Shelley A. Lenahan

Curriculum Vitae

Contact Information

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Education

- Master of Science, Mathematics
  Texas A&M University, December 2001
- Bachelor of Science, Applied Mathematical Sciences
  Texas A&M University, May 2000

Teaching Experience

- The University of Alabama in Huntsville, Huntsville, AL
  - Senior Lecturer, Spring 2019 - Present
  - Lecturer, Fall 2004 - Spring 2019
    - Course Coordinator, 2016 - present
      MA 113: Pre-Calculus with Trigonometry
      MA 115: Pre-Calculus Algebra & Trigonometry
      MA 120: Calculus with Applications
      MA 105: Nature of Mathematics
    - Director, Mathematics Learning Center, 2004 - 2015
    - Course Coordinator, Math 004: Basic Algebra, 2004 - 2014
    - Courses Taught: **(o)** *also taught online*
      - Math 107: Algebra with Applications
      - Math 110: Finite Mathematics
      - Math 112: Pre-Calculus with Algebra
        (Interim Course Coordinator, Fall 2010)
      - Math 113: Pre-Calculus with Trigonometry **(o)**
      - Math 115: Pre-Calculus Algebra & Trigonometry
      - Math 120: Calculus with Applications
      - Math 171: Calculus A
      - Math 172: Calculus B **(o)**
      - Math 172H: Calculus B Honors
      - Math 244: Linear Algebra **(o)**

Synergistic Activities

- Course Videos Creation and Curation, Fall 2020
  Since my classes moved online due to the global COVID-19 pandemic, I created my own videos for my asynchronous course and curated videos from around the web for my synchronous courses. This included recording short topic videos with Panopto and Smart Notebook, or giving students an overview of the notes for an upcoming class.
- Online Course Development, Summer 2019
  MA 113: Precalculus Trigonometry
  Beginning Fall 2019, 32 students enrolled in the online section, and the online section continues to be offered alongside traditional sections of the course.

- Scholar's Institute Presenter, May 2019

  "Using Desmos &Geogebra Interactive Websites in Calculus and Pre-Calculus Courses"

  This session was for anyone teaching college level Mathematics courses. We demonstrated how students can use Desmos and Geogebra (free, web based resources) on their laptops during class time to gain hands on experience with graphing geometric figures in 2D and 3D. Specifically, how does a graphical study of ellipses and ellipsoids give students intuition about such topics as vertices, shape, area, arc length, optimization and 3D applications. We also discuss how to make time in your course schedule to allow for doing lab work during class time, and student feedback from these labs.

- Precalculus Trigonometry Labs, Spring 2019

  I created several labs for students to complete during recitation (one 55 minute meeting per week). These labs were designed to reinforce topics from the lecture and create "aha" moments. The labs were collaborative and a hands-on approach for students to learn how trigonometry is all around them in everyday life. Examples include making a clinometer to find the height of an object on campus, discovering radians with a protractor and compass, creating an artistic piece using conic sections in Desmos, and gaming with other students in Polar Coordinate Battleship.

- Refresher Workshop Instructor, Fall 2018

  For Calculus A students who earned $< 70\%$ on Test 1, a workshop was held to refresh trigonometry and algebra concepts. Five sessions were led by UAH math faculty along with PASS leaders. Over the course of 3 hours, students worked problems and listened to study skills strategies. During the following week, students took Test 1 again to attempt a better grade. Of those students, 77% achieved a higher score.

- Passageway to Academic Success - Discussion Facilitator, February 2018

  Invited by the Office of Diversity and Multicultural Affairs to help students get motivated and organized before midterm exams and finals. An informal talk led to round table discussion and development of strategies to be successful in math classes.

- Presenter at Passageway to Academic Success Empowerment Summit - September 2017

  Topic: Mind over Math - spoke on the common pitfalls students make in math classes and some strategies to improve them.

- Curriculum Development with the College of Business, Fall 2017

  College of Business Associate Dean Mackenzie and Economics, Accounting & Finance Department Chair Wilhite approached the math department about redesigning MA 120, then known as Calculus with Applications. The course name was changed to Math with Professional Applications, and special attention was given in selecting topics needing more emphasis to serve the needs of business students better. The course began Fall 2017. Comparisons from Fall 16 to Fall 17 and Spring 17 to Spring 18 enrollments show about a 6% average increase.

- Collaborative Learning and Calculus Labs, Fall 2015

  Implemented the collaborative learning model in all classes taught beginning Fall 2015
  Students are put into groups with a mixture of levels of success in the course (usually determined by test grades). A day of collaborative learning is used in 4-day per week classes, while collaborative learning is used every day in 2-day per week classes.

  Calculus A and Calculus B classes work labs, including giving a lab report, to highlight a concept not yet covered in class or to highlight a specific idea from lecture. The labs are done in the classroom with a laptop or other electronic device capable of getting to the internet. Students utilize Desmos.com or WolframAlpha.com in a typical lab.

- National Science Foundation-Improving Undergraduate STEM Education Proposal

  "The Language of Math (Instruction)"

  - Denied October 2015
  - Co-Principal Investigator
  - Collaborating with Dr. Andrea Word-Allbritton, Dr. Luciana Findlay, and Dr. Terri Johnson from University of Alabama in Huntsville and Dr. Geneviéve Boulet from Mount Saint Vincent University

- Refresher Workshops, Summer 2014 & Spring 2015

  Created with the Student Success Center, two workshops were offered to refresh skills needed for students entering trigonometry or calculus. Three sessions for each course were offered at varying

times. The workshops were hands-on and not a lecture style class. Students were able to ask questions and work many problems during the sessions.

- Curriculum Development with the Dean of the College of Science and the Student Success Center, Spring 2014

  Developed a pilot course at the request of the Dean of the College of Science. This course is designed for students who place at level 0 (below college level mathematics) and need intensive remediation. The course is MA 107L, Math with Applications I, and contains the content of MA 107, but will have "just in time" remediation to hone skills needed from remedial mathematics. The students attend traditional lecture three days per week and tutoring/remediation two days per week.

Professional Development

- Webinar, Strategies for Success: Engaging Students Online, presented by Every Learner Everywhere, January 2021
- Completed Quality Education Practices Online course, 2020
- Faculty Teaching Workshop, Utilizing Effective and Creative Tools in the Classroom, with a Particular Emphasis on Collaborative Learning, August 2019
- Math Department Faculty Colloquium, Four Steps to Discussion-Based Problem Solving, August 2019
- College of Science Faculty Workshop, Best Practices for Persistence & Retention, April 2019
- Math Department Faculty Workshop, Best Practices in Teaching Science and Mathematics, April 2019
- Collaborative Learning Workshop, Moving to Best Practice with TodayÕs Students: A Collaborative Learning Approach with Mark Taylor of Arkansas State University, 2018
- Training to support students in distress with Dr. T.J. Brecciaroli, Dean of Students, 2018
- Annual AACTM Meeting, Jacksonville State University, 2018
- Faculty Safety Training, policies and procedures related to emergency preparedness and armed intruder response, 2017
- Instructor Workshop, Collaborative Learning Activities in the Classroom with Derek Bruff of Vanderbilt University, 2017
- Disability Support Services and Testing Services, Student Accommodations and Resources Available to Instructors for Testing, 2017
- Collaborative Learning Workshop, UAH Collaborative Learning Center, 2016
  -Techniques for Collaborative Learning in the Classroom
- Scholar's Institute, UA System, 2013-2016
- Innovative Educators Webinar - Best Practices in College Teaching, 2012
  -Creating an Active Learning Environment
- Pearson Education's Course Redesign Conference, 2010

Service

- Lecturer Reappointment Sub-committee, 2020 - present
- Math Department GTA Training Coordinator, 2020 - present
- Lecturer Search Committee Member, 2019
- Faculty Sponsor for Research and Creative Experience for Undergraduates (RCEU) Grant, 2019

  (project chosen for funding but student recanted)
- Curriculum Committee Member, Department of Mathematical Sciences, 2018 - present
  - Curriculum Committee Chair, 2020 - present
- Session Leader, UAH's Girls in Science and Engineering Day, 2018
- Mentor, Department of Mathematical Sciences, 2016 - present
  -For students who have declared Mathematics as their major

- Departmental Coordinator for District AACTM Competition, 2016 - present
  (AACTM - Alabama Association of College Teachers of Mathematics)
- Tutoring Blitz Volunteer for the Student Success Center, 2015 - present
- Committee Member, Part-time Instructor Selecting Committee, 2015 - present
- Faculty Mentor, Office of Diversity and Multicultural Affairs, 2014-present
  (formerly Undergraduate Minority Mentoring Program)
- Week of Welcome Volunteer, 2011 - present
- Director, Math Learning Center, 2004-2015
- Foundations Task Force Committee, 2014-2015
- Charger Union Study Zone Volunteer, 2014-2015
- General Education Requirement Steering Committee, 2013-14
- Faculty Sponsor for Research and Creative Experience for Undergraduates (RCEU) Grant, 2013
- College of Science Open House Volunteer
- COMPASS Orientation Placement Testing - Technical and Instructional Support
- LSAMP - Louis Stokes Alliance for Minority Participation - Judge for 2008 AASTEM Executive Committee Meeting and Scholars and Fellows Conference