

College of Engineering Prerequisite Guide

Michigan State University

Admission Requirements

- Completion of the required prerequisite courses prior to the intended term of enrollment at U-M
- Planned or in-progress courses at the time of application are okay as long as they are completed by the intended term of enrollment
- Minimum GPA of 3.0 or higher.
- Minimum of C or higher in all prerequisite courses (C- does not meet the requirements)
- Non-native speakers of English must provide proof of English proficiency.

*Meeting the minimum GPA expectations and completion of prerequisites does not guarantee an offer of admission as each application is reviewed individually and holistically.

Special Notes

Students may only apply as a transfer student to Michigan Engineering up to three times.

PREREQUISITES

*course equivalencies are based on the [Transfer Equivalency Guide](#) and are subject to change. For questions, contact engin-our@umich.edu

Michigan Courses	Michigan State Courses
**MATH 115-Calculus I	LB 118 MTH 132 + MTH 133 MTH 152H AP Calculus AB - 5 AP Calculus BC - 4 or higher IB Mathematics HL - 6 or higher
**MATH 116-Calculus II	LB 119 MTH 133 MTH 153H AP Calculus BC - 5 IB Mathematics HL - 7
*Calculus III	MTH 234 MTH 235

	MTH 254H MTH 317H
CHEM 130 - General Chemistry	LB 171 CEM 141 CEM 151 CEM 181H + 182H AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
CHEM 125 & 126 - General Chemistry Lab I & II	LB 171L CEM 161 CEM 185H AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
PHYSICS 140 - Physics I	LB 273 (lab included) PHY 183 PHY 183B PHY 193H AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
PHYSICS 141 - Physics Lab	LB 273 (lab included) PHY 191 AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
***ENGR 101/EECS 183	CSE 220 + EGR 102 CSE 231 CSE 220 (EECS 183 only)
ENGLISH 125	LB 133 MC 112 WRA 101 WRA 195H
Alternate Coursework	
Completion of coursework directly equivalent to courses below will meet the prerequisite for Chemistry + Lab and/or Physics + Lab	
CHEM 210 - Organic Chemistry I	LB 271 CEM 251 CEM 351

CHEM 211 - Organic Chemistry Lab I	CEM 255 CEM 355
PHYSICS 240 - General Physics II	LB 274 PHY 184 PHY 184B AP Physics C: Electricity and Magnetism - 5 IB Physics HL - 4 or higher
PHYSICS 241 - General Physics II Lab	LB 274 (lab included) PHY 192 AP Physics C: Electricity and Magnetism - 5 IB Physics HL - 4 or higher

*If AP/IB credit was awarded for Calculus I or Calculus I & II, completion of one additional math course is required to fully satisfy the Calculus prerequisite requirement. Suggested additional coursework includes: Calculus III, Differential Equations, Linear Algebra

**The following students should elect up to two additional math courses that directly transfer to Michigan:

1. Students who received AP/IB credit for Calc I or Calc I & II but do not have scores that meet Michigan's requirements.
2. Students who tested out of Calc I or Calc I & II
3. Students whose Calc I or Calc II class transfers as departmental credit or is non-transferable

***Prerequisite met through completion of a directly equivalent course for EECS 183 **OR** ENGR 101; only one is required. Beginning Fall 2024, the College of Engineering will accept departmental credit for ENGR 101 if no other directly transferable coursework is available at the student's current institution. This does not apply to other prerequisite coursework.