

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

Major Requirements	
Oakland University Courses	Wayne County Community College Courses
ECN 2010	ECO 102 or ECO 101 accepted
MTH 1554	MAT 171
MTH 1555	MAT 172
MTH 2554	MAT 271
APM 2555	MAT 272 and 273
PHY 1610	PHY 265 accepted
PHY 1620	PHY 275 accepted
CHM 1430	CHM 136 accepted
EGR 1200	CAD 222 or CAD 224

Approved math and science electives (choose one, students are encouraged to contact an advisor to select)
BIO 155, BIO 165 and 175, 240 and 250

**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 WC3.

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

- ENG 119 & 120 (ENG 120 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	
<b>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.</b>	
1. Writing Foundations	ENG 120
2. Formal Reasoning	Satisfied By MAT 171
3. Arts	AAS 175; HUM 101, 126, 141, 211, 212, 231, 232; MUS 121
4. Foreign Language and Culture	CHN, JPN, 101, 102; ARA, FRE, GRM, SPA 101, 102, 201, 202
5. Global Perspective	ANT 154; GEO 202; HIS 152; PHL 101; PS 160
6. Literature	AAS 253; ENG 212, 228, 233, 234, 240, 250, 252, 261, 266, 290, 292
7. Natural Science and Technology	Satisfied By CHM 136, PHY 265
8. Social Science	Satisfied By ECO 101, 102
9. Western Civilization	Satisfied By PHIL 1310 at OU
10. Knowledge Applications	Satisfied By MAT 172, PHY 275
U.S. Diversity – May double count with categories 1-10	AAS 120, 131, 175; ANT 201, ENG 260, 261, 290, 292; HIS 249, 250, 261, 262; MUS 121, PS 101; SOC 100, 104, 230
Capstone & Writing Intensive in the Major	<b>These general education requirements will be met by courses taken at Oakland University.</b>

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

**Recent Changes to Oakland transfer equivalency credit:**

- Wayne HIS 152 may be used to satisfy OU Global Perspective or Western Civilization category of General Education, must be transferred in before the start of Fall Semester 2019.
- Wayne HIS 151 may be used to satisfy OU 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.