

PROGRAMS

COMPUTER INTEGRATED-MACHINING TECHNOLOGY

The Computer-Integrated Machining curriculum prepares students with the analytical, creative, and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Course work may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement, and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification exams.

Associate (A50210)

Fall Semester 1

		Lec	Lab	Clinic	Credit
ACA-115	Success & Study Skills	0	2	0	1
English Options	English Options Listed Below	3	0	0	3
ISC-112	Industrial Safety	2	0	0	2
MAC-114	Introduction to Metrology	2	0	0	2
MAC-131	Blueprint Reading-Machining I	1	2	0	2
MAC-141	Machining Applications I	2	6	0	4
MAC-151	Machining Calculations	1	2	0	2
				Total:	16

Spring Semester 1

		Lec	Lab	Clinic	Credit
ISC-220	Lean Manufacturing	2	2	0	3
MAC-115	Grinding Operations	2	2	0	3
MAC-121	Introduction to CNC	2	0	0	2
MAC-142	Machining Applications II	2	6	0	4
MAC-152	Advanced Machining Calculations	1	2	0	2
MAC-229	CNC Programming	2	0	0	2
				Total:	16

Summer Semester 1

		Lec	Lab	Clinic	Credit
Communications Option	Communications Options Listed Below	3	0	0	3
Math Option	Mathematics Options Listed Below	2	2	0	3
				Total:	6

Fall Semester 2

		Lec	Lab	Clinic	Credit
MAC-143	Machining Applications III	2	6	0	4
MAC-222	Advanced CNC Turning	1	3	0	2

Fall Semester 2

		Lec	Lab	Clinic	Credit
MAC-224	Advanced CNC Milling	1	3	0	2
MAC-231	Cam: Computer Numerical Control Turning	1	4	0	3
MAC-232	CAM: Computer Numerical Control Milling	1	4	0	3
Social & Behavioral Option	Social & Behavioral Science Options Listed Below	3	0	0	3
Total:					17

Spring Semester 2

		Lec	Lab	Clinic	Credit
Humanities Option	Humanities and Fine Arts Options Listed Below	3	0	0	3
MAC-233	Appl in CNC Machining	2	12	0	6
MAC-234	Advanced Multi-Axis Machining	2	3	0	3
MAC-234A	Advanced Multi-Axis Machining Lab	0	3	0	1
WBL-111	Work-Based Learning I	0	10	0	1
Total:					14

Total Credit Hours: 69**English: Choose One of the following courses:**

		Lec	Lab	Clinic	Credit
ENG-110	Freshman Composition	3	0	0	3
ENG-111	Writing and Inquiry	3	0	0	3

Communications: Choose One of the following:

		Lec	Lab	Clinic	Credit
COM-120	Intro to Interpersonal Communication	3	0	0	3
COM-231	Public Speaking	3	0	0	3
ENG-112	Writing and Research in the Disciplines	3	0	0	3

Mathematics: Choose at least 3 hours from the following courses:

		Lec	Lab	Clinic	Credit
MAT-110	Mathematical Measurement and Literacy	2	2	0	3
MAT-143	Quantitative Literacy	2	2	0	3

Social and Behavioral Sciences Choices for AAS Degree Programs Unless Otherwise Noted:

		Lec	Lab	Clinic	Credit
ECO-251	Principles of Microeconomics	3	0	0	3
ECO-252	Principles of Macroeconomics	3	0	0	3
POL-120	American Government	3	0	0	3
PSY-150	General Psychology	3	0	0	3
SOC-210	Introduction to Sociology	3	0	0	3

Humanities/Fine Arts Choices for AAS Degree Programs Unless Otherwise Noted:

		Lec	Lab	Clinic	Credit
ART-111	Art Appreciation	3	0	0	3
HUM-110	Technology and Society	3	0	0	3
HUM-115	Critical Thinking	3	0	0	3

Humanities/Fine Arts Choices for AAS Degree Programs Unless Otherwise Noted:

MUS-110 Music Appreciation

Lec	Lab	Clinic	Credit
3	0	0	3

Diploma (D50210)

Fall Semester 1

ACA-115	Success & Study Skills
Communication Option	Communication Options Listed Below
ISC-112	Industrial Safety
MAC-114	Introduction to Metrology
MAC-131	Blueprint Reading-Machining I
MAC-141	Machining Applications I
MAC-151	Machining Calculations

Lec	Lab	Clinic	Credit
0	2	0	1
3	0	0	3
2	0	0	2
2	0	0	2
1	2	0	2
2	6	0	4
1	2	0	2
Total:			16

Spring Semester 1

ISC-220	Lean Manufacturing
MAC-115	Grinding Operations
MAC-121	Introduction to CNC
MAC-142	Machining Applications II
MAC-143	Machining Applications III
MAC-152	Advanced Machining Calculations

Lec	Lab	Clinic	Credit
2	2	0	3
2	2	0	3
2	0	0	2
2	6	0	4
2	6	0	4
1	2	0	2
Total:			18

Summer Semester 1

Math Option Mathematics Options Listed Below

Lec	Lab	Clinic	Credit
2	2	0	3
Total:			3

Total Credit Hours: 37

Communications: Choose One of the following:

COM-120	Intro to Interpersonal Communication
COM-231	Public Speaking
ENG-110	Freshman Composition
ENG-111	Writing and Inquiry

Lec	Lab	Clinic	Credit
3	0	0	3
3	0	0	3
3	0	0	3
3	0	0	3

Mathematics: Choose at least 3 hours from the following courses:

MAT-110	Mathematical Measurement and Literacy
MAT-143	Quantitative Literacy

Lec	Lab	Clinic	Credit
2	2	0	3
2	2	0	3

Certificate (C50210)

Fall Semester 1

		Lec	Lab	Clinic	Credit
ISC-112	Industrial Safety	2	0	0	2
MAC-114	Introduction to Metrology	2	0	0	2
MAC-131	Blueprint Reading-Machining I	1	2	0	2
MAC-141	Machining Applications I	2	6	0	4
MAC-151	Machining Calculations	1	2	0	2
				Total:	12

Total Credit Hours: 12

