MEIE 2000. Introduction to Engineering Co-op Education. 1 Hour.
Provides students preparation for the first co-op experience. Focuses on skills that provide a basis for successful co-op engagement including expectations and requirements, an introduction to professional credentials, résumé construction, self-assessment and goal setting, interviewing, professional and co-op ethics, issues of diversity in the workplace community, academic planning and decision making, and an introduction to career portfolios.

MEIE 3000. Professional Issues in Engineering. 1 Hour.
Provides students with an opportunity to reflect on both academic and co-op experiences in the context of planning for the senior year and beyond. Issues include professional and ethical issues, resolving ethical conflicts, awareness of engineers as professionals in a diverse world, strengthening decision-making skills, career portfolios, and lifelong learning needs, goals, and strategies. Students reflect upon issues of diversity from their experience in the University and in their cooperative education placements. Explores the role of different work and learning styles and diverse personal characteristics on the workplace and the classroom. Professional issues include impact of the cultural context, both in the United States and around the world, on the client, government relations, and the workplace.

MEIE 3435. Introduction to Engineering Entrepreneurship. 4 Hours.
Designed for engineering and science students who have little or no experience in business topics and have a strong interest in technological innovation. Focuses on high-technology venture creation and leadership. Topics include the high-tech entrepreneurial leader, approaches to high-technology ventures, and the engineering design process and entrepreneurial engineering. Emphasizes identifying a market for a new technology-based idea, transforming a technology-based idea or venture into a product, understanding and protecting intellectual property, developing a business plan, and acquiring resources and setting up a company. May be repeated without limit.

MEIE 4702. Capstone Design 2. 5 Hours.
Continues MEIE 4701. Students are expected to apply engineering principles acquired throughout their undergraduate academic and co-op experiences to the design of a system, component, or process. Each project includes the development and use of design methodology, formulation of design problem statements and specifications, consideration of alternative solutions, feasibility considerations, and detailed system descriptions. Projects include realistic constraints such as economic factors, safety, reliability, maintenance, aesthetics, ethics, and political and social impact. Students make oral presentations on their results in a series of design reviews. Students document their solutions using a written report that includes an executive summary. A working prototype or simulation, as appropriate, of their solution is required to complete the course.

MEIE 6800. Technical Writing. 0 Hours.
Seeks to provide graduate students with guidelines, tools, and strategies for improving their technical writing. Uses short in-class assignments to reinforce class concepts. Homework assignments related to the students’ research offer students an opportunity to practice their skills and receive feedback on their writing. It is hoped that the work students produce is of direct benefit to themselves and their advisors by allowing students to write up their own research to date and have it critiqued in an organized way.

MEIE 6850. Research Seminar in Mechanical and Industrial Engineering. 0 Hours.
Offer a research seminar presenting topics of current interest in a variety of areas in mechanical and industrial engineering. May be repeated without limit.