

Casey O'Hara

Curriculum Vitae

Education

PhD Environmental Science and Management (2022 expected) Bren School of Environmental Science & Management *University of California, Santa Barbara*

- Advisor: Dr. Benjamin Halpern
- Committee:

Master of Environmental Science and Management (2014) Bren School of Environmental Science & Management *University of California, Santa Barbara*

Masters Thesis Group Project: “Offshore wind energy in the context of multiple ocean uses on the Bermuda platform” Client: Department of Environmental Protection, Bermuda

- Honors: UCSB University Award of Distinction; Bren School Academic Achievement Award
- Content Specializations: Energy & Climate; Coastal Marine Resources Management
- Focus: Strategic Environmental Communications & Media

Single Subject Teaching Credential in Science, Physics (2004) Graduate School of Education *San Francisco State University*

Master of Science in Mechanical Engineering Design (1994) Department of Mechanical Engineering, Design Division *Stanford University*

Bachelor of Science in Mechanical Engineering (1993) Department of Mechanical Engineering *Stanford University*

Experience

Project scientist, Ocean Health Index (January 2015 – present) NCEAS - Santa Barbara, CA

AAAS Mass Media Science Fellowship (June 2014 - August 2014) The Oregonian - Portland, OR

Summer Program Consultant (June 2013 - August 2013) The School for Examining Essential Questions of Sustainability (SEEQS) Charter School - Honolulu, HI

Science Teacher: Physics, Integrated Science, Engineering & Green Tech (August 2004 - June 2012) Carlmont High School - Belmont, CA

Honors

Science Communications Honors

Santa Barbara International Film Festival (January 2014) Santa Barbara, CA * Premiered “Where the Wonder Went,” a short documentary on science education, at the prestigious 11-day film festival. The film had previously earned the “Audience Choice” Award at the 2013 Santa Barbara Digital Film Festival. Produced the film as part of UC Santa Barbara’s GreenScreen Environmental Media program. Education Liaison (November 2009 - December 2009) Amundsen-Scott South Pole Station, Antarctica * Communicated with students and teachers about the IceCube Neutrino Observatory, using a variety of digital media. Produced multimedia journals, lesson plans, and curriculum for PolarTREC website. Conducted live webinar from South Pole Station with my own students, as well as students and teachers across the country.

Science Education Leadership and Honors

Knowles Science Teaching Foundation (2004 - present) - Moorestown, NJ * Engineering Task Force Leadership Team Coordinator (April 2013 – present): Coordinate team leaders in creating resources and professional development, in order to increase teachers’ capacity to incorporate NGSS engineering practices into their curricula. * KSTF journal Editorial Committee (2013 – present): Help develop standards and submission requirements for publishing teacher-generated knowledge of, in, and for classroom practice. Review and edit article submissions from KSTF Fellows and contribute editorial content to journal. * KSTF Teaching Fellowship (2004 –2009): Collaborated with other Fellows on science pedagogy such as formative assessment and project-based learning. Continue to participate as a Senior Fellow. Exploratorium Teacher Institute (2004 - 2013) - San Francisco, CA * STEM Conference Workshop Leader (2013): Presented a hands-on engineering design workshop to develop capacity of STEM teachers to implement NGSS engineering practices. * New Teacher Mentor (2011 - 2012): Supported beginning physics teachers through workshops and mentor meetings; topics included project-based learning, standards-based grading, and video analysis. * Exploratorium Teacher Institute participant (2004 - 2012): Worked with Exploratorium Teacher Institute staff to strengthen content knowledge and inquiry practices during summer institutes and academic year workshops. Innovative Teacher of the Year (2011) Carlmont High School - Belmont, CA Amgen Award for Science Teaching Excellence (2011) Amgen Corporation National Board Certification (Science - Adolescent/Young Adult) (2009) National Board for Professional Teaching Standards

Engineering Experience

Mechanical Engineer (May 2000 - December 2003) St. Jude Medical, Inc. - Sunnyvale, CA * Managed a cross-functional project team of engineers and designers to design a “next generation” implantable defibrillator device, reducing size and cost while improving manufacturability. Design responsibilities included overall mechanical design and development of custom capacitor and battery specifications. Mechanical Engineer (May 1997 - May 2000) Asyst Technologies (Hine Design) - Sunnyvale, CA * Designed semiconductor wafer handling automation to improve reliability, manufacturability, and cost. Managed robot configurations to achieve custom functionality and chemical exposure requirements. Mechanical Engineer (August 1995 - April 1997) Applied Materials, Inc. - Santa Clara, CA * Worked with industrial semiconductor manufacturers to specify and develop customer-specific features such as heat exchangers and toxic gas double-containment systems. Maintenance Engineer (August 1994 - August 1995) ATMEL Inc. - San Jose, CA * Developed a technician training program to ensure accuracy and reliability of memory-chip testing.

Relevant Technical Skills

- R/R Studio including spatial analysis, data visualization, package development, ShinyApps, and Git/GitHub integration
- MATLAB, Stata, C/C++, HTML, JavaScript
- ArcGIS, QGIS

Publications

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