Engineering (ENGR)

engr.uconn.edu

5300. Special Topics in Engineering

Variable (1-6) credits. May be repeated for a maximum of 12 credits.

Classroom and/or laboratory course in special topics as announced in advance for each semester.

5311. Professional Communication and Information Management

Three credits. Taught with AMES 5121.

Development of the advanced communication skills as well as information management required of engineers and engineering managers in industry, government, and business. The design and writing of technical reports, articles, proposals and memoranda that address the needs of diverse organizational and professional audiences; the preparation and delivery of organizational and technical oral and multimedia presentations and briefings; team building skills with an emphasis on communications; and knowledge management.

5312. Engineering Project Planning and Management

Three credits. Prerequisite: Department consent.

The methodology for managing engineering projects; including project lifecycle, strategic planning, budgeting, and resource scheduling. Also, work estimating, evaluating risk, developing the project team, project tracking and performing variance analysis. Case studies are used as class and homework assignments to focus the class on the topics presented.

5314. Advanced Engineering Mathematics

Three credits. Taught with AMES 5101.

Advanced math topics including Laplace, Fourier and z-Transform methods, probability theory, ordinary differential equations and systems of ODEs, partial differential equations, vector calculus, elements of statistics, linear and non-linear optimization, matrix theory, and special functions like Bessel, Legendre, and gamma. This course is set up as modules. Students will be required to complete certain modules depending on their background and concentrations.

5315. MENG Capstone

Three Credits. Prerequisite: Open only to students in the Master of Engineering (MENG) program who have successfully completed at least 24 credits of coursework.

Required for students matriculated in the Master of Engineering program to complete an interdisciplinary engineering project where the subject matter/content spans more than one field of interest. The project should draw upon and demonstrate the application of material taught in the MENG program. The subject of the project selected could be one that supports the company for which the graduate student is employed or can be created in collaboration with the student's capstone faculty advisor.