

Open House – March 29th, 2008

There are many activities designed to help you gain a better understanding of the undergraduate programs in the School of Engineering.

Information Table

145 Student Union – 11:00 am – 3:00 pm

Engineering advisors will be available to answer questions and provide information concerning the School of Engineering and Applied Sciences.

Academic Presentation

20 Knox Hall – 12:00 pm – 12:45 pm

Learn about our academic programs, co-op and other work experience opportunities, undergraduate research, engineering study-abroad programs, and “small-school” learning environments. In short, learn what differentiates UB Engineering and, increasingly, is making us the first choice for many students.

Departmental Activities

Engineering departments will be holding open houses with tours and demonstrations from 12:45 p.m. until 3:00 p.m. See detailed departmental listings below for specific activities.

CHEMICAL & BIOLOGICAL ENGINEERING
Prof. Jeffrey R. Errington
Furnas Hall Lobby – First Floor

The Department of Chemical & Biological Engineering will lead tours leaving from the lobby of Furnas Hall every half-hour from 12:45 through 3:00 pm. CBE students will guide the tours.

Unit Operations Laboratory

116 & 121 Jarvis Hall - Prof. David Kofke & Chin Giaw Lim
Demonstrations of experiments related to the chemical and biological industries will be presented. These experiments highlight a number of unit operations students study during their junior and senior years.

Transport Process Laboratory

216 Jarvis Hall – Prof. Sheldon Park & Prof. Paschalis Alexandridis
There will be demonstrations of experiments related to fluid flow and transport processes.

Biochemical Engineering Laboratory

914 Furnas Hall – Prof. Mattheos Koffas, Prof. M. Tzanakakis, Prof. Mattheos Koffas, Joe Chemler, Eric Peng, Pedro Lei, & Dan Kehoe. Chemical engineers learn here about using bacteria or tissues to understand biochemicals and biological systems.

**CIVIL, STRUCTURAL & ENVIRONMENTAL
ENGINEERING**
Prof. A. Scott Weber, Chair
140 Ketter Hall

Faculty and students will be available in 140 Ketter Hall to talk with prospective students and families about the civil and environmental B.S. programs and life as a student at UB. Guided Lab tours of the following laboratories will start at 12:45 from Room 140 Ketter Hall.

Structural Engineering and Earthquake Simulation Laboratory

Tour of the shake table facility, including a view of the new \$21 million laboratory.

Environmental Engineering Laboratories

Tour of the environmental engineering laboratories and demonstration of work done in the areas of hazardous waste management, Great Lakes research, fluid dynamics, etc.

Student Clubs

Undergraduate students will talk about student club activities, including the Concrete Canoe and Steel Bridge competitions.

COMPUTER SCIENCE & ENGINEERING
Prof. Bharat Jayaraman, Chair
224 Bell Hall

The Department of Computer Science and Engineering (CSE) will lead tours leaving from 224 Bell Hall every half-hour from 12:45 through 3:00 pm. CSE students will guide the tours. Departmental representatives will be available to answer questions in 224 Bell Hall and the Student Union.

Faculty Advising

Prof. Ramalingam Sridhar, Director of Undergrad Studies (Bell 224)
Jaynee Straw - Undergraduate Advisor (Student Union)

Designing a Computer Game in an Introductory CSE Class

21 Baldy Hall – CSE Students

Projects in first year CSE courses typically involve the development of simple computer games using the programming language Java.

Assistive Technology Lab

19 Baldy Hall – Mike Buckley and CSE students

The Assistive Technology Lab is a working undergraduate research facility formed specifically to improve the quality of life of the disabled and their families, through the use of computer technology and student hard work. Over twenty projects are ongoing, including computer talkers, a remote controlled wheel chair, a sensory light and sound station for autistic children, and many more.

CADI: Computer Assisted Diagnosis and Intervention
Suite 19, UB Commons – Prof. Vipin Chaudhary and CSE Students

Two projects will be showcased. First, a neurosurgery system will be demonstrated. It is a multi-disciplinary project and will highlight the necessity of advanced computing in the medical domain. Recent work on medical image processing and diagnosis will also be featured with some interactive exercises to demonstrate results in segmentation and diagnosis.

Web-based Threats Affecting Contemporary Internet Users
Suite 19, UB Commons – Prof. Shambhu Upadhyaya and Madhusudhanan Chandrasekaran

This lab will demonstrate the design and verification of Very Large Scale Integration (VLSI) chips. Using industry standard CAD tools, chip designs from custom to fully automated will be shown. Chips designed by students will be displayed and tested.

Nexos: Next Generation Embedded Operating System
Suite 19, UB Commons – Prof. Bina Ramamurthy and CSE students

Projects will be demonstrated that were developed for a newly embedded systems course. The Visual Grid Tutorial (ViGOR) system uses a Macromedia Flash-based tool to share the contents of the GridForce (grid for education, collaboration and research) Project.

ELECTRICAL ENGINEERING
Prof. Vladimir Mitin, Chair
Bonner Hall - First Floor

Faculty Advising

James J. Whalen – Director of Undergraduate Studies
W. James Sarjeant, Energy Systems Institute
Jennifer Zirnheld, Energy Systems Institute

**Demonstrations,
Hands-on Experience
& Refreshments!**

Meet with EE Faculty and Students

Centralized displays and demonstrations about Electrical Engineering will be presented on the first floor of Bonner Hall. The Department Chair, Director of Undergraduate Studies, faculty, and students will be available to answer questions and provide information about the EE undergraduate program. Several departmental laboratories, including the Energy Systems Institute, Optics and Laser Lab, and Nanoelectronics Lab will be open to visitors to experience a variety of interactive hands-on undergraduate and graduate research projects. Semiconductor and photovoltaic demonstrations will be included. The Analog VLSI Laboratory will also be open to introduce students to current research topics on integrated circuits and sensor systems. Students will be able to see custom-made sensor systems and silicon chips. In addition, students will be available to discuss these projects and their value in under-graduate studies, including demonstrations of robotics from recent competitions by the Robotics Club

INDUSTRIAL & SYSTEMS ENGINEERING
Prof. Rakesh Nagi, Chair
Bell Hall Lobby – First Floor

Learn about the field of Industrial Engineering! IE faculty & students, will be able to answer your questions on the *first floor of Bell Hall* (near the elevator). We'll have information about our undergraduate programs (including a joint IE/MBA degree and Six-sigma certification program), a 10-minute video show of the contribution of industrial engineers at Disney World, UPS and other manufacturing and service companies, and some refreshments! Tours of our undergraduate student facilities and laboratories will leave continuously – see automation and 3-D scanning demonstrations; human modeling and biomechanics demonstrations.

MECHANICAL & AEROSPACE ENGINEERING
Prof. Andres Soom, Chair
Furnas Hall Lobby – First Floor

Tours will leave from the lobby of the first floor of Furnas Hall

Profs. Robert Wetherhold & John Crassidis – Directors of Undergraduate Programs for Mechanical Engineering & Aerospace Engineering – Furnas Hall – Lobby

Computer Aided Design

1019 Furnas Hall – Mr. John DiCorso

We have several courses in computer aided mechanical design and computer aided engineering. This presentation will discuss MAE 377, our required CAD course for juniors.

Instrumentation & Dynamic Systems Lab

811 Furnas Hall – Prof. Puneet Singla

Demonstration of our system and control lab experiments which are an essential part of our junior and senior curriculum. Experiments are designed to bring a range of control issues to light including: robotics, vibration and dynamics, position control, rate control, adaptive control, flexible structures, and more.

Aerodynamics Laboratory

212 Jarvis Hall – Prof. Cyrus Madnia

Demonstration of our senior-level aerospace engineering laboratory for the study of aerodynamics by members of the AIAA student chapter.

Vehicle Projects

104 Jarvis Hall – Dr. Edward Kasprzak

Our student clubs design, build, and race various vehicles (off-road, Formula, supermileage, clean snowmobile) for inter-university competitions. These projects are on display.

NYSCEDI (New York State Center for Engineering Design and Industrial Innovation)

106 Furnas Hall – Drs. Kenneth English and Kevin Hulme

NYSCEDI is a State-funded Center with a focus on visualization in engineering design. Hardware includes state-of-the-art Virtual Reality (VR) equipment and a six-degree-of-freedom motion platform. Tours at 12:30, 1:30 and 2:30.