



EXHIBIT A - Articulation Guide
Henry Ford College
 Mechanical/Industrial Associate in Applied Science Degree
University of Michigan - Dearborn
Bachelor of Science in Engineering in Mechanical Engineering
Effective: April 1, 2023 to March 31, 2028



RECOMMENDED COURSES BY MAJOR

Students need not complete all recommended coursework prior to transfer.

Henry Ford College Mechanical/Industrial Associate in Applied Science degree and the University of Michigan Dearborn Bachelor of Science in Engineering in Mechanical Engineering

Requirement Description	HFC Course / Title	UMD Equivalent	Meets DDC	UMD Major Requirement
GENERAL EDUCATION (29-30 credits)				
MTA ENGLISH COMP/COMMUNICATIONS (6 credits)	ENG 131: Introduction to College Writing	COMP 105	✓	
	ENG 135: Business and Technical Writing	COMP 270	✓	
MTA SOCIAL SCIENCE (6 credits)	BEC 151 or 152	ECON 201 or ECON 202	✓	
	Behavioral and Social Sciences Course	Behavioral and Social Sciences Course	✓	
MTA HUMANITIES & FINE ARTS (6 credits)	Humanities and Arts Course	Humanities and Arts Course	✓	
	Humanities and Arts Course	Humanities and Arts Course	✓	
MTA MATHEMATICS (3-4 credits)	MATH 180: Calculus I	MATH 115	✓	
MTA NATURAL SCIENCES (7-8 credits, course with lab)	CHEM 141: Prin of Gen & Inorganic Chem I	CHEM 134	✓	
	PHYS 231: Engineering Physics I	PHYS 150	✓	
Total MTA Credits		33		
COLLEGE DEGREE REQUIREMENT				
REQUIRED COURSES	MATH 183: Calculus II	Math 116		✓
	MATH 280: Calculus III	Math 215		✓
	MATH 288: Diff Eq + Linear	Math 228		✓
REQUIRED COURSES	(choose <u>one</u>)			
	BEC 151: Principles of Macroeconomics	ECON 201		
REQUIRED COURSES	BEC 152: Principles of Microeconomics	ECON 202		
	CHEM 142: General Chemistry II	CHEM 136		✓
REQUIRED COURSES	PHYS 232: Engineering Physics II	PHYS 151		✓
	ENGR 130: Intro to Engr. <u>and</u> ENGR 125: Intro to Computation for Engr.	ENGR 100		✓
	ENGR 121: Engr. Design and 3D printing <u>or</u> Draf 120: Intro to CAD	ENGR 126		✓
	ENGR 201: Science of Materials	ENGR 250		✓
	ENGR 232: Statics <u>and</u> ENGR 235: Mechanics of Materials	ME 260		✓
*Additional elective course will be met at UMD from HFC Associate Degree Credits.				
Total Degree Credits		40		
Total Associates Degree Credits		73		

COURSES TO BE TAKEN AT UMD

Requirement Description	UMD Course / Title	Credit Hours	UMD Major Requirement
MAJOR REQUIREMENT			
	ENGR 216: Computer Methods	2	
	ME 230: Thermodynamics	4	
	ME 345: Engineering Dynamics	4	
	ECE 305: Intro. To Elect. Engr.	4	
	ME 3601: Des. & Anal. Of Machines	4	
	ME 349: Intr. & Measurement	3	
	ME 364: Prob and Stat for ME	3	
	ME 325: Thermal Fluids 1	4	
	ME 375: Thermal Fluids 2	4	
	ME 442: Control Systems	4	
	ME 381: Manufacturing processes 1	4	
	ME 379: Thermal-fluids Lab	3	
	ME 4671: Senior Design	4	
	Design/Tech	3	
	Design/Tech	3	
	Design/Tech	3	
	Design/Tech Electives	4	
CORE COURSES			
	Total Core Course Credits	60	
	Total Credits to be Taken at UMD	60 Credits	