Bachelor of Science in Engineering with a major in Industrial and Systems Engineering

Major Requirements

<table>
<thead>
<tr>
<th>Oakland University Courses</th>
<th>Macomb Community College Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 1554</td>
<td>MATH 1760</td>
</tr>
<tr>
<td>MTH 1555</td>
<td>MATH 1770</td>
</tr>
<tr>
<td>MTH 2554 or APM 2663</td>
<td>MATH 2760 or MTH 2200</td>
</tr>
<tr>
<td>APM 2555</td>
<td>(MATH 2000 and 2770) accepted</td>
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<tr>
<td>PHYS 1610</td>
<td>PHYS 2220 accepted</td>
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<tr>
<td>(see adviser to discuss pre-req differences)</td>
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<tr>
<td>PHYS 1620</td>
<td>PHYS 2230 accepted</td>
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<tr>
<td>CHM 1440 and 1470</td>
<td>CHEM 1170</td>
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<tr>
<td>(see adviser to discuss pre-req differences)</td>
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<tr>
<td>EGR 1200</td>
<td>DRCG 1140 or (ATAP 2360, PRDE 1400, 1520 or 1620) accepted</td>
</tr>
<tr>
<td>Economics Requirement</td>
<td>ECON 1160, 1170, or 2110</td>
</tr>
</tbody>
</table>

Choose one Approved Math and Science Elective
(students encouraged to select with an OU adviser)

*Consider transfer credit limits (64 credits) when following this major guide

TRANSFERRING WITH THE MICHIGAN TRANSFER AGREEMENT (MTA):
When choosing to complete MTA to satisfy General Education, please confirm the best courses to take to fulfill the agreement with your academic adviser at MCC or at the MCC MTA Approved Courses website. Completing MTA when following this major guide will satisfy OU’s transferable General Education requirements.

Additional course requirements for MTA when following this major guide
(minimum 30 credit hours required for MTA):
- ENGL 1180 or 1210
- ENGL 1190 or 1220 (required prerequisite for coursework at OU)
- One MTA Approved Social Science course
- Two MTA Approved Humanities courses

TRANSFERRING WITHOUT MTA:
If you intend to transfer without MTA, you can choose to complete additional coursework to fulfill OU's individual General Education categories instead. When following this major guide, please reference the MCC General Education Transfer Guide for the MCC courses that satisfy these specific OU General Education categories:

- Writing Foundations (ENGL 1190 or 1220)
- Arts
- Foreign Language and Culture
- Global Perspective
- Literature
- U.S. Diversity

All prospective students should call the School of Engineering and Computer Science (SECS) Academic Advising Office at (248) 370-2201 to schedule an appointment. Their office can also be contacted by email at secsadvising@oakland.edu, or visit their website for more information.
NOTES:

Transfer students are admitted directly to the major if they have a cumulative GPA of 2.8 or higher, if students have a GPA between 2.5 and 2.79, they are admitted as a “Candidate” to the SECS, and will need to meet established criteria to change their major.

Students apply for major standing once they have completed math, science, and core engineering courses.

Oakland University will always honor the MACRAO transfer agreement and apply it to the General Education requirement the same as MTA.

SCHOOL OF ENGINEERING AND COMPUTER SCIENCE (SECS) TALKING POINTS:

Learn more about OU’s ABET accredited programs: (Mechanical Engineering, Computer Engineering, Electrical Engineering, Industrial & Systems Engineering, Information Technology and Computer Science)

83% of SECS graduates from the 2017-2018 academic year completed an internship. The overall placement rate of SECS graduates from the 2017-2018 academic year was 95%. See why some of our students and alumni chose SECS.

Learn about ways to get involved in over 20 student organizations affiliated with SECS, as well as different professional organizations related to careers in engineering and computer science!

Participate in competitions such as Intelligent Ground Vehicle (hosted at OU in June 2020), Formula SAE (the team traveled to Germany in 2019), North American International Auto Show in Detroit, GrizzHacks, and Maker Faire Detroit.

OU offers a number of scholarship opportunities to students in the School of Engineering and Computer Science to help pay for your education.

The School of Engineering and Computer Science offers a wide variety of opportunities for undergraduate research.

Oakland University was selected to host an accessible autonomous shuttle on campus as part of the EasyMile collaboration with partners Continental and the City of Auburn Hills. Faculty and students will be able to participate.

SECS students can work with a career consultant about your resume, job search or to practice your interviewing skills. There are also a number of networking events each month and resources available through Career Services. Employers from hundreds of companies participate in our annual Engineering and IT Career Fair in search of Oakland students to fill internship and full-time opportunities.

OU partnered with DCT Aviation of Waterford, MI to develop a new, two-course sUAS Remote Pilot Certificate Program. The two-course program is specifically designed to provide both basic airman knowledge, hands-on flying skills, and preparation to apply for and pass the Federal Aviation Administration’s sUAS Remote Pilot Certification Test.

Oakland University was designated as a National Center of Academic Excellence in Cyber Defense Education (CAE-CDE) in 2018.

The efforts of the Industrial Systems and Engineering Department to integrate Product Lifecycle Management (PLM) concepts, techniques, and tools into its curriculum were highlighted in a textbook about PLM, reflecting the program’s high quality and innovative nature.