



EXHIBIT A - Articulation Guide
Henry Ford College
 Mechanical/Industrial Associate in Applied Science Degree
University of Michigan - Dearborn
Bachelor of Science in Engineering in Manufacturing 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 Manufacturing Engineering

Requirement Description	HFC Course / Title	UMD Equivalent	Meets DDC	UMD Major Requirement
GENERAL EDUCATION (29-30 credits)				
TA ENGLISH COMP/COMMUNICATIONS (6 credits)	ENG 131: Introduction to College Writing ENG 135: Business and Technical Writing	COMP 105 COMP 270	✓ ✓	✓ ✓
TA SOCIAL SCIENCE (6 credits)	BEC 151 or 152: Behavioral and Social Sciences Course	ECON 201 or ECON 202 Behavioral and Social Sciences Course	✓ ✓	✓ ✓
TA HUMANITIES & FINE ARTS (6 credits)	Humanaties and Arts Course Humanaties and Arts Course	Humanaties and Arts Course Humanaties and Arts Course	✓ ✓	✓ ✓
TA MATHEMATICS (3-4 credits)	MATH 180: Calculus I	MATH 115	✓	✓
TA NATURAL SCIENCES (7-8 credits, course with lab)	CHEM 141: Prin of Gen & Inorganic Chem I PHYS 231: Engineering Physics I	CHEM 134 PHYS 150	✓ ✓	✓ ✓
Total MTA Credits		33		
COLLEGE DEGREE REQUIREMENT				
REQUIRED COURSES	Math 183: Calculus II Math 280: Calculus III Math 288: Diff Eq + Linear	Math 116 Math 215 Math 228		✓ ✓ ✓
REQUIRED COURSES	CHEM 142: General Chemistry II PHYS 232: Engineering Physics II	CHEM 136 PHYS 152		✓ ✓
REQUIRED COURSES	ENGR 130: Intro to Engr. and ENGR 125: Intro to Computation for Engr. ENGR 121: Engr: Design and 3D printing or Draf 120: Intro to CAD ENGR 201: Science of Materials ENGR 232: Statics and ENGR 235: Mechanics of Materials	ENGR 100 ENGR 126 ENGR 250 ME 260		✓ ✓ ✓ ✓
Additional elective course will be met at UMD from HFC Associate Degree Credits.				
Total Degree Credits		37		
Total Associates Degree Credits		70		

COURSES TO BE TAKEN AT UMD

Requirement Description	UMD Course / Title	Credit Hours	Meets DDC	UMD Major Requirement
MAJOR REQUIREMENT				
CORE COURSES	IMSE 317: Engr Prob & Stat	3		
	IMSE 255: C Programming	3		
	IMSE 382: Man. Proc 1	4		
	ME 230: Thermodynamics	4		
	IMSE 440: Appl. Statistics	4		
	IMSE 4675: Six Sigma	4		
	IMSE 4425: Ergonomics	4		
	IMSE 421: Engr. Econ	3		
	IMSE 4835: CAD	4		✓
	ECE 305: Intro to Electric	4		
	IMSE 4951: MFGE Senior Design 1	2		
	IMSE 4795: Lean Manufacturing	4		
	IMSE 4952: MFGE Senior Design 2	2		
	IMSE 4825: Industrial Controls	4		
	MFGE Focus Area Elective	4		
	MFGE Focus Area Elective	4		
	MFGE Focus Area Elective	3		
Total Core Course Credits		60		
Total Credits to be Taken at UMD		60 Credits		