

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

Major Requirements

Oakland University Courses	Monroe County Community College Courses
MTH 1554	MATH 171
MTH 1555	MATH 172
MTH 2554 or APM 2663	MATH 271 or CIS 167
APM 2555	(MATH 251 and 273) accepted
PHY 1610	PHY 251 accepted
PHY 1620	PHY 252 accepted
CHM 1440 and 1470	CHEM 151
EGR 1200	MDTC 228 or (METC 170) accepted
Economics Requirement	ECON 251 or 252
Choose one Approved Math and Science Elective (students encouraged to select with an OU adviser)	BIOL 151; BIOL 153; (BIOL 257 and 258); BIOL 264 (MATH 271 or CIS 167- both needed to count as elective)

***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 Monroe County or at the [Monroe County 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 151
- ENGL 152 or 254 (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 [Monroe County General Education Transfer Guide](#) for the Monroe County courses that satisfy these specific OU General Education categories:

- Writing Foundations (ENGL 152 or 254)
- 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.

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.