



Associate in Science

COT Pathway Program: Technology Studies: Industrial Technology Option (EF19) 2015-2016

Transfer Program: The purpose of the program is to provide students with a general education core and industry specific courses (specialized core) which will permit students to enter directly into employment and provide the basis for a transfer opportunity. Students selecting this program may be recent high school graduates, particularly those students who completed their education at a technical high school, and current employees in local industries seeking to advance their careers.

Outcomes:

- Demonstrate the ability to research, develop reports, and prepare oral and written presentations applicable to Business and Industry.
- Apply appropriate mathematical and scientific principles in the manufacturing setting.
- Demonstrate understanding of the impact of social and economic systems on the manufacturing industry.
- Demonstrate proficiency in current manufacturing processes including CAD, CAM, and CNC.
- Develop dimensional measurement ability as applied in the manufacturing environment.
- Demonstrate the ability to define structure and properties and tensile strength of materials and their impact in selection and utilization of materials for manufacturing processes.
- Demonstrate the ability to complete an analysis of environmental safety, risk factors, problem identification, and management controls within State and National environmental guidelines for business and industry.

Suggested Sequence of Courses:

Prerequisite or parallel courses may be required. Please check individual course descriptions for details.

Freshman Year

ENG* E101	Composition	3
MAT* E137	Intermediate Algebra	3
CSA* E106	Introduction to Computer Applications	4
CAD* E133	CAD Mechanical AutoCad	3
History	Elective	3
ENG* E102	Literature & Composition	3
MAT* E186	Precalculus	4
CHE* E111	Concepts of Chemistry	4
<i>OR</i>		
CHE* E121	<i>General Chemistry I</i>	
COM* E173	Public Speaking	3
MFG* E102	Manufacturing Processes	3

Sophomore Year

BBG* E101	Introduction to Business	3
MFG* E209	Engineering Processes	3
MFG* E230	Statistical Process Control (SPC)	3
PHY* E121	General Physics I	4
<i>OR</i>		
PHY* E221	<i>Calculus-Based Physics I</i>	
ECN* E102	Principles of Micro-Economics	3
MFG* E120	Metrology	3
MFG* E226	Environmental, Safety, and Health Management	3
Fine Art/Humanities	Elective	3
BBG* E281	Writing and Research in Business and Industry	3
MFG* E258	Computer Numeric Control (CNC)	3
SOC* E101	Principles of Sociology	3

Total Credits: 67

Note: A minimum of 15 credits must be taken in 200-level courses

Note: For degree completion the student must complete the Computer Literacy Requirement.