Work Experience

Professor of Mathematics Pierce College, Fort Steilacoom 2000 – Present

- Taught basic arithmetic through differential equations.
- Developed and taught online courses for: Math for Liberal Arts, Precalculus, Business Precalculus, Business Calculus, and Algebra for non-STEM.
- Prepared lectures, exams, and syllabi. Facilitated student group work. Developed curricula, projects, and group activities. Graded. Provided individual student assistance.
- Extensively used graphing calculators and computer technology in the classroom.
- Worked with students of diverse backgrounds, specifically students of various cultures, ethnic backgrounds, socioeconomic status, academic preparedness, and disability status.
- Advised students in mathematics, engineering, forensic science, and business.
- Attended division and department meetings. Participated in ongoing curriculum groups and program development. Participated in professional development activities.
- Developed and updated course outcomes.
- Acted as department coordinator, 2007 2013, 2014 Present
 - Planned department schedules. Handled book orders. Ran department meetings. Handled college-wide issues involving the math department. Handled student concerns. Advised adjunct faculty.
- Committees:

•	OER Steering Committee	2014 – Present
•	Alternative Compensation Committee	2004 - 2012
•	Tenure Committees (x4)	2004 – Present
•	Technology Fee Committee	2003 - 2012
•	Calendar Committee	2002 - 2009
•	Q Committee	2003 - 2005
•	Safe Zone Committee	2000 - 2010

- Maintained department websites.
- Created online course project database.
- Participated in accreditation self-study.
- Developed diagnostic assessments for pre-college level courses, with intent to implement them as secondary placement measures.
- Helped organize 2004 Northwest Two-year College Math Conference
- Helped organize 2002 and 2005 Mathematics Consortium Fall Meetings

Math Consultant Lumen Learning 2015 – Present

- Led continued upkeep and development of the MyOpenMath/IMathAS platform.
- Provided technical support for the MyOpenMath platform and content.
- Provided community support for MyOpenMath.
- Assisted with technical conversion of open content between formats and platforms.

Math Lead Lumen Learning 2013 – 2015

- Led multiple training sessions for faculty groups, covering
 - The basics of open educational resources (OER)
 - Open content licensing and attribution
 - Adapting OER for use in their classes
 - Use of the MyOpenMath online homework system
- Assisted faculty individually with adapting OER for their courses.
- Led new open math course development efforts, coordinating multiple faculty.
- Led continued development of the MyOpenMath/IMathAS platform.
- Assisted with open course development in other disciplines as needed.

Programming Consultant Carnegie Foundation 2012 – 2013

 Assisted in adapting and extending the IMathAS homework software to meet the needs of the Quantway program.

Programming Consultant XYZhomework / MathTV.com 2010 – Present

 Assisted in adapting and extending the IMathAS homework software to meet the needs of xyzhomework.com

Teaching Assistant Western Washington University Fall 1998 – Spring 2000

- Sole responsibility for lecturing an individual section of a class. Extensively used graphing calculators in the classroom. Prepared exams. Participated in group curriculum decisions and grading. Designed projects.
- Worked with students of diverse backgrounds, specifically students of various cultures, ethnic backgrounds, socioeconomic status, and disability status.
- Taught algebra through calculus.

Math Tutor Sylvan Learning Center Summer 1998

Arithmetic, Pre-algebra, and Basic Algebra instructional tutoring.

Math Lab Tutor Whatcom Community College Jan. 1995 – Aug. 1996

- Tutoring in Basic Algebra, Intermediate Algebra, and Pre-calculus.
- Homework and exam grading.
- Worked with the full range of community college students, from various ages, socioeconomic status, and ethnic backgrounds.

Education

Masters of Science in Mathematics

June 2000

Western Washington University

Project: "A Least-Squares Approach to the Estimation of Frequencies in Music" Elias Bond Graduate Scholarship recipient

Bachelors of Science in Applied Mathematics

June 1998

Western Washington University

Graduated Magna cum Laude

Associates of Arts and Science

June 1996

Whatcom Community College Outstanding Math Student, 1996

Publications

Lippman, David and Rasmussen, Melonie. Precalculus: An Investigation of Functions.

An open precalculus and trig textbook

Lippman, David, et al. Math in Society.

An open textbook for a survey of mathematics course for the liberal arts major

Lippman, David, et al. Business Precalculus

An open business precalculus and finite math textbook

Calaway, Shana, Hoffman, Dale, and Lippman, David. Business Calculus.

An open textbook for business calculus

MITE and Lippman, David. Arithmetic for College Students.

An open textbook for an arithmetic course targeted at college students

Pierce College Math Department. Math 96: Intermediate Algebra in Context

Contributed several lessons to this open textbook for a non-STEM algebra course

The text was remixed from work by Dana Center and Carnegie Foundation

Programming Projects

WAMAP/MyOpenMath/IMathAS

 Web-based math assessment software, for online delivery of homework, tests, and diagnostics. Released open-source.

Graphing Tools

Web applets providing students access to 3D, 2D and ODE graphing utilities over the Internet. Released open-source.

Statistical Tools

 Web-based tools for graphing box plots, creating hypothesis test graphs, and calculating normal probabilities. Released open-source.

ASCIIMath to TeX converter

 Converter from ASCIIMath notation to TeX, allowing image-based fallback for web pages using ASCIIMath.

HTMLArea and TinyMCE Math and Graph Plugins

Collaboratively developed with Peter Jipsen from Chapman University. These plugins
add math and graph display capabilities to the popular HTMLArea and TinyMCE text
editors. Released open-source.

Awards

Washington Two-Year College Mathematics Service Award	2014
NISOD Excellence Award	2011
Leadership and Innovation in eLearning Award	2011
Faculty Achievement Award, Pierce College District	2010
Grants	
Open Course Library Project, SBCTC, \$15,000	2011-2012
 Grant to develop open courseware for math in society. 	
Open Course Library Project, SBCTC, \$30,000	2010-2011
 Grant to develop open courseware for precalculus 1 and 2. 	
Transition Math Project, \$11,000	2009
 Grant for open textbook development. 	
Transition Math Project, \$80,000	2007-2009
 Grant for improvement, marketing, and support of IMathAS/WA 	AMAP.org.
Distance Learning Council Development Grant, \$23,000	2007-2008
 Grant for development of pre-built courses for IMathAS. 	

Distance Learning Council Development Grant, \$7,000 2006-2007

• Grant for development of a base question set for IMathAS and for pilot testing.

Presentations

Computing Modular Exponentiation, Northwest Two-year College Math Conference 2015

Building a 3D Coffee Cup, Northwest Two-year College Math Conference 2015

My Journey to Open (keynote), Academic Technology Institute, University of New Hampshire, 2015 History of IMathAS, Paradise Valley College, 2015

MyOpenMath and OER, numerous individual colleges, 2013 – 2015

The Case for Open (keynote), Northwest Two-year College Math Conference 2014

Making Open Materials Work for You, Northwest Two-year College Math Conference 2014

Little Known Features of WAMAP, Northwest Two-year College Math Conference 2014

Free and Open Courses for Arithmetic - Calculus, ICTCM, 2014

Scripting the Canvas API, Washington Canvas Users Group, 2014

Modeling using Video, Northwest Two-year College Math Conference 2013

OER, MOOCs, and the Future of Math Education (keynote), ArizMATYC, 2013

Free and Open Online Homework for a Free and Open Textbook, ICTCM, 2012

My Journey to Open (keynote), Math Dialogue Day, Phoenix College, 2012

Intro to WAMAP Workshop, Phoenix College, 2012

Open Course Library, AMATYC, 2011, 2012, 2013

Open Course Library Project, Northwest Two-year College Math Conference 2011, 2012, 2013 Open Textbook Workshop, Pierce College 2010

WAMAP: Advanced Topics, Northwest Two-year College Math Conference 2010

Math 107 on \$10, Northwest Two-year College Math Conference 2010

Wiimotes and Robots, Northwest Two-year College Math Conference 2009

Saving Students Money, Northwest Two-year College Math Conference 2009

A Free Online Math Assessment and Course Management System, PNW MAA Meeting 2009

Getting Started with WAMAP.org, numerous individual colleges and schools 2006-2009

WAMAP.org, Northwest Two-year College Math Conference 2007, 2008, 2009, 2012, 2013

WAMAP.org, Transition Math Project Summer Institute 2006, 2007, 2008

Free Online Math Assessment with WAMAP.org, Northwest K-12 Math Conference 2007

WAMAP.org, Northwest Teaching and Learning Conference 2007

Free Software, Northwest Two-year College Math Conference 2006

Online Tools, Northwest Two-year College Math Conference 2005

Online Math 107, Northwest Two-year College Math Conference 2002

Trainings

Quality Matters (QM) Training

Summer 2010

Training on implementation of QM standards in courses.

Open Textbook Advocate Train-the-Trainer

Spring 2010

 Training to lead workshops on open textbooks led by the College Open Textbooks Consortium

Master Teacher Program

2010 - 2011

Pedagogy discussion and work on a project to improve instruction

WAOL Instructor Training

Summer 2001

• Creation, development, and instruction of online courses.

Teaching Assistant Training Western Washing

Western Washington University Fall 1998

 Incorporating National Council of Teachers of Mathematics (NCTM) standards, use of technology in the classroom (TI calculators with CBL accessories), exam development, student participatory experiments, diversity and disability accommodation training.

Employee Training

Sylvan Learning Center

Summer 1998

Developmental mathematics instructional techniques.

Computer Skills

Mathematica, Maple, Matlab, Mathcad, MS Excel, MS Word, TeX, Java, PHP, JavaScript, SQL