A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, 1311, SLNG 1321, SLNG 2401, SLNG 2402; Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2371-Specialized Signs
Credits: 3 (2 lecture, 2 lab). This course focuses on specialized sign language interpreting settings from source language into a target language of American Sign Language and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 2301. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SOCI 1301 - Introduction to Sociology Credits: 3 ( 3 lecture). A survey course which focuses on the nature of human groups in American and world societies, their social and cultural adaptations, and the impact which various social processes may have on their social organization and social change. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOC11306-Social Problems
Credits: 3 ( 3 lecture). An inquiry into selected current social problems with specific reference to their original development, and suggested solutions. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2301 - Marriage \& the Family
Credits: 3 (3 lecture). This course is a sociological analysis of marriage and family relations based on fundamental principles in the discipline. Both theory and current research findings are covered. Areas explored include family dynamics, interpersonal relations, demographic trends, and conflict management. Current and classical research is reviewed and applied. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2319-Minority Studies
Credits: 3 (3 lecture). An in depth theoretical and practical Sociological analysis that examines historical and contemporary minority issues, including race and ethnicity, using historical and modern demographic data such as life span, birth rates, marriage patterns, business ownership, educational attainment, migration data, and assimilation/pluralism patterns as well as the impact of economic and social globalization on minorities in the United States and the world. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

## SOCI 2336 - Criminology

Credits: 3 (3 lecture). An analysis of the social dimensions of crime as a form of deviant behavior; the nature and extent of crime; classic and modern theories; the role of the police and the courts, group and community oriented programs, with an evaluation of prevention, control, and treatment programs. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPAN 1411 - Beginning Spanish I
Credits: 4 (3 lecture, 2 lab). Introduction to the Spanish language and Hispanic culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 1412 - Beginning Spanish II
Credits: 4 (3 lecture, 2 lab). Continuation of SPAN 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Prerequisite: SPAN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Spanish within the last two years; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2311 - Intermediate Spanish I
Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning Spanish. Presentation of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in Spanish. Prerequisite: Prerequisite: SPAN 1412 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2312 - Intermediate Spanish II Credits: 3 (3 lecture). Continuation of SPAN 2311. Special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in Spanish. Prerequisite: Prerequisite: SPAN 2311 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2313 - Spanish for Native/Heritage Speakers I Credits: 3 (3 lecture). Designed for Hispanic-American and other students from a Spanish speaking background. Emphasis on basic skills in reading, spelling, and composition. Credit will not be given for both SPAN 2313 and SPAN 2311. Prerequisite: Prerequisite: test placement; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2315 - Spanish for Native/Heritage Speakers II Credits: 3 (3 lecture). Continuation of SPAN 2313. Continued development of reading and writing skills and control of universal Spanish style. Prerequisite:
Prerequisite: SPAN 2313; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPCH 1311 - Introduction to Speech Communication Credits: 3 ( 3 lecture). A survey course in the basic principles of oral communication. Includes the study of the use of the body and voice, the speaker-listener relationship, and preparation and delivery of platform speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

## SPCH 1315 - Public Speaking

Credits: 3 (3 lecture). Designed to develop proficiency in public speaking situations, emphasis on content, organization, and delivery of speeches for various occasions. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: SPCH 1311 or ENGL 1301 or Department Approval.

SPCH 1318 - Interpersonal Communication Credits: 3 ( 3 lecture). A course designed to improve the student's effectiveness in small-group and one-to-one communication. Opento all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 1321 - Business and Professional Communication Credits: 3 ( 3 lecture). Applies the techniques of oral communication to situations most common to business and professional people. Covers discussion methods, conference techniques, committee reports, instructions, lectures, and public speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 1342 - Voice and Diction
Credits: 3 ( 3 lecture). Training in the effective use of the voice and body. Includes study of the vocal mechanism and the phonetic alphabet; improvement of enunciation, pronunciation, and articulation. Recommended for nonnative speakers. Open to all students. Required for speech majors. Prerequisite: Must be placed into collegelevel reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 2333 - Discussion and Small Group Communication Credits: 3 (3 lecture). Examines the dynamics of small group communication and discussion situations, including body language. Open to all students, required of majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 2335 - Argumentation and Debate Credits: 3 (3 lecture). Study of principles of argumentation and debate. Practice in preparing written and spoken arguments. Open to all students. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 2341 - Oral Interpretation
Credits: 3 (3 lecture). Cultivation of the art of oral presentation of literary forms, analysis of thought, development of imagination, communication of emotional values, and individual projects in interpretive reading. Open to all students. Required for speech majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPNL 1291 - Special Topics in Spanish Language and Literature
Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SRGT 1361 - Clinical - Surgical Technology / Technologist Credits: 3 ( 9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1371 - Sterile Processing
Credits: 3 (2 lecture, 2 lab). In-depth coverage of specialized surgical modalities in endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1372 - Comprehensive Anatomy and Physiology for the Surgical Technologist
Credits: 3 (3 lecture). Comprehensive study of the structure and function of human cells, tissues, and organ systems including integumentary, skeletal, muscular, and nervous system, endocrine, digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Fast-paced online course designed for the surgical technologist. Prerequisite: Department Approval; Admission to the program. Must be placed into GUST 0342 n reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1405 - Introduction to Surgical Technology Credits: 4 (3 lecture, 3 lab). Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts.
Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1409 - Fundamentals of Perioperative Concepts and Techniques
Credits: 4 (3 lecture, 3 lab). In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field.
Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1441 - Surgical Procedures I
Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1405, SRGT 1409; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1442 - Surgical Procedures II
Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: Prerequisite: SRGT 1441; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1463 - Clinical -Surgical Technology / Technologist Credits: 4 (24 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: SRGT 1361; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1560 - Clinical - Surgical Technology / Technologist Credits: 5 (25 external hours). A health-related workbased learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

SRGT 2130 - Professional Readiness Credits: 1 (1 lecture, 1 lab). Transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status. A capstone experience may be included.

SRGT 2463-Clinical-Surgical Technology / Technologist Credits: 4(17 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Prerequisite: SRGT 1463; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRVY 1301 - Introduction to Surveying
Credits: 3 (2 lecture, 4 lab). An overview of the surveying profession. The History, Civilization, of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

## SRVY 1341 - Land Surveying

Credits: 3 (2 lecture, 4 lab). A study of the measurement and determination of boundaries, areas, shapes, location through traversing techniques. Instruction in a yariety of adjustment methods using programmed and nonprogrammed hand-held calculators and computers. Methods of traversing and adjustment of errors according to prevailing and applicable professional standards. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRVY 2348 - Plane Surveying
Credits: 3 (2 lecture, 4 lab). Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH0308 in math.

TECA 1303 - Families, School, \& Community Credits: 3 ( 3 lecture). A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. The course includes a minimum of 16 hours of field experiences Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1311 - Educating Young Children Credits: 3 (3 lecture). An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the national Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into collegelevel reading and college-level writing.

TECA 1318 - Wellness of the Young Child Credits: 3 (2 lecture, 3 lab). A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Boarc for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1354 - Child Growth and Development Credits: 3 (3 lecture). A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence. (Cross-listed with PSYC 2308) Prerequisite: Must be placed into college-level reading and college-level writing.

TECM 1301 - Industrial Mathematics
Credits: 3 ( 3 lecture). Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion
applications. Prerequisite: Must be placed into GUST 0339
in reading, ENGL 0300 or 0347 in writing and MATH 0306
in math.

TECM 1303 - Technical Calculations
Credits: 3. Specific mathematical calculations required by business, industry, and health occupations.

TRAI 1271 - Technology for Translation \& Interpretation Credits: Credit 2 ( 1 lecture, 2 lab). This course is an introduction to the equipment and electronic tools used by professional translators and interpreters throughout their workflow. Prerequisite: Must be placed into collegelevel reading and college-level writing.

TRAI 1272 - Terminology Management and Research Credits: 2 ( 1 lecture, 2 lab). Basic terminology in the fields of medicine, law, computers, business, and technical fields will be covered. Students will learn how to ensure accuracy for highly specialized fields for which
terminology may not yet be available. Different tools and techniques to find, store, and manage search results will be discussed. Prerequisite: TRAI 1371; Must be placed into college-level reading and college-level writing.

TRAI 1371 - Fundamentals of the Theory \& Practice of Translation \& Interpretation
Credits: 3 ( 3 lecture). This course, taught in English, is an introduction to translation into English and target language. Its goal is to teach students the basic principles of the theory of translation, the linguistic and cultural aspects of language transfer, the main techniques and strategies for translating and interpreting as well as the differences between English and target language regarding grammar, syntax, punctuation, and style. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1372 - Writing, Editing \& Revising for Translation Credits: 3 ( 3 lecture). This course is designed for translators, editors and writers of business and other specialized and technical documents. Learning activities focus on requirements for the production of final English drafts of good quality. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1373- Intercultural Communication Credits: 3 (3 lecture). This course focuses on important issues of global, national, regional and gender identities seen through the prism of translation activity. It scrutinizes the linguistic and cultural resources employed by translators to assimilate, channel, exploit, and localize discourses and voices in their respective environments. The focus will be on such areas as business, medical and legal areas as well as technical environments.
Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1374 Introduction to General Linguistics Credits: 3 ( 3 lecture). This course will familiarize students with the fundamental features and nature of human language, its structure, development, and its place in the society. It also introduces linguistics as a science, its history and methodology.

TRAI 2271 - Fundamentals of Specialized Written Translation (Sci-Tech)
Credits: 2 ( 1 lecture, 2 lab). This course focuses on translation of scientific and technical texts from source language (Spanish//Chinese/Russian/French) into the English language and vice versa, presenting linguistic and cultural issues affecting meaning transfer from one language to another. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2272 - Introduction to Interpreting II (Medical) Credits: 2. This course focuses on interpretation of medical content, including sight translation, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2273 - Introduction to Interpreting III (Simultaneous) Credits: 2 ( 1 lecture, 2 lab). This course focuses on techniques and skills required for simultaneous interpretation including organizing and comprehending messages simultaneously, prediction skills, bilingual proficiency and multiculturalism, concentration, retention, and décalage. Students will practice this mode using scripts based on various scenarios Prerequisite: Must be placed into college-level reading and collegelevel writing.

TRAI 2275 - Advanced Project in Translation Credits: 2 ( 1 lecture, 3 lab). Students will conduct a translation project demonstrating their ability to apply all the skills and tools taught in the Program. Prerequisite: Must be placed into college-level reading and collegelevel writing.

TRAI 2277 - Fundamentals of Specialized Written Translation (Legal)
Credits: 2. This course focuses on translation of legal texts from English into a target language (Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2278 - Fundamentals of Specialized Written Translation (Medical)
Credits:2. This course focuses on translation of medical texts from English into a target language
(Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2279 - Introduction to Interpreting I (Legal) Credits: 2. This course focuses on interpretation of legal content, including court interpreting, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc.) and vice versa, presenting linguistic, cultural, and subject- related issues affecting meaning transfer from one language to another.

TRAI 2375 Localization and Audiovisual Translation Credits: 3 (2 lecture, 2 lab). In this course, students will learn how to translate and localize written texts, websites, software, mobile apps. and games. They will pay special attention to the cultural adaptation of content. They will also learn how to transcribe audio/video content and to transcribe audio/video content. Suggested Prerequisite (if any): TRAI 1371,1372, 2271

TRAI 2376 - Internship - Translation \& Interpretation Credits: 3 ( 9 lab). Practical, general workplace training supported by an individualized learning plan developed jointly by the internship site supervisor, college and student. This will serve as the capstone course for the award. Prerequisite: Must be placed into college-level reading and college-level writing.

VNSG 1122 - Vocational Nursing Concepts Credits: 1 (1 lecture). Introduction to the nursing profession and its responsibilities. Includes legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1161 - Clinical - Licensed Practical / Vocational Nursing Training
Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1423

VNSG 1162 - Clinical - Licensed Practical / Vocational Nursing Training
Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1330

VNSG 1163 - Clinical - Licensed Practical / Vocational Nursing Training Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1162; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1334

VNSG 1216 - Nutrition
Credits: 2 (2 lecture). Introduction to nutrients and the role of diet therapy in growth and development and in the maintenance of health. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1219 - Leadership and Professional Development Credits: 2 (2 lecture). Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Prerequisite: VNSG 1122; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1227 - Essentials of Medication Administration Credits: 2 (2 lecture, 1 lab). General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1238 - Mental Illness Credits: 2 (2 lecture). Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. Prerequisite: VNSG 1400; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

VNSG 1266 - Practicum (or Field Experience) - Licensed Practical / Vocational Nurse Training
Credits: 2 ( 15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1409 and VNSG 2331

VNSG 1267 - Practicum (or Field Experience) - Licensed Practical / Vocational Nurse Training Credits: 2 ( 16 lab ). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1266; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1410

VNSG 1320 - Anatomy and Physiology for Allied Health Credits: 3 (3 lecture). Introduction to the normal structure and function of the body including an understanding of the relationship of body systems in maintaining homeostasis. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1330-Maternal - Neonatal Nursing
Credits: 3 (3 lecture). Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Prerequisite: VNSG 1400; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1162

VNSG 1334 - Pediatrics
Credits: 3 (3 lecture). Study of childhood diseases and childcare from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1163

VNSG 1400 - Nursing in Health and Illness I Credits: 4 (4 lecture). Introduction to general principles of growth and development, primary health care needs of the client across the life span, and therapeutic nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1409 - Nursing in Health and Illness II Credits: 4 (4 lecture). Introduction to common health problems requiring medical and surgical interventions. Prerequisite: VNSG 1400; must be placed into collegelevel reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1266

VNSG 1423 - Basic Nursing Skills
Credits: 4 (3 lecture, 4 lab). Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1161

VNSG 2331 - Advanced Nursing Skills
Credits: 4 (2 lecture, 4 lab). Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1266

VNSG 2410 - Nursing in Health and Illness III Credits: 4 (4 lecture). Continuation of Nursing in Health and IIlness II. Further study of common medical-surgical health problems of the client including concepts of mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse. Prerequisite: VNSG 1409; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1267

WLDG 1191 - Special Topics in Welder/Welding Technologist
Credits: 1 ( 1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 1407 - Introduction to Welding Using Multiple Processes Credits: 4 (2 lecture, 4 lab). Basic welding processes. Includes oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). Prerequisite: Prerequisites/Corequisites: TECM 1301, WLDG 1313 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1413 - Introduction to Blueprint Reading for Welders
Credits: 3 (3 lecture). A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1428 - Introduction to Shielded Metal Arc Welding (SMAW)
Credits: 4. An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs.

WLDG 1430 - Introduction to Gas Metal Arc Welding (GMAW)
Credits: 4 ( 2 lecture, 4 lab). A study of the principles of gas metal arc welding; setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Prerequisite: Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 7434 - Introduction to Gas Tungsten Arc (GTAW) Welding
Credits: 4 (2 lecture, 4 lab). An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs.
Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1435 - Introduction to Pipe Welding
Credits: 4 (2 lecture, 4 lab ). Introduction to the welding of pipe using the shielded-metal arc welding process, including electrodes selection, equipment setup, and safe shop practices. Emphasis on weld position 1G and 2G using various electrodes.
Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1457 - Intermediate Shielded Metal Arc Welding (SMAW)
Credits: 4. A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.

WLDG 2413 Intermediate Welding Using Multiple Processes
Credits: 4. Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW).

WLDG 2447 - Advanced Gas Metal Arc Welding (GMAW) Credits: 4 (2 lecture, 4 lab). Advanced topics in GMAW welding, including welding in various positions and directions. Prerequisite: WLDG 1430; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2451 - Advanced Gas Tungsten Arc Welding (GTAW)
Credits: 4 (2 lecture, 4 lab). Advanced topics in GTAW welding, including welding in various positions and directions. Prerequisite: WLDG 1434; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2453 - Advanced Pipe Welding Credits: 4 (2 lecture, 4 lab). Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes Prerequisite: WLDG 1435; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

## Welcome

The Houston Community College School of Continuing Education faculty and staff are committed to providing outstanding instruction and services to our community in areas such as: business, languages, industrial technology \& energy, information technology, construction, manufacturing, transportation, public safety, and health.. We are proud of the expertise our faculty bring to the classroom. Whether changing careers or updating your skills, the School of Continuing Education can help you achieve your goals.

Continuing Education Hot line - 713.718.5303
Central College - 713.718.6156
Monday - Friday, 8 a.m. - 5 p.m.
South Campus - 713.718.5334
Monday - Thursday, 9 a.m. - 4 p.m.
Coleman College for Health Sciences - 713-718-7400
Monday - Friday, 8:30 a.m.- 4:30 p.m.
Northeast College - 713.718. 5480
Monday - Friday, 8 a.m. - 4:30 p.m.
Financial Aid
opportunities for
Continuing Education
HCC believes that all students should have access to college.

## Financial Aid Opportunities for Continuing Education

Houston Cominunity College believes that all students should have access to college. HCC currently has two grants for Continuing Education

## Northwest College

Hayes Road - 713.718.6769
Monday-Thursday, 9:00-1:00 p.m.
Katy Campus - 713.718.5722
Monday-Thursday, 8 a.m.-7 p.m.
Friday, 8 a.m. -1 p.m.
Alief-Bissonnet Campus - 713.718.8932
Monday - Friday, 10 a.m. - 5 p.m.
Spring Branch Campus - 713.718.5823
Monday-Thursday, 8 a.m.-5 p.m.
Friday, 8a.m.-1 p.m.
Southeast College - 713.718.7633 Monday - Thursday, 8 a.m. -6 p.m. Friday, 8 a.m. - 2 p.m

Southwest College
Brays Oaks - 713.718.8600
Monday-Thursday, 8:00 am -7:00 pm programs, which include the Accelerate Texas and the Texas Public Educational Grant. We currently offer financial aid in the following continuing education areas: Business, Construction, Health, Information Technology, Industrial Technology, and Transportation.

Accelerate Texas for the School of Continuing Education
Texas Public Education Grant (TPEG) Workforce HCC Foundation Workforce Scholarships

## Visit our website to get the most current information

### 713.718.8905

 finaid.ce@hccs.edu
## Online Continuing Education



WestLoop-713-718-7868
Monday Friday, 8 a.m. - 8 p.m.
Saturday, 8 a.m. - 12 p.m.
Gulfton-713.718.7720
Monday - Thursday, 8 a.m. -7 p.m.
Friday, 8 a.m. - 1:30 p.m.
(SYS/Online) 713.718.5149
Monday - Friday, 8 a.m. - 5 p.m.
Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. As stated in Board Policy FA (Local), HCC does not discriminate and prohibits discrimination on the basis of race, color, religion, gender identity and gender expression, national origin, age, disability, sex, sexual orientation, or Veteran status in employment or the rights, privileges, programs, and activities generally accorded or made available to students at the school, administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school administered programs. The following person has been designated to handle inquiries regarding the nondiscrimination policies: David Cross, Director, EEO, 504, \& Title IX Coordinator, 3100 Main Street, Houston, TX 77002, 713.718.8271 or Institutional.Equity@hccs.edu.

## Business and Professional Enrichment

Business and Professional Enrichment at the School of Continuing Education is at the forefront of providing business professional development. Whether you are an executive or a person seeking a career change, we offer an array of exciting and innovative programs that provide opportunities for career advancement, career change, personal enrichment, and skills building to help you compete in our global

For More Information
5601 West Loop South
Houston, TX 77081
Phone: 713.718.2921


Total hours - 144
 the professional skills for buman resource professionals, managers, and business owners.

Total hours - 40 Total cost - \$950

## Apartment Leasing and Management

This area of study provides training for individuals interested in residential apartment leasing.

Total cost - \$1,260

## Child Development

This is a study of the principles of cognitive, physical, emotional and social development of children from birth through age five TPEG Eligible



Have questions? See our FAQs page.

## Go to: hces.edu/ce (A to Z)

## Business and Professional Enrichment



Total hours - 48

## QuickBooks

QuickBooks is a software solution designed to manage payroll, inventory, sales and other business needs.


## PMP/CAPM Exam Prep

This course assist students in preparation for the Certified Associate in Project Management and Project Management Professional. The course covers all the material included on the CAPM or PMP exams.

For More Information
Phone: 713.718.7947
Total hours - 35 Total cost - \$644

## PHR/SPHR Exam Prep

This course is designed to prepare individuals for the Professional Human Resource/ Senior Professional Human Resource (PHR/SPHR) certification exam.

## Total hours - 32 Total cost - \$512

## Go to: hccs.edu/ce (A to Z)



These two seven hour courses provide the student with the basics of forklift operations and hands-on training. Upon successfully completion of the series, Students will receive a certificate of completion from Houston Community College.

## Part I: Forklift Operation Theory

Forklift design, controls, instrumentation, forklift stability, pre-shift inspections. Safe operation of the equipment and working in fastpaced logistics operations are taught throughout the course.

## Part II: Forklift Operator Application

Hands on training lab in the operation of forklifts, freight hand pallets and hand dollies, maintenance, safety and repairs.

Prerequisite: Forklift Operation Theory

## Logistics Series - Coming Soon!

This series of two courses provide Manufacturing Skill Standards for the national MSSC certifications. These are industry led nationally validated skills standards. The assessment for certification will be at the conclusion of the course.

## Part I: Certified Logistics Associate (CLA)

Understanding the life cycle of global chain logistics, the logistics environment and familiarization with different material handling equipment, introduction to safety principles and safe equipment handling, quality control principles, workplace communications, teamwork and problem solving.

## Part II: Certified Logistics Technician (CLT)

Focuses on product receiving, storage order processing, packaging and shipment, inventory control, evaluation of transportation modes and dispatch and tracking.

## CE Manufacturing

Continuing Education Advanced Manufacturing has a new Fabrication Lab for students, engineers, and the general public to learn how to create objects using the standard and most recent digital tools, including 3D printers.

While we do not allow commercial production, we do offer the use of our lab for prototype work as well as for student use. It is a place to invent, learn, and use your creativity. Manufactures, users, and any interested person may visit our labs to observe the 3D Printers and other equipment used in the Manufacturing industry. We also have many other machining and manufacturing courses available.
For more information, contact us:
713.718.2183
HCC Southwest Manufacturing Building 13622 Stafford Road, Room E120.10 Stafford, Texas 77477

## Community Education

Community Education is a selection of not-for-credit courses that offer personal enrichment and professional development for learners of varying ages.
These offerings may be delivered as a series of classes, stand-alone workshops, seminars, summer camps and other experiences open to the community.

We support you and your family by allowing you try out


## Construction Trades

Design it, build it and maintain it. You can do it all in the field of Construction Trades. The School of Continuing Education offers a wide array of entrylevel construction and skilled trades classes to support the growing need for electricians, air conditioning technicians and plumbers. Our classes are a perfect fit for those wanting to enter the construction industry, as well as for those who wish to improve their job skills.

Total hours - 160


## AutoCAD I \& II

This training is designed to provide basic and general knowledge of various types of AutoCAD software usage. The hands-on computer-based activity teaches the fundamental techniques, tips and shortcuts for 2D to 3D drawings useful for individuals as beginner to intermediate CAD Operator. The knowledge acquired can be helpful if individual is interested in taking the Autodesk AutoCAD

Certified Users exam.


Air Conditioning Technician I \& II

The Air Conditioning Technician certificate is designed to build expertise in the installation, repair, and maintenance of residential climate control systems. The certificate provides students with the theory, hands-on learning and work experience they need to excel in the HVAC field. Students learn field terminology in English to facilitate professional and technical growth. This course prepares students for EPA certification.

Total cost - \$1,022

For More Information
13803 Bissonnet
Houston, TX 77083
Phone: 713.718.8932

## Electrical Technician I \& II (English and Spanish)

This certificate is designed for students who are pursuing a career as a residential/ low voltage 0-480 electrician. Completion of the program results in a working knowledge of electrical theory, terminology and electrical systems.

Total cost - \$1,128

## Construction Trades



Electrical Technician III
The Electrical Technician III courses are designed to produce trained and skilled persons ready for full-time employment as technicians, who can function as installation and maintenance persons. Learn about practical applications, including braking, plugging, safety interlocks, wiring and schematic diagrams.

## Pre-Requisite: Electrical Technician / \&ll Total hours - 80 Total cost - \$564

## Electrical Technician IV

This intermediate level course covers fundamental concepts of programmable logic controllers, identify and describe dígital logic circuits, principles of operation, and numbering systems as applied to electrical controls.

Pre-Requisite: Electrical Technician III Total hours - 80 Total cost - $\$ 775$


## Plumbing Trade

Plumbing Trade (Rlumbing I), Piping Standards and Materials (Plumbing II). Start a career in the plumbing industry. Get acquainted with the basic knowledge and skill set in plumbing terminology, tools, plumbing math, and understanding all materials related to plumbing and theiruse, necessary for a beginner in the Plumbing trade.

## Stationary Engineering Exam Prep

This course prepares individuals for the City of Houston Boiler Operator Licensure Examination. The Stationary Engineering is an exam prep review course for safe installation, operation and maintenance procedures for boilers, as well as to introduce techniques used to analyze, troubleshoot, evaluate and diagnose instrumentation used to monitor boiler operations.

Total hours - 80 Total cost - \$368

## Go to: hccs.edu/ce (A to Z)



NEW!
Train To Be A
Carpenter

## Introduction to

## Basic Carpentry

An introductory course to the carpentry trade including safety, tools, equipment, terminology, and methods. Knowledge and skills required to erect wood frame structures with emphasis on layout and construction of floors, walls, and roofs. The course includes safety procedures for using hand and power tools and structural materials.

Total hours - 172 Total cost - \$1,878


Go to: hecs.edu/ce (A to Z)

## Affernative T'eacher Cerifilcation

Program

## Now is the right time and HCC is the right place

- Courses taught by credentialed instructors
- Small classes
- Scholarship and/or Financial


## Assistance Available

- Program can be completed in one year


## Go to: hccs.edu/acp

 and apply for the Program - See our FAQs
## Health

Our continuing education health career programs offer you a variety of options and experiences. For example, if you desire a career with direct patient care experience, you might consider the Certified Nurse Aide program. Or, if you gravitate toward analytical study and direct patient contact, you might prefer the Phlebotomy and/or Electrocardiography programs. For those who prefer a business or office environment, but still want to be a part of the health care field, we recommend Health Information Technology. This field combines the knowledge of anatomy and physiology, and medical processes/procedures/regulations with business skills such as data processing, computer software applications, and customer service.

For More Information 6815 Rustic St.
Workforce Bldg, RM 205
Houston, TX 77087
Phone: 713.718.7583/7633


TPEG Eligible


TPEG Eligible

## EKG Technician

EKG technicians are trained to record and monitor the heart's electrical activity, recognize and evaluate heart rhythms, and perform stress testing.
The certificate prepares you to take the licensure/certification exam.


Total cost - \$1,706

## Medical Business Office Professional

The Medical Business Office Professional program prepares you to work in the business office of a health care facility. General topics include: medical terminology, patient scheduling, insurance verification, medical records, collections, accounts payable,
financial reporting, and medical billing.

## Total hours - 176 Total cost - \$1,200

## Go to: hccs.edu/ce (A to Z)

Health


TPEG Eligible

Patient Care Technician

The Patient Care Techniciancertificate is designed to help prepare you for employment as a crosstrained Certified Nurse Aide (CNA), known as a Patient Care Technician (PCT). This certificate combines CNA and Phlebotomy Technician certificates with EKG Lab 1.


## Phlebotomy Technician

The Phlebotomy Technician
is trained to perform a variety of blood collection methods according to the guidelines established by the Clinical Laboratory Standards Institute, with emphasis on infection control
and specimen handling.
The certificate prepares
you to take the licensure/ certification exam.

Total hours - 216 Total cost - \$1,350


## Telemetry Technician

The Telemetry Technician, or Cardiac Monitoring Technician,
is trained to interpret heart rhythms and 12-Lead EKG's within the clinical setting (hospital and physician offices), as well as remote (non-patient)
medical setting and cardiac
monitoring facilities. The certificate prepares you to take the licensure/certification exam.

Total cost - \$1,344

## Adult Driver Education

The driver education course exclusive for adults includes information on alcohol and drug awareness; the Texas traffic laws: highway signs, signals, and markings that regulate, warn, or direct traffic; and issues commonly associated with motor vehicle accidents, including poor decision-making, risk taking, impaired driving, distraction, speed, failure to use a safety belt, driving at night, failure to yield the right-of-way, and using a wireless communication device while operating a vehicle. Students will also take the written test for the permit and vision test as well as receive assistance with filling out forms and the application.

Classes offered in partnership with Houston Area Driving School. For information, phone: 713.349.9888

## Industrial Technology and Energy Training

Industrial Technology and Energy programs at the School of Continuing Education are aimed to meet the changing needs of a growing and global demand for competency-based, technical, customer and leadership skills. Ever-growing career pathways with unlimited job opportunities stem from a solid base of skillbuilding courses that help you compete in an industrial setting.


TPEG Eligible

## Basic Access Industrial Scaffolding

Designed by the major, global industrial scaffold companies that service the energy and manufacturing industry, this 80-hour program involves extensive hands-on training, taught by industry experts. During the program, students have the opportunity to earn an Industrial Scaffolding Committee certification.


> Introduction to Petroleum Industry PTRT 1001

> An introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles.
Total hours - 64 Total cost - \$660


For More Information
555 Community College Drive
Houston, TX 77010 - Phone: 713.718.2070


## Roustabout I\&II

Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

TPEG Eligible

## More Information Coming Soon

## OSHA 10

The 10 Hour General Industry Safety OSHA Certification Training is intended to provide entry level general industry workers with broad awareness on recognizing and preventing hazards on or at a site. Students will be introduced to OSHA policies, procedures and standards as well as general industry safety and health principles as well as safe work practices.
Upon successful completion of the course, participants will receive an OSHA 10-hour General Industry Safety Certification completion card.

Total Hours - 10 Total Cost - \$100

## Information Technology

Information Technology (IT) has become a vital and integral part of every business. From multi-national corporations, who maintain networks and databases to small businesses that own a single computer, IT plays a role. The use of computer technology in business makes our lives simpler by enabling faster communication, providing tools for more effective work, and giving us access to vast information.

For More Information
5601 West Loop South Houston, TX 77081 Phone: 713.718.2798


Total hours - 72 Total cost - \$690

The A+ Certification is an internationally recognized credential that certifies the competency of service technicians in the computer industry. A+ courses are taught in a hands-on environment.


Desktop Support and Networking Specialist Program

Training covers A+ computer repair and CCNA networking.
Students learn how to repair computers and install, configure, operate, and troubleshoot medium-size route and switched networks.

Total hours - 392 Total cost - \$3,474


## Total hours - 64



Total hours - 176

## Go to: hccs.edu/ce (A to Z)

## Information Technology



TPEG Eligible
Total hours - 192 Total cost - \$2,415
Microsoft Certified Solution Associate - Server Administrator

An MCSA-Windows Server 2016 certification qualifies you for a position as a network or computer systems administrator.


## Total hours - 64

Network+ Certification

Network+ technicians assist in the installation and maintenance of LANs and/or WANs.

## Total cost - \$690

 Management System (PDMS)

Learn skills in pipe drafting as it applies to the oil and gas industries. PDMS is a 3-D pipe drafting software used mainly for the offshore and on-shore oil and gas industry.

Total hours - 144 Total cost - \$4,557


## Unmanned Aircraft System Pilot (Drone Technology)

Companies are utilizing UAVs (DRONES) for professional services in industries like cinematography and filming, real estate, construction, surveying and mapping, agriculture, industrial
inspections, utilities inspections and many more. Drones are becoming an essential lifesaving tool for public safety departments. Police, fire, and EMS departments

## Total hours - 32 Total cost - \$400

## IT Networking Technology

The IT Networking Technology program covers technology fundamentals, computer hardware, computer software, networking technology, and network security fundamentals

Total hours - 184 Total cost - \$2117

## Cisco Academy at HCC

## CCNA-CISCO Certified Network Associate

The course provides an integrated and comprehensive coverage of networking topics, from fundamentals to advanced applications and services, while providing opportunities for hands-on, practical experience and softskills development.

Total hours - 320 Total cost - \$2,784

## Go to: hccs.edu/ce (A to Z)

## Information Technology



## System Application and Products in Data Processing (SAP)

SAP classes are geared for the professional using SAP in their work environment, during implementation, upgrade, or maintenance. Classes cover information required for various SAP certification exams. Any three classes within the SAP curriculum totaling 144 hours will earn an Occupational Skills Award.

Total hours - 144 Per course - \$1,719


VMware vSphere: Install, Configure, Manage

This course consists of concentrated handson training in installing, configuring, and managing
VMware vSphere 6 , which includes VMware ESXi 6 and VMware VCenter Server
6. Acquire the necessary skills to administer a
vSphere infrastructure for small, medium, and large organizations today.

## Languages

Do you understand and speak English, but are not sure about using grammar correctly at work or in social settings? Do you find it difficult to communicate in English because you need help with pronunciation? Do you want to get a better job by improving your written and spoken English?

> For More Information 1300 Holman Street Suite 119 Houston, TX 77004 Phone: $713.718 .7720 / 5557$

Our English Language Skills (ELS) Program at HCC can prepare you for your current job or a future college career by teaching you the English language skills necessary for your success. We offer basic, introductory, intermediate, and advanced courses to improve English language learning.

There are two programs for English Language learners:

- Part-time ELS (8-to-9 hours per week)
- Full-time ELS Intensive English program (20 hours per week)

Note: F1 or international students must pay out-of-state tuition.

## Our level-based courses are organized for successful completion by:

- Progressing students from one level to another.
- Focusing on English-language commúnication skills that include listening, speaking, reading, writing, grammar, and pronunciation.

The steps for applying for the program include:

- Take an English proficiency placement test for the full time or part-time program.
- Attend an Orientation session for new students.
- Register and pay tuition for the level designated by your placement test scores.


## Programa para el aprendizaje de ingles

Habla y entiende Inglés, pero no está seguro acerca del uso de su gramática en el trabajo o en situaciones sociales? ¿Le resulta difícil comunicarse en inglés porque usted necesita ayuda con la pronunciación? ¿Quiere conseguir un mejor empleo mejorando su escritura y hablado en inglés?

A través de nuestro Programa de Conocimiento de inglés (ELS) en HCC lo podemos preparar para su trabajo actual o futura carrera universitaria al darle los conocimientos del idioma Inglés necesario para su éxito.

En HCC le ofrecemos dos programas de Ingles:
De tiempo parcial ELS para el estudiante que está trabajando y que pueda estudiár 8 a 9 horas a la semana.

El programa de Inglés Intensivo de ELS tiempo completo es para los residentes, ciudadanos y para los estudiantes internacionales que puedan estudiar 20 horas ala semana.

Nota: F1 o estudiantes internacionales pagarán una matrícula fuera del estado.

Ofrecemos cursos básicos, intermedios y avanzados para mejorar el idioma Inglés.

A través de nuestros programas se puede:
Aprender el idioma Inglés
Mejorarla comunicación en el trabajo
Mejorara su fluidez y comprensión del inglés
Continuar con los cursos académicos del ESOL.

## Nuestros cursos por nivel están organizados para un éxito completo para:

Pasar de un nivel a otro Concentrarse en las habilidades de comunicación del idioma Inglés que

Incluyen escuchar, hablar, leer, escribir, gramática y pronunciación.

Los pasos para aplicar al programa son los siguientes:
Tome el Examen de Ubicación para el Programa de ELS a tiempo completo o tiempo parcial.

Tome el Examen de Ubicación para el Programa de ELS a tiempo parcial.

Asistir a una sesión de orientación para nuevos estudiantes
Inscribirse y pagar la matrícula para el nivel asignado de acuerdo a los resultados de las pruebas de ubicación.

## Welding Technology

CE Material Science is comprised of the following programs: Welding Technology, Visual Welding Inspection, and Pipefitting Technology.
The Welding Technology Department at Houston Community College prepares graduates for entry level careers as structural welders or combination pipe welders. The structural welding training focuses on fillet and groove welds using Shielded Metal Arc, Gas Metal Arc, Flux Cored, and Gas Tungsten Arc Welding. The combination pipe welding training focuses on pipe welding in the 2G, 5G, and 6G position using Shielded Metal Arc and Gas Tungsten Arc Welding. The welding training will also introduce and reinforce welding theory and weld quality and how it relates to the welding industry.
The visual welding inspection offerings at Houston Community College prepare students for entry level careers as welding inspectors. The training is aligned with industry standards and prepare students to take their certification test with the American Welding Society. Students who complete the training are responsible for filling out their certification test application and setting up and taking their certification test outside of the formall training provided in these offerings.


For more information 6815 Rustic St.
Houston, TX 77087
Phone: 713.718.6865
Phone: 713.718.2948


This course emphasizes hands-on training and the mastery of welding techniques. Students develop their technical knowledge of metal fabrication, metallurgy and welding skills. Students learn field terminology in English and/or Spanish to facilitate professional and technical growth.

Entrena para ser un soldador.
Ofrecen clases bilingues.
TPEG \& WIOA Eligible
Total hours - 160 Total cost - \$1,725
Textbooks not included in cost of courses.

## Welding, TIG (GTAW)

In this course, students learn setup and safe use of Gas Tungsten Arc Welding equipment and various joint designs of $T$-joint and $V$-groove; basic visual inspection of equipment and welding techniques of metal, including aluminum and stainless steel.

## Total hours - 80 Total cost - \$563

## Welding, Introduction to Pipe

Students learn to identify pipe cutting and welding processes needed to advance to a career as a pipe welder. This course also teaches students how to weld using various types of welding equipment, set up, and calibrate different welding machines. Students will perform entry-level welding functions.

Entrena para ser un soldador. Ofrecen clases bilingues.

## WIOA Eligible

Total hours - 80 Total cost - \$563


The Pipefitting courses prepare students to enter the industrial pipefitting industry as helpers or industrial pipefitters. The courses prepare students to understand orthographic and isometric blueprints, use and apply industrial mathematics, learn how to use power \& hand tools associated with the industry, and teach students how to fabricate threaded pipe, socket weld pipe, butt joint weld pipe, and mechanical connections. Students who successfully complete all course requirements and associated courses may qualify to attain their Nationa

## Industrial Pipefitter Helper <br> Total hours 352 Total cost* - $\$ 2672$

Industrial Pipefitter

*Textbooks not included in cost of courses.

## Online Continuing Education Earn your credentials today!

The Online Continuing Education Program offers a variety of courses in Career training, certification preparation and professional development. Online learning is a convenient way to stay connected and current to accomplish your specific training and education goals.

Grow your Career in Business

- Accounting
- Leadership
- Entrepreneurship
- Project Management
- Process Improvement
- Marketing
- Nonprofit/Grant Writing
- Soft Skills

Grow your Career in Healthcare

- Medical Billing \& Coding
- Activity Director
- Physical Therapy Aide
- Administrative DentalAssistant
- Clinical Dental Assistant
- Veterinary Assistant
- Personal Trainer
- Gerontology


## Go to: hccs.edu/ceonline

For More Information: Phone: 713.718.5149 or Email: onlinece@hccs.edu

## Online Continuing Education Open enrollment - start anytime

Grow your Career in Information Technology

- Web Design
- Programming
- Computer Applications
- Networking
- Cloud Computing
- Security
- Help Desk Analyst
- Microsoft

Earn an Industry Recognized Certification

- Pharmacy Technician
- Clinical Medical Assistant
- Electronic Health Records Specialist
- CompTIA
- Cisco
- Paralegal
- RMP (Project Management

Professional)

- Human Resources (PHR/SPHR)


## Why Online Courses?

Learn at your own pace
Available anytime, anywhere
$\checkmark$ Access to instructors and class advisors
$\checkmark$ Nearly 1,000 course offerings
$\checkmark$ Affordable


## Public Safety

Have you considered a career in public safety? There is a lifelong career in criminal justice, law enforcement, firefighter, emergency medical technician, and paramedic waiting for you at Houston Community College, School of Continuing Education. Our licensing and certification programs will prepare you to enter your chosen career with the education and skills needed to succeed.
Every day first responders protect the lives and property of others. If your goal is to have an exciting career serving others, contact the Houston Community College Public Safety Institute.


## Basic Firefighting Certificate

The Basic Firefighting academy consists of 672 hours of instruction and skills, is approved by the Texas Commission on Fire Protection. Curriculum topics include fire ground operations, hazardous materials, and physical fitness.

Total hours - 672 Total cost - Approx. \$3,000

Includes tuition, fees, books, and materials

> For More Information Phone: 713.718 .8370

## Peace Officer Licensing and in-Service Training

The Peace Officer academy consists of 688 hours of instruction approved by Texas Commission on Law Enforcement (TCOLE). Curriculum topics include law, procedures, skills, and physical fitness

Total hours - 688
Total cost - Approx. \$3,200
Includes tuition, fees, books, and materials

> For More Information Phone: 713.718 .8361

A new truck driving course begins every two weeks. Graduates are eligible for employment interviews with local and national freight companies, Entry-level wages average \$35,000 annually.

Trucks deliver 70 percent of all freight tonnage, and 80 percent of U.S. communities receive their goods exclusively by truck. There are currently 3.5 million commercial drivers, averaging $\$ 35,000$ in wages annually. Over the next ten years, the American Trucking Association (ATA) projects a need for 96,178 new drivers per year. These opportunities exist because of industry growth (36\%), retirement (37\%), drivers not meeting current guidelines (16\%) and changing careers (11\%). Houston Community College has a certified truck driver training program that will prepare you for this new and exciting career. We also offer driver education to adults and teens, and classes that will prepare you to become a freight broker. We look forward to the opportunity to work with you on your continued future success.

## For additional information on:

## - Prerequisites

## - Employment

- Trucking Driving Class Schedule
- Registration Information
- Requirements

Go to: hccs.edu/ce (A to Z) Truck Drivivn

For More Information 555 Community College Drive Houston, TX 77013 Phone: 713.718 .8200

$-1=$


## Mission

VAST Academy provides post-secondary transition programs and comprehensive support services which lead to meaningful credentials, employment and independence for "differentlyabled individuals." Training opportunities include vocational certificates, pre-college and freshman success "bridge"courses, and career readiness credentials, internships and employment assistance offered through an inclusive, relevant and affordable avenue.

## Credentials Offered

The Occupational Skills Certificate Program is a two-year career readiness workforce credential, offering courses that enhance functional reading, math, writing, and independent living, as well as develop basic computer/financial literacy and human relations skills for the workplace. A 200-hour internship at a local employment site is offered upon successful completion of all required courses.

## Retail Training

This two-term courseprepares students for a jab in the retail field. Students learn a range of technical, practical and organizational skills valued in the workplace and society. Classroom instruction is offered through an online component and a supervised hands-on workplace experience with a local employer.

## WorkKeys Career Readiness Credential

This instructor-led course and online training module prepares students to receive the American College Testing (ACT) WorkKeys Career Readiness Credential. This job skills assessment system helps employers select, hire, train, develop and retain a high performing workforce. More than 2.3 million people in the United States have earned this valuable credential.

## For additional information on:

Admissions and Enrollment Process
Credentials Offered
Student Requirements
713.718.6833
vast.hccs.edu

## Go to: hccs.edu/ce <br> ( A to Z ) VAST Academy

## Registration

Register online or in person at any campus location during regular business hours. Applications may be completed online by visiting hccs.edu/apply. Registrations are accepted on a first-come basis. Register early to secure a place in the class of your choice. Payment must be made online in your HCC student portal, or in person at the time of registration.

## Prerequisites

Most Continuing Education courses are open to students who feel they can benefit from the instruction; however, some courses are restricted to those students with specific prerequisites. Please check course descriptions listed in this catalog, or by visiting the HCC Continuing Education Course Listing at hccs.edu/ce.

## Eligibility for Enrollment

Continuing Education courses are open to individuals 17 years of age or older.

## Course Fees

Tuition and fees are indicated by each course listing within this catalog as well as by visiting the HCC Continuing Education Course Listing at hccs.edu/ce and clicking on the course title. Prices are subject to change at the beginning of each term. Students must pay for each class by the first official day of class. Students failing to pay will not receive credit for any class time.

## Exemptions and Waivers

HCC offers tuition and fees exemptions and waivers to eligible students, including waivers for Seniors over age 55 and the Hazlewood Exemption and Military Waiver for Veteran and Military-Affiliated students. To yiew the fulll list of exemptions/ waivers, visit hccs.edu/resources-for/current-students/student-financial-services/ waivers-and-exemptions.

## Attendance

Continuing Education courses have attendance requirements, and also require satisfactory completion of the course objectives in order for students to receive a certificate of successful completion.

## Certificate of Completion

Certification is awarded upon successful completion of required courses and submission of official HCC transcript to the School of Continuing Education. Successful certificate completion requires $80 \%$ attendance and achievement oflearning objectives in all designated courses. Participants may also elect to take any individual course separate from certificate requirements.

## Continuing Education Units (CEUs)

One CEU is 10 contact hours of successful participation/completion in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction. CEUs are not substituted for college credit hours, but rather are a means of reporting continuing education activities. Transcripts listing CEU credits satisfactorily completed are available on request. CEUs are recognized internationally as a measure of substantial professional education and training.

## Notification of Class Changes

Every effort is made to begin and hold class at the designated time. Each class is contingent on the required minimum number of students. Occasionally, extenuating circumstances arise requiring a
cancellation or delay. In such cases, we attempt to notify all students by telephone and or by email.

Houston Community College reserves the right, when necessary, to cancel classes, alter schedules, or substitute instructors.

Students are not notified if a class will berkeld. Students are contacted only in the event of a class cancellation or change.
Dropping a Class
Prior to the first scheduled class meeting, students must complete a Drop form in a Campus/Center office. Requests made after class has begun result in No Refund. Materials fees paid to instructors are not refundable.

## Refund Policy

Refunds are approved by Division Extended Learning for Continuing Education courses offered through the School of Continuing Education. A Full refund can only be awarded if a student withdraws before or on the first-class meeting date or if the class is cancelled. There are no partial refunds. Refunds are processed between one to two weeks after the credits resulting from dropped or cancelled classes. If the payment is made by credit card, it will be refunded via credit card. If the payment is made by cash, checks, or money order, it will be reimbursed by check. Tuition and fees paid directly to the institution by a sponsor or covered by scholarship shall be refunded to the source rather than directly to the students.
Refunds may only be mailed to the name and address on the student's record. Any refund mailed to the name and address on record is considered delivered. The Stop Payment Fee to re-issue a refund check mailed to an incorrect address is $\$ 25$.

## Change of Schedule

A Program Adjustment Form must be initiated through the campus office of Continuing Education for all class changes.

## Disclaimer

This schedule has been carefully prepared to assure that all information is accurate and as complete as possible. However, the college reserves the right to make changes, which may result in deviations from the information in the schedule content. Those changes will be published in the HCC Course Catalog at https://myeagle.hccs. edu/app/catalog/listCatalogCareers, and any questions should be directed to your program of interest using the contact information listed in this catalog.

## School of Continuing Education

## Textbooks, Supplies, and Materials

For most non-computer classes, students will be notified of the need for texts, supplies, and other materials at the first class meeting. Textbook selections are kept within a moderate price range, and the cost of supplies and materials for classes is based upon the size or complexity of the project chosen by the student.

The appropriate text can be found by class number. Students are expected to purchase their required books prior to the first day of class and to bring their books to each class meeting.

## Emergency Closings

In the event of severe weather, such as hurricanes, ice storms or other acts of nature that may create hazardous conditions and/or extended power outages, college administrators may find it necessary to close the college. In this case, students and faculty are advised to listen to local area radio and television stations for announcements and updates or log on to: www.school-closings.net.

The Class Schedule is an official publication of Houston Community College. It is published to coincide with the Spring, Summer and Fall Semesters.

The information contained in this publication is intended as a guide for students and prospective students. Based on Board approval, the Houston Community College District reserves the right to change or modify its rules and regulations. Updated board policies are available at https://www.hccs.edu/about-hcc/policies/. The schedule of classes, fees, tuitions and other charges is updated before the start of each school term. Charges are subject to change following action by the Board of Trustees, the Higher Education Coordinating Board, or, in some cases, as hegotiated on behalf of a company for training purposes. For questions, please contact hcc.workforce@hccs.edu. This catalog and the schedule of classes is pyblished in Fall, Spring, and Summer.
More information about HCC's policies and rules can be found on the Board Policy website - https://www.hccs.edu/about-hcc/policies/, in the Student Handbook and Code of Conduct - https://www.hocs.edu/resources-for/current-students/studenthandbook/, and on HCC's,website at https://www.hccs.edu/.


| COURSE TITLE | SUBJECT | CATALOG NBR | Business |
| :--- | :---: | :---: | :--- |
| Introduction to Accounting I | ACNT | 1003 | COURSE DESCRIPTION |
| This course is a study of analyzing, classifying, and recording business |  |  |  |
| transactions in a manual and computerized environment. Emphasis on |  |  |  |
| understanding the complete accounting cycle and preparing financial |  |  |  |
| statements, bank reconciliations, and payroll. |  |  |  |\(\left.| \begin{array}{l}Project Management Basics <br>

\hline BMGT <br>
\hline Lean Six Sigma Green Belt <br>
\hline Students will learn critical path methods for planning and controlling <br>
projects. Includes time/cost tradeoffs, resource utilization, stochastic <br>
considerations, task determination, time management, scheduling <br>
management, status reports, budget management, customer service, <br>
professional attitude, and project supervision.\end{array}\right\}\)


| Intro to Fablab | CEC | 7159 | This course offers a general introduction to the Fabrication Lab, computer and equipment access, and safety and access rules. Students will have access to the Fabrication Lab for one month with general help and use of equipment. Specific courses may be needed to run certain equipment in the Lab. For students and professionals. Not allowed for commercial work outside of general learning, prototyping, and design. Lab reserves the right to not allow certain types of use. |
| :---: | :---: | :---: | :---: |
| Computers |  |  |  |
| COURSE TITLE | SUBJECT | CATALOG NBR | COURSE DESCRIPTION |
| How to Make a Home Security System | ITDF | 1090 | Students will learn how to program, access different home security systems, and monitor changes by upgrading firewall protection. In addition, this course covers training on understanding fundamental design process for IOT home security. |
| A+Certification | ITSC | 2040 | This course will focus on microcomputers and required software components. Topics include site preparation, installation procedures, components, power supplies, modems, printers, switches, operating, help, and security systems, packaged programs, utilities, languages, and operating procedures. The class prepares the student for the A+ Certification exam. |
| Introduction to Basic Blockchain | ITSY | 1091 | During the course of the class, students will understand the fundamental concepts of modern blockchain, hyper ledger, cryptographic hash and timestamps. |
| CCNA 1: Introduction to Networks | ITCC | 1014 | This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. |
| CCNA 3: Scaling Networks | ITCC | 2012 | LAN operations and implementation in the LAN environment. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Layer 3 switching concepts are introduced. |
| CCNA 4: Connecting Networks | ITCC |  | WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. |
| CCNA Security | ITCC | 2041 | This course takes a look into overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls. |
| Build an IOT Smart Raspberry PI Robot | ITNW | $1092$ | This course covers basic principles and applications of robots including installation, interfacing, programming, maintenance and safety of robots and robotic cells. |
| Build a Sneaker Bot Using Raspberry PI | ITSC | 1091 | This course provides an introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems. |
| Unmanned Aircraft System Report PilotIn Command (Drone Tech) | AERM | 1001 | This course provides an overview of aviation including the history of aviation, the mechanic's roles and duties and nomenclature of aircraft and safety. |
| ARC GIS Pro | GISC | 1002 | In this course, students will learn theory and application of geographic information science (GIS). Includes an overview of the general principles of GIS and practical experience in its use. |
| Introduction to Geographic Information Systems | GISC | 1011 | Introduction to Geographic Information Systems (GIS) teaches the basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. During the course of this class, students will be exposed to data models and structures, geographic data input, data manipulating as well as data storage. Furthermore, students will have hand on experience with GIS operations. |


| C\#, Introduction | ITSE | 1003 | Students will learn basic programming concepts and techniques. Topics include familiarization with and utilization of computer systems; developing logic; preparing top-down design of problems; and creating programs. |
| :---: | :---: | :---: | :---: |
| C\#, Intermediate | ITSE | 1042 | This course provides instruction in applying basic knowledge to programming language to solve problems. |
| Swift App Development Certificate Prep 1 | ITSE | 1091 | Topics address recently identified current events, skills, knowledge and or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course is designed to help you build a solid foundation in programming fundamentals using Swift as the language. You'll get practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch. You'll also learn user interface design principles, which are fundamental to programming and making great apps. Prior programming experience is not required for this course. |
| Python Programming | ITSE | 1002 | This course provides an introduction to python programming including design, development, testing, implementation, and documentation. |
| Java Script Programming | ITSE | 1011 | Students will gain skill development in web programming, including mark-up and scripting languages. During the course of this class, students will be able to use JavaScript to make dynamic web pages. |
| Installing and Configuring Windows Server 2016 | ITNW | 1053 | Installing and Configuring Windows Server 2016 Exam 70-410 is part one of a series of three courses that validate the skill and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing enterprise environment. This training will validate the initial implementation and configuration of the Windows Server 2012 core services such as Active Directory and Networking services. |
| Network + Certification Training | CPMT |  | Students will gain understanding of networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations. |
| CompTIA Advanced Security Practitioner | ITCC | 2043 | Students will learn overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies; products and solutions; firewall and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls. |
| Security+Certification Training | ITSY | 1000 | This course provides an introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. |
| CompTIA Cyber Security Analy (CYSA) | ITSY | 2043 | Students will take an in-depth study of system forensics including methodologies used for analysis of computer security breaches. Collect document and evaluate evidence to perform postmortem analysis of a security breach. |


| Microsoft Windows, Introduction | ITSC | 1006 | This course provides an introduction to operating systems file <br> creation/deletion, data entry and manipulation, automatic file <br> execution, configuration, and directory commands. |
| :--- | :---: | :---: | :--- |
| MS Office Suite, Professionals | ITSC | 1009 | This course provides an introduction to business productivity software <br> suites using word processing, spreadsheets, databases, and/or <br> presentation software. |
| IT Fundamentals | ITSC | POFI | 1010 |


| AutoCAD I | DFTG | 1040 | This course covers CAD equipment, software selection and interface; setting up a CAD workstation; upgrading a computer to run advanced CAD software; storage devices; storing, retrieving, back-up and sharing databases; file servers and local area networks (LANs); and transferring drawing files over the Internet. |
| :---: | :---: | :---: | :---: |
| AutoCAD II | DFTG | 2011 | Students will learn Computer Aided Drafting (CAD) package and knowledge necessary to perform specific operations in a particular occupational setting. |
| Stationary Engineering-2nd Grade License Review | CBFM | 1007 | This course covers basic boiler operation with emphasis on high pressure and low pressure systems. |
| Basic Framing | CRPT | 1001 | Students will gain knowledge and skills required to erect wood frame structures with emphasis on layout and construction of floors, walls, and roofs. Includes safety procedures for using hand and power tools and structural materials. |
| Introduction to Carpentry | CRPT | 1029 | This course provides an introduction to the carpentry trade including safety, tools, equipment, terminology, and methods. |
| Introduction to Plumbing | PFPB | 1013 | Start a career in the plumbing industry! Students will become acquainted with the basic knowledge and skills in plumbing including terminology, tools, plumbing math, and gain an understanding of materials related to plumbing and their use. This course is necessary for a beginner in the Plumbing trade. |
| Piping Standards \& Materials | PFPB | 2008 | This course covers identification, description and application of castiron piping standards, specifications, metallic/non-metallic piping materials, and valves. Students will learn how to choose fixtures, usage, and operations of DWV system design, types of drains, fittings, vents, pipe, installation, and water distribution process. |
| Electrical Technician I | ELPT | 1011 | This course covers basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. |
| Electrical Technician I Bilingual | ELPT | $1011$ | Este curso abarca la teoría básica y la práctica de los circuitos eléctricos. Incluye cálculos aplicados a corriente alterna y corriente continua. |
| Electrical Technician II | ELPT | $102$ | Students will learn wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures. |
| Electrical Technician II Bilingual | ELPT | 1029 | Los estudiantes aprenderán métodos de cableado para viviendas unifamiliares y multifamiliares. Incluye cálculos de carga, dimensionamiento de la entrada de servicio, técnicas correctas de conexión a tierra v los procedimientos de seguridad asociados. |
| Electrical Tec |  | 201 | Students will learn fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. |
|  |  |  | Health |
| COURSE TITLE | SUBJECT | CATALOG NBR | COURSE DESCRIPTION |
| Certified Nurse Aide | NURA | 1001 | Students will gain an understanding of the knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team, restorative services, mental health, and social services needs. |
| Medical Terminology $l$ | HITT | 1005 | This course is a study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties. |
| Medical Terminology II | HITT | 1003 | Students will engage in a continuation of the study of medical terms through work origin and structure, abbreviations and symbols, surgical and diagnostic procedures, and medical specialties. |
| Health Information Systems | HITT | 1011 | This course provides an introduction to health IT standards, healthrelated data structures, software applications, and enterprise architecture in health care and public health. |


| Basic Medical Coding | HITT | 1013 | This course provides skills and knowledge in the medical records field for ICD-9 and CPT coding of insurance forms for reimbursement of medical service. Textbook required. Prerequisite: Medical Terminology. |
| :---: | :---: | :---: | :---: |
| Advanced Medical Coding | HITT | 2046 | This course provides an in depth, intensive coverage of ICD and CPT coding by medical specialty, conventions, guidelines and principles as they apply to accurate coding of complex medical, surgical cases and procedures. |
| Medical Administrative Support | POFM | 1017 | Students will obtain instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing, collecting, and third party reimbursement. |
| Medical Billing | POFM | 1027 | Students will learn survey of medical insurance including the life cycle of various claim forms, terminology, patient relations, and legal and ethical issues. |
| Intermediate Medical Coding | POFM | 2010 | This course will introduce assignment and application of various coding guidelines with emphasis on physician billing and regulatory requirements. Includes code selection for Evaluation and Management ( $\mathrm{E} / \mathrm{M}$ ) and Medical/Surgical cases. |
| HIPAA Compliance | HITT | 2000 | Short term class covering various aspects of the Health Insurance Portability and Accountability ACT (HIPAA). |
| Electrocardiography | ECRD | 1011 | This course covers fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. |
| EKG Lab 1, 12 -Lead | ECRD | 1091 | Students will gain an understanding of theory and application of patient assessment and history, vital signs, documentation, and performing a basic 12-lead and 3-lead electrocardiograph with an emphasis on patient preparation, and correct lead placement. |
| EKG Lab 2, Stress Testing |  |  | This course covers principles and procedures of stress testing and Holter monitoring. Emphasis is on patient preparation and instruction, correct lead placement, blood pressure monitoring, and appropriate intervention by the cardiac technician. Clinical significance of abnormalities is discussed. |
| ECG Rhythm Strip Analysis |  |  | ECRD 1091 is designed for students desiring knowledge of EKG telemetry monitoring. Theory includes basic understanding of the electrophysiology and hemodynamics of the heart, EKG recording techniques, rhythm analysis, and recognition of arrhythmias and cardiac emergencies. Emphasis is on interpretation, appropriate interventions by the cardiac technician and professionalism and patient's rights in the healthcare setting. |
| ECG 12-Lead Interpretatio |  | 1050 | Students will learn interpretation of 12-lead electrocardiograms (ECG) to identify dysrhythmias; axis deviation; and myocardial ischemia, injury, and infarction. Clinical significance of abnormalities is discussed. |
| Phleboton | PLAB | 1023 | This course provides skill development in the performance of a variety of blood collection methods on adults, children, and infants using proper techniques and standard precautions. Emphasis is on patient identification, infection control and specimen handling. Topics include professionalism, ethics, medical terminology and basic anatomy and physiology relating to blood analysis. Designed for students seeking national certification in phlebotomy. This course is included in the Phlebotomy Technician certificate. |



| English Language Skills 4 |  |  | The purpose of this English Language Skills 4 course is to increase <br> students' knowledge of workplace English skills. Oral and listening skills <br> and conversational fluency are emphasized in everyday public and <br> workplace communication. The instruction includes vocabulary, <br> grammar, listening, pronunciation, writing, numeracy, and viewing <br> exercises for practice. The course is for the adult learner who has <br> intermediate-level knowledge of the English language. |
| :--- | :--- | :--- | :--- |
| English Language Skills 5 | COMG |  |  |


|  |  |  | The purpose of this Pronunciation Skills, Intermediate course is to <br> improve pronunciation and overall communicative effectiveness of <br> students and to support social, academic and workplace English <br> language skills. The instruction includes teaching stress, rhythm, and <br> intonation as well as consonant and vowel sounds and promotes clear, <br> effective communication to build the students self-confidence and <br> comfort when speaking English in everyday public and work place <br> settings. The course is for the adult learner who has high-beginning to <br> mid-intermediate level knowledge of the English language. |
| :--- | :---: | :---: | :--- |
| Pronunciation Skills-Intermediate | COMG | 2072 |  |
| COURSE TITLE | SUBJECT | CATALOG NBR | Welding |

## Name

Abanda, Peter A
Abba, Katherine A

Abdallah, Ghassan M

Abernathy, Carlton G.

Ables, Gisela R

Abraham, Reni A

Achee Jr., Henri
Ackelmire, Corey E
Adams, Deborah

Adams, Walter Matthew
Adedoyin-Tuyo, Harriet S.

Adegoke, Anuoluwa Esther
Adjei, Gideon
Afaneh, Mohammad Khalil
Aguilar, Aurelio J
Ahmed-Zaid, Abdelnour
Ahosseini, Azita

Akbay, Kubra Nur

Akpanumoh, Edem D

Alamnehe, Abass B
Alderman, Pamela S.

Instructional Division Description
Life \& Natural Sciences
Liberal Arts, Humanities \& Edu

Social \& Behavioral Sciences

English \& Communication

Liberal Arts, Humanities \& Edu

Credentials
Doctor of Philosophy
Doctor of Philosophy, Master of Arts
Doctor of Philosophy, Master of Arts, Bachelor of Arts
Master of Arts, Bachelor of Arts
Doctor of Philosophy, Master of Arts, Bachelor of Arts
Digital \& Information Technology Doctor of Education, Master of Science Liberal Arts, Humanities \& Edu Master of Arts, Master of Science Master of Fine Arts, Bachelor of Fine Arts Master of Arts, Bachelor of Arts

Construction
Health Sciences

Life \& Natural Sciences
Life \& Natural Sciences
Mathematics
Construction
Mathematics

Global Energy Institute

English \& Communication

College Readiness
Life \& Natural Sciences
Bachelor of Science
Master of Science Nursing, Bachelor of Science Nursing
Doctor of Philosophy
Doctor of Philosophy Master of Arts
Associate of Applied Science
Doctor of Philosophy, Master of Science Doctor of Philosophy, Master of Science, Bachelor of Science Doctor of Philosophy, Master of Arts
Master of Education, Bachelor of Science
Doctor of Education, Master of Science, Bachelor of Science
Digital \& Information Technology Bachelor of Science Health Sciences Master of Science, Bachelor of Science, Associate of Applied Science

| Alexander, Marion Wynne | Mathematics | Doctor of Philosophy, Bachelor of Arts |
| :---: | :---: | :---: |
| Alexander, Nicol Jamal | Media Arts \& Technology | Associate of Applied Science |
| Ali, Sazar Abdulilah | Global Energy Institute | Bachelor of Science |
| Almansor, Khansaa | Global Energy Institute | Master of Science |
| Almestica, Alexandra | Liberal Arts, Humanities \& Edu | Master of Science |
| Alvanipour, Sarah | Life \& Natural Sciences | Doctor of Pharmacy |
| Alvarez Helling, Cynthia | Public Safety | Associate of Applied Scien Certificate |
| Amaku, Veronica M | Life \& Natural Sciences | Doctor of Philosophy |
| Ameri Sianaki, Javad | Digital \& Information Technology | Master of Science |
| Ames, Stephen C | Media Arts \& Technology | High School or High School Equivalency |
| Anderson, Angela Annette | English \& Communication | Doctor of Education, <br> Master of Arts, <br> Bachelor of Arts |
| Anderson, Kristin K | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Science |
| Anderson, Lawrence W. | Liberal Arts, Humanities \& Edu | Master of Science |
| Anderson, Treva Shawn | Liberal Arts, Humanities \& Edu | Master of Science, Bachelor of Business Administration |
| Anoka, Cyril O. | Life \& Natural Sciences | Doctor of Philosophy |
| Ansell, Bennie | Visual \&Performing Arts | Master of Fine Arts |
| Apodaca, Jason P. | College Readiness | Doctor of Education, Master of Arts |
| Applebaum Wells, Allyson | Visual \& Performing Arts | Doctor of Philosophy, <br> Master of Arts, <br> Bachelor of Arts |
| Argin, Mehmet | Engineering | Master of Electrical Engineering |
| Argo, Daniel Lee | Social \& Behavioral Sciences | Master of Arts, Bachelor of Science |
| Ariyaratna, Rajamanthri | Mathematics | Master of Science |
| Armstrong, Russell S | Media Arts \& Technology | Master of Fine Arts, Bachelor of Fine Arts |
| Arnold, Randal H | Liberal Arts, Humanities \& Edu | High School or High School Equivalency |
| Arzola, Laura V | English \& Communication | Master of Arts, Bachelor of Arts |
| Asgary, Homied | Digital \& Information Technology | Master of Science |
| Ashraf, Birjees | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Arts |




| Bordeaux, Vedron | Public Safety | Master of Science, Bachelor of Business Administration, Associate of Applied Science |
| :---: | :---: | :---: |
| Bose, Rumela | Liberal Arts, Humanities \& Edu | Master of Arts, Master of Library Science, Bachelor of Arts |
| Botson Jr., Michael R. | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Boucher, Michael Rolan | Digital \& Information Technolo | Master of Arts |
| Boutte-Heiniluoma, Ni | ( Social \& Behavioral Sciences | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Bouwens, Mark Robert | Life \& Natural Sciences | Doctor of Philosophy |
| Boyd, Denise R | Social \& Behavioral Sciences | Doctor of Education, Master of Education, Bachelor of Arts |
| Boyd, Jerelean | Business | Master of Education, Bachelor of Science |
| Boyd, Richard B | Media Arts \& Technology | Associate of Applied Science |
| Boyd, Saundra Yvonne | Social \& Behavioral Sciences | Doctor of Philosophy, <br> Master of Arts, <br> Bachelor of Arts |
| Boykin, Judith | Consumer Arts \& Sciences | Associate of Applied Science |
| Bracamonte, Margarita | Life \& Natural Sciences | Doctor of Philosophy |
| Brade, Branson | College Readiness | Master of Science |
| Bradford, Johnella Robin | College Readiness | Doctor of Education, Master of Education, Bachelor of Science |
| Bradshaw, Loris | Business | Master of Arts, Bachelor of Science |
| Bragdon, Ann Louise | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Braze | College Readiness | Master of Arts |
| Brent, Cheryl Ann | Health Sciences | Bachelor of Science |
| Bridges, Suzon K | Business | Juris Doctor, Master of Business Administration |
| Briggs, Andrew Nathan | Visual \& Performing Arts | Doctor of Musical Arts, Master of Music, Bachelor of Arts |




| Chopra, Vimlarani | Life \& Natural Sciences | Doctor of Philosophy, Master of Science, Bachelor of Science |
| :---: | :---: | :---: |
| Chreim, Zeyad | College Readiness | Master of Science |
| Chukwu, Hyginus I. | Life \& Natural Sciences | Doctor of Philosophy |
| Cin, Holly Beth | English \& Communication | Master of Arts, Bachelor of Arts |
| Cirillo, Jane Marie | Social \& Behavioral Sciences | Doctor of Education, <br> Master of Arts, Bachelor of Arts |
| Clark, Carl | Public Safety | Associate of Applied Scien |
| Clarkson, Mary C | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Juris Doctor, <br> Master of Arts |
| Clay, Cathy Joyce | English \& Communication | Master of Arts |
| Clemens, Paul Leslie | Life \& Natural Sciences | Doctor of Philosophy, Master of Science, Bachelor of Science |
| Clement, Kevin A | College Readiness | Bachelor of Arts |
| Cleveland, Michael G | Public Safety | Associate of Applied Science |
| Cohn, Michael Jerome | Media Arts \& Technology | Master of Arts, Bachelor of Arts |
| Comello Jr., Harold R | Social \& Behavioral Sciences | Master of Arts |
| Comfort, Leslie Elizab | Education | Doctor of Philosophy, Master of Education, Bachelor of Science |
| Conkling, Parish Grace | Liberal Arts, Humanities \& Edu | Master of Liberal Arts, Master of Philosophy, Bachelor of Arts |
| Conn, Richard Dean | Liberal Arts, Humanities \& Edu | Master of Business <br> Administration, Master of Library Science |
| Connery, James Edward | Manufacturing | Associate of Applied Science |
| Conran, Mark H | Health Sciences | Bachelor of Science, <br> Associate of Applied Science |
| Cote, Julia | College Readiness | Doctor of Education, Master of Education, Bachelor of Arts |
| Cox, Nicholas P | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Crane, Jamey Lea | Social \& Behavioral Sciences | Master of Arts, Bachelor of Arts |




| Edwards, Renee Lynn | Social \& Behavioral Sciences | Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Ekwere, Ebong J | Health Sciences | Master of Business <br> Administration, Associate of Applied Science |
| Elkhatib, Mohamad Moussa | College Readiness | Master of Education |
| EL-Loubani, Khaled Y | College Readiness | Master of Science, Bachelor of Science |
| Eomurian, Margaret A | Liberal Arts, Humanities \& Edu | Doctor of Philosophy |
| Esposito, Ronald K | Business | Juris Doctor, Bachelor of Arts |
| Evans, Bryant T. | Social \& Behavioral Sciences | Master of Arts |
| Ewane, Emmanuel | Life \& Natural Sciences | Doctor of Philosophy |
| Faegh, Ali | Social \& Behavioral Sciences | Doctor of Education, |
| Falahat, Ali R. | College Readiness | Master of Business Administration |
| Fan, Biwun | College Readiness | Master of Science |
| Fax, Joanna | English \& Communication | Doctor of Philosophy, Master of Arts |
| Feighny, Edward Jackson | College Readiness | Master of Arts |
| Ferguson, Mary Jane | Mathematics | Master of Science |
| Fields, Katherine Rhodes | Visual \& Performing Arts | Master of Fine Arts |
| Fife, Susan R. | Mathematics | Doctor of Education, Master of Arts, Bachelor of Arts |
| Firat, Ibrahim Can | usiness | Master of Business |
|  |  | Administration, Bachelor of Arts |
| Flanagan, Michael | Visual \& Performing Arts | Master of Fine Arts |
| Fletcher, Lane F | English \& Communication | Master of Arts, Bachelor of Arts |
| ores Jr., Alberto Ange | Manufacturing | Certificate |
| Flores, Daniel Jacob | Liberal Arts, Humanities \& Edu | Master of Arts, Bachelor of Arts |
| Flores, Luis Alejandro | Material Science | Associate of Applied Science, Associate of Applied Science |
| Flowers, Selena R. | English \& Communication | Master of Fine Arts |
| Foldi, Beatrix | Life \& Natural Sciences | Doctor of Medicine, Master of Science |


| Fonge, Michael F | Social \& Behavioral Sciences | Doctor of Education, Master of Arts, Master of Education, Bachelor of Science |
| :---: | :---: | :---: |
| Ford, Shantae Renee | Liberal Arts, Humanities \& Edu | Master of Business Administration, Bachelor of Arts |
| Fortune, Carla K | Life \& Natural Sciences | Master of Science, Bachelor of Science |
| Foster, Eva Leigh | English \& Communication | Doctor of Philosophy, Master of Fine Arts, Bachelor of Arts |
| Foster, Marion S | Mathematics | Master of Arts, Master of Education, Bachelor of Science |
| Francis, Amani | English \& Communication | Bachelor of Arts |
| Frederick, Robert Lee | Digital \& Information Technology | Master of Science, Master of Science |
| Freeman, Ernest Erskin | Construction | Certificate |
| Freeman, Margaret L | Health Sciences | Master of Education, Bachelor of Science |
| Freytag, Jennifer Jeanene | English \& Communication | Doctor of Philosophy, <br> Juris Doctor, Bachelor of Arts |
| Fry, Carol A | Liberal Arts, Humanities \& Edu | Master of Science, Bachelor of Science |
| Gabi, Charles T | College Readiness | Master of Education, Bachelor of Science |
| Galaktionov, Konstantin | Life \& Natural Sciences | Doctor of Philosophy, Bachelor of Science |
| Gallego, Hija Immanuel | Social \& Behavioral Sciences | Doctor of Philosophy |
| Galloway, Howard Clinton | Public Safety | Master of Science, Bachelor of Science |
| Garcia, Cristina B | Visual \& Performing Arts | Associate of Applied Science |
| Garcia, Gerardo Antonio | Material Science | Trade School |
| Garcia, Pablo R | Life \& Natural Sciences | Doctor of Medicine, Doctor of Philosophy, Bachelor of Science |
| Gardiner, Simone Alicia | College Readiness | Doctor of Philosophy, Master of Arts, Bachelor of Science |
| Gardner, Catheryn Y | Public Safety | Bachelor of Science |
| Garg, Nupur | Life \& Natural Sciences | Doctor of Philosophy |


| Garza, Natalie M. | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts |
| :---: | :---: | :---: |
| Gatlin, Nicholas Ferrell | Automotive Technology |  |
| Gaudin, Sharon Ruth | Liberal Arts, Humanities \& Edu | Bachelor of Science |
| Gedeon, Yokabet | Life \& Natural Sciences | Doctor of Philosophy, Master of Science |
| Gehman, Scott H | Media Arts \& Technology | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Gehman, Valorie L. | Life \& Natural Sciences | Master of Science, Bachelor of Science, Associate of Science |
| Genanaw, Mesfin | Business | Doctor of Education |
| George, Ola Sara | College Readiness | Doctor of Education, Master of Education |
| Gersh, David | Social \& Behavioral Sciences | Doctor of Philosophy Bachelor of Arts |
| Giles, Jacqueline | Mathematics | Master of Arts, Master of Science, Bachelor of Arts |
| Giles, John C | Mathematics | Master of Science, Bachelor of Science |
| Giles, Michele | Health Sciences | Master of Arts, Bachelor of Science |
| Glazer, Elliott S | ollege Readiness | Master of Arts |
| Goeters, Charlotte H | Business | Master of Arts, Bachelor of Science |
| Goeters, Joseph E | usiness | Master of Business <br> Administration |
| Gomez, Gerardo | Public Safety | Certificate |
| Gomez, Pete C | Mathematics | Master of Arts, Bachelor of Arts |
| Gonzales, Claire E | Liberal Arts, Humanities \& Edu | Master of Library Science |
| Gonzalez, Larry J | Social \& Behavioral Sciences | Doctor of Philosophy |
| Gonzalez, Ovidio M. | Media Arts \& Technology | Master of Fine Arts |
| Goode, Foster A. | Public Safety | Bachelor of Arts |
| Gordon, Donna L | English \& Communication | Master of Arts, Bachelor of Arts |
| Gosselin, Richard J | Social \& Behavioral Sciences | Master of Arts, Bachelor of Arts |
| Gostenhofer, Cynthia K. | Education | Master of Science, Bachelor of Science |
| Graham, Charles | Liberal Arts, Humanities \& Edu | Certificate |


| Graham, Helen Elizabeth | Liberal Arts, Humanities \& Edu | Doctor of Education, Master of Liberal Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Granado, Michael Fidelis | Mathematics | Doctor of Philosophy |
| Grau, Marina R | Business | Doctor of Education, |
|  |  | Master of Business |
|  |  | Administration, |
|  |  | Bachelor of Busines |
|  |  | Administration |
| Greco, Janice T | Social \& Behavioral Sciences | Doctor of Philosophy |
| Green, Tiffany | Health Sciences | Bachelor of Arts, |
|  |  | Bachelor of Science |
| Greenbaum, Joseph William | Global Energy Institute | Master of Business Administration, Bachelor of Science |
| Greene, Gloria J | Consumer Arts \& Sciences | Associate of Applied Science |
| Griffin, Linda C | English \& Communication | Doctor of Education |
| Grigsby, DaeJan Elizabeth Ho | Life \& Natural Sciences | Doctor of Chiropractic, |
| Grisales, Joseph R | Manufacturing | Bachelor of Science |
| Grissom, Charles B | Public Safety | ssociate of Applied Science |
| Guerrero, Hilda Del | Health Sciences | Bachelor of Science |
| Gumeel, Dalia Abdelhafiz | Digital \& Information Technolo | Master of Information Systems, Bachelor of Science |
| Guo, Aqiang | Life \& Natural Sciences | Doctor of Philosophy |
| Ha, Francis Q | nstruction | Associate of Applied Science, Associate of Arts |
| Haci, Sophie | cial \& Behavioral Sciences | Master of Science |
| Hackley, Karen W. | College Readiness | Master of Arts |
| Hackner, Charles W | Social \& Behavioral Sciences | Master of Arts |
| Hadley, Lakisha Desha | Health Sciences | Master of Science Nursing |
| Haight, Christopher | Liberal Arts, Humanities \& Edu | Doctor of Philosophy |
| Hajjari, Tayebeh | Mathematics | Doctor of Philosophy, Master of Education |
| Hakemack, Richard M | Automotive Technology | Bachelor of Science, Associate of Applied Science |
| Hamby, Kevin L. | Consumer Arts \& Sciences | Bachelor of Fine Arts |
| Haque, Mohammad Mojibul | Life \& Natural Sciences | Doctor of Philosophy, Master of Science |
| Hardy Jr., Hildreth Reuben | Public Safety | Master of Science, Bachelor of Arts |


| Harrington, Richard J. | Media Arts \& Technology | High School or High School Equivalency |
| :---: | :---: | :---: |
| Harris, Tamara MikkiDaniel | College Readiness | Doctor of Philosophy, Master of Arts, Bachelor of Science |
| Harris, Vinette Meikle | Social \& Behavioral Sciences | Doctor of Philosophy |
| Harrison, Diana Lee | English \& Communication Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts, Bachelor of Fine Arts |
| Hartray, Mark F | Social \& Behavioral Sciences | Master of Arts, <br> Bachelor of Arts |
| Harvey, Henry | Public Safety | High School or High School Equivalency |
| Hasell, Duncan Ingraham | English \& Communication | Doctor of Philosophy, <br> Master of Arts, <br> Bachelor of Arts |
| Hatton, Jack | College Readiness | Master of Science, Bachelor of Arts |
| Hayes, Autumn | English \& Communication | Master of Fine Arts |
| Hayes, Nancy Elizabeth | Mathematics | Master of Arts, Bachelor of Arts |
| Hays, Everett D'Angelo | Automotive Technology | Master of Business <br> Administration, <br> Master of Public Administration |
| He, Min | ealth Sciences | Doctor of Medicine, Master of Science |
| Hebel, Nazanin | Life \& Natural Sciences | Doctor of Dental Science |
| Heidbreder, Paulette I | College Readiness | Master of Arts |
| Heironimus, James Lee | Public Safety | Master of Science, Bachelor of Science |
| Hendry, Sharon M | Media Arts \& Technology | Master of Arts, Bachelor of Fine Arts |
| Henry, Margaret Mary | College Readiness | Master of Arts, Bachelor of Arts |
| Henry, Stephen Philip | Life \& Natural Sciences | Doctor of Philosophy, Master of Science, Bachelor of Arts |
| Henson, Warner E | Business | Master of Business <br> Administration, Bachelor of Business Administration |
| Herman, Bethany Nicole | Liberal Arts, Humanities \& Edu | Master of Science |



| Holder, Angela Leah | Liberal Arts, Humanities \& Edu | Master of Arts, Bachelors of General Studies |
| :---: | :---: | :---: |
| Holland, Sheryl R | College Readiness | Master of Arts, Bachelor of Arts |
| Holland, Toni M | English \& Communication | Doctor of Philosophy, Master of Arts |
| Hope, Lorena Ashley | Visual \& Performing Arts | Master of Fine Arts, Bachelor of Fine Arts |
| Hsieh, Juurong | Engineering | Doctor of Management, Master of Science |
| Hsu, Rosa | Liberal Arts, Humanities \& Edu | Master of Arts |
| Hua, Vi Vi | Consumer Arts \& Sciences | Bachel or of Science, |
| Humphrey, Beverly Jean | Manufacturing | Doctor of Education, Master of Professional Accounting, Bachelor of Science, Associate of Applied Science |
| Huntington, John S. | Liberal Arts, Humanities \& Ed | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Hyrapiet, Shireen Ann | Social \&Behavioral Sciences | Doctor of Philosophy, Master of Science |
| Idlebird, Joe Calvin | College Readiness | Master of Education, Bachelor of Science |
| Imo, Charles N. | Life \& Natural Sciences | Doctor of Education, Master of Science |
| Innis, Janis Johnston | English \& Communication | Master of Arts, Bachelor of Arts |
| Iranpour, Mahzad | Life \& Natural Sciences | Master of Science |
| Irvin, Derek Odell | College Readiness | Bachelor of Applied Arts \& Sciences |
| Iyer, Sumithra Sivasamy | Mathematics | Master of Science |
| Jabbur, James Ramzi | Life \& Natural Sciences | Doctor of Philosophy, Bachelor of Science |
| Jach, Theresa Rae | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts |
| Jackson III, Herbert | Health Sciences | Doctor of Education, Master of Science, Bachelor of Science, Associate of Applied Science |


| Jackson, Gretchen | Liberal Arts, Humanities \& Edu | Doctor of Education, Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Jackson, Rodney A | Public Safety | Certificate |
| Jain, Renu | Life \& Natural Sciences | Doctor of Philosophy |
| Jalilian Tehrani, Mohammad | Business | Doctor of Philosophy |
| Jay, Thomas R | College Readiness | Master of Education |
| Jeffries, Donald H | Automotive Technology | Certificate |
| Jenkins, Patricia K. | Health Sciences | Bachelor of Science |
| Jenson, Cinnamon Ann | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, <br> Master of Philosophy, <br> Bachelor of Science |
| Jenson, Jason Christopher | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts, Bachelor of Science |
| Jiang, Zhiqin | Construction | Doctor of Philosophy, Master of Science |
| Jimenez, Marlen Pena | Health Sciences | Master of Science, Bachelor of Arts |
| John, Sofia A. | Health Sciences | Doctor of Education, <br> Master of Science Nursing, <br> Bachelor of Science Nursing |
| Johnson, Alan | Liberal Arts, Humanities \& Edu | Master of Arts |
| Johnson, Cassidy Brown | Life \& Natural Sciences | Doctor of Philosophy |
| Johnson, Machuria Mallette | Business | Master of Business Administration, Bachelor of Business Administration |
| Johnson, Rhonda $V$ | usiness | Master of Business <br> Administration, Bachelor of Business Administration |
| Johnson, Robert B | Digital \& Information Technology | Bachelor of Science |
| Johnson, William B. | Public Safety | Doctor of Philosophy, Master of Science, Bachelor of Science |
| Johnson-Burgess, Linda Ann | English \& Communication | Doctor of Philosophy |
| Jones, Línda Kay | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, <br> Master of Arts, <br> Bachelor of Science |
| Jones, Lucy | Consumer Arts \& Sciences | Associate of Applied Science |
| Jonstone, Joy E | College Readiness | Juris Doctor |


| Jose, Charlet | Health Sciences | Doctor of Philosophy, |
| :--- | :--- | :--- |
|  |  | Master of Science Nursing |
| Joseph, Jolly K | Health Sciences | Doctor of Philosophy, |
|  |  | Master of Science |












| Resweber, Shannon Jo | College Readiness | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Revelle, Clyde Ray | Automotive Technology | Bachelor of Arts |
| Revelle, William S | Automotive Technology | High School or High School Equivalency |
| Reyes, Manuel | Social \& Behavioral Sciences | Juris Doctor, Master of Arts, Bachelor of Arts |
| Reyna, Rolando Jesus | Visual \& Performing Arts | Master of Fine Arts |
| Reyna, Veronica Lynn | Social \& Behavioral Sciences | Doctor of Philosophy, Bachelor of Arts |
| Rhea, Donna L | Social \& Behavioral Sciences | Master of Arts |
| Rice, Richard C. | College Readiness | Master of Education, Bachelor of Arts |
| Rich, Wilhelmina L | Health Sciences | Master of Science |
| Richards, Bennie B | College Readiness | Doctor of Education, Master of Education |
| Richards, Renee Lyane | College Readiness | Master of Arts, Bachelor of Arts |
| Ricks, Margie A | English \& Communication | Master of Liberal Arts |
| Riddick, Brenda | Social \& Behavioral Sciences | Master of Public Administration |
| Riley, Melissa H | Health Sciences | Master of Science Nursing |
| Rix, Deanna L. | Health Sciences | Master of Science Nursing |
| Rizvi, Shahjahan A | Life \& Natural Science | Master of Science |
| Robbins, Wendy Lee | Media Arts \& Technology | Master of Fine Arts |
| Robertson-Shirdon, Diana | Mà Health Sciences | Associate of Science |
| Robinson, Carla D | English \& Communication | Master of Arts, Bachelor of Arts |
| Robinson, Joella K | Liberal Arts, Humanities \& Edu | Master of Arts, Bachelor of Arts |
| Robinson, Keitha Ramsey | Liberal Arts, Humanities \& Edu | Master of Science, Bachelor of Science |
| Roddy, Meghan Holahan | English \& Communication | Juris Doctor, Master of Arts, Bachelor of Arts |
| Rodgers, Lamont D | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts |
| Rodriguez Guardia, Carlos | En College Readiness | Bachelor of Science |
| Rodriguez, Samantha M | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Rogovein, Reisa M | English \& Communication | Master of Arts |


| Rolnik, Claire $Y$ | College Readiness | Doctor of Philosophy |
| :---: | :---: | :---: |
| Romero-Borja, Fernando | Life \& Natural Sciences | Doctor of Philosophy |
| Rosborough, Carol Denise | Business | Juris Doctor, Bachelor of Arts |
| Rosenkranz, Linda J | English \& Communication | Master of Arts, Bachelor of Arts |
| Rosing, Richard | Health Sciences | Master of Science, Bachelor of Arts |
| Ross, David A | College Readiness | Master of Arts, Bachelor of Arts |
| Ross-Nazzal, James Anthony Liberal Arts, Humanities \& Edu |  |  |
| Rucker, Charles Anthony | Consumer Arts \& Sciences | Associate of Applied Science |
| Ruhleder, Kathleen | Visual \& Performing Arts | Doctor of Musical Arts, Master of Music, Bachelor of Music |
| Russell, Jack | Automotive Technology <br> High School or High School Equivalency |  |
| Saber, Samir | Digital \& Information Technology Master of Science, Bachelor of Science |  |
| Saenz, Karen P | Social \& Behavioral Sciences <br> Doctor of Education, Master of Education, Bachelor of Science |  |
| Said, Adnan Nemr | Mathematics $\quad \begin{aligned} & \text { Master of Science, } \\ & \text { Bachelor of Science }\end{aligned}$ |  |
| Salazar, Denisse Selene | ealth Science | Bachelor of Science, Associate of Applied Science |
| Salehibakhsh, Fatemeh | Mathematics | Master of Science |
| Salinas II, Luis L. | Social \& Behavioral Science | Doctor of Philosophy, Master of Arts |
| Salisbury, Ruth Adriana R | English \& Communication | Master of Arts |
| Sanchez, Roberto | Manufacturing | Bachelor of Science |
| Sandberg, Stewart Kim | Life \& Natural Sciences | Doctor of Philosophy |
| Sanderson, Linda | Public Safety | Associate of Applied Science, Associate of Arts |
| Sapolucia, Togba C | Mathematics | Master of Science |
| Sardesai, Swati A | Media Arts \& Technology | Associate of Applied Arts |
| Sarkisov II, Sergey S. | Mathematics | Doctor of Philosophy, |
|  |  | Master of Science, |
|  |  | Bachelor of Science |
| Savant, Smita Ajay | Life \& Natural Sciences | Doctor of Philosophy |
| Sawant, Leena Abhay | Life \& Natural Sciences | Doctor of Philosophy |
| Schaet, Catherine Clare | Health Sciences | Bachelor of Arts, |
|  |  | Associate of Applied Science |



| Shell, Christy L | Business | Master of Arts, Master of Business Administration, Bachelor of Arts |
| :---: | :---: | :---: |
| Shepherd, Angela Renee | Health Sciences | Bachelor of Health Science |
| Sherman, Nora Jo | Business | Doctor of Philosophy, <br> Master of Arts, <br> Bachelor of Arts, <br> Associate of Arts |
| Shin, Juanna Inez | Liberal Arts, Humanities \& Edu | Master of Library Science Bachelor of Arts |
| Shippy, James E. | College Readiness | Doctor of Philosophy, Master of Education, Bachelor of Science |
| Shivers, Paralee Annette | English \& Communication | Master of Arts, |
| Shomaker, Mark Wayne | Social \& Behavioral Sciences | Juris Doctor, <br> Master of Public <br> Administration, <br> Bachelor of Arts |
| Shukla, Alka | Life \& Natural Sciences | Master of Science |
| Sihi, Supriya | Life \& Natural Sciences | Master of Science |
| Silva, Eva | College Readiness | Bachelor of Arts |
| Simpson, Nelson G. | Construction | Master of Science, Bachelor of Science |
| Singh, Jyothi | Life \& Natural Sciences | Doctor of Philosophy, Master of Philosophy |
| Singleterry, Tovia | Consumer Arts \& Sciences | Associate of Applied Science, Certificate |
| Sinmaz, Ercan | Business | Master of Science |
| Slowik, Jeffrey Allen | Construction | Certificate |
| Smith Jr., Edgar | Mathematics | Master of Arts, <br> Bachelor of Arts |
| Smith Whigham, Gwendo | Life \& Natural Sciences | Doctor of Chiropractic |
| Smith, Bren Kellar | English \& Communication | Master of Arts, Bachelor of Science |
| Smith, Courtney Jo | English \& Communication | Master of Fine Arts |
| Smith, Glenn | Health Sciences | Bachelor of Science |
| Smith, James A | Liberal Arts, Humanities \& Edu | Master of Arts, <br> Master of Library Science, <br> Bachelor of Arts |
| Smith, Laura A | College Readiness | Master of Education, Bachelor of Science |


| Smith, Louis Etta | Business | Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Smith, Nathan D | Liberal Arts, Humanities \& Edu | Doctor of Philosophy |
| Smith, Newton | Public Safety | Associate of Applied Science |
| Snelson, Michele R | Consumer Arts \& Sciences | Bachelor of Science, Associate of Applied Science |
| Snider, Gary K. | Visual \& Performing Arts | Master of Fine Arts |
| Sofranko, Michael | English \& Communication | Master of Fine Art |
| Soliz, Rudy | Business | Doctor of Philosophy, Master of Arts, <br> Bachelor of Science |
| Soltani, Seyed Shahin | Life \& Natural Sciences | Doctor of Medicine |
| Soto, John M | Public Safety | Associate of Applied Science |
| Spann, Larry D | Public Safety | Certificate |
| Speer, John | Social \& Behavioral Sciences | Doctor of Philosophy |
| Stagg, Danielle R | English \& Communication | Doctor of Education, Master of Arts, Bachelor of Arts |
| Stariha, Carolyn F. | Health Sciences | Associate of Applied Science |
| Starr, Joseph T | College Readiness | Master of Arts, Bachelor of Arts |
| Stauffer, Patrick Wayne | English \& Communication | Master of Science, Bachelor of Science |
| Sterling, Shani Dessie Inell | Visual \& Performing Arts | Master of Fine Arts |
| Stevens, Erica | English \& Communication | Doctor of Philosophy, Master of Arts |
| Stevens, Genevieve D | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Education, Bachelor of Arts |
| Stidham, Jennifer Boudrea | Liberal Arts, Humanities \& Edu | Master of Science |
| Stovall, Shandri Allen | Business | Master of Education, Bachelor of Business Administration |
| trayhorn, Faye | Health Sciences | Master of Business Administration, Bachelor of Science |
| Sun, Jing | Life \& Natural Sciences | Doctor of Science |
| Sundaram, Chitra | Life \& Natural Sciences | Doctor of Philosophy |
| Suraokar, Milind | Life \& Natural Sciences | Doctor of Philosophy, Master of Science |
| Suresh, Lakshmi Saritha E | College Readiness | Master of Science |
| Sutter, John B | Social \& Behavioral Sciences | Juris Doctor, <br> Master of Arts |


| Sutter, J-Ramsey | Social \& Behavioral Sciences | Juris Doctor, Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Sutton, Samuel M | Material Science | High School or High School Equivalency |
| Swaim, David S | Visual \& Performing Arts | Master of Fine Arts |
| Sykes, Christy Jo | Consumer Arts \& Sciences | Bachelor of Arts, <br> Associate of Science |
| Tafa, Kumela K | Life \& Natural Sciences | Doctor of Philosophy |
| Tahvilian, Hosein | Global Energy Institute | Master of Scienc |
| Tam, Karman L | College Readiness | Doctor of Education, Master of Arts |
| Tan, Carolyn Ghim Poay | Media Arts \& Technology | Master of Arts, Bachelor of Arts |
| Tang, Klairon K. | Liberal Arts, Humanities \& Edu | Master of Library Science, Master of Public Administration |
| Tannahill, R Neal | Social \& Behavioral Sciences | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Tapp, Jennifer E. | Liberal Arts, Humanities \& Edu | Master of Library Science |
| Taylor, Jean Lenore | Liberal Arts, Humanities \& Edu | Master of Library Science, Bachelor of Fine Arts |
| Taylor, Mia Deanka | Business | Master of Business <br> Administration, Bachelor of Science |
| Teas, Andrew Parker | Social \& Behavioral Sciences | Master of Arts, Bachelor of Arts |
| Tebbetts, Karlien | Health Sciences | Bachelor of Science, Associate of Science |
| Teel, Deanna | Business | Master of Business <br> Administration, Bachelor of Science |
| Tefera, Getaneh Bayu | Mathematics | Doctor of Philosophy, Master of Science |
| Tesh, Geneva Marie | College Readiness | Master of Arts, Bachelor of Arts |
| Thirtle, Valerie Bell | Automotive Technology | High School or High School Equivalency |
| Thomas, James B. | Liberal Arts, Humanities \& Edu | Doctor of Philosophy |
| Thomas, John C | Mathematics | Doctor of Philosophy |
| Thomas, Molly | Life \& Natural Sciences | Doctor of Medicine |
| Thomas, Susan Santhi | Health Sciences | Master of Science Nursing |



| Vacca, Jennifer R | English \& Communication | Master of Arts, Bachelor of Arts |
| :---: | :---: | :---: |
| Valdez, Juanita Marie | Visual \& Performing Arts | Master of Fine Arts |
| Vallejo, Bernardo | Liberal Arts, Humanities \& Edu | Doctor of Philosophy, Master of Arts, Bachelor of Arts |
| Van Damme, Eddy | Consumer Arts \& Sciences | Certificate |
| Vance, Clen | Mathematics | Master of Education, Bachelor of Arts |
| Varghese, Ranjana Ruth Dasl English \& Communication |  | Doctor of Philosophy, Master of Fine Arts |
| Varner, Justin Ryan | Visual \& Performing Arts | Master of Fine Arts |
| Velasquez, Evelyn V. | Business | Master of Business Administration, Bachelor of Science |
| Villacis, Carlos H | Liberal Arts, Humanities \& Edu | Master of Arts, Bachelor of Arts |
| Villamil, Melissa Marie | College Readiness | Master of Science, Bachelor of Arts |
| Villanueva, Armando Ricardo Construction |  |  |
| Villarreal, Rodolfo C | Liberal Arts, Humanities \& Edu | Master of Arts |
| Villarreal, Rolando Rene | Material Science | Associate of Applied Science |
| Villarreal, Stalina Emmanue | English \& Communication | Master of Fine Arts, Bachelor of Fine Arts |
| Villines, Jeffrey Raymond | English \& Communication | Doctor of Philosophy, Master of Arts |
| Virgilio, James Gasper | English \& Communication | Master of Education, Bachelor of Arts |
| Voight, Michele Renee | ealth Sciences | Master of Public Administration, Bachelor of Science |
| Voss, Eugene | College Readiness | Master of Arts |
| Vukovich, James W | Visual \& Performing Arts | High School or High School Equivalency |
| Wachtendorf, Kirt A | Material Science | Certificate |
| Wade, Freddie | Education | Doctor of Education |
| Wagle, Jyoti R | Life \& Natural Sciences | Doctor of Philosophy |
| Waldo, Jennifer Elizabeth | Media Arts \& Technology | Master of Fine Arts, Bachelor of Arts |
| Walton, Jeffrey S. | Media Arts \& Technology | High School or High School Equivalency |
| Ward, Pauline Patrecia | Life \& Natural Sciences | Doctor of Philosophy |



| Williams, Hillard Gerard | College Readiness | Master of Arts, Bachelor of Science, Associate of Applied Science, Associate of Arts |
| :---: | :---: | :---: |
| Williams, Joel | Mathematics | Master of Science, Bachelor of Arts |
| Williams, Penelope | Health Sciences | Doctor of Education, Master of Education, Bachelor of Science |
| Williams, Shawna Dionne | Social \& Behavioral Sciences | Master of Arts, Bachelor of Science |
| Willis, Staci | Social \& Behavioral Sciences | Doctor of Philosophy |
| Wilroy, Elizabeth Johnson | Health Sciences | Master of Arts, Bachelor of Science |
| Wilson, Brigid Anne | Liberal Arts, Humanities \& Edu | Doctor of Philosophy |
| Wilson-Everett, Mercedes Lyı College Readiness Master of Education, ${ }^{\text {Machelor of Science }}$ |  |  |
| Winters, Saran Savage | Liberal Arts, Humanities \& Edu | Bachelor of Science <br> Master of Arts, <br> Bachelor of Arts |
| Witt, Woodrow W. | Visual \& Performing Arts | Doctor of Musical Arts |
| Woest, June | Visual \& Performing Arts | Master of Fine Arts, Bachelor of Science |
| Wolfe, Steven R. | English \& Communication | Doctor of Philosophy |
| Wooten, Theresa | Health Sciences | Master of Science, Bachelor of Science |
| Wright, James E | English \& Communication | Doctor of Philosophy, Master of Arts |
| Yampey-Jorg, Liberal Arts, Humanities \& Edu |  | Master of Arts, Bachelor of Arts |
| Yates, DockLucas | Health Sciences | Bachelor of Science, Associate of Applied Science |
| Yip, Karen Blair | Life \& Natural Sciences | Bachelor of Arts |
| Zamanian, Ramin David | Social \& Behavioral Sciences | Master of Arts, Bachelor of Arts |
| Zambrano, Mariac | Consumer Arts \& Sciences | Associate of Applied Science |
| Zerby, John | English \& Communication | Master of Fine Arts, Bachelor of Arts, Associate of Arts |
|  | Global Energy Institute | Master of Business |
|  |  | Administration, |
|  |  | Master of Science, Bachelor of Science |



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[^0]:    All Board policies can be found at www.hccs.edu/about-hcc/policies.

[^1]:    1 A list of electives appears in the Core Curriculum section of this catalog.

[^2]:    A list of electives appears in the Core Curriculum section of this catalog.

