

# Manufacturing Programs

## **Instrumentation and Controls Engineering Technology**

- 2 Instrumentation and Controls Engineering Technology-AAS
- 3 Instrumentation and Controls Engineering Technology-Certificate
- 4 Instrumentation and Controls Engineering Technology- Fuel Cell Specialization-Certificate

## **Machining Technology**

- 5 Machining Technology-AAS
- 7 Basic Machining Technology-Certificate
- 8 Machining Technology-Certificate

## **Manufacturing Engineering Technology**

- 9 Manufacturing Engineering Technology-AAS
- 10 Manufacturing Engineering Technology-Certificate
- 11 Manufacturing Process-Certificate
- 12 Manufacturing Engineering Technology-Plastic Engineering Technology Specialization
- 13 Manufacturing Engineering Technology-Plastic Engineering Technology-Certificate

## **Welding**

- 14 Basic Welding Helper-Certificate
- 15 Basic Welding-Certificate
- 16 Welding-Mig Specialization-Certificate
- 17 Welding- Pipe Specialization-Certificate
- 18 Welding-TIG Specialization-Certificate

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

\_\_\_ FA \_\_\_VA

NAME:	SS#:	DATE:
COLLEGE:	COUNSELOR/ADVISOR:	CATALOG YEAR: 07-08

**INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY- ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	Transfer/ Institution	Substitution Course	Substitute (SU) Transfer (TR)	Comment/Disapproval	Approval Signature	Date
TSI Testing is required prior to first enrollment						
FIRST YEAR						
FIRST SEMESTER						
INTC 1312 Introduction to Instrumentation and Safety Technology						
INTC 1456 Instrumentation Calibration						
CPMT 1407 Electronic and Computer Skills						
ITSC 1309 Integrated Software Applications I						
MATH 1314 College Algebra						
SECOND SEMESTER						
ENGL 1301 English Composition						
MATH 1316 Trigonometry						
INTC 1441 Principles of Automatic Control						
CPMT 1403 Introduction to Computer Technology						
XXXX #3## Approved Humanities/Fine Arts General Education Elective						
SECOND YEAR						
FIRST SEMESTER						
INTC 1343 Application of Industrial Automatic Control						
SPCH #3## Speech Elective						
INTC 2330 Troubleshooting						
XXXX #3## Program-Related Elective						
PHYS 1401 College Physics						
SECOND SEMESTER						
INTC 2436 Distributed Control and Programmable Logic						
XXXX #3## Math/Natural Science Elective						
XXXX #3## Social Science General Education Elective						
XXXX #3## Program-Related Elective						





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**MACHINING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	Transfer/ Institution	Substitution Course	Substitute (SU) Transfer (TR)	Comment/Disapproval	Approval Signature	Date
<b>FIRST YEAR</b>						
<b>FIRST SEMESTER</b>						
MCHN 1201 Beginning Machine Shop						
MCHN 1217 Machining I						
MCHN 1211 Basic Lathe I						
MCHN 1220 Basic Lathe II						
MCHN 1214 Milling Machine I						
MCHN 1221 Milling Machine II						
MCHN 1391 Special Topics in Machinist/ Machine Technologist						
<b>SECOND SEMESTER</b>						
MCHN 1230 Statistical Process Control for Machinist						
MCHN 2231 Advanced Engine Lathe I						
MCHN 2235 Advanced Engine Lathe II						
MCHN 2230 Milling Machine III						
MCHN 2238 Milling Machine IV						
MCHN 2234 Tools and Fixtures I						
MCHN 2239 Tools and Fixtures II						
MCHN 1291 Special Topics in Machinist/ Machine Technologist						
<b>SECOND YEAR</b>						
<b>FIRST SEMESTER</b>						
ENGL 1301 Composition I						
MATH 1314 College Algebra						
PSYC 2302 Applied Psychology						
HYDR 1309 Basic Fluid Power I (Hydraulics)						
HYDR 1315 Basic Fluid Power II (Pneumatics)						
<b>SECOND SEMESTER</b>						
ENGL 2311 Technical and Industrial Correspondence and Report Writing						
MATH 1316 Plane Trigonometry						
XXXX #3## Approved Humanities/Fine Arts Elective						
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**MANUFACTURING ENGINEERING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	Transfer/Substitution Institution	Course	Substitute (SU) Transfer (TR)	Comment/Disapproval	Approval Signature	Date
FIRST YEAR						
FIRST SEMESTER						
INMT 1248		Manufacturing Processes (Short Course)				
INMT 1249		Manufacturing Processes (Short Course)				
CETT 1409		DC-AC Circuits				
XXXX #3##		Approved Humanities/Fine Arts Gen. Ed. Elec.				
ENGL 1301		Composition I				
MATH 1314		College Algebra				
SECOND SEMESTER						
INMT 1242		CAD-CAM (Short Course)				
INMT 1243		CAD-CAM (Short Course)				
INMT 1244		Computer Numerical Controls (Short Course)				
INMT 1245		Computer Numerical Controls (Short Course)				
MATH 1316		Plane Trigonometry				
XXXX #3##		Social Science General Education Elective				
ENTC 1423		Strength of Materials				
SECOND YEAR						
FIRST SEMESTER						
INMT 1391		Special Topics-Plant Layout				
INMT 1391		Special Topics-Time and Motion Study				
PHYS 1401		College Physics				
ENGL 2311		Technical and Industrial Correspondence and Report Writing				
HYDR 1309		Basic Fluid Power 1 (Hydraulics)				
HYDR 1315		Basic Fluid Power 2 (Pneumatics)				
SECOND SEMESTER						
INMT 1391		Special Topics-Principles of Tool Design				
INMT 1317		Industrial Automation				
INMT 1240		Computer Integrated Manufacturing (Short Course)				
INMT 1241		Computer Integrated Manufacturing (Short Course)				
ENTC 1301		Robotics I				
INMT 1380		Cooperative Education -Industrial/Manufacturing Technology/Technician				





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**MANUFACTURING ENGINEERING TECHNOLOGY - AAS - PLASTIC ENGINEERING TECHNOLOGY SPECIALIZATION**

HCCS Course Requirement	Transfer/Substitution		Substitute (SU) Transfer (TR)	Comment/Disapproval	Approval Signature	Date
	Institution	Course				
FIRST YEAR						
FIRST SEMESTER						
PLTC 1301 Introduction to Plastics						
INMT 1248 Manufacturing Processes (Short Course)						
INMT 1249 Manufacturing Processes (Short Course)						
INMT 1391 Special Topics in Manufacturing Tech./Technician						
ENGL 1301 Composition I						
MATH 1314 College Algebra						
XXXX #3## Social Science General Education Elective						
SECOND SEMESTER						
XXXX #3## Approved Humanities/Fine Arts Gen. Ed. Elective						
MATH 1316 Plane Trigonometry						
PLTC 1303 Plastics Composites						
PLTC 1306 Plastic Quality Control						
INMT 1242 CAD-CAM I (Short Course)						
INMT 1243 CAD-CAM II (Short Course)						
SECOND YEAR						
FIRST SEMESTER						
HYDR 1315 Basic Fluid Power II (Pneumatics)						
HYDR 1309 Basic Fluid Power I (Hydraulics)						
INMT 1380 Cooperative Education -Manufacturing Technology/Technician						
ENGL 2311 Technical and Industrial Correspondence and Report Writing						
INMT 1391 Special Topics in Manufacturing Technology/Technician						
SECOND SEMESTER						
INMT 1240 Computer Integrated Manufacturing (Short Course)						
INMT 1241 Computer Integrated Manufacturing (Short Course)						
PLTC 1343 Mold Design and Maintenance						
PLTC 1445 Plastic Processes I						
INMT 1391 Special Topics in Manufacturing Tech./Technician						
INMT 1317 Industrial Automation						











