

FACT SHEET

Corvallis, OR 97331
cbee.oregonstate.edu

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CBEE is a hub for innovation in education and research for the process engineering sciences, emphasizing the integration of chemical, biological and environmental engineering principles and practice to provide work-ready graduates and technical solutions for a sustainable future.

We offer three ABET-accredited undergraduate programs in Bioengineering (BIOE), Chemical Engineering (CHE), and Environmental Engineering (ENVE), as well as two graduate programs leading to the Master of Engineering (non-thesis), Master of Science (thesis), and Ph.D. degree in Chemical Engineering or Environmental Engineering.

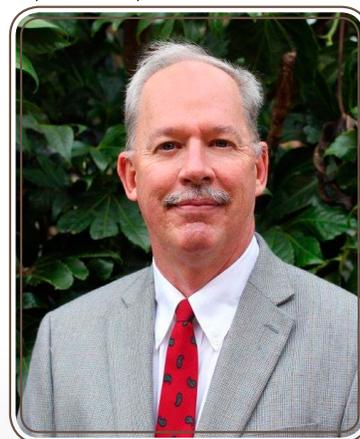
CBEE WELCOMES NEW SCHOOL HEAD

Prior to coming to Oregon State, Sweeney was professor and chair of the Department of Bioengineering and Software Engineering in the U.A. Whitaker College of Engineering at Florida Gulf Coast University in Ft. Myers, Florida. His research interests are in bio- and environmental sensors, bioelectricity, implanted medical devices, neuromuscular stimulation, and engineering education. Prior to his time in Florida, he had an 18-year academic career at Arizona State University in Tempe, Arizona where he now holds emeritus faculty status. He has authored more than 70 journal articles, book chapters, conference proceedings papers and patents. In addition to research and teaching, Sweeney also has 20 years of industrial and consulting experience.

In his new appointment, Sweeney will manage the school's academic programs, which serve nearly 1000 undergraduate and 150 graduate students, and oversee a unit with 38 faculty and 6 staff. He plans to continue his work in the area of sensors development in collaboration with other faculty in CBEE and the College of Engineering with interests in bio- and environmental sensors and sensor fabrication.

"I am excited and honored to be taking on the role of CBEE School Head", said Sweeney. "I very much look forward to meeting and working with the students, faculty and staff of the school, the college, and across the university."

Sweeney earned his bachelor's degree in engineering from Brown University and his master's and doctoral degrees in biomedical engineering at Case Western Reserve University.



Oregon State
UNIVERSITY

Our undergraduate curriculum emphasizes collaborative learning, a personalized learning environment, and hands-on, real-world laboratory and engineering design experiences. Our graduates gain the technical and leadership skills needed to excel in careers with traditional industries such as chemical manufacturing and waste treatment as well as emerging industries in the semiconductor, biotech, and health care sectors.

Faculty-led research seeks to engage industry and achieve global impact, particularly in nationally-strategic areas, including renewable energy, nanotechnology, sustainable water, and advanced therapeutics and processes for health care. In addition to providing an environment for collaborative research and training along interdisciplinary themes, we provide our graduate students with educational opportunities and resources to enable them to recognize how their research would be used for an economic or societal benefit, as well as hands-on experience enabling them to learn the processes that would be required to complete translation of their research to practice.

RESEARCH

Bioremediation & Subsurface Processes

including CO₂ sequestration, contaminant flow and transport in porous media, and degradation of toxic substances in soil and water.

Dolan, Kelly, Nason, Radniecki, Semprini, Wildenschild, Wood

Bioprocess Engineering

Including bioconversion of biomass materials and algae bioprocessing.

Kelly, Rorrer

Biomaterials and Therapeutics

including biocompatible interfaces and hydrogels, and cryopreservation.

Baio, Bothwell, Fu, Higgins, McGuire, Rochefort, Schilke, Sweeney

Complex Fluids & Soft Solids

including polymers, rheology (bulk and interfacial), fluid mechanics (Newtonian and non-Newtonian), biofluids, composites, gels, foams, and miscible interfaces.

Rochefort, Walker, Wood

Engineering Education and STEM Research

with emphasis on development of industrial virtual laboratories and strategies to improve conceptual learning in engineering courses and social inequality in engineering education and practice.

Bothwell, Koretsky, Levien, Montfort, Rochefort

Microtechnology for Reaction and Separation Processes

with emphasis on microchannel devices for improving the performance of chemical reactions and separations.

Fu, Herman, Higgins, Jovanovic, Wood, Yokochi

Sustainable Energy

including renewable fuels, solar energy, and electrochemical energy systems (batteries, fuel cells).

Arnadottir, AuYeung, Chang, Herman, Radniecki, Yokochi

Thin Films, Nanomaterials and Nanotechnology

with emphasis on semiconductor materials for electronic devices and solar photovoltaics.

Chang, Harper, Herman, Nason, Radniecki, Yokochi

Water Quality and Treatment

including particle removal from drinking water, anaerobic and aerobic wastewater treatment, hazardous waste treatment, stormwater characterization and treatment.

Dolan, Nason, Radniecki, Semprini

FACULTY

- » Tenured/tenure-track: 25
- » Research personnel: 64
- » Endowed positions and professorships (>\$250K): 2

STUDENT SNAPSHOT

(As of fall term, 2014)

Graduate Total: 149

- » Chemical Engineering: 75
- » Environmental Eng.: 37
- » INTO Pathway: 37

Undergraduate Total: 979

- » Bioengineering: 273
- » Chemical Engineering: 594
- » Environmental Eng.: 112



FUNDING

(As of June 2014)

- » Operational budget: \$5.4M
- » Research grants: \$5.8M
- » Annual private giving: \$211K
- » Scholarship support: \$172K