Initiatives

Business and Engineering

In the junior year, we are adding a business team experience to our pre-thesis course. Groups of 5 ECE juniors will be teamed with a professional MBA student (commonly a working engineer returning for an MBA) to prepare a market, business, and project management plan for one of the senior design projects. Business and ECE professors will team-teach this seminar course, and a related course for the PMBA students in the business school. PMBA students are professionals, commonly engineers, working on their MBA. It is anticipated that this course will provide direct hands-on experience in the business aspects of engineering and may result in engineering students becoming more involved in the entrepreneurial program and opportunities available on campus (a business incubator, a $40k student business grant, etc.), and that the PMBA students will serve as effective mentors both in and out of class for the juniors.

ECE 3920
This course is a seminar to acquaint ECE students with the business side of engineering. Topics include Teamwork, Leadership, Business Plan Development, Financial/Accounting Planning and Valuation, Marketing Research, Project Management, Patents, Contracts, Intellectual Property Issues. ECE students will participate with Professional MBA students in active projects throughout this semester.

ECE 3930
This course is a continuation of ECE 3920. ECE students will participate with Professional MBA students to complete a business plan for an engineering project. Projects will be chosen from active senior design projects and/or engineering research projects within the college.

Each topic will be given 2-3 weeks, except for the introduction. First week will be lecture, and other week(s) will be active work between PMBA and ECE students. This will include both writing and speaking experiences as well as formal practice in cross-disciplinary team work. Each speaker will be asked to also address the ethical issues associated with their topic.

For course details, notes, etc. contact Cynthia Furse for a password.
Writing / Speaking / Teamwork Initiative (CLEAR Center)

In the freshmen year, starting fall 04, students are strongly encouraged to take an Engineering LEAP series (2 courses), which serves as a humanities and social sciences general education. This course emphasizes team learning, written and oral communication, societal impacts and opportunities for engineering, creative design, and problem solving skills. The students in this course volunteer time as science teachers and mentors for K12 students in disadvantaged city schools, a positive service learning opportunity.

TAs from the College of Engineering CLEAR Center are professionals in technical writing, generally PhD students in communication with a technical communication specialty. They will work with undergrads in each ECE class listed below, to help students improve their writing and speaking skills.

Art and Engineering

Artistic Engineering, a Fine Arts general education class, is being planned for fall or spring 2004-5. This course will cover visual arts applying microprocessors (the professional specialty of the art history professor who is planning to teach the course), mechatronic puppetry and theatre, music engineering, sensing and interaction in art (such as the “Interactive Moose” project done by ECE juniors and artists this year ... a life-sized moose on display in Park City, Utah, that responds to people nearby with discussions about moose habitat and life cycles, artistic flashing colored lights, etc.) These yearly projects will be incorporated into the Leonardo Center, a fledgling city science, art and humanities center. It is anticipated that minority and female students could find a connection to engineering through these art projects and associated hands-on engineering & art experiences. It is also anticipated that university students would learn by teaching high school and potentially middle school students in engineering & art experiences.