

CIM

Certificate - Production Operator

New Program Offering

- 17 Credits

Program Plan

NEW

Courses	Production Operator	Credits
CIM 1100	Interpreting Engineering Drawings - Lecture	1
CIM 1101	Interpreting Engineering Drawings - Lab	1
CIM 1102	CNC Programming I	3
CIM 1103	Lathe Turning I	2
CIM 1104	Vertical Milling I	2
CIM 1105	Surface Grinding I	2
CIM 1106	Machine Tool Theory I	2
CIM 1150	Machining Computations	2
CIM 1107	Level 1 Internship	2
	Total Credits	17

CIM
Certificate - CNC Entry Level Operator

New Program Offering

- 16 Credits

Program Plan

NEW

Courses	CNC Entry Level Operator <i>*Prerequisite - CNC Production Certificate</i>	Credits
CIM 1201	Interpreting Engineering Drawings II	2
CIM 1202	CNC Programming II	3
CIM 1203	Lathe Turning II	3
CIM 1204	Vertical Milling II	2
CIM 1205	Surface Grinding II	2
CIM 1206	Machine Tool Theory II	2
CIM 1208	Applications I	2
	Total Credits	16

CIM

Diploma - Computer Integrated Machining

Program Offering Redesign

- 66 Credits

Program Plans

NEW

Courses		Credits
CIM 1100	Interpreting Engineering Drawings - Lecture	1
CIM 1101	Interpreting Engineering Drawings - Lab	1
CIM 1102	CNC Programming I	3
CIM 1103	Lathe Turning I	2
CIM 1104	Vertical Milling I	2
CIM 1105	Surface Grinding I	2
CIM 1106	Machine Tool Theory I	2
CIM 1150	Machining Computations	2
CIM 1107	Level 1 Internship*	2
CIM 1201	Interpreting Engineering Drawings II	2
CIM 1202	CNC Programming II	3
CIM 1203	Lathe Turning II	3
CIM 1204	Vertical Milling II	2
CIM 1205	Surface Grinding II	2
CIM 1206	Machine Tool Theory II	2
CIM 1208	Applications I	2
CIM 2101	Interpreting Engineering Drawings III	3
CIM 2102	CNC Programming III	3
CIM 2106	Jig & Fixtures	2
CIM 2107	Quality Process and Inspection	2
CIM 2108	Applications II* variable credit 2-4	4
	<i>*If Internship is completed, only 2 credits of Applications II are required</i>	
CIM 2250	Applied Welding	2
CIM 2201	Interpreting Engineering Drawings IV	3
CIM 2202	CNC Programming IV	3
CIM 2206	Mold & Die	2
CIM 2207	Machining & Process Theory	3
CIM 2208	Applications III (Capstone)* variable credit 2-4	4
	<i>*If Internship is completed, only 2 credits of Applications III are required</i>	
<p>To complete the diploma, students must complete an additional 3 credits from courses appearing in any of the 10 MnTC Goal Areas. Course must be selected in consultation with advisor/faculty.</p>		
COMM 120	Small Group Communications	3
or		
COMM 140	Interpersonal Communications	3
	Elective outside goal area 1.	3
	Total LAS Credits	6
	Total Credits	66

OLD

Required Technical Courses (18 Courses)

You must complete all of the following courses:

CIM 1115	Quality Assurance I	(3 Credits)
CIM 1126	Concept Engineering I	(4 Credits)
CIM 1136	CNC Programming I	(3 Credits)
CIM 1146	Applications I	(5 Credits)
CIM 1150	Machining Computations	(3 Credits)
CIM 1216	Quality Assurance II	(2 Credits)
CIM 1225	Concept Engineering II	(4 Credits)
CIM 1235	CNC Programming II	(3 Credits)
CIM 1246	Applications II	(3 Credits)
CIM 2250	Applied Welding	(2 Credits)
CIM 2115	Quality Assurance III	(3 Credits)
CIM 2125	Concept Engineering III	(4 Credits)
CIM 2135	CNC Programming III	(3 Credits)
CIM 2145	Applications III	(4 Credits)
CIM 2225	Concept Engineering IV	(4 Credits)
CIM 2245	Applications IV	(4 Credits)
CIM 2235	CNC Programming IV	(3 Credits)
CIM 2216	Quality Assurance IV	(3 Credits)

Required Liberal Arts & Sciences (3 Credits)

You must complete one of the following courses:

COMM140	Interpersonal Communication	(3 Credits)
Or		
COMM120	Small Group Communication	(3 Credits)
	Elective Liberal Arts and Science	(3 Credits)

To complete the diploma, students must complete an additional 3 credits from courses appearing in any of the 10 MnTC Goal Areas. Course must be selected in consultation with advisor/faculty.

Total Credits

66

CIM

AAS - Computer Integrated Machining

Program Offering Redesign

- 72 Credits

Program Plans

NEW

Courses		Credits
CIM 1100	Interpreting Engineering Drawings - Lecture	1
CIM 1101	Interpreting Engineering Drawings - Lab	1
CIM 1102	CNC Programming I	3
CIM 1103	Lathe Turning I	2
CIM 1104	Vertical Milling I	2
CIM 1105	Surface Grinding I	2
CIM 1106	Machine Tool Theory I	2
CIM 1150	Machining Computations	2
CIM 1107	Level 1 Internship*	2
CIM 1201	Interpreting Engineering Drawings II	2
CIM 1202	CNC Programming II	3
CIM 1203	Lathe Turning II	3
CIM 1204	Vertical Milling II	2
CIM 1205	Surface Grinding II	2
CIM 1206	Machine Tool Theory II	2
CIM 1208	Applications I	2
CIM 2101	Interpreting Engineering Drawings III	3
CIM 2102	CNC Programming III	3
CIM 2106	Jig & Fixture	2
CIM 2107	Quality Process and Inspection	2
CIM 2108	Applications II* variable credit 2-4	4
	<small>*If Internship is completed, only 2 credits of Applications II are required</small>	
CIM 2250	Applied Welding	2
CIM 2201	Interpreting Engineering Drawings IV	3
CIM 2202	CNC Programming IV	3
CIM 2207	Machining & Process Theory	2
CIM 2208	Applications III (Capstone)* variable credit 2-4	4
	<small>*If Internship is completed, only 2 credits of Applications III are required</small>	
To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas.		
COMM 120	Small Group Communications	3
or		
COMM 140	Interpersonal Communications	3
HUM 100	Critical Thinking	3
or		
PHIL 100	Ethics in Society	3
One course in goal area 3 or 4.		3-4
Electives to total 15.		5-6
Total LAS Credits		15
Total Credits		72

OLD

Required Technical Courses (17 Courses)

You must complete all of the following classes:

CIM 1115	Quality Assurance I	(3 Credits)
CIM 1126	Concept Engineering I	(4 Credits)
CIM 1136	CNC Programming I	(3 Credits)
CIM 1146	Applications I	(5 Credits)
CIM 1150	Machining Computations	(3 Credits)
CIM 1216	Quality Assurance II	(2 Credits)
CIM 1225	Concept Engineering II	(4 Credits)
CIM 1235	CNC Programming II	(3 Credits)
CIM 1246	Applications II	(3 Credits)
CIM 2250	Applied Welding	(2 Credits)
CIM 2115	Quality Assurance III	(3 Credits)
CIM 2125	Concept Engineering III	(4 Credits)
CIM 2135	CNC Programming III	(3 Credits)
CIM 2145	Applications III	(4 Credits)
CIM 2225	Concept Engineering IV	(4 Credits)
CIM 2235	CNC Programming IV	(3 Credits)
CIM 2245	Applications IV	(4 Credits)

Required Liberal Arts and Sciences (6 Courses)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas.

The following courses are required:

ENGL100	Composition	(4 Credits)
HUM 100	Critical Thinking	(3 Credits)
CHEM108	Introduction to Chemistry	(4 Credits)
PHYS101	Introductory Physics	(3 Credits)
MATH120	College Algebra	(4 Credits)
COMM110	Public Speaking	(3 Credits)
Or		
COMM120	Small Group Communication	(3 Credits)
Or		
COMM140	Interpersonal Communication	(3 Credits)

Total Credits

72
