

# College of Engineering Prerequisite Guide

## North Central 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

Please note that students are allowed to 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](mailto:engin-our@umich.edu)

Michigan Courses	North Central Courses
**MATH 115-Calculus I	<b>No directly equivalent course offered</b> AP Calculus AB - 5 AP Calculus BC - 4 or higher IB Mathematics HL - 6 or higher
**MATH 116-Calculus II	MATH 210 AP Calculus BC - 5 IB Mathematics HL - 7
*Calculus III	MATH 215
CHEM 130 - General Chemistry I	CEM 121 AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
CHEM 125 & 126 - General Chemistry Lab I & II	CEM 122 AP Chemistry - 4 or higher IB Chemistry HL - 4 or higher
PHYSICS 140 - General Physics I	PHY 212 PHY 230

	AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
PHYSICS 141 - General Physics I Lab	PHY 212 PHY 230 AP Physics C: Mechanics - 5 IB Physics HL - 4 or higher
***ENGR 101/EECS 183	<b>No directly equivalent course offered</b>
ENGLISH 125	<b>No directly equivalent course offered</b>
<b>Alternate Coursework</b>	
Completion of coursework directly equivalent to courses below will meet the prerequisite for Chemistry + Lab and/or Physics + Lab	
CHEM 210 - Organic Chemistry I	CEM 231
CHEM 211 - Organic Chemistry Lab I	CEM 231
PHYSICS 240 - General Physics II	PHY 213 PHY 231 AP Physics C: Electricity and Magnetism - 5 IB Physics HL - 4 or higher
PHYSICS 241 - General Physics II Lab	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.