



Washkewicz College of Engineering

Bachelor of Chemical Engineering with Mathematics Minor

Benefits of earning a Mathematics Minor:

- No additional cost (upon using the tuition band for MTH 281) or time to pursue and earn
- Informs recruiters for co-ops, internships, and career opportunities of your strong critical thinking and problem-solving skills

Courses Needed for Chemical Engineering Students to Earn a Math Minor

		ESC 250 Differential Equations for Engineers 3 credits	MTH 286 Intro to Differential Equations 3 credits	MTH 283 Multivariable Calculus for Engineers 2 credits	MTH 281 Multivariable Calculus 4 credits	ESC 350 Linear Algebra for Engineers 3 credits	MTH 288 Linear Algebra 3 credits	ESC 310 Engineering Statistics & Probability 3 credits	STA 323 Statistical Methods 3 credits
Chemical Engineering Without Math Minor		✓	X	✓	X	✓	X	✓	X
Chemical Engineering With Math Minor	Option 1	X	✓	✓	X	X	✓	✓	X
	Option 2	X	✓	✓	X	✓	X	X	✓
	Option 3	X	✓	X	✓	✓	X	✓	X
	Option 4	✓	X	X	✓	X	✓	✓	X
	Option 5	✓	X	X	✓	✓	X	X	✓

To earn a Mathematics Minor, Chemical Engineering students must earn a C or better in all courses from one of the following options:

Option 1

4 credits — MTH 181
4 credits — MTH 182
3 credits — MTH 286
2 credits — MTH 283
3 credits — MTH 288
3 credits — ESC 310
19 credits

Option 2

4 credits — MTH 181
4 credits — MTH 182
3 credits — MTH 286
2 credits — MTH 283
3 credits — ESC 350
3 credits — STA 323
19 credits

Option 3

4 credits — MTH 181
4 credits — MTH 182
3 credits — MTH 286
4 credits — MTH 281
3 credits — ESC 350
3 credits — ESC 310
21 credits

Option 4

4 credits — MTH 181
4 credits — MTH 182
3 credits — ESC 250
4 credits — MTH 281
3 credits — MTH 288
3 credits — ESC 310
21 credits

Option 5

4 credits — MTH 181
4 credits — MTH 182
3 credits — ESC 250
4 credits — MTH 281
3 credits — ESC 350
3 credits — STA 323
21 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 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 CampusNet interface with the 'Student' tab selected. The 'Degree Audit' section is active, and the 'Ask a Question' link is highlighted. The form fields are as follows:

- Department:** Registrar's Office
- Subject:** Other
- Question:** I would like to add a minor in mathematics.
- Contact Preference:** Email ☒ Phone ☐
- Phone:** () -
- Select a preferred contact email:** CSU Email ☒ CSUID@vikes.csuohio.edu
- Alternate Email:** ☐ Click the box on left to provide an alternate email address.

Buttons at the bottom: Submit, Cancel



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!