



Transfer Pathway Planning Guide
Catalog Year 2024-25

Community College

Macomb Community College (MCC)

WSU College/School

College of Engineering

Major

Mechanical Engineering

Degree/Credits

Bachelor of Science (BS) Mechanical Engineering / 123 credits

Achieving your goal of obtaining a four-year degree is attainable through the collaborative effort of MCC and WSU. Begin your journey by earning an associate degree at MCC, followed by a seamless transition to Wayne State for the completion of your bachelor's degree. Throughout this academic pursuit, you have the opportunity to embrace the diverse experiences and communities offered by both campuses.

Macomb Community College (MCC)

<i>Program/Major (Degree)</i>	<i>Credits (min.)</i>	<i>Recommend Transfer Credits</i>
Associate in Science (AS)	60	60
Pre-engineering (AS)	62	60

Michigan Transfer Agreement (MTA) -Satisfies WSU University General Education requirements.

<i>Discipline</i>	<i>Course (specific course required, if listed)</i>	<i>Credits</i>	<i>WSU Equivalent</i>
English Composition	ENG 1180 Communications 1	4	ENG 1020
	BCOM 2050 Business Communication	4	ENG 3050
Humanities/Fine Arts	PHIL 2120 Professional Ethics	3	PHI 1120
	See MTA; approved humanities/fine arts	3	<i>See advisor</i>
Mathematics	MATH 1760 Analytical Geometry & Calc	4	MAT 2010
Sciences	CHEM 1170 General Chemistry	4	<i>See advisor</i>
<i>Must be from different disciplines</i>	PHY 1180 College Physics	4	<i>See advisor</i>
Social Sciences	ECON 1160 Principles of Economics	3	ECO 2020
<i>Must be from different disciplines</i>	See MTA; approved social science	3	<i>See advisor</i>

TOTAL CREDITS 32 (30 minimum)

Required courses

<i>Course</i>	<i>Credits</i>	<i>WSU Equivalent</i>
ENGR 1000 Intro to Engineering	3	BE 1200
MATH 2000 Introduction to Linear Algebra (w/MATH 2770)	3	MAT 2250
MATH 1770 Analytic Geometry & Calculus	4	MAT 2020
MATH 2760 Analytic Geometry & Calculus	4	MAT 2030
MATH 2770 Differential Equations	4	MAT 2350
PHYS 2220 Analytical Physics 1	5	PHY 2175
PHYS 2230 Analytical Physics 2	5	PHY 2185
CHEM 1180 General Chemistry 2	4	CHM 1140

TOTAL CREDITS 32

Transfer credit summary



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	Credits
	Pathway
Michigan Transfer Agreement (MTA)	32
Required courses	32
TOTAL TRANSFER CREDITS	64

Wayne State University

Bachelor of Science (BS) in Mechanical Engineering

Course	Credit	Note
BE 1300 Basic Engineering II: Materials Science	3	
BE 1310 Materials Science Engineering Lab	1	
BE 1500 Intro Programming and Computation	3	
BE 2100 Basic Engineering III: Prob and Stats	3	
ECE 3300 Intro to Electrical Circuits	4	
ME 2200 Thermodynamics	3	
ME 2410 Statics	3	
ME 2420 Elementary Mechanics of Materials	3	
ME 2500 Numerical Methods (MATLAB)	2	
ME 3300 Fluid Mechanics: Theory and Lab	4	
ME 3400 Dynamics	3	
ME 3450 Manufacturing Processes I	3	
ME 4150 Design of Machine Elements	4	
ME 4210 Heat Transfer: Theory and Lab	4	
ME 4300 Thermal Fluid Sys Design (or ME 5330)	4	
ME 4410 Vibrations: Theory and Lab	4	
ME 4420 Dynamic Modeling/Control	4	
ME 4500 Mech Engineering Design II (or ME 5500)	4	
ME 5990 Directed Studies	1	
ME Technical Elective (ME 5XXX)	8	
ENG 3060 Tech Comm II: Presentations	3	
TOTAL CREDITS	71	

Credit summary –minimum 120 credits required for BS degree

	Credits
	Pathway
Major	71
<ul style="list-style-type: none"> • Undergraduate research • Co-ops and internships • Accelerated Graduate Enrollment (AGRADE) 	
TOTAL WAYNE STATE CREDITS	71
TOTAL WAYNE STATE and TRANSFER CREDITS	135