125. Orientation to Engineering Careers
Winter. 2(2-0) Credits earned in this course are included in computation of GPA and MAFS but are not included in the 180 credits required for graduation. Engineering careers, history and philosophy of engineering profession, present and future challenges, industrial job functions, employment trends.

160. Engineering Communications
Fall, Winter, Spring. 4(3-4) MTH 108 or MTH 111 or concurrently.
Engineering graphics, descriptive geometry, freehand sketching, graphic, numerical and computer problem solutions. Written technical reports and oral technical presentations.

161. Mechanical Drawing
Fall, Winter, Spring. 2(1-2)

162. Mechanical Drawing
Fall, Winter, Spring. 3(0-4) EGR 150 or EGR 161.
Continuation of EGR 161 with emphasis on freehand lettering and sketching, advanced working drawings.

200. Technology, Society and Public Policy
Winter. 3(3-0) Twelve credits from natural science or engineering, Interdepartmental with the Department of Natural Science.
Description and analysis of certain current technologies and their consequences; exploration of avenues for assessing such consequences as an aid to formulation of public policy.

201. Introduction to Engineering Mechanics
Winter. 4(4-0) PHY 237. Interdepartmental with and administered by the Department of Metallurgy, Mechanics and Materials Science.
Laws of mechanics governing the behavior of rigid and deformable bodies emphasizing how these laws influence engineering design. Extensive use of demonstrations.

267. Architectural Drafting I
Fall, Winter, Spring. 3(1-4) Students may not receive credit in both EGR 267 and EGR 366.
House construction detailing, Analysis and drawing of typical standard details.

270. Computer Graphics
Spring. 3(3-0) EGR 160 or EGR 161; CPS 110 or CPS 120; or approval of department.
Use of computer controlled display systems for the solution of multidimensional problems.

300. Technology and Utilization of Energy
Winter. 3(3-0) Initial course in any sequence of courses in the Department of Natural Science. Interdepartmental with and administered by the Department of Mechanical Engineering.
Problems of energy technology and its impact: energy sources, conversions, waste and environmental effects, future outlook for mankind.

344. Engineering Cooperative Education
Pre-professional employment in industry and government related to student's major.

364. Architectural Drafting II
Winter. 3(1-4) EGR 267 or approval of department.
Functional and standard procedure in the layout of floor plans in traditional and modern houses. Rendered plot plan and required details.

365. House Planning
Fall. 3(1-4) Students may not receive credit in both EGR 267 and EGR 365.
Elementary house architecture. Drawing plans from sketches. Kitchen planning, house styles, elements of design, financing, heating, lighting.

366. Architectural Perspective Drawing
Fall. 3(0-6) Any engineering graphics course.
One-point and two-point perspective, revolved plan and measuring line methods. Pencil rendering, problems in shade and shadows. House model to scale, optional.

390. Value Engineering
Fall, Winter, Spring. 4(4-0) MMM 280 or approval of department.
The basis of value engineering is function, value, and a group of special techniques developed to aid in isolating and identifying problems created by our complex society and technology.

401. Engineering and Public Policy
Spring. 3(3-0) Seniors or approval of department Interdepartmental with the Department of Natural Science.
Sociotechnical assessment of impact of technology on society, with analysis of the role of engineering and natural science in contributing to public policy formulation.

410. Systems Methodology
Winter. 3(3-0) MTH 113, CPS 110 or CPS 120. Interdepartmental with and administered by Systems Science.
The systems approach in multidisciplinary large scale problem solving. The development of useful systems analysis tools; systems design; feasibility study; computer simulation for feasibility evaluation.

411. Systems Project
Spring. 2(0-3) SYS 410. Interdepartmental with and administered by Systems Science.
Completion of a system study initiated in SYS 410. The project may involve the design of hardware, simulation of a solution to an interdisciplinary problem, or development of a solution concept.

463. Architectural Drafting III
Spring. 3(1-4) EGR 364.
Traditional and modern elevations. One- and two-point rendered perspective. Functional plans drawn in EGR 364 required.

490. Special Problems
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 8 credits. Approval of department.

091. English for Foreign Students—Structures
Explanation and intensive practice of basic grammatical structures of English. Students are tested and then placed in small groups, from beginning to advanced, depending on their need.

092. English for Foreign Students—Speaking and Listening
Intensive speaking and listening practice of spoken English in small groups (determined by proficiency). For beginners, practice is largely drill. Advanced groups use drill, films, discussion, and practical conversations.

093. English for Foreign Students—Language Laboratory
Language laboratory practice in small groups (determined by proficiency). Beginners review and supplement ENG 091, ENG 092. Advanced groups use carefully prepared lectures, speeches, and presentations to practice structures and vocabulary.

094. English for Foreign Students—Reading
Intensive and extensive reading in small groups (determined by proficiency). Beginners emphasize vocabulary development and practice in basic structures. Advanced classes include reading skills, wider reading, and specialized vocabulary.

095. English for Foreign Students—Writing
Frequent controlled and free writing in small groups to reduce errors and practice using structures and vocabulary to express ideas. Advanced classes include writing styles used in academic course work.

101. Responses Through Writing
Fall. 4(4-0) Arts and Letters Freshmen only. Students must enroll in and complete ENG 102 satisfactorily to make a substitution for the American Thought and Language requirement.
A writing workshop that concentrates on the student's personal writing voice and on his responses to the things, people, and institutions central to his experience.

102. Writing and Composing
Winter. 5(5-0) ENG 101; Arts and Letters Freshmen only.
A continuation of ENG 101 that develops the emphasis of ENG 101 and encourages students to write in more public and objective forms—narrative, critical analysis, and issue-oriented essays.