



## Academic & Career PATHWAYS

## **Associate of Applied Science (AAS)**

## Computer Integrated Machining and Manufacturing (CIMM) Die Making – Advising Guide

This program, designed by MCC's Precision Machining Consortium industry partners, teaches the skills needed to build and maintain dies. Die Makers fabricate stamping, cutting, and forming dies that build the products used in everyday items such as cars, toasters, fishing boats, and rifles. We are certified by the National Institute for Metalworking Skills (NIMS). For more information, please refer to <a href="https://mcckc.edu/programs/computer-integrated-machining/">https://mcckc.edu/programs/computer-integrated-machining/</a>.

Complete all the courses below to earn the AAS degree and the highlighted courses only to earn the Mill Certificate.

Course   Degree Requirements Met   Credits   Action Steps	•	_							
□ CIMM 100 Intro to Machining & Manufacturing		Course	Degree Requirements Met	Credits	Action Steps				
□ CIMM 105 Machine Trades Print Reading									
□ CIMM 115 Manual Mill Program Requirement 3 □ CIMM 122 CNC Mill Operation Fundamentals Program Requirement 4 □ CIMM 104 Metrology Program Requirement 2 □ EHSS 111 Intro to Health & Safety for General Industry Total Credits 15  Semester 2 □ CIMM 106 Geometric Dimensioning Tolerancing Program Requirement 3 □ CIMM 110 Manual Lathe Operation Program Requirement 3 □ CIMM 110 Manual Lathe Operation Program Requirement 4 □ ENGL 101 Composition & Reading I General Education 3 □ MATH 103 Technical Mathematics I OR MATH 150 Program Requirement 3 ■ MATH 150 Program Requirement 3 ■ MATH 150 Program Requirement 4 ■ COMM 100 Fundamentals of Speech General Education 3 ■ MATH 150 Program Requirement 3 ■ COMM 100 Fundamentals of Speech General Education 3 ■ Communication Speech		CIMM 100 Intro to Machining & Manufacturing	Program Requirement	3	Meet with Student				
CIMM 122 CNC Mill Operation Fundamentals Program Requirement 4  □ CIMM 104 Metrology Program Requirement 2  □ EHSS 111 Intro to Health & Safety for General Industry		CIMM 105 Machine Trades Print Reading	Program Requirement	2					
□ CIMM 104 Metrology Program Requirement 2 □ EHSS 111 Intro to Health & Safety for General Industry  Total Credits 15  Semester 2 □ CIMM 106 Geometric Dimensioning Tolerancing Program Requirement 3 □ CIMM 110 Manual Lathe Operation Program Requirement 3 □ CIMM 121 CNC Lathe Operation Fundamentals Program Requirement 4 □ ENGL 101 Composition & Reading I General Education 3 □ MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one Total Credits 15  Semester 3 - Summer □ COMM 100 Fundamentals of Speech General Education 3  Semester 4 □ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 4 □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Program Requirement 2-3 □ CIMM 155 Grinding Operations Choose one Program Requirement 2-3		CIMM 115 Manual Mill	Program Requirement	3					
□ EHSS 111 Intro to Health & Safety for General Industry  Total Credits    Total Credits   15		CIMM 122 CNC Mill Operation Fundamentals	Program Requirement	4					
Industry		CIMM 104 Metrology	Program Requirement	2					
CIMM 106 Geometric Dimensioning Tolerancing		_	Program Requirement	1					
□ CIMM 106 Geometric Dimensioning Tolerancing       Program Requirement       2       • Meet with Student Success Advisor         □ CIMM 110 Manual Lathe Operation       Program Requirement       3       • Meet with Student Success Advisor         □ CIMM 121 CNC Lathe Operation Fundamentals       Program Requirement       4       4         □ ENGL 101 Composition & Reading I       General Education       3         □ MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one       General Education-Math       3         Total Credits       15         Semester 3 - Summer         □ COMM 100 Fundamentals of Speech       General Education       3         Total Credits       3         Semester 4         □ ENGL 215 Technical Writing       General Education       3         □ CIMM 225 MasterCAM I       Program Requirement       3         □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one       Program Requirement       2-3			Total Credits	15					
□ CIMM 110 Manual Lathe Operation Program Requirement 3 □ CIMM 121 CNC Lathe Operation Fundamentals Program Requirement 4 □ ENGL 101 Composition & Reading I General Education 3 □ MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one Total Credits 15  Semester 3 - Summer □ COMM 100 Fundamentals of Speech General Education 3 ■ Total Credits 3  Semester 4 □ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 155 Grinding OP CIMM 155 Grinding Operations Choose one Program Requirement 2-3 □ CIMM 155 Grinding Operations Choose one	Semester 2								
□ CIMM 121 CNC Lathe Operation Fundamentals Program Requirement 4 □ ENGL 101 Composition & Reading I General Education 3 □ MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one Total Credits 15  Semester 3 - Summer □ COMM 100 Fundamentals of Speech General Education 3  Semester 4 □ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 155 Grinding OR CIMM 155 Grinding Operations Choose one Program Requirement 2-3				2	<ul> <li>Meet with Student</li> </ul>				
□ ENGL 101 Composition & Reading I General Education 3 □ MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one  Total Credits 15  Semester 3 - Summer □ COMM 100 Fundamentals of Speech General Education 3  Semester 4 □ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 155 Grinding OR CIMM 155 Grinding OR CIMM 155 Grinding Operations Choose one		·	Program Requirement	3	Success Advisor				
MATH 103 Technical Mathematics I OR MATH 120 College Algebra OR MATH 150 Precalculus Choose one General Education-Math 3   Semester 3 - Summer Total Credits 15   COMM 100 Fundamentals of Speech General Education 3   Total Credits 3   Semester 4  □ ENGL 215 Technical Writing General Education 3 • Meet with Student Success Advisor   □ CIMM 225 MasterCAM I Program Requirement 3 • Meet with Student Success Advisor   □ CIMM 141 EDM Technologies Program Requirement 4 • Meet with Career Center   □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Program Requirement 2-3		CIMM 121 CNC Lathe Operation Fundamentals	Program Requirement	4					
MATH 120 College Algebra OR MATH 150 Precalculus Choose one  Total Credits 15  Semester 3 - Summer  □ COMM 100 Fundamentals of Speech General Education 3  Semester 4 □ ENGL 215 Technical Writing General Education 3 • Meet with Student Success Advisor □ CIMM 225 MasterCAM I Program Requirement 3 • Meet with Career Center □ CIMM 155 Grinding OR CIMM 155 Grinding Operations Choose one		·		3					
Semester 3 - Summer  ☐ COMM 100 Fundamentals of Speech ☐ General Education ☐ Total Credits ☐ ENGL 215 Technical Writing ☐ CIMM 225 MasterCAM I ☐ CIMM 141 EDM Technologies ☐ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations ☐ CIMM 155 Grinding Operations ☐ Choose one ☐ Communication General Education ☐ Communication General Education ☐ Communication General Education ☐ Program Requirement ☐ Communication General Education ☐ Communication General Education ☐ Program Requirement ☐ Communication General Education General Education ☐ Communication General Education General Education General Education General Education General Education General Education General Educa		MATH 120 College Algebra <u>OR</u> MATH 150 Precalculus	General Education-Math	3					
□ COMM 100 Fundamentals of Speech General Education 3    Total Credits 3			Total Credits	15					
Total Credits 3  Semester 4  □ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Program Requirement 2-3									
Semester 4         □ ENGL 215 Technical Writing       General Education       3       • Meet with Student Success Advisor         □ CIMM 225 MasterCAM I       Program Requirement       3         □ CIMM 141 EDM Technologies       Program Requirement       4         □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one       Program Requirement       2-3		COMM 100 Fundamentals of Speech	1						
□ ENGL 215 Technical Writing General Education 3 □ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one • Meet with Success Advisor • Meet with Career Center			Total Credits	3					
□ CIMM 225 MasterCAM I Program Requirement 3 □ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Success Advisor Meet with Career Center	Se								
□ CIMM 141 EDM Technologies Program Requirement 4 □ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Program Requirement 2-3		<u> </u>		_					
☐ CIMM 154 Cutter Grinding OR CIMM 155 Grinding Operations Choose one Choose one Country In Countr									
CIMM 154 Cutter Grinding OR Program Requirement 2-3  Cloose one Program Requirement 2-3  Choose one		•			· · · · · · · · · · · · · · · · · · ·				
□ CIMM 201 Metallurgy Program Requirement 3		CIMM 155 Grinding Operations  Choose one			<u> </u>				
		CIMM 201 Metallurgy	Program Requirement	3					

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Se	mester 5			
	CIMM 226 MasterCAM II	Program Requirement	3	<ul> <li>Meet with Student</li> </ul>
	<u>CIMM 231-238</u>	Program Requirement	1	Succes Advisor
	Choose one			• Complete Civics
	CIMM 245 Tool, Die, Or Mold Maker	Program Requirement	5	Exam with 70% or
	HIST 120 U.S. History to 1865 <u>OR</u> HIST 121 U.S. History since 1865 <u>OR</u> POLS 136 Intro to U.S. National Politics <i>Choose one</i>	General Education-Civics	3	higher  • Apply for Graduation  • Apply for jobs
	MATH 104 Technical Mathematics II <u>OR</u> MATH 130 Trigonometry <u>OR</u> MATH 150 Precalculus  Choose one	General Education-Math	3-5	
Total Credits				
Credits Required for A.A.S. Degree				
Credits Required for Mill Certificate				

<sup>\*</sup>The AAS in CIMM Die Making requires a minimum of 62 credit hours for graduation. When selecting a course from multiple options, please consider the number of credits for each course to ensure meeting the minimum requirements for graduation.

This Pathway Map is an advising tool designed for full-time students and identifies the course recommendations for timely degree completion. All pathway maps can be modified to fit the individual needs of students. All students are encouraged to meet with their student success advisor to develop an individualized completion plan that best meets their goals, interests, and objectives.

## Please note:

- Courses may require a prerequisite or appropriate placement, see the <u>Academic Catalog</u> for additional information.
- Meet with a student success advisor to determine the best option for the mathematics requirement.