

November 19, 2003

Media Contact: Jan Jennings (858) 822-1684, jjennings@ucsd.edu

**SEMINAR PROGRAM OFFERS BROAD RANGE OF SUBJECTS,
SMALL CLASS INTIMACY, INTERACTION FOR UCSD FRESHMEN**

From studying the physics of surfing to how to take risks and from theatre and dance performance to computers that work like brains, freshman at the University of California, San Diego are taking *Freshman Seminars*: small classes of no more than 20 students taught by professors, MacArthur genius award-winners, deans, and associate vice chancellors.

These seminars are designed to excite student interest, get them involved and talking, and introduce them to the interactive and inquisitive, intimate, but not intimidating, environment of academia that awaits them as they progress.

Forty-three freshman seminars are offered this fall quarter. Each meets for eight to 10 hours. Students receive one unit of credit and rather than a letter grade, either Pass or Not Pass.

“Students are under no compulsion to take a seminar,” says Mark Appelbaum, associate vice chancellor, undergraduate education, and one of the initiators of the seminars. “It doesn’t fit any requirement. I want it that way because I want the students to think of this as THEIR course, something they are doing because it is just a neat idea. It has nothing to do with their major. It is not even a general elective. It is not doing anything except the one incredibly important thing – appealing to their intellectual curiosity.”

The seminars are for freshmen only because most freshman classes are large, even auditorium size. “So we wanted from the get-go to let freshmen have the experience of what higher education is really about, to experience that small class with a faculty member they can interact with who is teaching something they are really excited about,” Appelbaum says.

There is no such thing as a typical seminar and there are probably as many approaches to teaching one as there are professors teaching. The common denominator they share is that they

(more)

are *seminars* and that means student participation.

“You (the student) participate,” Appelbaum says. “You are a part of the process, not just a recipient.” Appelbaum says students are encouraged to talk, ask questions, make comments, and share ideas and opinions.

Not always so easy for freshmen who are embarking on a whole new and challenging world. And, as it turns out, equally challenging to the instructor.

Eduardo Macagno, neuroscientist and dean of the Division of Biology, taught a seminar on *Nature, Nurture, and the Human Brain*. Nature verses nurture or genetics verses environment is a controversial topic and Macagno wanted a dialogue with and between the students. “Most are shy at first,” says Macagno. To get them involved, he had the students make rotating presentations, expanding the give-and-take and participation.

History professor Paul Pickowicz taught a seminar on *Pop Culture in China*. “Running a seminar is a challenge if one’s goal is to get everyone actively involved and taking advantage of the opportunity,” says Pickowicz. “Some students adjust very quickly and like the experience of speaking out, taking chances and expressing opinions. Others are slow to adjust.”

As an added seminar perk, Pickowicz invited students to a Chinese New Year dinner at a local restaurant and to a pizza party at his home to watch a documentary about China on PBS.

“In seminars this size and with this intimacy and informality, students can get to know the professors and the professors can get to know the students,” Appelbaum points out.

Computer science engineering professor Joseph Pasquale teaches a seminar on *The Slide Rule: History, Theory, and Practice*, which includes show and tell of his slide rule collection. “Some students had never heard of a slide rule,” Pasquale says. “Some had heard their parents say, ‘Well, in my day ...’ then told them of their own experience, years ago, with the slide rule.”

Pasquale says the students were naturally curious – some even brought in their parents’ slide rules – and they quickly got the hang of using the slide rule, but found it far more difficult than a calculator or computer.

“They stuck with it throughout the seminar,” says Pasquale, “but they weren’t about to give up their calculators.” He added that by using the slide rule the students learn ideas and

(more)

thought processes you don't learn on a calculator or computer and that the exercise with the slide rule utilizes more brain power.

"The seminar also has a social aspect," says Pasquale. "The students were talking about the slide rule and sharing their experience with their parents and grandparents."

Seth Cohen, assistant professor of chemistry and biochemistry, instructed a seminar on *CSI: Crime Scene Investigations*, inspired in part by the popular TV series. In discussing forensics and criminalistics, from firearms to trace evidence analysis, Cohen was assisted by his wife, Dr. Sandra Rodriguez-Cruz, a forensic chemist; Clifford Kubiak, chair of the Department of Chemistry and Biochemistry, and Kubiak's wife, Pamela, a chemical information specialist.

The goal of the foursome was to reveal the science behind crime scene investigations. Students were asked to critique a crime novel, as well as an episode of *CSI: Crime Scene Investigations*. "By the end of the course," says Cohen, "the students were able to read the book and watch the TV program and pick out what was real science and what was dramatization."

In addition to these seminars, the *Freshman Seminars* include those on drug use and abuse, the economics of investing at the racetrack, why so few women go into mathematics, neural networks of how the mind works, popular music and globalization, the fragility of memory, how the universe began, human rights after 9/11, the effect of money in our lives, etc.

Success in the individual seminars, at which there are no exams, is judged by the student, Appelbaum points out. Not by a grade, but by what he or she gets out of it and puts into it.

"The important thing is getting the students to think and to understand that while we know a fair amount about things, there is more that we really don't know," Appelbaum says. "Even in the most well-researched areas, we don't know the answers to everything."

"We find that freshman students are capable of generating great questions. Because they are in college, they have a right to ask those questions."

Freshman Seminars debuted at UCSD in Winter Quarter, 2003. UCSD's target is to have 150 a year so that any freshman who wants to take one can. For further information on the seminars, contact Mark Appelbaum at (858) 822-4358 or mappelbaum@ucsd.edu.

#