

Kenneth C. Walsh

Director of Project BoxSand and the Lightboard Studio at OSU Physics Department

Education

Ph.D. (2010)	Physics, Oregon State University, Corvallis OR, USA
B.S. (2003)	Physics, Oregon State University, Corvallis OR, USA
B.S. (2003)	Engineering-Physics (Mechanical focus), Oregon State University, USA

Professional Appointments

2016 – Present	Senior Instructor, Department of Physics, Oregon State University
2011 – 2016	Instructor, Department of Physics, Oregon State University
2009 – 2011	Adjunct Professor, Natural Science Department, Western Oregon University
2009 – 2011	Summer Instructor, Department of Physics, Oregon State University
2010	Instructor, Department of Physics, Linn Benton Community College
2005 – 2009	Teaching Assistant, Department of Physics, Oregon State University
2004	Research Assistant, Department of Physics, Oregon State University

Curriculum Development

2015 – Present	Project BoxSand: Course Integration with Online Resources (OSU)
2015/16 AY	Learning Assistant Program for the Introduction to Physics Sequence (OSU)
2014/2015 AY	Flipped the Introduction to Physics Sequence (OSU)
Winter 2014	Explore the Thermodynamic Space Lab Development (OSU)
2013/14 AY	General Physics with Calculus Reform Focus Group (OSU)
2005 AY	Modern Physics Lab Reform (OSU)
2009 – 2012	Studio-Style General Physics (WOU)

Professional Development of Teaching Skills

May 2017	10 th Annual Ecampus Faculty Forum
June 2016	American Association of Physics Teachers New Faculty Workshop
Varied	Physics Department Teaching Seminar
March 2015	Pearson Physical Sciences Forum
Winter 2015	Cross Discipline Weekly Pedagogy Meetings
Spring 2014	CTL Teaching Triads
Winter 2014	Physics Department Teaching Trios
May 2014	Eric Mazur workshop on peer learning
March 2014	Pearson Physical Sciences Forum
July 2006	“Quantum Mechanics in the Paradigms” Summer Faculty Workshop
Spring 2004	Teaching Assistant Seminar

Graduate and Undergraduate Student Trainees

Current	Jake Bigelow, Ryan Ball, BoxSand Educational Data Mining Thesis Research
Current	Max Moulds, BoxSand Web Development Computer Science Senior Capstone
Current	10 Students are voluntarily working on contributing content to BoxSand
2017 AY	Allyson Peterson, Tallon Korn, BoxSand Educational Data Mining Thesis Research
Spring 2017	Ikaika Mckeague-Mcfadden, Project BoxSand Research
Spring 2017	Henry Nguyen, Alexis Amatisto, Ryan Todd, Learning Assistant Research
Fall 2016	Justin Moss, Alyssa Becker, Christina Moody, Learning Assistant Research
Spring 2016	Jay Howard, Flipped Classroom Pedagogy Teaching Apprenticeship
Winter 2016	Morgan Brown, Flipped Classroom Pedagogy Teaching Apprenticeship
Fall 2015	Liam Contino, Christopher Dang, Amandip Singh, Drew Turner, LA Research
Fall 2015	Lisa Corely, Mason Crow, Sam Moshofsy, Brandon Wick, LA Research
Winter 2015	Ryan Scheirer, Flipped Classroom Pedagogy Teaching Apprenticeship
Fall 2014	Andrew Stickel, Flipped Classroom Pedagogy Teaching Apprenticeship

2010 AY Shawn Decker (WOU), Angular Momentum Coupling Senior Thesis Research
 2010 AY Laura Waight (WOU), Multiple Representation Curriculum Development Senior Project

Team and Collaborative Efforts

2015 – Present ESTEME at OSU, Action Research Fellowship
 2014 – Present Devon Quick, Learning Assistants, various projects and Professional Working Groups
 2014 – Present Marjorie Coffey, Supplemental Instruction
 2017 John Griffis, OSU Cascade Campus PH2xx Curriculum Development
 2017 Math 111 Redesign Group
 2017 Sam McKagan, University of Maryland Intro Physics for Life Sciences Portal
 2017 Dan Rockwell (Mathematics), Created the Lightboard Studio
 2015 – 2016 Jon Dorbolo, Geometry of Learning Study with Technology across Curriculum
 2016 Rebecca Webb, OSU Cascade Campus PH20x Curriculum Development
 2015 Center for Teaching and Learning Teaching Triads
 2014 UW-Madison study on STEM courses and Data Driven Decision Making

Advising

I've been an informal advisor to hundreds of students. I typically write 15 letters of recommendation per year for scholarships, awards, graduate school applications, research positions, and more.

Professional Meetings, Conferences, Colloquia, Symposia, and Ceremonies

1. American Association of Physics Teachers Annual Meeting, Covington, KY: Contributed Speaker, "*Project BoxSand: Educational Data Mining and Student Web Behavior*" (Summer 2017)
2. Northwest American Chemical Society Meeting, OSU: Contributed Speaker, "*Can't Find a Clone, Try a Learning Assistant*" (Summer 2017)
3. Northwest Regional Learning Assistant Alliance Workshop, OSU: Panel Member, "*The LA Experience: A Panel Discussion with LA Faculty*" (Summer 2016, 2017)
4. Winter Oregon AAPT meeting, OSU: Hosted the event; ran a round table discussion on how to reach out to new and old members; initiated a program to record and stream future talks (2017)
5. Math 11x Course Reform Committee, OSU: Invited presenter, "*Flipped Classroom Model for Large Traditional Lectures*" (Winter 2017)
6. American Association of Physics Teachers Annual Winter Meeting, Atlanta, GA: Attendee, Oregon Representative Meeting (Winter 2017)
7. Oregon American Association of Physics Teachers Fall Meeting, Pacific University, Forest Grove, OR: Contributed Speaker, "*Project BoxSand: Tour of the Web Resource*" (October 2016)
8. Action Research Fellowship Poster Session, OSU: Contributed Speaker, "Project BoxSand: Three and a Half Week Long Study on Student Engagement with Online Resources" (May 2016)
9. Oregon American Association of Physics Teachers Winter Meeting, LBCC, Albany OR: Contributed Speaker, "*Learning Assistants (LAs): Simple, Easy, and Effective*" (March 2016)
10. Center for Teaching and Learning Spring Symposium, OSU: Contributed Speaker, "*Confessions of a Former Lecturer*" (Spring 2016)
11. College of Science Teaching and Advising Awards, OSU: Presenter, "*Project BoxSand*" (Winter 2016)
12. Oregon American Association of Physics Teachers Fall Meeting, Vernier, Portland, OR: Contributed Speaker, "*Confessions of a Formal Lecturer; One Year in and the World has not Collapsed*" (2015)
13. Center for Teaching and Learning Symposia, OSU, Corvallis, OR: Contributed Speaker, "*How Digital Technologies Have Improved Our Classrooms*", with Devon Quick (October 2014)
14. Guest Science Lecture Series, Western Oregon University, Monmouth, OR: Invited presenter, "*Modeling Atoms*" (April 2009)
15. Northwest American Physical Society Annual Meeting, Lewis and Clark College, Portland OR: Calculating the total electronic energy of non-spherical atoms in an electron gas, (May 2008)

Funding

1. 2017, \$3000, ESTEME Action Research Fellowship, BoxSand Longitudinal Data Mining Study
2. 2017, \$30,000, Open Educational Resources through Open Oregon State, BoxSand Textbook
3. 2017, \$5000, (PI) Lindsay Biga Learning Innovation Grant towards Lightboard Studio Improvements
4. 2017, \$1000, Professional Faculty Development Funds, AAPT National Meeting
5. 2017, \$8640, Learning Innovation Grant, Building a Lightboard Studio
6. 2016, \$3000, ESTEME Action Research Fellowship, BoxSand Educational Data Mining
7. 2016, \$10,000, Learning Innovation Grant, Project BoxSand Expansion
8. 2015, \$3000, ESTEME Action Research Fellowship, BoxSand Pilot study
9. 2015, ~\$1500, Andrew Wheeler (PI), Technology Resource Funds, Tablets in the Classroom
10. 2015, \$4400, L.L. Stewart Faculty Development Fund, BoxSand proof of concept
11. 2015, \$9820, (co-PI) Learning Innovation Grant, 3D Applications and Interactive Tablets

Departmental Service

1. Lower Division Committee 2012, 2013, 2014 – present (chair)
2. Ecampus PH20x Planning Committee 2017 - present
3. OSU Cascades Campus Hiring Committee 2016 - present
4. PER Scheduling Committee 2016 - present
5. Faculty Chair Search: Provided Input 2014
6. Physics 21x Textbook Review Group Member 2013
7. Graduate TA, Paradigms in Physics Committee 2006
8. Graduate Student Committee for P&T 2005
9. Graduate Student Committee, Faculty Search 2004

University Service

1. College of Science Online Education Planning Committee 2016
2. PI Day – Pie DR. Walsh in the face - Fundraiser for Edible Corvallis, hosted by the MLC 2016
3. Promotion and Tenure evaluation of Kristin Ziebart, Chemistry, Senior Instructor 2016
4. Promotion and Tenure evaluation of Danial Rockwell, Math, Senior Instructor 2016
5. College of Science Fall 2014 Social: Introduced the Physics department 2014

National Service

1. American Association of Physics Teachers, Oregon Section Representative 2017 – present

Service to the Public

1. oSUPREMEd, Modern Physics for Premed, Wiki Approach to Learning 2013 – present
2. Mi Familia Weekend, Outreach for Underrepresented and Diverse Families 2017
3. Taft High School visits, Department Outreach focusing on Physics at OSU 2015, 2017
4. University Pre-college Programs Adventures in Learning and Outside the Box 2006 – 2008

Awards

1. Faculty Teaching Excellence Award for Actual Classroom Teaching 2018
2. ESTEME Action Research Fellowship 2016 - 2018
3. Loyd Carter Award for Outstanding and Inspirational Teaching in Science (nominee) 2017
4. Peter Fontana Outstanding Teaching Assistant of the Year 2008