

966B Multidimensional Signal Processing
Fall of odd years. Spring of odd years. 3(3-0) RB: (ECE 466 and ECE 864) SA: EE 966B

Multidimensional signals and systems concepts. Two-dimensional sampling, windowing, filter design. Fast algorithms for convolution and transforms. Sensor array processing. Interpolation.

966C Advanced Topics in Statistical Signal Processing
Fall of odd years. Spring of odd years. 3(3-0) RB: (ECE 466 and ECE 863 and ECE 864) SA: EE 966C

Communication channels, noise models, hypothesis testing of signals by Bayesian minimax, and Neyman-Pearson criteria. Performance evaluation using ROC. Bayesian and maximum likelihood parameter estimation. Kalman-Bucy filtering.

989 Advanced Topics in Plasma
Fall of odd years. Spring of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. SA: EE 989

Topics vary each semester.

989A Plasma Processing for IC Fabrication
Fall of odd years. Spring of odd years. 3(3-0) RB: (ECE 835 and ECE 850) SA: EE 989A

Process requirements. Plasma reactors. Etching and deposition applications. Broad ion beam processing.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 72 credits in all enrollments for this course. SA: EE 999

Doctoral dissertation research.

ENGINEERING EGR

College of Engineering

101 Preview of Science
Fall. 1 credit. Interdepartmental with Natural Science; Agriculture and Natural Resources; Social Science. Administered by College of Natural Science. R: Approval of college.

Overview of natural sciences. Transitional problems. Communications and computer skills. Problem-solving skills. Diversity and ethics problems in science. Science and society.

124 Internet and Technology
Fall, Spring, Summer. 2(2-0)
The Internet from a user perspective and from a technical perspective. History and social impact of the Internet. Internet tools.

150 Engineers and the Engineering Profession
Spring. 2(2-0) P:M: (MTH 116 or concurrently or MTH 132 or concurrently) or (LBS 118 or concurrently) R: Open only to freshmen or sophomores.

Overview of the engineering profession. Historical background. Engineering specialties. Engineers at work. Professionalism and ethics. Communication skills. Future trends and challenges.

160 Diversity and Engineering
Fall, Spring. 2(2-0) P:M: (MTH 116 or concurrently or MTH 132 or concurrently) R: Open only to freshmen or sophomores in the College of Engineering.

Diversity and engineering. Transitional problems. Career options. Communication skills.

192 Environmental Issues Seminar
Fall, Spring. 1 credit. A student may earn a maximum of 4 credits in all enrollments for this course. Interdepartmental with Natural Science; Agriculture and Natural Resources; Social Science; Communication Arts and Sciences. Administered by College of Natural Science. R: Open only to students in the College of Agriculture and Natural Resources or College of Engineering or College of Natural Science or College of Communication Arts and Sciences or College of Social Science. Approval of college.

Environmental issues and problems explored from a variety of perspectives, including legal, scientific, historical, political, socio-economic, and technical points of view.

290 Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to students in the College of Engineering, approval of college.

Independent undergraduate research in engineering.

291 Selected Topics
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to freshmen or sophomores.

Experimental course development or special topics appropriate for freshmen and sophomores.

292 Applications in Environmental Studies
Fall. 2(1-2) Interdepartmental with Natural Science; Agriculture and Natural Resources; Communication Arts and Sciences; Social Science. Administered by College of Natural Science. P:M: (NSC 192) R: Open only to students in the Specialization in Environmental Studies.

Community engagement project. Projects vary depending on student's major and area of environmental interest.

300 Technology, Society and Public Policy
Fall. 2(2-0) P:M: Completion of Tier I writing requirement. RB: Two courses in mathematics or engineering or science. SA: EGR 200, MSM 300

Defining, describing and analyzing technology. Impact of technology on society. Public policy and technology. Short history of technology. Development and use of assessment tools to measure impact and consequences of technology.

393 Engineering Cooperative Education
Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to students in the College of Engineering.

Pre-professional educational employment experiences in industry and government related to student's major. Educational employment assignment approved by College of Engineering.

400 Special Problems in International Engineering
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors or graduate students in the College of Engineering.

Supervised study of selected topics in engineering using laboratories, equipment, and engineering design techniques. Given at various international universities and institutes.

410 System Methodology
Spring. 2(1-3) P:M: (EGR 300 and STT 351) and (ECE 345 or concurrently and ME 222 or concurrently) R: Open only to students in the Applied Engineering Sciences major. SA: SYS 410, MSM 400

System analysis and design. Needs analysis, system identification, graphical models. Team project required.

475 Special Topics in International Engineering
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors or graduate students in the College of Engineering.

Topics selected to supplement regular courses. Given at various international universities and institutes.

490 Independent Study (W)
Fall, Spring, Summer. 1 to 4 credits. R: Open only to juniors and seniors in the College of Engineering. Approval of the College of Engineering.

Individualized reading, research, and/or project.

888 Capstone Project in Manufacturing
Fall, Spring, Summer. 3(1-6) Interdepartmental with Marketing and Supply Chain Management. Administered by Department of Marketing and Supply Chain Management. R: Open only to seniors in the Manufacturing Engineering major or to students in the Business Management of Manufacturing major.

Problem solving in manufacturing. Design of products and processes for manufacturing using a systems approach. Teaming and communication skills are emphasized.

ENGLISH ENG

Department of English College of Arts and Letters

097 Oral Skills for Foreign Teaching Assistants
Fall, Spring. 0(5-0) R: Approval of English Language Center.

Practice in English skills for classroom instruction. Pronunciation. Presentations and handling questions. Managing student interactions and classroom situations.

101 Cross-Cultural Literature
Fall, Spring, Summer. 4(4-0)
Fiction, drama, or poetry of major authors, written in or translated into English, reflecting a broad range of cultures.