



MANUFACTURING PROGRAMS - CATALOG YEAR 2014 - 2015

Find the Right Educational Degree Plan

There are two distinctly different ways to pursue your education at HCC. Each pattern has its own particular purpose, and its own advantages and disadvantages. Read the descriptions carefully to make an informed choice. You must choose one of the two following patterns: The *Academic Transfer* pattern of education **OR** The *Workforce Career* pattern of education. For more information, visit our [College and Career Planner Guide](#).

WORKFORCE CAREERS

CORROSION TECHNOLOGY

Manufacturing Engineering Technology - Corrosion Science Technology Specialization - AAS 2
 Atmospheric Corrosion - Certificate Level I. 3
 Cathodic Protection - Certificate Level I. 4

MACHINING TECHNOLOGY

Machining Technology - AAS 5
 Machining Technology - Certificate Level I. 6
 Machining Technology - Intermediate Certificate (CI) 7

MANUFACTURING ENGINEERING TECHNOLOGY

Manufacturing Engineering Technology - AAS 8-9
 Manufacturing Engineering Technology - Certificate Level I 10

WELDING

Basic Welding Helper - Certificate Level I 11
 Advanced Welding - Certificate Level I 12

**HOUSTON COMMUNITY COLLEGE SYSTEM
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

___ FA ___ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

MANUFACTURING ENGINEERING TECHNOLOGY - CORROSION SCIENCE TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing required prior to first enrollment.									
FIRST YEAR									
FIRST SEMESTER 14									
LEAD 1200 Workforce Development with Critical Thinking	2								
METL 1313 Introduction to Corrosion	3								
ENGL 1301 Composition I	3								
ENTC 2331 Manufacturing Materials	3								
MATH 1314 College Algebra	3								
SECOND SEMESTER 13									
XXXX #3## Natural Science Elective	3								
METL 1301 Introduction to Metallurgy	3								
METL 2441 Cathodic Protection	4								
DFTG 1305 Technical Drafting	3								
SECOND YEAR									
FIRST SEMESTER 16									
XXXX #3## Humanities/Fine Arts Elective	3								
INMT 1311 Computer Integrated Manufacturing	3								
HYDR 1345 Hydraulics and Pneumatics	3								
NDTE 1405 Introduction to Ultrasonics	4								
ENTC 1347 Safety and Ergonomics <i>OR</i>									
OSHT 1301 Introduction to Safety and Health	3								
SECOND SEMESTER 17									
INMT 1343 Computer Aided Design/Computer Aided Manufacturing (CAD-CAM)	3								
METL 2405 Atmospheric Corrosion Control	4								
INMT 1317 Industrial Automation	3								
CETT 1409 DC-AC Circuits	4								
XXXX #3## Social/ Behavioral Science Elective	3								
PROGRAM TOTAL	60								

**HOUSTON COMMUNITY COLLEGE SYSTEM
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

___ FA ___ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

MACHINING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing required prior to first enrollment.									
FIRST YEAR									
FIRST SEMESTER	14								
LEAD 1200 Workforce Development with Critical Thinking	2								
TECM 1301 Industrial Mathematics	3								
MCHN 1302 Print Reading for Machining Trades	3								
ENTC 1347 Safety and Ergonomics	3								
MCHN 1338 Basic Machine Shop I	3								
SECOND SEMESTER	15								
MCHN 1308 Basic Lathe	3								
MCHN 1313 Basic Milling Operations	3								
ITSC 1309 Integrated Software Applications I	3								
MCHN 1320 Precision Tools and Measurement	3								
ARTS 1316 Foundation Drawing I	3								
SECOND YEAR									
FIRST SEMESTER	18								
MCHN 2433 Advanced Lathe Operations	4								
MCHN 2437 Advanced Milling Operations	4								
MCHN 2447 Specialized Tools and Fixtures	4								
MCHN 1305 Metals and Heat Treatment <u>OR</u>									
ENTC 2331 Manufacturing Materials	3								
XXXX #3## Social/Behavioral Science/General Ed. Elective	3								
SECOND SEMESTER	15								
HUMA 1301 Introduction to Humanities <u>OR</u>									
XXXX #3## General Education Elective	3								
ARTS 2341 Art Metals I <u>OR</u>									
XXXX #3## General Education Elective	3								
XXXX #3## Math/Natural Science General Ed. Elective	3								
MCHN 2331 Operation of CNC Turning Centers <u>OR</u>									
INMT 1345 Computer Numerical Controls	3								
MCHN 1370 Lean Manufacturing-Machinist**	3								
PROGRAM TOTAL	62								

The **capstone course is MCHN 1370 - Lean Manufacturing - Machinist.

**HOUSTON COMMUNITY COLLEGE SYSTEM
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

___ FA ___ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

MANUFACTURING ENGINEERING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE

HCCS Course Requirement	cr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
TSI Testing required prior to first enrollment.									
FIRST YEAR									
FIRST SEMESTER									
LEAD 1200 Workforce Development with Critical Thinking	2								
TECM 1301 Industrial Mathematics	3								
MCHN 1302 Print Reading for Machining Trades	3								
ENTC 1347 Safety and Ergonomics	3								
MCHN 1338 Basic Machine Shop I	3								
SEMESTER TOTAL	14								
SECOND SEMESTER									
ITSC 1309 Integrated Software Applications I	3								
HYDR 1345 Hydraulics and Pneumatics	3								
INMT 1319 Manufacturing Processes	3								
MCHN 1341 Basic Machine Shop II	3								
ARTS 1316 Foundation Drawing I	3								
SEMESTER TOTAL	15								
SECOND YEAR									
FIRST SEMESTER									
XXXX #3## Social/Behavioral Science Elective	3								
ENTC 2331 Manufacturing Materials	3								
ELPT 1311 Basic Electrical Theory	3								
INMT 1345 Computer Numerical Controls	3								
XXXX #3## Humanities/Fine Arts Elective	3								
XXXX #3## Natural Science Elective	3								
SEMESTER TOTAL	18								

(Continued on page 2)

