

**Macomb Community College:**  
**Any Associate Degree (AAS, AS, AA, ABA, AGS)**

**Oakland University:**  
**Bachelor of Science in Engineering (BSE) in  
 Mechanical Engineering**

*Requirements vary with each Macomb degree. Consult with your Macomb Advisor to ensure Macomb degree requirements are also being met.*

**Macomb Community College - Before Transfer**

Major Requirements	Minimum 60 Hrs
CHEM 1170 - General Chemistry 1 <i>Satisfies MTA</i>	4
Select 1 course: ECON 1160 - Principles of Economics 1 <i>or</i> ECON 1170 - Principles of Economics 2 <i>or</i> ECON 2110 - International Economics <i>Satisfies MTA (any ECON)</i>	3
MATH 1760 - Analytic Geometry & Calculus 1 <i>Satisfies MTA</i>	4
MATH 1770 - Analytic Geometry & Calculus 2	4
MATH 2760 - Analytic Geometry & Calculus 3	4
MATH 2000 - Introduction to Linear Algebra	4
MATH 2770 - Differential Equations	4
PHYS 2220 - Analytical Physics 1 <i>Satisfies MTA</i>	5
PHYS 2230 - Analytical Physics 2	5
Select 1 course: DRCG 1140 - Interactive Computer Graphics-Introduction to 2D & 3D AutoCAD <i>or</i> ATAP 2360 - 3D Cimatron CAD/CAM-Die/Mold Machining <i>or</i> PRDE 1400 - Introduction to SolidWorks & 3D Parametric Solid Modeling <i>or</i> PRDE 1520 - NX Fundamentals <i>or</i> PRDE 1620 - CATIA Essentials	2-4
Math and Science Elective - Select 1 course with advisor approval BIOL 1000 - General Biology 1 <i>or</i> CHEM 1180 - General Chemistry 2	4

<p><b>General Education--Michigan Transfer Agreement plan*</b>  Students who complete a Michigan Transfer Agreement (MTA or MACRAO) will satisfy most general education requirements for Oakland University. Students who do not receive the MTA endorsement must still satisfy all general education requirements for Oakland University. Meet with a Macomb academic advisor or counselor for assistance with course planning.  For additional information visit: <a href="http://www.macomb.edu/transfer">www.macomb.edu/transfer</a>.</p>	<p><b>Minimum 30 Hrs</b></p>
<p><b>Basic Composition--2 courses:</b>  ENGL 1180 or ENGL 1210  and  ENGL 1190 or ENGL 1220</p>	<p>6-8</p>
<p><b>Mathematics--1 course:</b>  MATH 1100, MATH 1340, MATH 1360, MATH 1370, MATH 1410, MATH 1415, MATH 1430, MATH 1435, MATH 1460, MATH 1465, MATH 1760, MATH 1770, MATH 2000, MATH 2200, MATH 2760, or MATH 2770</p>	<p>-</p>
<p><b>Humanities &amp; Fine Arts--2 courses needed from different subject areas</b>  any ARAB, any CHIN, any FREN, any GRMN, any ITAL, any SPAN (except SPAN 1265), ARTT 1620, ARTT 1625, ARTT 2650, ARTT 2660, ENGL 1730, ENGL 2410, ENGL 2420, ENGL 2510, ENGL 2520, ENGL 2600, ENGL 2610, ENGL 2640, ENGL 2710, ENGL 2720, ENGL 2730, ENGL 2740, ENGL 2800, ENGL 2810, ENGL 2850, any HUMN, INTL 2000, INTL 2300, INTL 2800, MUSC 1030, MUSC 1040, MUSC 1050, MUSC 1060, MUSC 1070, MUSC 1160, MUSC 1170, MUSC 2080, MUSC 2180, MUSC 2710, MUSC 2720, or any PHIL</p>	<p>5-8</p>
<p><b>Sciences--2 courses needed from different subject areas, with 1 course containing a lab:</b>  BIOL 1000, BIOL 1010, BIOL 1310, BIOL 1400, BIOL 2400, BIOL 2540, BIOL 2710, BIOL 2730, CHEM 1000, CHEM 1050, CHEM 1060, CHEM 1170, CHEM 1180, CHEM 2260, CHEM 2270, CHEM 2280, ENVS 1050, ESCI 1210, GEOL 1080, GEOL 1140, GEOL 1150, PHSA 1050, PHYS 1180, PHYS 1190, PHYS 2220, or PHYS 2230  <b>1 additional course from a different science area:</b> any ASTR, any BIOL, any CHEM, any ENVS, any ESCI, any GEOL, any PHSA, or any PHYS</p>	<p>-</p>
<p><b>Social Sciences--2 courses from different subject areas:</b>  any ANTH, any ECON, any GEOG, any HIST, INTL 2010, any POLS, any PSYC, or any SOCY</p>	<p>6-8</p>
<p>If needed, complete an additional course(s) from the applicable general education categories above to reach the minimum 30 MTA required credit hours</p>	<p>-</p>

<b>Oakland University Coursework - After Transfer:</b>	
<b>Major Requirements</b>	<b>58 Hrs</b>
PHL 1310 - Introduction to Ethics in Science and Engineering	4
EGR 1400 - Computer Problem Solving in Engineering and Computer Science	4
EGR 2400 - Introduction to Electrical and Computer Engineering	4
EGR 2500 - Introduction to Thermal Engineering	4
EGR 2600 - Introduction to Industrial and Systems Engineering	4
EGR 2800 - Design and Analysis of Electromechanical Systems	4
ME 3300 - Computer-Aided Design	3
ME 3200 - Engineering Mechanics	4
ME 3500 - Introduction to Fluid and Thermal Energy Transport	4
ME 3250 - Mechanics of Materials	4
ME 3700 - Properties of Materials	4
ME 4200 - Vibrations and Controls	4
ME 4300 - Mechanical Systems Design	4
ME 4500 - Energy Systems Analysis and Design	4
ME 4999 - Senior Mechanical Engineering Design Project <i>or</i> ME 4998 - Senior Project	3-4
<b>Professional Electives - Select from specialized depth area below (min 8 cr in ME courses):</b>	<b>12 Hrs</b>
<b>Energy, Fluid, and Thermal Systems</b>	
Recommended: ME 4510, 4520 ; Other Relevant Courses: ME 4530, 4500, 4540, 4550	
<b>Computer-Aided Design</b>	
Recommended: ME 4350, 4360	
<b>Automotive Engineering - Automotive Structures or Internal Combustion Engines Specialties</b>	
Recommended-Auto Structures: ME 4210, 4220 ; Internal Combustion Engines: ME 4500 4540	
Other Relevant Courses: ME 4260, 4510, 4520, 4750, 4350, 4730; ECE 4400, 4110, 4520	
<b>Manufacturing Engineering</b>	
Recommended: ME 4600, 4700	
Other Relevant Courses: ME 4710, 4750, 4740, 4360; ECE 4400; ISE 4485	
<b>Materials Engineering</b>	
Recommended: ME 4610, 4600, 5530	
<b>Nuclear Engineering</b>	
Required: ME 4520, 4500, 4580, 4585; PHY 3180	
<b>Maximum Macomb Credits = 64</b>	<b>Minimum credits at Oakland University = 64</b>
<b>Minimum credits for Bachelor of Science in Engineering in Mechanical Engineering - 128 credit hours</b>	

**Important Information:**

1. All content is for informational purposes and is designed to be used as a tool to assist students with transfer information but should not be used for self-advising. Some courses may include prerequisite requirements that are not listed in this guide. Consult with your advisor for details.
2. Associate degree requirements are not included on this transfer plan. When pursuing a Macomb degree work closely with a Macomb and Oakland University advisor or counselor to ensure BOTH the Macomb and Oakland University degree requirements are being met.
3. Transfer credit limits vary by each transfer college and major. This transfer guide may contain more than the maximum number of allowable transfer credits Oakland University will accept.
4. Macomb and Oakland University reserve the right to make any necessary changes to courses, provisions, or transfer requirements without notice.
5. It is the responsibility of the student to be aware of changes that affect their transfer program. Students are strongly encouraged to contact Oakland University on an annual basis to review their program requirements.
6. Students may concurrently be enrolled and taking courses at both Macomb and Oakland University during the same semester after completing the minimum requirements for Oakland University. Meet with an academic advisor or counselor for additional information.
7. If you decide to transfer before graduating from Macomb you may be eligible to earn your associate degree after the fact.

[www.macomb.edu/transfer](http://www.macomb.edu/transfer)

8. Please contact Oakland University at 586-263-6242 to schedule an appointment, or to view additional information visit:

[Oakland University - Macomb University Center](#)

9. For program overviews, to request program information, or to apply for admission visit:

[Oakland University](#)