100 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 (WRA 1004 or designated score on English Placement test). Open to students in the College of Engineering and open to students in the Lyman Briggs College. Engineering design process as modeled by team-based, interdisciplinary design projects. Roles of engineers and the contributions of engineering in society. Project management, creativity 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. Oral and written technical communications.

102 Introduction to Engineering Modeling
Fall, Spring. 2(1-3) P: (MTH 132 or concurrently) or (MTH 152H or concurrently) or (LB 118 or concurrently). Open to students in the College of Engineering or in the Lyman Briggs College. Not open to students with credit in CSE 131. Application of systematic approaches to engineering problems. Problem decomposition and identification of a solution approach. Solution using tools such as advanced spreadsheet features and MATLAB. Data representation, curve fitting and analysis. Mathematical modeling of engineering systems. Application of principles through team-based engineering projects.

106 Preparation for Science and Engineering

160 Success in Science, Technology, Engineering, and Mathematics

192 Environmental Issues Seminar
Fall. 1 credit. Interdepartmental with Agriculture and Natural Resources and Communication Arts and Sciences and Natural Science and Social Science. Administered by Natural Science. Open to students in the College of Communication Arts and Sciences or in the College of Engineering or in the College of Natural Science or in the 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.

200 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 to students in the College of Engineering. Approval of college. Independent undergraduate research in engineering.

201 Selected Topics
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Experimental course development or special topics offerings.

202 Applications in Environmental Studies
Spring. 2(1-2) Interdepartmental with Agriculture and Natural Resources and Communication Arts and Sciences and Natural Science and Social Science. Administered by Natural Science. R: Open to students in the Environmental Studies Specialization. Community engagement project. Projects vary depending on student’s major and area of environmental interest.

209 290 Information and Communication Technologies for Development
Fall. 3(3-0) Interdepartmental with Media and Information. Administered by Media and Information. P: Completion of Tier I Writing Requirement. SA: TC 480. This course will prepare students with the knowledge and skills necessary to understand the role of information and communications technologies (ICT) in developing countries. This includes theories and case studies that link ICT and social, political, economic, and environmental change.