Linda Petzold, professor of mechanical engineering and of computer science at UC Santa Barbara, will give UCSB's 2011 Faculty Research Lecture on Thursday, December 1, at 4 p.m. in 1001 Engineering Science Building.

Awarded annually, the lectureship is considered the highest honor bestowed by the university faculty on one of its members. Petzold is the 56th recipient of the award. Her lecture, titled "Adventures in Computing," is free and open to the public.

Computation has become the third pillar of science, along with theory and experiment, according to Petzold. Engineering and technology are now inexorably linked to computation. In her lecture, Petzold relates some personal adventures in computing over the last 30 years, exploring the opportunistic choice of problems and collaborators, the research challenges, the role of software, and the impacts in areas as seemingly diverse as automotive design, space flight trajectory planning, and systems biology.

Two developments of note -- the rapidly increasing availability of large amounts of data in numerous disciplines, and the move toward extremely parallel computer architectures throughout the computing enterprise -- require a paradigm shift in computing, she asserts. Petzold's lecture speculates on the implications for both computing and society.
Petzold, who is also director of the Computational Science and Engineering Graduate Emphasis at UCSB, received her doctorate in computer science in 1978 from the University of Illinois at Urbana-Champaign. She is a member of the U.S. National Academy of Engineering; and a Fellow of the American Society of Mechanical Engineers, the Society for Industrial and Applied Mathematics, and the American Association for the Advancement of Science. Her research focuses on modeling, simulation, and analysis of multiscale systems in systems biology and engineering.

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.