

Bachelor of Science with a major in Bioengineering (2017/18 Catalog)

Major Requirements	
Oakland University Courses	Oakland Community College Courses
MTH 1554	MAT 1730
MTH 1555	MAT 1740
MTH 2554	MAT 2740
APM 2555	MAT 2810 and 2880
PHY 1610	PHY 2400 accepted
PHY 1620	PHY 2500 accepted
CHM 1440 & 1470	CHE 1510
CHM 1450 & 1480	CHE 1520
CHM 2010	CHE 1320
BIO 1200	BIO 1530
BIO 1300	BIO 1560
BIO 1201	BIO 1530 and 1560
BIO 3400	BIO 2560
EGR 1200	CAD 1201 or 2102 or 2110 or 2131
EGR 1400	CIS 2656

There are five professional track options to choose from. The courses below apply to the specific track listed. It is recommended to meet with an academic adviser at OU to discuss the different track options.

BIO 3500 (Major Course option or Molecular Engineering Biology Track)	BIO 2710
CSI 2300 (Bioinformatics Track)	CIS 2151

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 OCC or [MTA Approved Courses](#)

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

- ENG 1510 & 1520 (ENG 1520 is a pre-requisite for coursework at OU)
- MTA Approved Social Science
- 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	ENG 1520
2. Formal Reasoning	Satisfied by MATH 1730
3. Arts	ART 1560, 2600; FSH 1500; HUM 1510, 1520, 1900; MUS 1540, 1550, 1560, 1585, 1590; THE 1561
4. Foreign Language and Culture	ARB, CHI, FRE, GER, ITA, JPN, SPA 1510, 1530, 2610, 2620
5. Global Perspective	ANT 1540; GEO 1520; HIS 1520, 1550; HUM 1710; POL 2530, 2610
6. Literature	ENG 1610, 1710, 1720, 2300, 2510, 2520, 2530, 2540, 2550, 2560, 2570, 2750, 2760, 2770; HUM 2720, 2900
7. Natural Science and Technology	Satisfied by BIO 1530, 1560, CHE 1510, PHY 2400
8. Social Science	ANT 1520, 1540; ECO 2610, 2620; POL 1510, 2530, 2610; PSY 2510; SOC 2510
9. Western Civilization	Satisfied By PHL 1310 at OU
10. Knowledge Applications	Satisfied by MAT 1740, PHY 2500
U.S. Diversity – May double count with categories 1-10	COM 2290, ENGL 2570, HIS 2510, 2520, 2610, 2620; HUM 1900; MUS 1590; POL 1510; SOC 2510, 2530, 2620
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 changes to Oakland transfer equivalency credit:

- **OCC HIS 1520 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.**
- **OCC HIS 1510 may be used to satisfy OU Western Civilization category of General Education, 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.