

JEREMY A. HAEFNER

EDUCATION

Ph.D. - Mathematics	1986	University of Wisconsin	Madison, WI
M.A. – Mathematics	1983	University of Wisconsin	Madison, WI
B.A. – Mathematics	1979	University of Iowa	Iowa City, IA

ADMINISTRATIVE

ASSOCIATE VICE CHANCELLOR
FOR RESEARCH AND
INNOVATION

DEAN
GRADUATE SCHOOL

University of Colorado at
Colorado Springs

July 2007 to Present

Scope: Campus-wide

*(Concurrent with the Dean of
Engineering and Applied
Science)*

Responsible for leadership and support of the research and innovation mission of the campus, including but not limited to:

- Secured funding for and filled Symetrix Chair for Device Science Technology
- Supervising the Office of Sponsored Programs and overseeing the distribution of Indirect Cost Recovery monies for Academic Affairs
- Overseeing the policies and procedures to ensure research integrity across the campus
- Directing the academic affairs of the National Institute for Science, Space, and Security Centers
- Directing the Colorado Institute for Technology Transfer and Implementation
- Collaborating with Federal, State, and community agencies and constituents to build an economic development partnership between the university and the surrounding region
- Providing Academic Affairs leadership for developing a research park on campus
- Providing leadership to the graduate school and overseeing the graduate programs across the campus; supervising staff for the recruitment and retention of graduate students

DEAN, COLLEGE OF
ENGINEERING AND APPLIED
SCIENCE

University of Colorado at
Colorado Springs—

July 2002 to Present

Scope: College

*(Concurrent with the Associate
Vice Chancellor for Research
and Innovation and Dean of the
Graduate School)*

Responsible for all College matters including, but not limited to: community engagement; sponsored research facilitation; fundraising; technology transfer; student recruiting/retention and admission requirements; efficiency of departments and divisions; budgetary planning and allocation of funds; faculty assignments and work load; personnel recommendations and actions; curriculum planning; academic advising accountability and reporting.

Recent accomplishments:

- Led transformational change and growth of College while managing significant budget cuts and restructuring College to increase shared governance and efficiencies
- College ranked in the top ten by *U.S. News and World Report* for the past two years (among public institutions primarily offering master's degrees)
- College ranked 7th in the nation among public institutions for graduating percentages of women engineers in 2006-07 by the American Society for Engineering Education (ASEE)
- Achieved fundraising success for new Science and Engineering

Complex; developed case statement and presentations; played key role securing major gifts, ranging from \$300,000 to \$2 million; led College development efforts in gifts and donations

- Established a Research Development Center and led cultural change for, and increased sponsored research in, engineering and applied science disciplines
- Developed partnership agreements with Sandia National Labs, Ching Yun University (Taiwan), and Beijing University for Post and Telecommunications (China)
- Developing international study-abroad program with Ching Yun University (Taiwan)
- Developed dual enrollment program with local community college and College of Engineering and Applied Science
- Focused on areas of excellence in networking and security, microelectronics, and medical device innovation
- Created, implemented, and expanded a college-wide Ph.D. in Engineering
- Created and developed system engineering graduate degree program
- Developed a multidisciplinary Bachelor of Innovation™ family of degrees program with the College of Business to produce engineering and business graduates with innovation process skills; includes new track in Game Design and Development
- Created and expanded a K-12 outreach program, including College selection as Colorado Affiliate University for *Project Lead The Way* program
- Restructured College to sharpen the college niche and reputation, increase shared governance, and maximize efficiencies
- Transformed the college external advisory council into a regional economic development organization

PRINCIPAL INVESTIGATOR
Partnership in Innovative
Preparation for Educators and
Students (PIPES)

July 2006 to present

Scope: Community and national

A \$1.04 million P-16 grant through the Air Force Office of Scientific Research (Grant 07-067). Scope of work includes:

- Developing a systemic program aimed at increasing the number of middle school students who major and graduate in STEM disciplines
- Implementing and deliver the program for the Southern Colorado region
- Building a network of national partners to assist in the replicability of the program across the country
- Disseminating best practices and lessons learned

An additional \$1.6 million was recently awarded for FY 08

PRINCIPAL INVESTIGATOR
National Institute of Science,
Space, and Security Centers
(NISSSC)

July 2007 to present

Scope: Community and national

A \$4.6 million grant through the Air Force Office of Scientific Research (Grant FA9550-04-1-0239). Scope of work includes:

- Overseeing research and education programs for homeland security
- Developing a consortium of universities to meet the needs of the space professionals in Air Force Space Command
- Developing research focus in terrorism and trauma through the Trauma, Health and Hazard Center

DIRECTOR
Colorado Institute for
Technology Transfer and its
Implementation (CITTI)

July 2003 to Present

*(This position was subsumed by
the Associate Vice Chancellor
for Research and Innovation
position)*

Scope: Community

Responsible for ensuring that institute supports economic development by providing technology-oriented organizations with access to capital, technology and innovation information, with an emphasis on sectors recognized as critical to the region.

Scope of work includes:

- Providing support and guidance to endowed Chairs in Innovation and Security, Innovation and Engineering, and Entrepreneurial Finance
- Providing support for technology transfer activities such as awarded Small Business Innovation Research (SBIR) and Small Technology Transfer Research (STTR) grants that have resulted in over \$1 million in funding for the region
- Leading community-wide symposiums targeting specific technology topics such as cyber-security, high-tech start ups, venture capital and angel funding, research parks and SBIR/STTR grant writing
- Overseeing the *Journal for Comparative Technology Transfer and Society*, published by John Hopkins Press

INTERIM DIRECTOR
Center for STEM Education

January 2005 to April 2007

*Scope: Campus, community,
national*

Responsible for building strategic partnerships to develop a systemic K-12 program leading to an increase of U.S. scientists and engineers. Focus to be on the Science, Technology, Engineering, and Math disciplines.

Accomplishments include:

- Awarded \$1.1 million grant from AFOSR for PIPES – Partnerships for Innovative Preparation of Educators and Students (see principal investigator roles above)
- Establishment of STEM Education Center and charter
- Developed \$3 million grant proposal for Department of Defense

DIRECTOR
Educational Outreach Center

July 2003 to July 2005

Scope: Campus and community

The Educational Outreach Center (EOC) served a campus-wide coordinating and leadership role, designed to distinguish the campus as a premier high educational institution engaged with K-12 outreach, interaction and leadership. Responsible for ensuring Center planning, development and implementation of programs. (The EOC later transformed into the Center for STEM Education; see above.)

Accomplishments included:

- Completed three educational grants with State of Colorado

totaling over \$95,000

- Developed advisory board
- Expanded subscription service to local school districts

DIRECTOR
Teaching and Learning Center

July 2000 to June 2002

Scope: Campus-wide

Responsible for leading the Center to improve teaching and learning at the University of Colorado at Colorado Springs campus, managing the budget, supervising a staff of seven, and developing Center strategies.

Accomplishments included:

- Developed Teaching and Learning Strategic Plan
- Developed campus-wide effort for distance learning policies

SENIOR FACULTY ASSOCIATE
FOR INFORMATIONAL
TECHNOLOGY

July 2000 to June 2002

Scope: Campus-wide

Responsible for establishing a campus-wide Informational Technology Council, formulating and managing strategic, implementation and tactical plans for IT, managing the student technology fee, and acting as IT liaison between the campus and administration.

Accomplishments included:

- Developed the first campus-wide IT Advisory Council
- Developed the first strategic campus plan for IT
- Successfully lead effort to triple the student technology fee in Spring 2001
- Represented IT at the Executive Team meetings
- Successfully received approval and partial funding of strategic, implementation and tactical IT plans, fall 2001

SENIOR FACULTY ASSOCIATE
FOR TEACHING AND LEARNING

July 2000 to June 2002
*(concurrent with Information
Technology position)*

Scope: Campus-wide

Responsible for developing programs that aid faculty improvement in the areas of teaching and learning. Such programs included mentoring programs for faculty, teaching portfolios, online and distance education, and general teaching roundtables.

Accomplishments included:

- Implemented faculty professional development workshops for improved teaching and learning
- Led campus-wide effort to develop and implement new campus website
- Created online modules for faculty development in teaching and learning

CHAIR
Department of Mathematics

August 1998 to July 2001

Scope: Department

Responsible for managing department budget, articulating a vision for the programs and faculty, ensuring that teaching obligations were fulfilled, and facilitating the research activities of the faculty.

Accomplishments included:

- Hired diverse faculty
- Launched *CU Succeed*, a K-12 program that encourages seamless transition from 12th grade to college
- Co-developed *Mathonline*, a distance learning math program

ASSOCIATE DIRECTOR
Mathematics Learning Center

Responsible for implementing and integrating computer literacy into mathematics curriculum.

September 1991 to January 1995

Scope: Department

Accomplishments included:

- Created mathematics modules that used computer algebra systems to enhance learning
- Spearheaded effort to create a mathematics computer laboratory and portable mathematics computer classrooms
- Received \$137,000 equipment grant from Hewlett-Packard

PROMOTION AND TENURE

FULL PROFESSOR
August 1998

University of Colorado at Colorado Springs, Mathematics

TENURE AND PROMOTION TO
ASSOCIATE PROFESSOR
August 1993

University of Colorado at Colorado Springs, Mathematics

ASSISTANT PROFESSOR
August 1989

University of Colorado at Colorado Springs, Mathematics

FELLOWSHIPS

AMERICAN COUNCIL ON
EDUCATION (ACE)

2006-07 Fellowship

Nominated by Chancellor Pam Shockley-Zalabak and the University of Colorado at Colorado Springs; hosted by President John Cavanaugh and the University of West Florida. Activities included:

- Mentoring by President and Vice President for Student Affairs at the University of West Florida
- Participating in opening, mid, and closing ACE Fellows Seminars as well as other training programs

EDUCAUSE - NATIONAL
LEARNING INFRASTRUCTURE
INSTITUTE FELLOWSHIP

2002-03 Fellowship

Developed research and educational activities around technology-mediated learning while housed at University of Colorado at Colorado Springs. Activities included:

- Published two papers on course management systems and learning
- Developed interactive learning site for NLII

GRANTS

RESEARCH GRANTS

Co-Principal Investigator, Partners for Innovation: I SEE: Innovation through Synergistic Educational Engagement from National Science Foundation (Award ID 0650251), \$599,856.

Principal Investigator, Partnership in Innovative Preparation for Educators and Students (PIPES) from the Air Force Office of Scientific Research (Grant 07-067). \$1.04 million.

Principal Investigator, National Institute of Science, Space, and Security Centers (NISSSC) from the Air Force Office of Scientific Research (Grant FA9550-04-1-0239). \$4.6 million.

Awarded 2-year research grant (NSA MDA 904-96-1-0030) from the National Security Agency for 1996-1998. Approximately \$28,000.

Awarded research grant (DGICYT SAB 95-0215) from the Spanish government to perform research at the University of Murcia in Murcia, Spain for the academic year 1995-1996.

Awarded 95-96 CRCW grant from the University of Colorado for developing CATME. *Developing the Center for Applications and Technology in Mathematics Education*. \$3,000.

Awarded CRCW grant from CU Colorado Springs in 1993-94 for ring theory research. \$2,000

Awarded "Young Investigator Grant" (MDA 904-92-H-3028) from the National Security Agency for summer research. 1992-1994. \$26,000

Awarded NSF Special Projects grant (DMS 9023201) from the National Science Foundation for Methods in Module Theory conference at the University of Colorado, Colorado Springs, Colorado, May 1991. \$10,000.

Awarded CRCW grant from the University of Colorado for 1991-92 research. \$2,000.

Awarded Grigsby grant from the University of Colorado for 1991 research. \$1,500.

Awarded Grigsby grant from the University of Colorado for 1990 research. \$1,500.

Awarded CRCW grant from the University of Colorado for 1989-90 research. \$2,000.

Awarded grant from the University of Tennessee for summer 1988 research. Did not accept due to NSA grant below.

Awarded NSA grant (MDA904--88--H--2036) from the National Security Agency for summer 1988 research. \$2,500.

TEACHING AND LEARNING GRANTS

Awarded \$115,000 grant from the University of Colorado for developing and deploying a three-campus online tutoring program in mathematics.

Awarded 2000 Workshop grant (co-investigators: G. Abrams, J. Daly, A. Putnam) from the Colorado Institute of Technology to offer a K-12 Teacher workshop on Mathematics and Technology.

Awarded Technology Partnership grant from UCCS Teaching with Technology Center, Fall 1999.

Awarded 1997 Professional Development Academy award (with G. Abrams) for *Mathematics and Distance Learning*. Dr. Connie Staley, Pathways Grant coordinator. \$5,000.

Awarded Grigsby Sencenbaugh grant (with G. Abrams) from the University of Colorado for course development. \$3,000.

Awarded 1994 Hewlett Packard Equipment grant. \$137,000.

SCHOLARLY WORK

SELECTED PUBLICATIONS

“Beyond the Bachelor of Science: The Bachelor of Innovation Family of Degrees”, preprint. Accepted for publication by the *American Society of Engineering Education*. 2007.

“The Globalization Problem for Inner Automorphisms and Skolem-Noether Theorems” with A. del Rio, *Proceedings of the International Conference on Algebras, Modules and Rings*, Lisbon 2004. Accepted for publication.

“Mind Over Matter: Transforming Course Management Systems into Effective Learning Environments” with C. Carmean (November/December 2002 issue of *EDUCAUSE Review*).

<http://www.educause.edu/ir/library/pdf/erm0261.pdf>

“Course Management Systems: Next Generation” with C. Carmean (First 2003 issue of *EDUCAUSE Quarterly*).

<http://www.educause.edu/nlii/meetings/nlii032/nextgeneration.doc>

“Automorphisms of Tiled Orders” with C. Pappacena, *Linear Algebra and its Application* **347** (2002) 275-282.

“Strongly Graded Hereditary Orders” with C. Pappacena, *Communications in Algebra* **29** (12), 5535-5542 (2001).

“Win-Win Case Study” with G. Abrams in *Syllabus* journal. May 1999.

“Hereditary Crossed Products” with G. Janusz, *Transactions of the American Mathematical Society*, **352**, 3381-3410 (2000).

“The Picard group of Incidence Algebras” with T. Holcomb, *Linear Algebra and its applications*, **304**, 69-101 (2000).

“Actions of Picard Groups on Graded Rings” with A. del R o, *Journal of Algebra*, **218**, 573-607 (1999).

“Approximating Rings With Local Units Via Automorphisms” with G. Abrams and A. del R o, *Acta Mathematica Hungarica*, **82** (1999), 229-248.

“S.H.O.W.M.E. - Spearheading Online Work in Mathematics Education” with G. Abrams, *T.H.E.* journal (Technology in Higher Education) **25**, May 1998.

“The Isomorphism Problem for Incidence Rings” with G. Abrams and A. del Río, *Pacific Journal of Mathematics*, **187**, 201-214 (1998).

“Picard Groups and Infinite Matrix Rings” with G. Abrams, *Transactions of the American Mathematical Society*, **350** (1998), 2737-2752.

“Reduction Techniques for Strongly Graded Rings and Finite Representation Type, I: Bounded Functors and Graded Equivalence” *Journal of Algebra* **194** (1997), 567-593.

“Isomorphisms of Row and Column Finite Matrix Rings” with A. del Río and J.J. Simon, *Proceedings of the American Mathematical Society*. **125** (1997), 1651-1658.

“Bounded Picard Groups” with G. Abrams, *Colloquium Mathematicum*, **72** (1997), 325-334.

“On When a Graded Ring is Graded Equivalent to a Crossed Product” *Proceedings of the American Mathematical Society*. **124** (1996), 1013-1021.

“Graded Equivalence Theory with Applications” *Journal of Algebra*, **172** (1995), 385-424.

“Graded Morita Theory for Infinite Groups” *Journal of Algebra*, **169** (1994), 552-586.

“A strongly Graded Ring That is Not Graded Equivalent to a Skew Group Ring” *Communications in Algebra*. **22** (1994), 4795-4800.

“On Gorenstein, Frobenius and Symmetric Orders: *NOVA Journal of Algebra and Geometry*. **2**, (1993).

“Primeness Conditions for Group Graded Rings” with Gene Abrams. Ring Theory, *Proceedings of the Biennial Ohio State-Denison Conference*, May 1992. S.K. Jain, S.Tariq Rizvi, ed. 1993. *World Scientific*, Singapore. 1-19.

“Characterizing the Dedekind-like Orders That are Bass” with Lee Klingler, *Proceedings of the Methods in Module Theory Conference*. Marcel Dekker, Inc., New York, 1993.

“The Pullback Structure of Blocks with Cyclic, Normal Defect Groups” with Lee Klingler. Infinite groups and group rings. *Proceedings of the American Mathematical Society Special Session at Tuscaloosa, Alabama*, 13-14 March 1992. J.M. Coprson, M.R. Dixon and F.D. Rohl, ed. *World Scientific*. 1993. Singapore.

“The Auslander-Reiten Quiver of Non-local Bass Rings” *Communications in Algebra*, **21** (1993), 483-509.

“Irreducible Maps of Commutative Rings” *Communications in Algebra*, **21** (1993), 445-481.

“Special Quasi-triads and Integral Group Rings of Finite Representation Type, II” with Lee Klingler, *Journal of Algebra*, **158** #2 (1993), 323-374.

“Special Quasi-triads and Integral Group Rings of Finite Representation Type, I” with Lee Klingler, *Journal of Algebra*, **158** #2 (1993), 279-322.

“Integral Representations of Finite Groups with Finite Representation Type” with Lee Klingler, Azumaya algebras, actions, and modules: *Proceedings of a conference in honor of Goro Azumaya's seventieth birthday*, Darrell Haile and James Osterburg, editors. *Contemporary Mathematics* (American Mathematical Society), **124** (1991).

“On Local Orders” *Journal of Algebra* **139** #1 (1991), 195-220.

“Local Orders Whose Lattices are Direct Sums of Ideals” *Transactions of the American Mathematical Society*, **321** (1990), 717-740.

“Tame Uniform Orders” *Communications in Algebra* **18** (1990), 2765-2782.

“On Gorenstein Orders” *Journal of Algebra* **132** (1990), 406-430.

“Direct Sum Behavior of Lattices Over Sigma-I Rings” *Journal of Pure and Applied Algebra* **51** (1988), 141-159.

“Commutative Orders whose Lattices are Direct Sums of Ideals” with L. Levy, *Journal of Pure and Applied Algebra* **50** (1988), 1-20.

RESEARCH CONFERENCES
CO-ORGANIZED

Symposium On Modules Over Non-unital Associative Rings (S.O.N.O.M.A.R.), University of Colorado at Colorado Springs, June 1997.

Abelian Group Theory, University of Colorado at Colorado Springs, August 1995.

Modules over Noetherian Rings - a conference in honor of the sixtieth birthday of Lawrence Levy, University of Colorado at Colorado Springs, October 1993.

Methods in Module Theory, University of Colorado at Colorado Springs, May 1991.

SELECTED PRESENTATIONS,
WORKSHOPS, AND
CONFERENCES

Presentation “Innovative Approaches for Homeland Security Education” at the 2007 National Homeland Defense Foundation Symposium, Colorado Springs, CO, October 2007.

Presentation “Building Strategic Partnerships” at the Colorado Springs Military Advisory Board meeting, Colorado Springs, CO, September 2007.

Industry Panel on Gender Equity in Engineering, (member) WEPAN conference, Pittsburgh, PA, June 2006.

On-going Planning Event committee member for Deans Summit III: An IEEE-sponsored conference for Deans of Engineering and Deans of Education. San Diego, CA, October 2005; Phoenix, AZ, February 2006; Arlington, TX, June 2006.

Participated in Eighth Annual Colloquium on International Engineering Education. Atlanta, GA, November 2005.

Various presentations at Ching Yun University (Taiwan) and Beijing University for Post and Telecommunications (China), June, 2005. Attended by invitation the Colorado Springs Chamber of Commerce annual trip to Washington, D.C. Washington D.C., February 2005.

Participated in Hispanics in Engineering National Conference. San Juan, Puerto Rico, October 2004.

Attended ASEE Leadership Workshop on K-12 Engineering Outreach. Salt Lake City, UT, June 2004.

Attended CASE "Development for Deans" conference. Seattle, WA, May, 2004.

Attended AUTM Annual Conference on Technology Transfer. San Antonio, TX, March 2004.

Attended TradeLines Conference on Academic Research Buildings. Hilton Head, S.C., November 2003.

Participated in WCET meeting. San Diego, CA, November 2003.

Numerous presentations in support of *Partners for Change*, a case statement for the Science and Engineering complex.

Attended ABET Deans Conference. Washington, D.C., July 2003

Presented at Integration of Learning Conference. Beaver Creek, CO, July 2003.

Deeper Learning: Stepping back 500 Years, a plenary presentation made to the University of North Carolina System Teaching and Learning with Technology Collaborative annual conference. Greensboro, NC, March 2003.

Technology Trends at CU Colorado Springs, Teaching with Technology Showcase, Colorado Springs, CO, August 2000.

The CU Online Mathematics Tutoring Project, Teaching with Technology Conference, Colorado Springs, CO, July 2000.

Multimedia presentation concerning distance learning and mathematics, *Mathematical Association of America*, Ft. Collins, CO, April 2000.

Invited talk, American Math Society Special Session on Representation Theory, Santa Barbara, CA, March 2000.

Multimedia presentation concerning distance learning and mathematics, American Mathematics Society Annual meeting, Washington D.C., January 2000.

Mathematics talk, Steele Elementary School, 3rd grade, District 11 Colorado Springs, CO, October 1999.

Multimedia presentation concerning distance learning and mathematics *Waterskiing in the Coralville Reservoir*, Presentation in front of McGraw-Hill, University of Colorado, Denver, CO, March 1999.

Multimedia presentation to University of Colorado Board of Regents, Boulder, CO, June 1999.

Multimedia Presentation at Colorado Conference of Teachers of Mathematics, October 1999.

Multimedia presentation concerning distance learning and mathematics, "The Bungee Jumping Approach to Using Technology in the Mathematics Classroom" Technology Award Luncheon, University of Colorado system, May 1998.

Invited Colloquia talk, "Hereditary Crossed Products", University of Southern California, April 1998.

Multimedia presentation concerning distance learning and mathematics, "... And with its Head, He Went Galumphing Back" University Club, University of Colorado at Colorado Springs, February 1998.

Paper and poster presented, Teaching with Technology conference "From Foundations to Best Practices: Teaching with Technology" Colorado School of Mines, July 1997.

Invitation to speak, American Mathematical Society Short Session, Joint American Mathematical Society, London Mathematical Society and the South Africa Mathematical Society, Pretoria, South Africa, June 1997.

Invited presentation, American Mathematical Society Short Session, California Technology Institute, Pasadena CA, November 1996.

Invited address (in Spanish), Universidad de Murcia, Murcia SPAIN, May 1996.

Invited talk, Ring Theory Conference, Universidad de Murcia, Murcia SPAIN, April 1996.

Invited colloquium presentation, Universidad de Murcia, Murcia SPAIN, February 1996.

Invited colloquium presentation, University of Thessaloniki, Thessaloniki

Greece, March 1996.

Invited colloquium presentation, Nicolas Copernicus University, Torun Poland, December 1995.

Invited colloquium presentation, University of Warsaw, Warsaw POLAND, December 1995.

Invited colloquium presentation, Centre de Recerca Matemàtica, Institut D'estudis Catalans, Barcelona SPAIN, November 1995.

Invited colloquium presentation, Universidad de Murcia, Murcia SPAIN, October 1995.

Invited presentation "Multimedia and mathematics" joint EDC and Executives Club Luncheon, Colorado Springs, CO, April, 1995.

Invited talk, American Mathematical Society Short Session, San Francisco CA, January 1995.

Invited talk, American Mathematical Society Short Session, University of Oregon, Eugene OR, June 1994.

Invited talk, Ohio State - Dennison Mathematics Conference, Granville OH, March 1994.

Invited talk, University of Tennessee Barrett Lectures, Knoxville TN, April 1994.

TEACHING EXPERIENCE

COURSES TAUGHT

College algebra, trigonometry, pre-calculus, business calculus, calculus, linear algebra, discrete mathematics, differential equations, senior-level abstract algebra, graduate level technology in the math classroom, graduate level linear algebra, graduate level algebra, readings and thesis courses.

STUDENTS SUPERVISED

Thesis supervision of Karen Smith, Master's in Basic Science, December 2000.

Thesis supervision of Patti Scriffiny, Master's in Basic Science, May 1999.

Reading course with Chris Noffsinger, Foundations of mathematics, Spring 1998.

Reading course with Shannon Michaux and April Pierce, Foundations of mathematics, Spring 1998.

Thesis supervision of Trae Holcomb, Master's in Applied Mathematics, August 1997. Joint paper published in Linear Algebra and its Applications.

High school student in a readings course of Mathematics 311, Number

Theory; mathematics major in a senior-level readings course in field theory; mathematics graduate student in a graduate-level readings course in module theory.

EDUCATIONAL TECHNOLOGY

Developed and implemented a 3-campus online mathematics tutoring program over the Internet. The CU Online Tutoring Project brought together four mathematics departments from CU campuses to deliver real-time mathematics tutoring to any CU student registered for a calculus or below mathematics class. Project funded by a two-year \$115,000 grant from the CU System. Please see the website at <http://onlinetutor.cu.edu/>. Co-Developed *Mathonline*, a distance learning program offered through the Mathematics Department at the University of Colorado at Colorado Springs. This program offers live and archived lectures with audio and whiteboard feeds via the Internet. Created the online version of Mathematics 112 - Calculus for Business and Economics and Mathematics 313 - Linear Algebra. For more details about *Mathonline*, please see the website: <http://mathweb.uccs.edu/mathonline/>

Developed CATME to promote technology in mathematics education and to provide training to our students on the use of technology in mathematics education. CATME offers a certificate program to train local area mathematics instructors on the pedagogy and use of technology in the mathematics classroom. Developed Mathematics 410/510 - Technology in Mathematics Education (now in its sixth summer), Mathematics 405/505 - Applications in Mathematics Education, and Mathematics 411/511 - Seminar in Applications and Technology in Mathematics Education. See: <http://mathweb.uccs.edu/catme/>

Developed and presented (with G. Abrams, J. Daly, and A. Putnam) SPECTRUM 2000 workshop to train K-12 teachers on the use of applications and technology in the mathematics classroom, Colorado Springs, CO, June 2000.

Developed and presented (with G. Abrams) SHOWME '99 workshop on the use of applications and technology in the mathematics classroom, Phoenix, AZ, June 1999.

Developed and presented (with J. Daly, A. Putnam) 1997 Teacher Workshop on Statistics, Colorado Springs, CO, June 1998.

Participated in the Mathematical Association of America *Presenting Mathematical Concepts on the World Wide Web*. This course for credit was offered entirely over the Internet between the dates of 14 July 1997 and 1 August 1997. Students developed Internet classroom projects involving Mathematics.

Attended various UCCS Faculty Development workshops concerning on-line courses and distance learning.

Presented a variety of lectures and workshops on integrating technology in the mathematics classroom.

Developed the initial web home pages for the UCCS Mathematics Department for the purpose of disseminating information about the department. 1994.

Webmaster for Department of Mathematics since 1998.

All course materials have been online since 1996.

SERVICE EXPERIENCE

PROFESSIONAL SERVICE

Curriculum Consultant: Academy School District 20, Colorado Springs.

Manuscript reviewer: Journal of Pure and Applied Algebra, Linear Algebra and its Applications, Mathematics Review, Communications in Algebra, Journal of Algebra, The Canadian Journal of Mathematics, The Canadian Bulletin of Mathematics, the National Science Foundation and the UCCS School of Education.

Committees: Undergraduate Curriculum; Classified Research; Calculus Reform; Computer; Intercollegiate Athletic Advisory; Undergraduate awards; Math Major Advising; Graduate Student advising; Discrete Mathematics Book Selection; Masters Thesis Review; Colloquium Chairman; Graduate Committee; Primary Unit Evaluation Committee; Recreation Advisory Board; International Task Force committee.

Projects: L.I.N.C. (Learning In the Next Century)—a campus committee to develop a multimedia connection between UCCS and local schools and businesses. Presented at the joint EDC and UCCS Executives luncheon, April 5, 1995.

CAMPUS SERVICE

- EAS College Executive Team (1998-present)
- Campus Executive Team (2001 - 2002)
- Web Advisory committee (2000-2002)
- IT Council; Student Technology Fee Committee (2000-2002)
- Teaching and Learning Center Advisory board (2000-2002)
- Engineering building advisory committee (2000)
- Recreation Advisory board (1998-1999)
- Campus Awards Committee (1998-1999)
- Undergraduate Curriculum (1995-1998)
- Classified Research (1990-1999)
- Calculus Reform (1993)
- Computer Committee (1992-1997)
- Intercollegiate Athletic Advisory (1992-1995)
- Undergraduate awards (1994)
- Math Major Advising (1990)
- Graduate Student advising (1991-1993)
- Discrete Mathematics Book Selection (1993)

CELEBRATE TECHNOLOGY
BOARD

Celebrate Technology is a state-wide event that celebrates technology through an annual dinner and awards banquet, 2003 – present

NSSTI BOARD

National Space Science & Technology Institute, 2003 – present

ROCKY MOUNTAIN
TECHNOLOGY ALLIANCE

Founder and host institution. Economic gardening board in support of three constituents: education; industry and government, 2005 – present