

College of Engineering Prerequisite Guide

Northwestern Michigan College

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/expire.
For questions, contact engin-our@umich.edu

Michigan Courses	Northwestern Michigan Courses
**MATH 115-Calculus I	No directly equivalent course offered AP Calculus AB - 5 AP Calculus BC - 4 or higher IB Mathematics HL - 6 or higher
**MATH 116-Calculus II	MTH 142 AP Calculus BC - 5 IB Mathematics HL - 7
*Calculus III	MTH 241 MTH 251
CHEM 130 - General Chemistry I	CHEM 150 CHEM 151 AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
CHEM 125 & 126 - General Chemistry Lab I & II	CHEM 150 + CHEM 150L + CHEM 151 + CHEM 151L

	AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
PHYSICS 140 - General Physics I	PHY 221 AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
PHYSICS 141 - General Physics I Lab	PHY 221 (lab included) AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
***ENGR 101/EECS 183	CIT 110 EGR 111
ENGLISH 125	ENG 111 + ENG 112
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	CHEM 250
CHEM 211 - Organic Chemistry Lab I	CHEM 250 (lab included)
PHYSICS 240 - General Physics II	PHY 222 AP Physics C: Electricity and Magnetism - 5 IB Physics HL - 4 or higher
PHYSICS 241 - General Physics II Lab	PHY 222 (lab included) 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.