



# Washkewicz College of Engineering

## Bachelor of Electrical Engineering with a Mathematics Minor

### Benefits of earning a Mathematics Minor:

- No additional cost 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 Electrical Engineering Students to Earn a Math Minor

	ESC 250 Differential Equations for Engineers 3 credits	MTH 286 Differential Equations 3 credits	MTH 283 Multivariable Calculus for Engineers 2 credits	MTH 284 Matrices for Engineers 2 credits	ESC 310 Engineering Statistics & Probability 3 credits
Electrical Engineering Without Math Minor	✓	✗	✓	✓	✓
Electrical Engineering With Math Minor	✗	✓	✓	✓	✓

To earn a Mathematics Minor, Electrical 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 — MTH 286 (Intro to Differential Equations)
- 2 credits — MTH 283 (Multivariable Calculus for Engineers)
- 2 credits — MTH 284 (Matrices for Engineers)
- 3 credits — ESC 310 (Engineering Statistics & Probability)
- 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 in the CampusNet system. The form is titled 'Schedule Planner' and is part of the 'Degree Audit' section. It includes a navigation bar with tabs for 'Personal Data', 'Account', 'Student', 'Instructor', 'Advisor', 'Applicant', and 'Financial Aid'. The 'Student' tab is selected. 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 (checked), Phone (unchecked)
- Phone:** ( ) -
- Select a preferred contact email:** CSU Email (checked), CSUID@vikes.csuohio.edu
- Alternate Email:** (unchecked), Click the box on left to provide an alternate email address.

Buttons for 'Submit' and 'Cancel' are located 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!