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Education

- **M.S. Mathematics**, Texas A&M University, 1994
- **B.S. Mathematics** (Cum Laude), University of Houston, 1992

Academic Experience

- **2013 - present:** Instructional Assistant Professor, Department of Mathematics, Texas A&M University
- **1998 - 2013:** Senior Lecturer, Department of Mathematics, Texas A&M University
- **1994 - 1998:** Lecturer, Department of Mathematics, Texas A&M University
- **1994 - 2005:** Instructor, Blinn College
- **1992 - 1994:** Graduate Teaching Assistant, Department of Mathematics, Texas A&M University

COURSES TAUGHT

- **Math 151:** Engineering Calculus I - Vectors in two dimensions, differentiation and integration of functions of one variable, and applications.
- **Math 152:** Engineering Calculus II - Differentiation and integration techniques and their applications, improper integrals, analytic geometry, vectors, infinite series, power series, Taylor Series, computer algebra (matlab, python).
- **Math 251:** Engineering Calculus III - Calculus operations on vector valued functions, calculus operations on functions of several variables, Fundamental Theorem of Line Integrals, Green's Theorem, The Divergence Theorem and Stokes' Theorem.
- **Math 171:** Calculus I for Math Majors - Vectors in two dimensions, differentiation and integration of functions of one variable, and applications, epsilon/delta proofs.
- **Math 172:** Calculus II for Math Majors - Differentiation and integration techniques and their applications, improper integrals, analytic geometry, vectors, infinite series, power series, Taylor Series, computer algebra (matlab, python)
- **Math 131:** Calculus for Biomedical Sciences - Limits and continuity, rates of change, differentiation, maxima and minima, integration, curve fitting.

Curriculum Development

- Development of online lecture notes - Authored content for Math 151, 152 and 251, with solutions, and made them available for all faculty, specifically new faculty, to use as a guide as they develop their own course.
- Authored sample exams for Math 142 (2017) - In this capacity, I wrote a 75 minute exam and a 50 minute exam for each of the three major 142 exams, with solutions.

- Authored web materials for Math 151 (2018) - In this capacity, I co-authored content for Math 151 to enhance student learning.

- Development of streaming videos for Math 151 - In this capacity, I authored and produced weekly streaming videos for Math 151 content, accessible for all students enrolled in the course. In addition, I also authored and produced sample exams for the three common exams.

- Development of streaming videos for Math 152 - In this capacity, I authored and produced weekly streaming videos for Math 152 content, accessible for all students enrolled in the course. In addition, I also authored and produced sample exams for the three common exams.

- Development of streaming videos for Matlab - In this capacity, I authored and produced weekly streaming videos for matlab, accessible for all students taking a class that uses Matlab. I introduced the code necessary to do the assigned Matlab for the following week, along with examples.

- Co-Author of WebAssign problems and solutions for the Personalized PreCalculus Program (PPP) - In this capacity, I wrote problems and coded solutions for students enrolled in the Personalized PreCalculus Program, which is a three week, fully online program designed to improve the success rates of prospective students who will be taking a calculus course at A&M.

- Development of Learning Outcomes for Engineering Calculus - Learning outcomes are a standard list of outcomes students must have mastered coming out of Engineering Calculus. These learning outcomes are posted on the course syllabus.

- Member, Committee for the redesign of Engineering Calculus I and II Recitation - In this capacity, I led a change in the way recitation had been conducted in Math 151 and Math 152. Each week, I authored a set of questions and solutions over material covered the previous week. During all recitation periods, students would split into groups of 4 to work on the assignment, which was due at the end of class. As a result, attendance improved, and a survey of students showed students learned more and felt better prepared for the common exams. Detailed solutions were provided for feedback. During the Matlab hour, students had a short quiz at the beginning of class that covered the previous weeks assignment.

- Development of Just in Time (JIT) curriculum for Personalized PreCalculus Program (PPP) geared for student success in Engineering Calculus (2012) - In this capacity, I piloted a program called Just in Time where students enrolled in our PPP program were invited to attend a weekly review session, conducted by me. I developed specialized problem sets which we worked once a week for 2 hours.

- Workshop coordinator for iLearn (2004-2005) - iLearn was an online homework system used in our Engineering Calculus sequence. I conducted a workshop for the faculty and TA's to learn the system before the start of the semester.

- Member, Committee for the redesign of Calculus III - In this capacity, I helped redesign the course schedule to better prepare our students for future classes.

- Author of Credit by Exam for Calculus I

- Co-author for Calculus Placement Exam (2010) - I was a co-author for the placement exam used for students to be placed into Calculus I. Statistically, it proves to be a good indicator for success in Calculus I.

- QA online assessment problems with ThomsonNow (currently known as CengageNow) (2004-2006) - In this capacity, I was tasked to Q/A questions coded in CengageNow for Calculus I and II. These questions are currently used in our WebAssign classes for engineering calculus.

- Author for BCA, an online assessment program - In this capacity, I authored questions to be used in the online homework system known as BCA.

Funding

- National Science Foundation: “Retention Through Remediation: Enhancing Success in Calculus I”, PI: G. Donald Allen, \$1,148,887. 2009-2014 - My responsibilities included authoring problems for students to work online to assess their progress and to enhance their learning of Precalculus.

- “TAMU STEPS” Retention Through and Applied Physics, Engineering, and Mathematics Model, CO-PI: M. Pilant, \$2,000,000. 2003-2008

- “Pre-calculus Practices Good Teaching” Teacher Quality Grant, TEA, THECB, PI: G. Donald Allen, 2004

University Service

- Member, Honor Council (2009 - 2010) and (2016 - present) - As a member of the Honor Council, I participate in investigations and/or hearings. As an investigator, myself and the selected student honor council member meet with the faculty reporter and alleged violator. At the completion of this meeting, a report is compiled and is included in the case binder used by the hearing panel. As an honor council member, I participate in or chair the honor panel hearing where we listen to the case presented and decide whether enough evidence exists for an honor violation, and if so, what sanction will be applied.

- Co executed The Geosciences Academic Preparation (Fall 2017-present) - Students entering the college of Geo Sciences are invited to sign up for a 2 day orientation during FOW. I was asked to present a talk on how to succeed in calculus for engineers. In addition to preparing and disseminating materials on sources of help, we discussed how to succeed in college in general, by learning to how to master time management skills. During the second part of part the afternoon, I designed a game which involved a 'skills check' on how prepared students are entering Math 151.

- Corps of Cadets Academic Mentor (Fall 2006 - Spring 2015) - I was a Corps Academic Mentor for Squadron 23. In this capacity, I met with the freshmen of the outfit weekly and attended most outfit barbecues during a home game weekend. I also was a point of contact for the parents of the freshmen. Even though this program was discontinued, I unofficially continued my role as needed.

- Volunteer, SQ 23 Tutor - From Fall 2006 - Spring 2015, I met with the students in the outfit weekly to help with math homework, ranging from Precalculus to Calculus III. Even though this program was discontinued, I unofficially continued my role as needed.

- Volunteer, Big Event (Spring 2013, 2014 and 2015) - In this capacity, I volunteered to participate in the Big Event, which is a University wide one day student-run service project.

- Volunteer, Leaders in Freshman Engineering Final Review - In this capacity, for dozens of semesters, I was invited to conduct a final exam review session for all students enrolled in Calculus I (during the Fall semesters) and Calculus II (during the Spring semesters).

- Member, Mathematics and Engineering Student Success Committee (2005) - In this capacity, I was the point of contact for the math department in ensuring the success of students taking Math 151/152. I reported what students shared about what was most helpful in their engineering, physics, and math courses. I met regularly with a representative from the department of engineering and a representative from the department of physics.

Departmental Service

- Member, APT faculty mentoring program (Spring 2021) - In this capacity, I am charged with mentoring two instructors at the lecture/senior lecture rank. This program is a work in progress. I have met with the instructors and offered to be a resource for them, and I plan to check with them several times throughout the semester.

- Member, Awards Committee (Fall 2020-present) - My purpose in serving on this committee is to advocate for the APT that are worthy of service, mentoring, or teaching awards. I also advocated in helping the committee realize how certain members of the APT were absolutely instrumental in the move to online teaching during Spring 2020. In addition, I am responsible for writing and/or proof reading various letters of support for the candidates.

- Member, Academic Professional Track Committee (2016-2018) - As a member of the APT, we met weekly to discuss the evaluation of the Lecturers, Senior Lecturers and Instructional Assistant Professors. Part of our responsibility included classroom visitation, reading annual reports, reading of student evaluations, and compiling numerical data from student evaluations.

- Mentor, new faculty: In this capacity, I continue to volunteer to help new faculty with the technology available to them, offer my lecture notes as a teaching resource, and offer to assist them with writing an exam or proof reading their exam. I am also resourceful in assisting faculty with how to handle honor violations.

- Course Coordinator, Math 151 - Duties include, but are not limited to, organizing a meeting at the beginning of the term for all faculty teaching the course to discuss the syllabus and course policies, writing the common exams and solutions, and compiling data on each common exam and the end of semester grades.

- Course Coordinator, Math 152 - Duties include, but are not limited to, organizing a meeting at the beginning of the term for all faculty teaching the course to discuss the syllabus and course policies, writing the common exams and solutions, and compiling data on each common exam and the end of semester grades.

- Course Coordinator, Math 251 - Duties include, but are not limited to, organizing a meeting at the beginning of the term for all faculty teaching the course to discuss the syllabus and course policies, proof reading and approving each exam, and compiling data on each exam and the end of semester grades.

- Co-coordinator of common exam grading, Math 152 - Duties include writing a rubric for faculty and graders to follow and organizing and implementing a common grading session for all. This includes training the graders on the rubric and often times back read for consistency.

- Week in Review, Math 151 - Each week, I would author a sample set of questions and solutions which cover concepts taught the previous week. These reviews were open to all students taking the course and proved to be an effective added resource for success.

- Week in Review, Math 152 - Each week, I would author a sample set of questions and solutions which cover concepts taught the previous week. These reviews were open to all students taking the course and proved to be an effective added resource for success.

- Week in Review, Math 251- Each week, I would author a sample set of questions and solutions which cover concepts taught the previous week. These reviews were open to all students taking the course and proved to be an effective added resource for success.

- Math Learning Center Week in Review - Each week, I would author a sample set of questions and solutions which cover taught covered the previous week. These reviews were open to all students taking the course and proved to be very helpful.

- Chair, Advisory Committee to the Lecturer Core Committee

- Chair, Subcommittee L - As the chair of Subcommittee L, I was responsible for scheduling promotion talks for those that were advancing from Lecturer to Senior Lecturer. In addition, I wrote letters of support for the candidates being considered for promotion and mentored them as necessary.

- Co-coordinator, Integral Bee

- Volunteer, Derivative Bee

- Member, Electronic Homework Policy Committee - Duties include selecting online homework questions

for use in the engineering calculus sequence, as well as troubleshooting system grading errors.

- Member, Help Session Selection Committee - Duties included writing questions to be asked during the interview for the class in which they are applying, participating in the interview process, and selecting the most suitable student for the course.

Presentations

- Presentation on “How to succeed in Math at Texas A&M University” (with Kathryn Bollinger). Geosciences Academic Preparation Program

- Conference talk, University of Illinois: The use of iLearn in engineering calculus. Funded by Thompson Learning.

- Attended the Disability Services Open House (2014)

- Attended the Advance Womans Faculty Retreat (2014)

- Volunteer Speaker during New Student Conference Week (2012) - I volunteered to speak with incoming students, in a large group setting, on how to succeed in Engineering Mathematics.

External Activities

- AP Calculus Grader (2012-2014, 2016-2019) - During the month of June, thousands of AP Calculus graders would gather for 7 days to grade the Advanced Placement Exam taken by students seeking college credit for Calculus.

- Text Book Review (2017) - Reviewed Stewart Calculus ET, 9th Edition, Cengage Learning

Awards, Honors, Recognitions

- Corps Academic Mentor of the Year, 2015

- Honorary Guest Coach for Men’s Texas A&M Basketball, 2013 - This was an academic mission of the Athletic Department to open communication between instructors and their student athletes by inviting instructors to athletic events of their students.

- Honorary Guest Coach for Women’s Texas A&M Basketball, 2011 - This was an academic mission of the Athletic Department to open communication between instructors and their student athletes by inviting instructors to athletic events of their students.

- Outstanding Teaching Award, Texas A&M University, Department of Mathematics, 2010

- Student Led Award for Teaching Excellence, 2010

- Physicians Centre Hospital Honorary Guest Coach for Texas A&M Baseball, 2010 - This was an academic mission of the Athletic Department to open communication between instructors and their student athletes by inviting instructors to athletic events of their students.

- Student Led Award for Teaching Excellence, 2009

- Guest for Century Scholars Dinner, 2008 - Invited by my student to be a guest at a dinner prepared by the Century Scholars themselves, with a theme of international cuisine.

- Guest for Society of Women Engineers - Invited by The Society of Women Engineers to be a guest at a dinner prepared by the students. The mission is to stimulate women to achieve their full potential in careers as engineers and leaders, expand the image of engineering professions in careers as engineers and leaders, and demonstrate the value of diversity.

- Distinguished Achievement Award from the College of Science (Association of Former Students), 2006
- Corps Academic Mentor of the Year, 2006
- Recognition of appreciation by Texas A&M Corps of Cadets, 2002
- Fish Camp Namesake, 2001
- Outstanding Teaching Award, Texas A&M University, Department of Mathematics, 1997
- Outstanding Graduate Teaching Assistant (Houston Mothers Club), Texas A&M University, 1994