SCHOOL OF ENGINEERING

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School of Engineering - Freshman Seminar

UC Merced's Freshman Seminar provides an opportunity for faculty and a small group of undergraduate students to explore a topic of common interest. Often spontaneous discourse and discussion takes place making learning a fun and unpredictable product. Students become more active and interactive by taking a Freshman Seminar, plus they become a member of UC Merced's scholarly community by taking charge of their education and steering the direction of the classroom.

This years Freshmen Seminars include:

Am I My Brain? Neuroscience and Deep Questions
Instructor: Dave Noelle

Description: Great thinkers throughout the ages have wondered at and wondered about themselves. What makes up the self? Why are we conscious of some things and not of others? How are our thoughts generated? What changes within us when we learn something new? How do we come to decisions, and are those decisions free from outside influence? We now live in an age in which the scientific study of the human brain is starting to shed light on these deep questions. This seminar will briefly explore some of these modern insights.

Entrepreneurship
Instructor: Michelle Khine

Description: Interested in starting a company? We will inspire and support students to integrate entrepreneurship with their engineering and life science research. We will work through case studies of start-up companies, brainstorm ideas about new inventions, and walk through the requisite steps to start a new business venture (IP issues, team formation, raising capital). We will also cover models of successful social entrepreneurship enterprises, such as One World Health. We will have guest speakers from industry veterans who have started and taken their own companies to IPO. Students will be encouraged to explore the commercial opportunities of an invention of their own.

The Material World
Instructor: Christopher Viney

Description: Materials (different kinds of stuff that things are made out of!) have shaped the course of Civilization. Through discussion, reading, lectures and demonstrations, we will examine how materials affect diverse aspects of our present and future lifestyles. Our study will encompass clothes, weapons, security, telecommunications, data storage, health care, the performance of athletes, forensic science, the economics of air travel, our impact on the environment, the exploitation of alternative energy sources, the ultimate height of skyscrapers, the processing of food, and the design of smart houses….. all through the linking theme of materials. We will see that materials selection is creative: there are times when we need to make electrical circuits from plastics, springs from cement, and glass from metals. And there are persistent rumors that automobile manufacturers are hiring microbiologists to make better engines. This Freshman Seminar class will have its imagination stretched – to the point where Harry's invisibility cloak, Spidey's webs and Frodo's mithril will be closer to fact than fiction.