

Oakland University Recommended Program Guide
Bachelor of Science in Engineering with a major in Computer Engineering
Effective Date: September 2011

GENERAL EDUCATION REQUIREMENTS¹

Students must complete 40 credits of general education, excluding U.S. Diversity, Capstone and Writing Intensive in the Major. Each category must be fulfilled by completing one course of at least 3 or more credits. Courses used to meet Writing, Formal Reasoning, Arts, Foreign Language and Culture, Global Perspective, Literature, Natural Science and Technology, Social Science, Western Civilization, and Knowledge Applications may not be double counted with each other. U.S. Diversity, Writing Intensive in General Education, Writing Intensive in the Major, and a Capstone may be met by double counting approved general education courses. Please see the Oakland University catalog for further information.

Oakland University	Mott Community College
Writing Foundations WRT 160	Writing Foundations ENGL 102
Formal Reasoning Satisfied by Major	Formal Reasoning Satisfied by Major
Arts AH 100, 101, 104; CIN 150; DAN 173, 175; MUS 100, 131, 200, 205, 225, 236, 334, 336, 338; SA 100; THA 100, 301, 302	Arts ART 110, 111, 112, 116; FILM 249; MUS 180, 182, 183, 186, 271, 272, 273; THTR 254
Foreign Language and Culture ARB, CHE, FRH, GRM, HBR, IT, JPN, LTN, SPN 114, 115, 214, 215; ALS 176; LIN 181	Foreign Language and Culture ARBC 111, 112; CHI 111; FREN 151, 152, 251, 252; GERM 111, 112, 211, 212; JAPA 111, 12, 211; RUSN 111, 112; SPAN 181; 182; 281; 282
Global Perspective AN 102, 200; ENG 260; GEO 200; IS 200, 210, 220, 230, 240, 250, 260, 270; MGT 110; MUS 236; PS 114, 131; REL 101, 102, 150; WRT 360	Global Perspective ANTH 200, 211; GEOG 142
Literature ENG 100, 105, 111, 112, 224, 241, 250, 303, 305, 306, 312; LIT 100, 181, 182; REL 311	Literature ENGL 220, 221, 223, 226, 227, 231, 232, 235, 240, 241, 242, 251, 252, 271
Natural Science and Technology Satisfied by Major	Natural Science and Technology Satisfied by Major
Social Science Satisfied by Major	Social Science Satisfied by Major
Western Civilization AN 300; COM 375 ; HST 101, 102, 114, 115, 292; MGT 235; PHL 101, 103; PS 377	Western Civilization HIST 151, 152, 154, 155, 253; PHIL 101, 295
U.S. Diversity ALS 374; AMS 300; AN 331, 374, 381, 385; CIN 150; COM 330, 385; DAN 175; ECN 315; EED 420; ENG 112, 341, 342; HRD 367; HS 302; HST 114, 115, 292, 318, 319, 322, 361, 362; MUS 200, 336, 338; NRS 280, 302, 304, 450; PS 100, 312; SOC 100, 331; WHP 370; WGS 200, 300, 322, 361, 362, 385; WRT 330, 364	U.S. Diversity Choose one of the following from a group above: ENGL 223, 235; FILM 249; HIST 154, 155, 253; MUS 273; PSCN 171; SOCY 191
Knowledge Applications Satisfied by Major	Knowledge Applications Satisfied by Major
Capstone Course Satisfied by Major	Capstone Course Satisfied by Major
Writing Intensive in the Major Satisfied by Major	Writing Intensive in the Major Satisfied by Major

COMPUTER ENGINEERING MAJOR REQUIREMENTS

Complete at Oakland University or Mott Community College:

Oakland University			Mott Community College		
Course	Credit	Course Title	Course	Credit	Course Title
APM 255	4	Intro to Differential Equations with Matrix Algebra	MATH 268	5	Differential Equations and Linear Algebra
CHM 157	4	General Chemistry I	CHEM 131	5	General Chemistry
CSE 230	4	Object-Oriented Computing I	COMS 270	4	Advanced Java
EGR 120	1	Engineering Graphics & CAD	CADD 101 or CADD 201	3	Parametric Modeling Fundamentals
ECN 200	4	Principles of Macroeconomics	ECON 221	4	Principles of Economics (Macro)
EGR 240	4	Intro to Electrical & Computer Engineering	ELEC 133 and ELEC 139	9	Electrical Circuits and Logical Contro Systems
MTH 154	4	Calculus I	MATH 170	5	Analytic Geometry & Calculus I
MTH 155	4	Calculus II	MATH 180	5	Analytic Geometry & Calculus II
PHY 151	4	Introductory Physics I	PHYS 287	5	General Physics I
PHY 152	4	Introductory Physics II	PHYS 288	5	General Physics II

Approved Mathematics or Science Elective

Complete one of the following courses at Oakland University or Mott Community College

Oakland University			Mott Community College		
Course	Credit	Course Title	Course	Credit	Course Title
BIO 111	4	Biology	BIOL 111	4	Fundamentals of Biology
CHM 158	4	General Chemistry	CHEM 132	5	General Chemistry II
MTH 254	4	Multivariable Calculus	MATH 250	5	Multivariable Calculus
MTH 275	4	Linear Algebra	MATH 270	3	Linear Algebra

¹ Students who transfer with the MACRAO agreement satisfy the university's general education requirements with the exception of a writing intensive course in the major and a capstone course. MACRAO transfer students must also either transfer in a course that is acceptable for the knowledge application requirement or take a course at Oakland University.

Complete the following courses at Oakland University					
Course	Credit	Course Title	Course	Credit	Course Title
APM 263	4	Discrete Mathematics	EGR 250	4	Intro to Thermal Engineering
EGR 141	4	Computer Problem Solving in Engineering & Computer Science	EGR 280	4	Design and Analysis Electromechanical Systems
EGR 260	4	Intro to Industrial & Systems Engineering	CSE 364	4	Computer Organization
CSE 231	4	Object Oriented Computing II	ECE 327	4	Electronic Circuits Design
ECE 276	4	Electric Circuits	ECE 378	4	Digital Logic and microprocessor Design
ECE 335	3	Signals and Systems	ECE 491	4	Senior Design
ECE 470	4	Microprocessor-based System Design			
300/400 Level Professional Electives					
A minimum of 11 professional electives chosen from any 300, 400 or 500 –level engineering, computer science courses, concentrations or approved mathematics and science elective. At least 4 credits must be a 400 or 500 level course. You should consult with your academic adviser for assistance in selecting your professional electives.					

Notes:

- Students may transfer in one-half of the 128 credits required for the baccalaureate degree.
- Major requirements will be based on the current catalog at the time of admission to Oakland University.
- Students who complete 3 credit courses at Mott Community College may be required to enroll in additional course credits to reach the required minimums for Oakland University.
- Students should consult a Mott Community College adviser to determine the requirements for the Associate of Baccalaureate Studies degree.
- For further questions, please contact the Office of Admissions (248) 370-3360 or the School of Engineering and Computer Science at (248) 370-2200.

Maximum Mott Community College credits = 64

Minimum Oakland University Credits = 64

Minimum Credits for the Bachelor Science of Engineering with a major in Computer Engineering = 128