APPLIED ENGINEERING SCIENCES AESC

College of Engineering

210 Global Systems: Economics, Engineering, Environment
Spring. 3(3-0) P: EGR 102 or CSE 231 or CSE 220 R: Not open to freshmen. SA: EGR 210
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.

290 Independent Study in Applied Engineering Sciences
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to freshmen or sophomores in the Applied Engineering Sciences Major. Approval of department.
Supervised individual study in an area of applied engineering sciences.

291 Selected Topics in Applied Engineering Sciences
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to freshmen or sophomores. Approval of department.
Topics selected to supplement and enrich existing courses and lead to the development of new courses.

310 Sustainable Systems Analysis
Fall. 3(0-3) P: (AESC 210 and (STT 315 or concurrently)) and completion of Tier I writing requirement R: Open to juniors or seniors in the College of Engineering and open to juniors or seniors in the Department of Marketing and open to juniors or seniors in the Department of Supply Chain Management. SA: EGR 300, EGR 310
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.

410 Capstone Project in Applied Engineering Sciences
Spring. 3(1-4) P: (AESC 310) and completion of Tier I writing requirement R: Open to seniors in the Applied Engineering Sciences Major. Approval of department; application required. SA: EGR 410, MSM 400, SYS 410
Professional work group experience with other applied engineering sciences students working on sponsor defined project. Application of applied engineering sciences curricular elements, skills and competencies.

454 Technology Entrepreneurship
Fall, Spring. 3(3-0) Interdepartmental with Management. Administered by Management. P: MGT 352 or MKT 355 or AESC 310 R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management and open to seniors in the Applied Engineering Sciences Major and not open to students in the School of Hospitality Business. Approval of department; application required.
Introduction to entrepreneurship. Learning how to leverage technological advances to develop business ideas. Focus on the creation process of high-growth technology ventures.

490 Independent Study in Applied Engineering Sciences
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open to juniors or seniors. Approval of department.
Supervised individual study in an area of applied engineering sciences.

491 Selected Topics in Applied Engineering Sciences
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open to juniors or seniors in the Applied Engineering Sciences Major.
Topics selected to supplement and enrich existing courses and lead to the development of new courses.