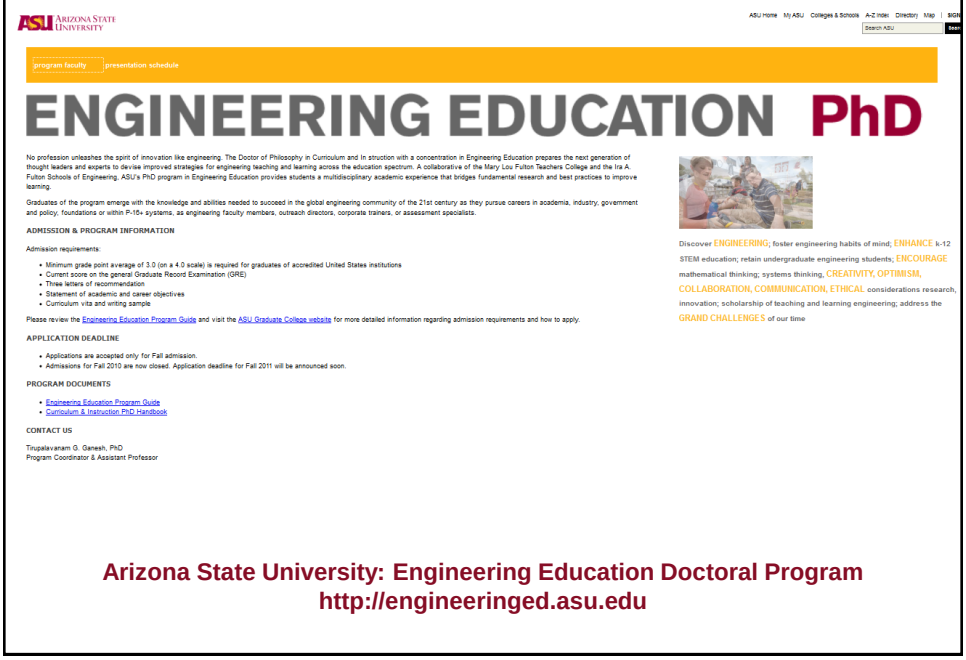
EER & STEM Centers and Programs

- Arizona State University
- University of California-Berkeley
- Clemson University
- University of Cincinnati
- University of Georgia
- Georgia Tech
- University of Kentucky
- Linkoping University (Sweden)
- Michigan State University
- University of Michigan
- University of Minnesota
- North Carolina State University
- The Ohio State University
- University of Pittsburgh
- Purdue University
- Tufts University
- Universidad de las Americas Puebla (Mexico)
- Universiti Teknologi Malaysia
- University of Texas – Austin
- Uppsala University (Sweden)
- Utah State University
- Virginia Tech
- Washington State University
- University of Washington
- Wichita State University



Arizona State University: Engineering Education Doctoral Program
http://engineeringed.asu.edu

http://www.clemson.edu/ese/

University of Georgia
http://education.engineering.uga.edu/

Georgia Tech

The **Georgia Tech American Society for Engineering Education Student Section** is working to build capacity. They recently held a workshop sponsored by the College of Engineering (COE)and ASEE entitled "Teaching, Scholarship, and Research: Building an Engineering Education Community at Georgia Tech" sponsored by COE and ASEE. Over 60 individuals participated in the day's events, and the ASEE Student Section is planning similar future events to continue their efforts to improve engineering education and more strongly connect Georgia Tech's engineering education research community.

Georgia Tech College of Engineering

Dr. Wendy Newstetter is a cognitive scientist with extensive research experience in engineering education. She is supported by the **College of Engineering** to work with faculty engineering education research efforts. In Biomedical engineering alone, she has collaborated with faculty on NSF funded efforts through grants REESE, EEC, SES, IRES, CCLI and DUE.

CETL Center for the Enhancement of Teaching and Learning

Drs. Donna Llewellyn and Tris Utschig , along with other **CETL** staff members, encourage, consult, and partner with faculty who become involved in the scholarship and assessment of teaching and learning through individual, program, or grant driven initiatives.

CETL offers a range of support for implementing engineering education research and innovation, from classroom consultations to seminars, project-based fellows programs, and retreats. CETL currently supports engineering education research efforts funded by NSF, the US Dept of Education, the Engineering Information Foundation, the Goizueta Foundation, and others.

PhD in Engineering Education @

Regional Centre for Engineering Education (RCEE)

Universiti Teknologi Malaysia (UTM)

FACTS ON UTM

- 10 engineering schools
- 2000 tenured academics
- 2,800+ foreign students
- Largest number of engineering alumni in Malaysia
- More than 43% enrollment at graduate levels in engineering and technology in Malaysia

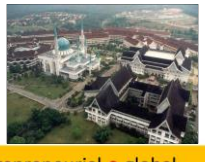
Transforming engineering education through innovative evidence-based practices

- Focus on training and research in Engineering Education
- PhD in Engineering Education program
  - Started in 2008
  - Up till now, 8 students completed PhD
  - Current enrolment: 40 students
- Also: Joint PhD in Engineering Education with Aalborg University, Denmark
- Post-doctoral and faculty position available

Contact:

khairiyah@cheme.utm.my

http://tree.utm.my



UTM Universiti Teknologi Malaysia — School of Graduate Studies — www.sps.utm.my

innovative • entrepreneurial • global

University of Michigan
CENTER FOR RESEARCH ON LEARNING AND TEACHING IN ENGINEERING
CRLT ENGIN

U-Michigan: Center for Research on Learning and Teaching in Engineering crlte.engin.umich.edu

Programs to enable research

- **SoTL grants** for faculty and graduate students
- **PhD Certificate** in Engineering Education Research
- **Reading group** to expand understanding of EER
- **Faculty learning community** around large course teaching
- **EER Day**, with multiple programs and a poster fair
- **Community-built taxonomy for the field** of EER

Ongoing research initiatives

- **Faculty motivation** to adopt effective teaching practices
- Impact of **screencast technology** on students
- Strategies for **innovative design practice**
- **Ethical development** of engineering undergraduates
- Challenges practitioners face when **returning to grad school**

STEM Education Center
University of Minnesota

Mission

The STEM Education Center is dedicated to the transformation of science, technology, engineering and mathematics education.

Initiatives

- STEM Integration
- Learning and Cognition
- Research and Instructor Preparation
- Evaluation and Assessment

STEM Education Center
University of Minnesota

Outreach

- Research
- Professional Development
- STEM Colloquium on K-12 Education Research to Practice

Contact Us

www.cehd.umn.edu/stem
stem@umn.edu
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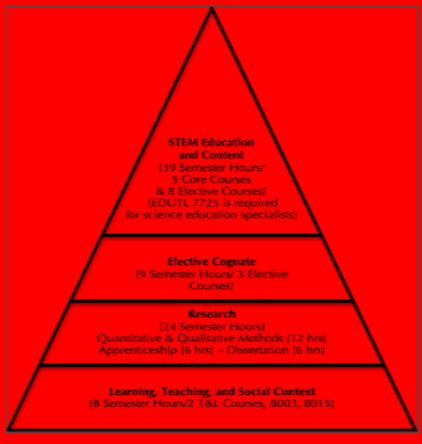
THE OHIO STATE UNIVERSITY

College of Engineering
Engineering Education Innovation Center

PhD Option in Engineering Education

Contacts:
Robert J. Gustafson, College of Engineering gustafson.4@osu.edu

Paul Post, College of Education and Human Ecology post.1@osu.edu



The Leonhard Center for the Enhancement of Engineering Education

PENNSTATE

Founded in 1990 with a gift from William E. Leonhard

Mission includes:

- Leading and supporting enhancements in undergraduate engineering courses and programs
- Supporting assessment, including ABET
- Leading improvements in communication courses for engineering students
- Preparing graduate and undergraduate teaching assistants
- Conducting externally funded research

Current strategic focus areas:

- Cross-national teams in capstone courses
- Integration of creative process into engineering courses
- Ethics education for first year students
- Technology-enhanced learning

Tom Litzinger, Center Director

Sarah Zappe, Director
Assessment & Instructional Support

Michael Alley
Engineering Communications

ASPIRE TO BE A WORLD-CLASS ENGINEER

For more information, contact Tom Litzinger at TAL2@PSU.EDU or visit www.engr.psu.edu/leonhardcenter/

University of Pittsburgh
http://www.engineering.pitt.edu/eerc/

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Universidad de las Américas Puebla
Mexico

Doctoral Program in Science, Engineering, and Technology Education

UDLAP

- **Fall 2003**
  - *Center for Science, Engineering, and Technology Education*
- **Fall 2006**
  - PhD program
- **Spring 2008**
  - program accredited by the National Council of Science and Technology (CONACyT) of Mexico
- **Fall 2009**
  - first graduate
- **Fall 2010**
  - ≈ 40 PhD students

GOALS

•Conduct world-class research on teaching and learning of science, engineering and technology
- *Scholarship of discovery*

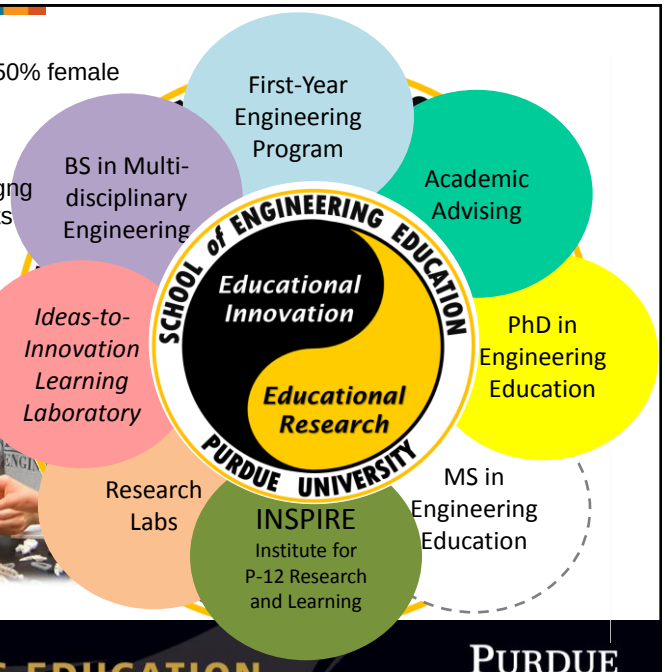
•Use the results of that research to continually improve instruction at UDLAP, Mexico and other Ibero-American countries to better support the learning process of our students
- *Scholarship of application, integration, and teaching*

•Support the educational needs of science, engineering and technology teachers and learners at the P-12, University, and continuing professional development levels
- *Scholarship of application, integration, and teaching*

Universidad de las Américas Puebla

- Mexican private institution of higher learning
  - accredited in the US since 1959 by SACS

- ✓ 22 Faculty (18 FTE) – 50% female
- ✓ 24 A/P and other staff
- ✓ 6 Post-Docs
- ✓ 2500 FYE students
- ✓ 80 Multidisciplinary Engng
- ✓ 70 PhD current students
- ✓ $10m /pa research
- ✓ 29 PhD graduates



SCHOOL OF ENGINEERING EDUCATION

PURDUE UNIVERSITY

THE UNIVERSITY OF TEXAS AT AUSTIN

The College of EDUCATION

STEM Education

Master's & PhD Programs (97 students total)

<u>Past and Current Research</u>

UTeach Engineering (NSF-MSP)
Beyond Blackboards (NSF-ITEST)
VaNTH (NSF-ERC)
Teacher Training for Engineering
IPRO - Programming Standing Up
Adaptive Expertise in Engineering
K-12 LEGO Robotics
Discourse in K-12 engineering teams
National HS Curriculum Project

<u>Faculty</u>

David Allen (Chem Eng)
Leema Berland (STEM-Ed)
Richard Crawford (Mech Eng)
Ken Diller (BioEng)
Jill Marshall (STEM-Ed)
Anthony Petrosino (STEM-Ed)
Catherine Riegle-Crumb (STEM-Ed)

Tufts UNIVERSITY | Center for Engineering Education and Outreach

Engineering Education Research

Improving Education through Engineering

- Research in engineering teaching and learning, outreach, and educational technology development.
- Current projects:
  - Integrating Engineering and Literacy (IEL)
  - Design Compass: How people design
  - Interactive Learning and Collaboration Environment (InterLACE)
  - LEGO Robotics: Catalyzing Social Communication in Students with Autism
  - W-STOMP Women in Engineering

Tufts Department of Education

Engineering Education M.S. & Ph.D. Program

- Develop research on how students (K-College) learn/engage in engineering
- Interdisciplinary thesis committee (at least 1 education and 1 engineering professor)

http://ceeo.tufts.edu/

Utah State University

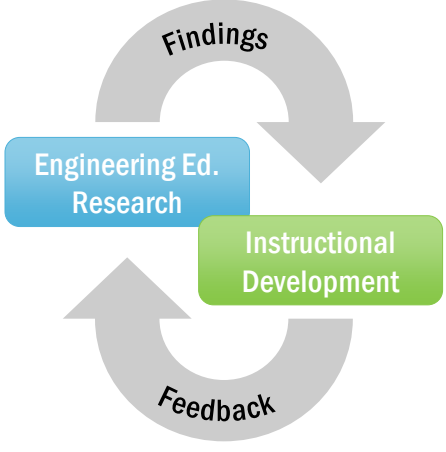
http://www.engineering.usu.edu/htm/information/phd-engineering-education

Virginia Tech

http://www.enge.vt.edu/

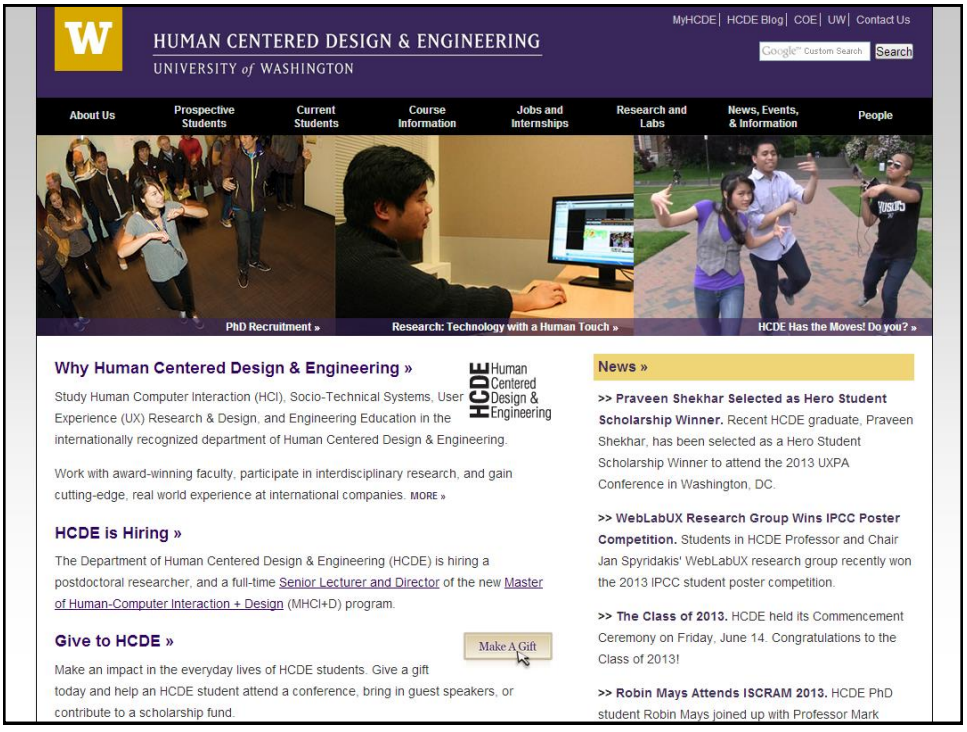
CELT

CENTER FOR ENGINEERING LEARNING & TEACHING



First campus-based center in U.S. to combine research and instructional development missions

http://bit.ly/uw_celt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Study Human Computer Interaction (HCI), Socio-Technical Systems, User Experience (UX) Research & Design, and Engineering Education in the internationally recognized department of Human Centered Design & Engineering.
Work with award-winning faculty, participate in interdisciplinary research, and gain cutting-edge, real world experience at international companies. MORE »
HCDE is Hiring »
The Department of Human Centered Design & Engineering (HCDE) is hiring a postdoctoral researcher, and a full-time Senior Lecturer and Director of the new Master of Human-Computer Interaction + Design (MHCI+D) program.
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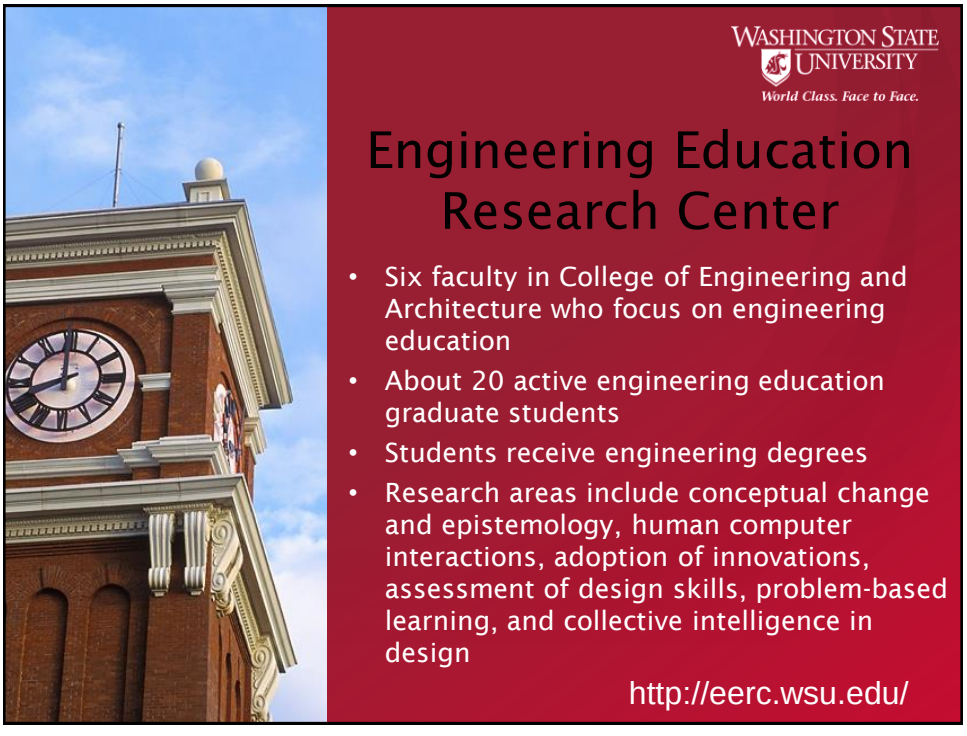
Make an impact in the everyday lives of HCDE students. Give a gift today and help an HCDE student attend a conference, bring in guest speakers, or contribute to a scholarship fund.
News »
>> Praveen Shekhar Selected as Hero Student Scholarship Winner. Recent HCDE graduate, Praveen Shekhar, has been selected as a Hero Student Scholarship Winner to attend the 2013 UXPA Conference in Washington, DC.
>> WebLabUX Research Group Wins IPCC Poster Competition. Students in HCDE Professor and Chair Jan Spyridakis' WebLabUX research group recently won the 2013 IPCC student poster competition.
>> The Class of 2013. HCDE held its Commencement Ceremony on Friday, June 14. Congratulations to the Class of 2013!
>> Robin Mays Attends ISCRAM 2013. HCDE PhD student Robin Mays joined up with Professor Mark


WASHINGTON STATE UNIVERSITY
World Class. Face to Face.
Engineering Education Research Center
• Six faculty in College of Engineering and Architecture who focus on engineering education
• About 20 active engineering education graduate students
• Students receive engineering degrees
• Research areas include conceptual change and epistemology, human computer interactions, adoption of innovations, assessment of design skills, problem-based learning, and collective intelligence in design
http://eerc.wsu.edu/


engineeringeducationlist
Wiki
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EDIT
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engredu
Engineering Education Community Resource
last edited by K. Yasuhara 6 hours, 15 minutes ago
Page history
This engineering education wiki is a resource created by the American Society for Engineering Education's Student Division (ASEE StuD), in collaboration with the Center For Engineering Learning & Teaching (CELT). The resource offers lists of programs, centers, researchers, societies, publication venues, etc., intended to help in the exploration of the engineering education field. We hope that ultimately this wiki will encourage community members to expand this resource as a place to inform students and other interested individuals new to engineering education about the research happening in this field at institutions and centers all over the world.
Note about user registration: All site content is public. You do not need to request access or create a user to view the site. If you are interested in helping maintain the site, we welcome you to request access or contact the co-maintainers listed below.
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Graduate level
Undergraduate level
Navigator
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