DEREK T. REAMON
Teaching Professor, Mechanical Engineering
College of Engineering and Applied Science
University of Colorado Boulder

Professional Preparation

Stanford University	Mechanical Engineering	BS	1992
Stanford University	Electro-mechanical Systems	MS	1995
Stanford University	Engineering Education Research	PhD	1999

Appointments

2017 – present **Teaching Professor**, *Engineering Plus* and *Mechanical Engineering, University of Colorado Boulder*
Regularly teach the following courses: *First-Year Engineering Projects*, *Dynamics, Component Design,* and *Mechatronics*. Research interests include robotics and engineering education.

2021 – 2022, **Undergraduate Chair**, *Mechanical Engineering, University of Colorado Boulder*
2010 – 2013 and 2006 –07

2007 – 2019 **Co-Director**, *Integrated Teaching and Learning Program, University of Colorado Boulder.* Co-led the hands-on learning program by promoting faculty linkages and encouraging the development and implementation of multi-departmental curricular initiatives. Oversaw ~20 sections per year of the retention-building, undergraduate *First-Year Engineering Projects* course, including its semester-end Engineering Design Expo.

2013 – 2019 **Co-Director**, *Engineering Plus Program, University of Colorado Boulder.*
Co-led the accredited undergraduate degree program featuring disciplinary emphasis in engineering and customizable concentration including math or science teaching licensure.

2007 – 2017 **Senior Instructor**, *Mechanical Engineering, University of Colorado Boulder*
Taught the following courses: *First-Year Engineering Projects*, *Component Design, Thermodynamics, Dynamics*, *Systems Dynamics*, *Circuits* and *Mechatronics*.

2002 – 2006 **Instructor**, *Mechanical Engineering, University of Colorado Boulder*
2000 – 2002 **Adjunct Assistant Professor**, *Integrated Teaching and Learning Program, University of Colorado Boulder*
1999 – 2000 **Lead Engineer**, *Innerstep Design Services, San Jose, CA*
1993 – 1998 **Teaching Assistant and Fellow**, *Stanford University, Stanford, CA*
1991 – 1993 **Edison Engineer**, *General Electric Corporation, San Jose, CA*

Selected Engineering Education Publications

Tsai, J., Myers, B., Sullivan J., Reamon, D., Anderson, K, O'Connor, K. *Scaling Up or Scale-making? Examining Sociocultural Factors in a New Model for Engineering Mathematics Education.* ASEE Annual Conference and Exposition, June 2018.

Tsai, J., O'Connor, K., Myers, B., Sullivan, J., Reamon, D., Anderson, K. *Examining the Replication – or Mutation – Processes of Implementing a National Model for Engineering Mathematics Education at a New Site*. ASEE Annual Conference and Exposition, June 2018.

Segil, J., Sullivan, J., Tsai, J., Reamon, D., and Forbes, M. (2017) *Investigation of spatial visualization skills across world regions.* IEEE Frontiers in Education Conference (FIE), October 2017. Indianapolis, IN.

Forbes, M., Sullivan, J., Myers, B., Reamon, D. (2016) *Exploring Student Impressions of and Navigations through a Flexible and Customizable Multidisciplinary Engineering Program.* ASEE Annual Conference and Exposition. June 2016. New Orleans, LA.

Engineering Education Grants and Teaching Service Activities

Principal Investigator for *One Day's Pay* — $500k NSF Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) Grant for investigation of the Altruistic Design Projects and impact of project type on student learning. Co-PI's: Argrow, B., Kotys-Schwartz, D., Nelson, M., Sullivan, J. Funding two doctoral students in Engineering Education research.

Recent Curriculum Development

Redesigned curriculum for *Materials Science for Engineers* — fundamental course in materials science including material properties and manufacturing processes. Revamped curriculum and created hands-on workshops and introduced design project where students create a custom material and analyze the properties to compare to published data.

K-12 Engineering Outreach

Developed curriculum and design project for *Robotics Design Challenge* at DSST Cole in the Summers of 2015 - 2018, involving design of soccer playing robots for 2 on 2 matches. Program targets highly diverse student population in STEM-focused, high-achieving public school.

Teaching Awards

- *Outstanding Undergraduate Educator Award*, Mechanical Engineering, University of Colorado Boulder, 2019-20.
- *John & Mercedes Peebles Innovation in Education Award,* College of Engineering and Applied Science, University of Colorado Boulder, 2013.
- *Sullivan-Carlson Innovation in Teaching Award,* Engineering Excellence Fund, College of Engineering and Applied Science, University of Colorado Boulder, 2010.
- *Outstanding Undergraduate Educator,* Mechanical Engineering, University of Colorado Boulder, 2009-10.
- *Excellence in Teaching Award,* Boulder Faculty Assembly, University of Colorado Boulder, 2009.
- *Faculty Appreciation Award,* CU Multicultural Engineering Program, 2009.
- *Dean's Outstanding Teaching Award,* College of Engineering and Applied Science, University of Colorado Boulder, 2007.
- *Best Professor Award,* ASME University of Colorado Chapter, 2006-07.
- *Shell Outstanding Undergraduate Educator,* Mechanical Engineering, University of Colorado Boulder, 2005-06.
- *Best Professor Award,* ASME University of Colorado Chapter, 2005-06.
- *Charles Hutchinson Outstanding Teaching Award*, College of Engineering and Applied Science, University of Colorado Boulder, 2005.

Collaborators and Other Affiliations

Collaborators and Co-Editors

University of Colorado Boulder: Brian Argrow, Angela Bielefeldt, Lawrence Carlson, Noah Finklestein, Marissa Forbes, Daniel Knight, Daria Kotys-Schwartz, Beth Myers, Mary Nelson, Jacob Segil, Jacquelyn Sullivan, Janet Tsai, Janet Yowell, and Malinda Schaefer Zarske.

Graduate and Postdoctoral Sponsor

Advisor: Sheri D. Sheppard (Stanford University)

Thesis Advisees and Sponsored Postgraduate-Scholars

Graduate Students (8 total): Brian Foy (unknown), Joel Bettner (Abengoa Solar IST), James Margolis (University of Colorado Boulder), Daria Kotys-Schwartz (University of Colorado Boulder), Malinda Schaefer Zarske (University of Colorado Boulder), Lauren Cooper (California Polytechnic University), Jacob Segil (University of Colorado Boulder), Janet Tsai (University of Colorado Boulder).