Courses with Communication Emphasis in Your Major Field: 3 credits. (Typically Senior Design or Capstone Course.)

Most engineering students will have a senior design course required in their field, and that design course should count here. If your program’s design course is not listed, contact us for adding it to the list.

Non-engineering students should find a senior-level course in their major field that has a substantial communication element to it, and propose that it be added to our list (or propose that we count it).

**B M E 400:** Capstone Design Course in Biomedical Engineering
3 credits
*Prerequisites:* BME 301, 310, 315, 430, Sr st in biomed engr or cons inst
*Course Description:* This capstone course applies classroom study to solve a directed client-based biomedical engineering design project. (Fall)

**CIV ENGR 578:** Senior Capstone Design
4 credits
*Prerequisites:* Completion of at least 1 crse which carries 3 cr of design
*Course Description:* The application of theoretically and academically acquired knowledge to a civil and environmental engineering problem in as near "real-world" as possible. (Fall/Spring)

**GLE 479:** Senior Capstone Design, 3 credits. *Course Description:* The application of theoretically and academically acquired knowledge to a geological engineering problem in as near "real-world" as possible. (Fall/Spring)

**E M A 469:** Design Problems in Engineering
3 credits
*Prerequisites:* EMA 221, 307; ECE 376; ME 363, 361; MS&E 350; or cons inst
*Course Description:* The design philosophy is presented. Students will be required to apply their knowledge of elementary mechanics, engineering and basic science to arrive at acceptable solutions to a variety of design problems. (Fall)

**I SY E 476:** Industrial Engineering Projects
3 credits
*Prerequisites:* I SY E 320, 321, 349; EPD 397; or cons inst
*Course Description:* Complete design of an industrial engineering system in a real world setting, e.g., manufacturing, hospital, communications, food processing, distribution, transportation, etc. (Fall/Spring)

**M E 349:** Engineering Design Projects
3 credits
*Prerequisites:* ME 314, 342 & 364
*Course Description:* Applied engineering design projects. Emphasis on design of practical mechanical engineering systems, devices and/or components. Two 2-hr labs and one lecture per week. Lecture focuses on the design process, creativity, patents, and other applications to practical problems. (Fall/Spring/Summer)
ME 351: Interdisciplinary Experiential Design Projects I
3 credits
Prerequisites: Sr st in ME or cons inst
Course Description: First of a two-course sequence in which students design and fabricate systems and devices, typically having an interdisciplinary aspect. In the first course, emphasis will be on project planning, team dynamics, problem identification, and conceptual design and evaluation. (Fall/Spring)

ME 352: Interdisciplinary Experiential Design Projects II
3 credits
Prerequisites: ME 351 & Sr st in ME or cons inst
Course Description: Second of a two-course sequence in which students design and fabricate systems and devices, typically having an interdisciplinary aspect. In the second course, emphasis will be on detailed design, fabrication, testing, and modification of concepts developed in the previous course. (Fall/Spring)

MSE 470/471: Senior Capstone Design. (1/3 credits)

NE 413: Nuclear Reactor Design. 5 credits. Reactor design projects, reactor hazards, economics.

NE 571: Economic and Environmental Aspects of Nuclear Energy
3 credits
Prerequisites: NEEP 405 & NEEP 411
Course Description: Economics of the nuclear fuel cycle. Economic and environmental impact the nuclear fuel cycle. Impact on design, plant siting and regulation. (Spring)