

Bachelor of Science in Engineering with a major in Industrial and Systems Engineering (2017/18 Catalog)

Major Requirements		
Oakland University Courses		Mott Community College Courses
ECN 2010		ECON 222 or ECON 221 accepted
MTH 1554		MATH 170
MTH 1555		MATH 180
MTH 2554		MATH 250
APM 2555		MATH 270 and MATH 280
PHY 1610		PHYS 287 accepted
PHY 1620		PHYS 288 accepted
CHM 1430		CHEM 131 accepted
EGR 1200		CADD 201 or CADD 202
EGR 2400		ELEC 133 and ELEC 139

Approved math and science electives (choose one, students are encouraged to contact an adviser to select)
BIOL 111, BIOL 151 and 152, 227

MICHIGAN TRANSFER AGREEMENTS:

In many cases, it is to a student's advantage to complete the MTA or MACRAO agreement when fulfilling General Education requirements. This may allow for more flexibility when creating a schedule while at your community college. When choosing to complete MTA or MACRAO, please confirm the best courses to take to fulfill the agreement with your academic adviser at Mott or [MTA Approved Courses](#)

Additional course requirements for MTA when following this major guide (minimum 30 credit hours required for MTA):

- ENGL 101 & 102 (ENGL 102 is a pre-requisite for coursework at OU)
- MTA Approved Social Science
- MTA Approved Humanities
- MTA Approved Humanities

SPECIAL NOTE REGARDING MTA OR MACRAO: In some cases, completing the MTA or MACRAO agreement is not as practical. When using MTA or MACRAO, your ability to make the most efficient course selections at OU may be impacted depending on your accumulated credits and chosen OU major. For more details on whether or not it is recommended for you to complete MTA or MACRAO, please consult with an OU academic adviser.

If you plan to transfer without completing a transfer agreement, please reference the table below for courses that satisfy individual categories.

GENERAL EDUCATION REQUIREMENTS	
40 credits are required from categories 1-10. Each of these categories must be fulfilled by completing one course of at least 3 or more credits. A course may not be used in more than one of these categories. Please see OU Catalog for further information.	
1. Writing Foundations	ENGL 102, 104
2. Formal Reasoning	Satisfied By MATH 170
3. Arts	ART 110, 111, 112, 116; FILM 181; MUS 180, 182, 183, 186, 187, 271, 272; THTR 110
4. Foreign Language and Culture	ARBC, CHI 111, 112; FREN 151, 152, 251, 252; GERM, JAPA, RUSN 111, 112, 211, 212; SPAN 181, 182, 281, 282
5. Global Perspective	ANTH 200, 211; GEOG 142; HIST 152; PHIL 251; PSCN 275
6. Literature	ENGL 220, 221, 222, 223, 225, 227, 231, 232, 235, 240, 242, 253, 271
7. Natural Science and Technology	Satisfied By BIOL 111, CHEM 131, PHYS 287
8. Social Science	Satisfied by ECON 221, 222
9. Western Civilization	Satisfied By PHL 1310 at OU
10. Knowledge Applications	Satisfied By MATH 180, PHYS 288
U.S. Diversity – May double count with categories 1-10	ENGL 223, 235; FILM 181; HIST 154, 155, 254, 255; MUS 182; PSCN 170; SOCY 191, 294
Capstone & Writing Intensive in the Major	These general education requirements must be met by courses taken at Oakland University.

Students who complete MTA or MACRAO according to this guide satisfy general education categories 1-9 and U.S. Diversity.

Recent Course Changes:

HIST 152 may be used to satisfy either the Global Perspective or Western Civilization category of General Education, must be transferred in before the start of Fall Semester 2019.

HIST 151 may be used to satisfy the Western Civilization General Education category, must be transferred in before the start of Fall Semester 2019

Notes:

- Please contact the School of Engineering and Computer Science [Academic Advising](#) Office at (248)370-2201.

Talking Points

- ABET accredited programs (Mechanical Engineering, Computer Engineering, Electrical Engineering, Industrial & Systems Engineering, Information Technology and Computer Science).
- Career Consultants to assist with resume building, internship/job searching, network events and more. Employers from 120 companies participated in the 2017 Engineering and IT career fair, in search of Oakland students to fill internship and full-time opportunities.
- [Student and Professional Organization](#) involvement opportunities.
- Different [Scholarship](#) opportunities await to help pay for your education.
- Information Technology and Computer Science majors have an internship/research requirement that helps students gain meaningful experiences. Check out all of the [Undergraduate Research](#) opportunities available.
- Lunch & Learns, Meet & Greets, and Lunch Lecture Series allow students to meet representatives from companies like GM, Argus Cyber Security, United States Army Tank Automotive Research, Development and Engineering Center (TARDEC) and many more that hire OU students.
- Participate in competitions such as Intelligent Ground Vehicle, Formula SAE, North American International Auto Show in Detroit, and Maker's Faire.
- Check out some of the videos highlighting OU students' work [Formula SAE Racing](#), [Maker Faire 2017- Blue Ribbon Winner](#), [Maker Faire 2016](#). OU students know how to have fun- [Harlem Shake 2013](#) & [Harlem Shake 2015](#).
- **Student-built** Loon Copter won **\$1 million prize** in International Drones for Good Competition.
- 77% of SECS students completed an internship during the 2015-2016 academic year.
- The overall placement rate of SECS students during the 2015-2016 academic year was 97%.
- OU is the top-producing school for self-driving vehicle workers.
- Oakland University's School of Engineering and Computer Science (SECS), in collaboration with Professional and Continuing Education (PACE) has partnered with DCT Aviation of Waterford, Mich. 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.