

# Math major substitutions<sup>1</sup>

## CS related substitutions

- **For past or present CS majors**, we allow MTH 225 + MTH 325 to replace MTH 210 + MTH 315 in the math major.
- **For math majors with a CS major or minor**, the School of Computing and Information Systems will allow MTH 210 to replace MTH 225 in the CS major/minor.
- **For math majors with a CS major or minor**, the School of Computing and Information Systems will allow MTH 315 to replace MTH 325 in the CS major/minor (this is unusual).
- **Math majors** can use EGR 106 and EGR 107 in place of the cognate (for secondary) or CS cognate (for others) (this is primarily for previous Engineering majors).
- **Math majors** can use EGR 112 and CIS 159 in place of the cognate (for secondary) or CS cognate (for others) (this is primarily for previous Engineering majors).

## Stats related substitutions

- **Math majors in applied emphasis** can use any of STA 216, STA 312, STA 318, STA 412 or STA 418 as the stats cognate. (See note about STA 412 for elective below.)
- **Math majors in theoretical emphasis** can use either of STA 312 or STA 412 as the stats cognate. (See note about STA 412 for elective below.)
- **Math majors** can use STA 220 and EGR 220 in place of STA 312 (this is primarily for previous Engineering majors).

## Substitutions for electives

- **Math majors in applied and theoretical emphasis** can use STA 412 as a math elective course, but may *not* count it as both a stats cognate and elective.
- **Math majors in applied or theoretical emphasis with a double major** can use a class from the non-math major as a math elective, as long as it has a substantial math prerequisite (MTH 201, MTH 204, or above) and substantial math component. See this [list of examples](#). Before sending this substitution in, the student either must have completed a 400-level MTH course as an elective or must be currently enrolled in one (past drop date).
- **Math majors in applied emphasis** can use MTH 300, 350, 450 as a math elective as long as there is at least one 400-level elective in the major. Both MTH 300 and 401 cannot be used as an elective. (Note: Before sending this substitution in, the student either must have completed a 400-level MTH course as an elective or must be currently enrolled in one (past drop date).
- **Pre-2019 non-certification math majors** can use MTH 305 as an elective or sequence completer, and MTH 498 as an elective or capstone option in the non-certification math major.
- **Independent studies or other unlisted MTH courses** (e.g. MTH 399, 499, 380, 480) may be used in the major with prior approval by the unit head.

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<sup>1</sup> Document updated September 2022, prepared June 2022 (Mathematics Engagement and Advising Coordinators)