

ISE Requirements and Prerequisite Map

Rev. Nov 2025- Draft 6.6

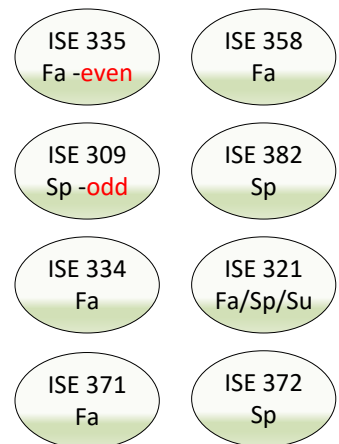
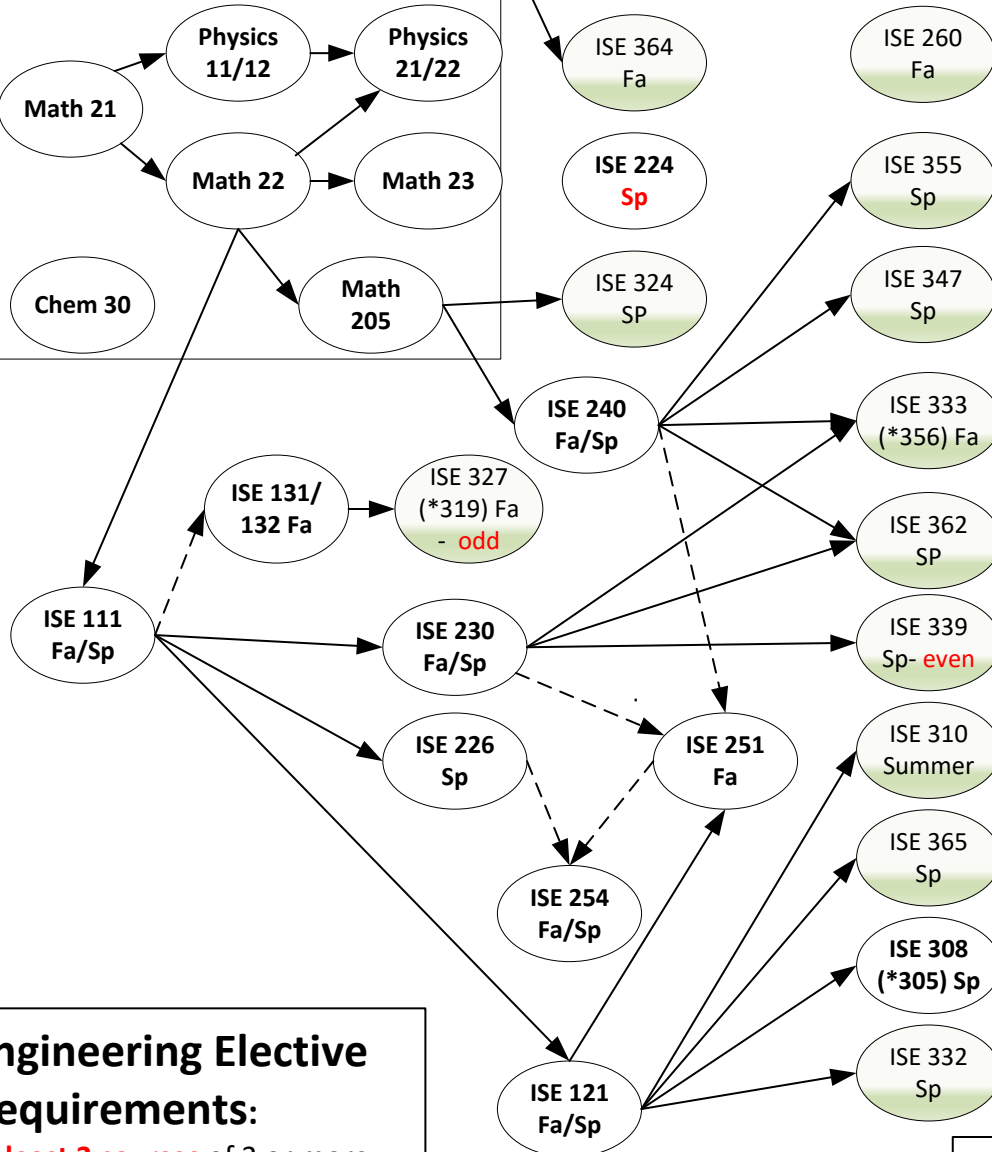
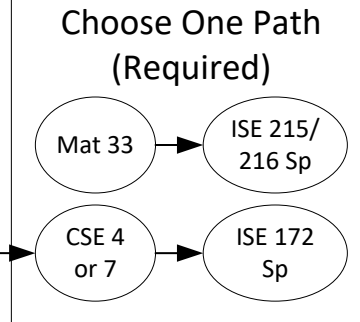
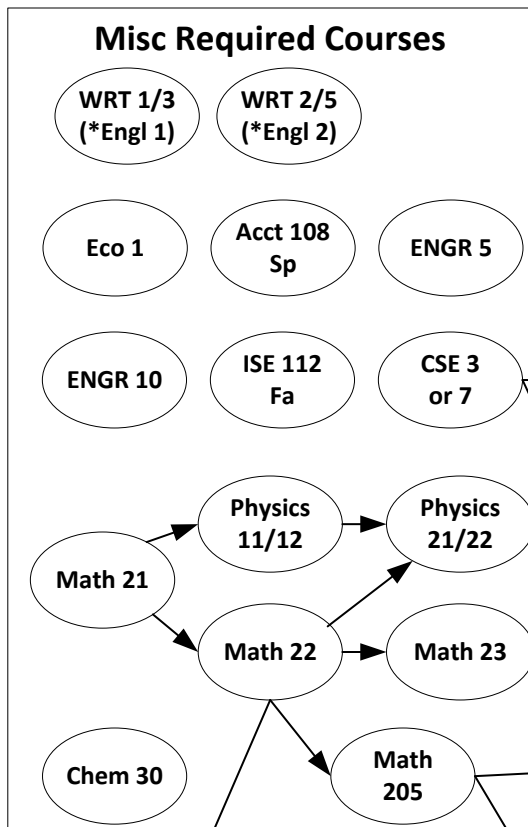
Required courses are in unshaded ovals – Shaded ovals indicate Elective courses.

ISE 1xx and 2xx are Required (except 260 is Elective).

ISE 3XX are Electives (except 308 is Required).

Dashed lines are co-requisites

(*xxx) designates old number for the course (if any)



Engineering Elective Requirements:

At least 3 courses of 3 or more credits associated with a departmental program from BIOE, CHE, CEE, CSE, ECE, MAT, ME, or MECH may be selected, with exceptions listed at <https://ise.lehigh.edu/content/courses>

ISE 100 – Industrial Employment – An internship experience that must be completed for zero credits

Minimum 130 Credits are Required to graduate.

12-18 cr is normal load per semester, can overload to 19 if gpa>2.5, to 20 if gpa>3.5

Technical Electives:

Choose at least 4, at least 2 must be ISE 3xx (Highlighted)

Examples:

Math 230, CSE 2xx except 241/252, CSE 3xx, BIS 3xx, Math 251

HSS Requirements:

A minimum of four multi-credit courses and a minimum of 13 credits in courses designated as HU (humanities) or SS (social science), with the following restrictions:

- 1.Depth: At least eight credits must be in a common discipline and from the same department or program. At least three of these credits must be at the 100-level or above, or at the intermediate level or above for a single modern foreign language.
- 2.Breadth: At least three credits in a discipline different from, and not cross-listed with, the discipline employed to satisfy the depth requirement.
- 3.At least three credits must be designated as HU.
- 4.None of the courses used for HSS can be taken Pass/Fail.
- 5.None of the course can be one-credit courses.

NEW HSS Requirements (starting FALL 2025) check your audit for details:

A minimum of three courses and a minimum of **12 credits** in courses from the following four categories: HE, SW, AL, CGH, POPH

Breadth: At least one course of three credits or greater must be taken in each of two different categories.

Humanities: At least one course must have an HE or AL designation

None of the courses can be taken Pass/Fail.

All courses must be two credits or greater.

Note on Engineering Electives:

If ISE 215/216 is taken, Mat 33 is Required and no longer count as an Eng'g Elective.

CSE 007 is a combination of CSE003+CSE 004, and is required for ISE 172. CSE 007 is NOT eligible as an Engineering elective since CSE003, which is 2 credits of the course is required for the ISE degree, and Eng'g Electives has to be 3 or more credit hours.

List of courses excluded from consideration as an Engineering Elective:

CHE 171 (CEE 171, EMC 171, ES 171) Fundamentals of Environmental Technology 4 Credits

CEE 010 (ARCH 010) Engineering/Architectural Graphics and Design 3 Credits

CSE 007 Introduction to Programming

CEE 202 CEE Planning and Engineering Economics 3 Credits

CSE 042 (EMC 042) Game Design 3 Credits

CSE 252 (EMC 252, GCP 252, STS 252) Computers, the Internet, and Society 3 Credits

CSE 241 Database Systems and Applications 3 Credits

CSE 379 Senior Project 3 credits

MAT 020 Computational Methods in Materials Science 3 Credits

ME 010 Graphics for Engineering Design 3 Credits

ME 240 Manufacturing 3 Credits

A student may take one of the courses in the following course sets for use as an Engineering Elective:

CEE 003 Engineering Statics or MECH 2 Elementary Engineering Mechanics or MECH 3

Fundamentals of Engineering Mechanics 3 Credits

CEE 059 Strength of Materials or MECH 12 Strength of Materials 3 Credits