



Washkewicz College of Engineering

Bachelor Civil Engineering with Mathematics Minor

Earning a Mathematics Minor is easier than you think! A minor in mathematics consists of 18 credits in mathematics, with a grade of C or better in each course. It can be earned with no additional cost and minimal time added while obtaining your degree.

Earning the minor will inform recruiters for co-ops, internships, and career opportunities of your strong critical thinking and problem-solving skills!

Courses Need for Civil Engineering Students to Earn a Math Minor

	ESC 250 Differential Equations for Engineers 3 credits	MTH 283 Multivariable Calculus for Engineers 2 credits	MTH 284 Matrices for Engineers 2 credits	ESC 310 Engineering Statistics & Probability 3 credits	STA 323 Statistical Methods 3 credits
Civil Engineering Without Math Minor	✓	✓	✗	✓	✗
Civil Engineering With Math Minor	✓	✓	✓	✗	✓

To earn a Mathematics Minor, Chemical Engineering students must earn a C or better in the following:

- 4 credits — MTH 181 (Calculus I)
- 4 credits — MTH 182 (Calculus II)
- 3 credits — ESC 250 (Differential Equations for Engineers)
- 2 credits — MTH 283 (Multivariable Calculus for Engineers)
- 2 credits — MTH 284 (Matrices for Engineers)
- 3 credits — STA 323 (Statistical Methods)
- 18 credits

Transfer students must complete a minimum of 9 of these credits at Cleveland State University to earn the Mathematics Minor.

Overall Math Minor Requirements and How-To Sign-Up

REQUIRED COURSES

A grade of C or higher is required in both [MTH 181](#) and [MTH 182](#)

- [MTH 181 - Calculus I](#)
- [MTH 182 - Calculus II](#)

MATHEMATICS ELECTIVES

10 additional credits chosen from MTH courses numbered 200 or above, or from the STA courses [STA 323](#) or [STA 424](#). Courses must be completed with a grade of C or better. The following statistics and education-focused courses along with any statistics or education-focused special topics or reading courses are excluded from the math minor.

- Statistics courses: [STA 347](#), [STA 421](#), [STA 431](#), [STA 435](#), [STA 436](#), [STA 467](#)
- Education courses: [MTH 201](#), [MTH 325](#), [MTH 326](#), [MTH 328](#), [MTH 329](#), [MTH 330](#)

NOTES:

Engineering students can apply one of the following ESC courses toward the minor: [ESC 250](#), [ESC 310](#) or [ESC 350](#). Moreover,

- Only one of [MTH 284](#), [MTH 288](#) or [ESC 350](#) may be used,
- Only one of [MTH 286](#) or [ESC 250](#) may be used,
- Only one of [STA 323](#) or [ESC 310](#) may be used,
- Only one of [MTH 281](#) or [MTH 283](#) may be used.



Use your smart phone's camera app to scan the QR code above. It will direct you to CSU's Undergraduate Course Catalog.

How do I sign-up for a Mathematics Minor?

Log into your CampusNet → Select "Student" Tab → Select "Degree Audit" → Click "Ask a Question" **Please be sure to confirm your eligibility with your Academic Advisor.**

The screenshot shows the 'Ask a Question' form on the CampusNet website. The form is titled 'Department' and 'Subject'. The 'Department' dropdown is set to 'Registrar's Office' and the 'Subject' dropdown is set to 'Other'. A text box for the question contains the text: 'I would like to add a minor in mathematics.' Below the question box, there are radio buttons for 'Email' (checked) and 'Phone'. A phone number field is provided with a format: () - . At the bottom, there is a section for 'Select a preferred contact email.' with 'CSU Email' checked and 'Alternate Email' unchecked. The 'CSU Email' field is populated with 'CSUID@vike s.csuohio.edu'. There are 'Submit' and 'Cancel' buttons at the bottom of the form.



Use your smart phone's camera app to scan the QR code above for a step-by-step tutorial on signing up for a mathematics minor!