

ENGINEERING (ENGR)

ENGR 4101 Special Topics 1 Credit

Department: College of Engineering

An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 6 hours

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 4201 Special Topics 2 Credits

Department: College of Engineering

An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 4 hours

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 4301 Special Topics 3 Credits

Department: College of Engineering

An investigation into specialized areas of engineering under the guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 18 hours

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS, Satisfactory/Unsatisfactory

ENGR 4306 Engineering Internship I 3 Credits

Department: College of Engineering

Internship opportunity provides experience in the practice of engineering for undergraduate students. Its purpose is engineering career development.

May be Repeated for a maximum of 15 hours

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 4307 Engineering Internship II 3 Credits

Department: College of Engineering

Internship opportunity provides experience in the practice of engineering for undergraduate students. Its purpose is engineering career development.

May be Repeated for a maximum of 15 hours

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5101 Special Topics 1 Credit

Department: College of Engineering

An investigation into specialized study in advanced areas of engineering under guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 2 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5301 Special Topics 3 Credits

Department: College of Engineering

An investigation into specialized study in advanced areas of engineering under guidance of a faculty member. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS, Satisfactory/Unsatisfactory

ENGR 5306 Engineering Internship I 3 Credits

Department: College of Engineering

Internship opportunity provides experience in the practice of engineering for graduate students. Its purpose is engineering career development.

May be Repeated for a maximum of 0 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS, Satisfactory/Unsatisfactory

ENGR 5307 Engineering Internship 2 3 Credits

Department: College of Engineering

Internship opportunity provides experience in the practice of engineering for graduate students. Its purpose is engineering career development.

May be Repeated for a maximum of 15 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5331 Engineering Communication & Ethics 3 Credits

Department: College of Engineering

This course introduces code of ethics in engineering practices and research activities. Also will be covered are writing of formal and informal technical reports, plagiarism in writing, oral presentation, use of visual aids and professional communication in job search and technical dissemination.

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5332 Statistical Principles in Engineering 3 Credits

Department: College of Engineering

This course cover the role and application of statistics in engineering.

Topics include data analysis, random variables and probability distributions, hypothesis tests, regression, multivariate analysis, experimental design and simple statistical quality control.

Prerequisite(s): MATH 2413 and MATH 2414

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5333 Mathematical Principles in Engineering 3 Credits

Department: College of Engineering

The course covers selected topics of advanced engineering mathematics and their applications to engineering. Topics include analytical and numerical solutions of ordinary and partial differential equations, vector differential calculus and integral theorems, and application of model software packages for solving mathematical problems in engineering.

Prerequisite(s): MATH 2413 and MATH 2414 and MATH 3301

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 5390 Thesis 3 Credits

Department: College of Engineering

Open to students in the thesis option. Independent, applied research that addresses a significant problem in engineering supervised by a member of the engineering graduate faculty. Course is scheduled only with consent of the supervising professor, thesis committee, the department chair and college dean. Credit is assigned when the thesis is completed and filed with the college of graduate studies.

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS, Thesis/Dissertation

ENGR 5391 Thesis 3 Credits

Department: College of Engineering

Open to students in the thesis option. Independent, applied research that addresses a significant problem in engineering supervised by a member of the engineering graduate faculty. Course is scheduled only with consent of the supervising professor, thesis committee, the department chair and college dean. Credit is assigned when the thesis is completed and filed with the college of graduate studies.

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS, Thesis/Dissertation

ENGR 6110 Professional Seminar 1 Credit

Department: College of Engineering

Advanced topics suitable for research along with research procedures will be discussed. Field study organization and content together with doctoral research problems and progress will be presented. Topics will vary each semester and course may be repeated for credit. Registration and completion for three semesters is required of all doctoral candidates.

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS, Standard Letter

ENGR 6301 Special Topics 3 Credits

Department: College of Engineering

An investigation into specialized study of complex nature in advanced areas of engineering under guidance of a faculty member who supervise doctoral students. This course may be repeated for credit when topics of investigation differ.

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Standard Letter, Registrar do not use FN, Registrar do not use FS

ENGR 6310 Design Projects 3 Credits

Department: College of Engineering

May be repeated for credit when the subject matter varies.

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS, Standard Letter

ENGR 6320 Justification Engineering Proj 3 Credits

Department: College of Engineering

The preparation of proposals for advanced engineering work. The student will be given individual assistance in preparing a proposal for his field study.

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS, Standard Letter

ENGR 6603 Engineering Dissertation I 6 Credits

Department: College of Engineering

An Engineering Doctoral dissertation preparation course Prerequisites: Approval of Dissertation Committee

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Satisfactory/Unsatisfactory, Registrar do not use FN, Registrar do not use FS

ENGR 6604 Engineering Dissertation II 6 Credits

Department: College of Engineering

An Engineering Doctoral dissertation preparation course Prerequisites: Approval of Dissertation Committee

May be Repeated for a maximum of 18 hours

Restriction(s):

Undergraduate level students may **not** enroll.

Grade Mode(s): Thesis/Dissertation, Registrar do not use FN, Registrar do not use FS, Satisfactory/Unsatisfactory