

**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.

- 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 or approval of department. 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 System Methodology**  
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: MSM 400, SYS 410, EGR 410

System analysis experience involving analysis tools and practices appropriate to the project, oral and written communication, professional ethics.

- 454 Technology Entrepreneurship**  
Fall, Spring. 3(3-0) Interdepartmental with Management. Administered by Management. P: MGT 352 or MKT 355 or EGR 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.