102 Introduction to Engineering Design
Fall, Spring. 2(1-2) P: (MTH 116 or concurrently) or (MTH 152H or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LBS 118 or concurrently) R: Open to freshmen or sophomores in the College of Engineering and open to students in the Lyman Briggs School.

Engineering design process as modeled by team-based, interdisciplinary design projects. Roles of engineers and the contributions of engineering in society. Project management, and design of products and processes to specified outcomes under specified constraints. Introduction to computing tools and physical equipment in support of engineering design. Engineering ethics.

110 ROSES Engineering Seminar
Fall. 1(2-0) R: Open to freshmen in Residential Option Science and Engineering. Seminar for ROSES students. Transition issues, success issues, and the exploration of engineering as a major and profession.

150 Engineers and the Engineering Profession
Spring. 2(2-0) P: (MTH 116 or concurrently) or (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LBS 118 or concurrently) R: Open to freshmen or sophomores.


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


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 Agriculture and Natural Resources and Communication Arts and Sciences and Natural Science and Social Science. Administered by 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.

210 Global Systems: Economics, Engineering, Environment
Fall. 3(3-0) P: EGR 102 or CSE 231 R: Not open to freshmen.

Globalization as a process driven by economics, enabled by engineering, and constrained by the environment. Development of systems analysis tools for understanding how these themes interact globally. Enhancement of communication skills through teaming, presentations, and active listening.

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 students in the College of Engineering, approval of college.

Independent undergraduate research in engineering.

310 Sustainable Systems Analysis
Spring. 3(2-3) P: (EGR 210 and (STT 315 or concurrently)) and completion of Tier I writing requirement R: Open to juniors or seniors in the College of Engineering or approval of department. SA: EGR 300 Concepts of sustainable systems; computational analysis tools for project management, life-cycle analysis, system-level representation, and six-sigma approaches. Case studies. Modeling and computational analysis.

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.