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Livingston Lecture offers innovative ideas

Sue Holl, a highly respected professor of materials science at Sacramento State and chair of the Mechanical Engineering Department, believes students of all academic disciplines – and society itself – would benefit from an integrated approach to education.

Holl delivered her remarks during the John C. Livingston Annual Faculty Lecture on Nov. 7 in the University Union’s Redwood Room. Her topic was “Engineering Education: Thoughtful Design of a Quality University Curriculum.” A video of the full lecture is available here: http://youtu.be/CXskpyDpNdQ.

She proposes that educators look to the engineering curricula, where one-fourth of required units are in the humanities and social sciences, as a model.

“As I have become more educated about engineering, I have become even more passionate about the significance and appropriateness of an engineering education as the foundation for quality life in our complicated society,” she said in her lecture.

“An engineering education is composed of a solid technical foundation and additional depth and breadth requirements that include a solid grounding in humanities, arts and social sciences. These depth-and-breadth topics are essential, because engineers have to know what society is ‘all about’ to make appropriate decisions and contributions.”

Holl calls for all University programs to provide a disciplinary focus and a context to make education most useful.

“Success in the future increasingly requires an interdisciplinary approach,” she said.

The Livingston Lecture is awarded each year to a Sacramento State faculty member who is active in the life of the University, including faculty governance; who displays consistent collegiality and commitment to students; and who actively participates in creative and scholarly activities.

The annual faculty lecture celebrates the life of the late “Jack” Livingston, a professor of government at Sac State from 1954 to 1981. He also helped to develop the character of collegial governance at Sacramento State and throughout the California State University system.
“Our goals for our students,” Holl said, “have to move from our thinking about how to motivate them to succeed only this semester in the courses they are pursuing now (and) to have them always be thinking ‘bigger.’ This is probably the most important shift: to move from knowing that we are doing a good job in each course to thinking about the whole student and the education programmatically.

“We need to help the students take the pieces and put them together, so they become the best they can be.”

Holl, whose father and grandfather also were engineers, earned her doctorate in materials science and engineering at UC Berkeley and joined the Sacramento State faculty in 1980. She has been department chair since 2008. During that time, she helped create two successful events – the Mechanical Engineering Homecoming and the Evening with Industry – as well as the Mechanical Engineering Senior Project Showcase. She wrote the department’s undergraduate advising manual and the manual for faculty advisors. As department chair, she interacts with most of the nearly 700 mechanical engineering majors.

She has taught a wide variety of courses, including Corrosion and Wear, Conceptual Physics, Electronic Materials and Freshman Seminar. Her students are successful in academics and as professionals. As a part of her community outreach, Holl volunteered as a math specialist at Starr King Elementary School and has served on Encina High’s technical advisory board.

For media assistance, contact Sacramento State’s Office of Public Affairs at (916) 278-6156. – Dixie Reid

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