

# Curriculum Vita

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### Earned Degrees:

1980	BA in Mathematics	Westmont College (Santa Barbara, California)
1981	MS in Mathematics	University of Oregon
1985	Ph.D.	University of Oregon Dissertation Topic: Successor Groups

### Major Fields of Interest:

Mathematics education (K-12), primarily developing classroom activities implementing NCTM standards and meeting Oregon curriculum standards

Abstract algebra (finite groups and commutative rings) and development of proof abilities, primarily related to innovations in undergraduate education

### Academic Appointments:

Graduate Teaching Fellow	University of Oregon	1980-1985
Assistant Professor	Gonzaga University	1985-1987
Assistant Professor	Southern Oregon University	1987-1990
Associate Professor		1990-1997
Professor		1997-present

## **Administrative Appointments (all at Southern Oregon University):**

Mathematics Department Chair (0.5 FTE)

1995-2003 and  
2008-present

*Achievements include:*

- Led department in a substantial restructuring of the major requirements; although necessary to deal with budget cuts, the changes were also managed to result in more stable class sizes, a stronger cohort model, and a more attractive major.
- Found space in the department for a majors' study room, which facilitated greater bonding of majors by providing them a "home" within the department. While small, the room includes study areas, small computer lab, and lounge-like amenities.
- Significantly increased the number of majors, their sense of belonging and their commitment to the major.
- Moved control of departmental self-support funds from extended campus programs to the department. This change allowed the department to hire a permanent developmental mathematics instructor and stabilize funding for non-work study student tutors.
- Led in improving the reputation of department on campus (from elitist to team player)
- Implemented placement testing and improved advising for non-majors.

Chief Negotiator for the Associated Professors of Southern Oregon University 2005-present

*Achievements include:*

- Led the development and implementation of a significantly improved compensation plan for faculty.
- Maintained a healthy and supportive working relationship with the administration, resulting in reaching a successful conclusion without the difficulties of our sister institutions (impasse, mediation, preparations for striking, etc.).
- Led the development and implementation of a substantial mid-contract revision to both the bargaining agreement and faculty bylaws, which clarified the employment and compensation of temporary faculty and created permanent professional and professorial faculty roles.
- In addition to bargaining duties, worked closely with administrative offices across campus to effectively implement agreements within their respective areas of responsibility, including budgeting, payroll, and human resources.

Accelerated Baccalaureate Program Director (0.25-0.33 FTE)

1998-2008

*Achievements include:*

- Took program from pilot status at the end of the FIPSE grant to an established university program.
- Doubled the number of participating majors.
- Implemented second admission point, which increased the average number of participating students by 125%.
- Maintained an average three-year graduation rate of 80%.

Special Assistant to the Provost for Honors Restructuring

2007-2008

*Achievements include:*

- Led redesign program to build on existing components, but better meet National Collegiate Honors Council recommendations and dramatically reduced the overall budget.
- Led Honors Council in developing program components, including mission statement, assessment plan, evaluation instruments, curricular guidelines, admissions criteria, and satisfactory progress criteria.
- Hired a program assistant and together established administrative procedures for recruitment and record keeping.
- Secured Forest Hall in the Cascade Complex for an Honors Residence Hall beginning Fall 2008.
- Secured Faculty Senate approval for restructured program and increased participation in honors across campus by increasing student enrollments, types of courses available, and involving more faculty in teaching honors courses, several from departments that had not previously participated.
- Passed program to new director and continued to mentor that faculty member in 2008-2009.

Faculty Senate Chair (0.25 FTE)

1996-1998

**Courses Taught (ordered from most frequent to least frequent):**

Lower Division:

mathematics courses for prospective  
K-7 teachers  
linear algebra  
precalculus courses  
finite/business mathematics courses  
single-variable calculus  
problem solving course

Upper Division:

introductory and advanced abstract  
algebra courses  
mathematics courses for prospective  
5-12 teachers  
transition to abstract  
mathematics/introduction to  
proof and higher mathematics  
senior capstone  
axiomatic geometry  
point-set topology/metric spaces

## **Projects Advised:**

### Masters Theses and Graduate Projects:

Alan McCreedy, Group Theory and the Symmetries of Nature, 1989/90  
Dorrette Long, Math Anxiety, 1992

### Senior Honors Projects:

Laura Kustiner, Galois Theory and the Unsolvability of the Quintic, 1989/90  
Aaron Curtis, Galois and the Cyclotomic Equation, 1992/93  
Shawn Lanier, Galois Theory and the Unsolvability of the Quintic, 2002/03

### Senior Capstone Projects:

Mark Schwarz, Identification of Two-Dimensional Symmetry Groups, 1997/98  
Ryan Bauer, Game Theory, 1999/2000  
Elijah Bunnell, Galois Theory, 2005/06  
George Harpham, Games and Group Theory, 2005/06  
Jerod Michel, Cyclotomic Polynomials, 2005/06  
Joseph Nelson, Mersenne Primes, 2005/06  
Krista Weisz, Asymmetric Cryptosystems, 2005/06  
Stacey Anderson, The Euclidean Group, 2006/07  
Sarah Dalton, Fractal Geometry, 2006/07  
Martini Machado, Free Groups and Generators & Relations, 2006/07  
Ivan Murphy, Platonic and Archimedean Polyhedra, 2006/07

### McNair Projects:

Jarod Michel, The Birth of Abstract Algebra, Summer 2005

## **Papers and Workshops Presented:**

### *Academic:*

“Successor Groups and Ordered Division Rings,” AMA/MAA Joint Meetings, San Antonio, January 1987.

“The SOSM Math Lab: A Resource for You,” OCTM Regional Conference, October 1988.

“Manipulatives and Fractions,” OCTM Regional Conference, October 1989.

“A Writing Intensive Linear Algebra Course – A Successful Experiment,” AMS/MAA Joint Meetings, San Antonio, January 1993.

“From Escher to Conway and Penrose – Create Interesting Tilings Using a Variety of Techniques,”  
Northwest Mathematics Conference, October 1993  
Western Regional NCTM Conference, October 1994

- “Portfolios – A Path to Deeper Understanding,” State of Jefferson Conference, May 1994
- “Using Real-world Applications and the TI-82 to Motivate and Develop Mathematical Content while Immersed in the Application,” Canadian Regional NCTM Conference, August 1996, and Northwest Mathematics Conference, October 1996
- “More on using Real-world Applications and the TI-82 (or TI-83) to Develop Content While Immersed in the Application,” Northwest Mathematics Conference, October 1997
- “Activities for computation and Estimation Benchmarks: Grades 5-10,” Northwest Mathematics Conference, October 1999
- “More Activities for Computation and Estimation Benchmarks: Grades 5-10,” Northwest Mathematics Conference, October 2000, and Western Regional NCTM Conference, February 2001
- “How Can You Tessellate?” Northwest Mathematics Conference, October 2002
- “SOU’s Senior Capstone,” (with Daniel Kim), PNWMAA, June 2003
- “Counting Activities, Grades K-2,” Northwest Mathematics Conference, October 2005, and Northwest Mathematics Conference, October 2008
- “Golden Triangles, Grades 7-12,” Northwest Mathematics Conference, October 2008

*Administrative:*

- “Accelerated Baccalaureate Program,” with Al Blaszak, PASS Meeting, Eugene Oregon, May 1997
- “Southern Oregon University’s Accelerated Baccalaureate Program, Earn a Bachelor’s Degree in 3 Years,” with Adriane Hill, AACRAO Conference, Charlotte NC, April 1999
- “Southern Oregon University’s Accelerated Baccalaureate Program, Bachelor’s Degree in 3 Years,” with Adriane Hill, AACRAO Conference, New Orleans, April 2000

## SOU Workshops

### Department Chairs Workshops (with Neil Kunze)

“Money, Money, Money,” SOU Department Chairs Workshop, June 2000

“Faculty Evaluation, Sample Implementation Scheme,” SOU New Department Chairs Workshop, April 2001

“Money, Money, Money,” SOU New Department Chairs Workshop, April 2001

“Guiding Faculty from Associate to Full Professor,” SOU Department Chairs Workshop, June 2003

“Workshop for New Department Chairs,” SOU New Department Chairs Workshop, October 2003

“Dealing with Student Complaints,” SOU Department Chairs Workshop, December 2003

“Dealing with Student Complaints, Part 2,” SOU Department Chairs Workshop, June 2004

“Promotion and Tenure, Suggestions for Assembling Successful Applications,” SOU Faculty Workshop, October 2006

“Workshop for New Department Chairs,” SOU New Department Chairs Workshop, October 2006

## **Publications:**

### *Academic:*

“Teaching Problem Solving with the Game of Stalemate,” Washington Mathematics, Fall 1987

“Dell Crossword Puzzles and Problem Solving,” TOMT, OCT/NOV 1989

### Excerpts from Geometry and Spatial Visualization for Grades 4-8 Series

“From Crackers to Trivets: A Study of Tilings – Activity 1,” TOMT, OCT/NOV 1990

“From Crackers to Trivets: A Study of Tilings – Activity 2,” TOMT, DEC 1990

“From Crackers to Trivets: A Study of Tilings – Activity 3,” TOMT, JAN 1991

“From Cubes to Crystals: A Study of Three-dimensional Visualization – Activity 1,” TOMT, MAR/APR 1991

“From Cubes to Crystals: A Study of Three-dimensional Visualization – Activity 2,” TOMT, MAY/JUN 1991

TOMT series co-authored with Mike Murphy, Waluga Junior High School, Lake Oswego, Oregon.

“How High is the Ceiling,” TOMT, DEC 1991

Reprinted, Virginia Mathematics Teacher, Spring 1992

“How Tall Is That Tree?” TOMT, DEC 1992

“How Far Is It Across?” TOMT, JAN/FEB 1993

“How Tall Is It?” TOMT, DEC 1994

“How Proportional Is It?” TOMT, JAN/FEB 1995

Excerpts from Statistics Activities for Grades 3-7 Series

“A Typical Student, Activity 1,” TOMT, OCT/NOV 1992

“A Typical Student, Activity 2,” TOMT, DEC 1992

“A Typical Student, Activity 3,” TOMT, JAN/FEB 1993

“A Typical Student, Activity 4,” TOMT, MAR/APR 1993

“A Typical Student, Activity 5,” TOMT, MAY/JUN 1993

“Newton’s Method and the TI-81,” TOMT, MAY/JUN 1994

“High Roller,” TOMT, MAY/JUNE 2001

“Number Scrabble,” TOMT, SEP 2005

*Administrative:*

“The Appropriate Use of Computational Tools in Mathematics Education, The position Paper of the Oregon Mathematics Education Council,” OMEC, Spring 1990

**Grants, Honors and Awards:**

“Activities for Developing Geometry and Spatial Visualization Skills, Grades 4-8,” 1989/90 (principle author of materials developed by SOU team under Eisenhower grant, John Engelhardt was principle investigator)

“Statistical Activities for Grades 3-7,” 1990/91 (principle author of materials developed by SOU team under Eisenhower grant, John Engelhardt was principle investigator)

INPUT Project Award (Business Math), 1996/97

**Academic Honors:**

Phi Kappa Phi

Omicron Delta Kappa

Sigma Xi

## Professional Affiliations:

### National:

Mathematical Association of America  
National Council of Teachers of Mathematics

### Regional:

Oregon State Mathematics Council  
Teachers of Teachers of Mathematics

### Offices Held:

President, Teachers of Teachers of Mathematics, 1995/96 & 1996/97  
Treasurer, Teachers of Teachers of Mathematics, 1997/98 to present

## Textbooks Reviewed:

Mathematics for Elementary Teachers, A Contemporary Approach (3<sup>rd</sup> Edition), Musser and Burger, Prentice Hall, 1993

Foundations of Higher Mathematics (3<sup>rd</sup> Edition), Fletcher and Patty, PWS-Kent, 1995

## Other Service:

### *Select Departmental Committees:*

Personnel Committee, 1987/88, 1989-1995, 2004-2008; Chair, 1990-1993  
Assorted Curriculum Committees, 1987-1992, including  
Ad Hoc Linear Algebra Committee Chair, 1989/90  
Graduate Committee Chair, 1992-1994  
Math Lab Coordinator, 1988-1995, 2004-2006, 2008-present  
Mathematics Education Committee, 1988/89, 1990-1992, 1997-1999, 2004-present  
Representative to University Teacher Education Committee, 2005/06  
Representative to the Southern Oregon Cadre, 2005/06  
Math Club Advisor, 1989/90 (organizer and original advisor)  
Mth 158 Course Coordinator, 1990-1997

### Colleague Evaluation Committees:

John Engelhardt, 1990 (chair)	Dusty Sabo, 2000
John Whitesitt, 1992	John Engelhardt, 2001
Reider Peterson, 1994 (chair)	Daniel Kim, 2002
Kemble Yates, 1998	Dusty Sabo, 2007

### *Select School of Science Committees:*

Physics Search Committee, 1993/94  
Scholarship Committee, 1993-2003

*University Committees:*

University Financial Aid and Awards Committee, member, 1987-1990  
Ad Hoc Committee on Academic Advising, 1989-1993  
Academic Standards Committee, 1990-1995; Chair, 1992-1995  
Courtesy Committee, 1990-1993  
Director of Advising Search Committee, 1991  
Assistant Lab Manager (Computing Services) Search Committee, 1991  
Scheduling Committee, 1991/92  
Faculty Senate, 1994-1998, 2000-2002, 2008-present

Associated Posts:

Faculty Senate Hearing Committee, 1994/95, 2000/01 (chaired hearing panel)  
Faculty Senate Advisory Council, 1995-1998  
Campus Planning Committee, 1995/96  
Faculty Senate Chair, 1996-1998  
Constitution Committee, 2000-2002; Chair 2001/02 and 2008/09  
Faculty Mac Users Group, 1995-97 (organizer and convener)  
BASIS Committee, 1995-97  
Accelerated Baccalaureate Committee, 1996-present; Director 1998-2008  
Student Mac Users Club Advisor, 1998/99  
Academic Policies Committee, 1998-2000, 2004-present; Chair, 1999/2000, 2007  
Phi Kappa Phi Chapter Steering Committee, 1998-2000  
Offices Held: Secretary, 1998/99, 1<sup>st</sup> Vice President, 1999/2000  
Focused Accreditation Report Committee, 1998/99  
APSOU Executive Board, 1999-2003; ex officio 2004-present (chief negotiator)  
Offices Held: Treasurer, 2000-2003, Bargaining Team member, 2000-2002  
OQAT Grant Steering Committee, 1999-2002  
CAPP Implementation Team, 2001-2003  
Provost Search Committee, 2002/03  
Ad hoc Committee that developed Department Chairs' Manual, 2004/06  
Ad hoc Compensation Committee, 2004/05  
Joint Taskforce on Professional Faculty, Chair, 2006  
Joint Taskforce on Grievances, Chair, 2006  
Honors Workgroup, Chair, 2007  
Honors Council, 2007-present  
CAS CBA/Bylaws Team, Chair, 2007-present  
Academic Advising Committee, 2008-present

*Off-Campus Committees and Offices:*

Oregon Mathematics Education Council member, 1988-1992  
Offices held: Chair-elect, 1989/90, Chair, 1990/91, and Past-chair, 1991/92  
Directed Regional Mathematics Contests in 1989, 1990, 1991, 1992, 1993, 1994, and 1995  
Trinity Respite Center Advisory Board, 2000-2006 (financial consultant)  
Pacific Northwest Mathematics Association of America Distinguished Teaching Award  
Selection Committee, 2004 and 2005  
Praxis Exam Item Writer, 2006