

Vanessa Coffelt

Lecturer, Mathematics Department

Education

M.S. in Mathematics, Kansas State University, 2005

B.S. in Secondary Education, Concentration in Mathematics, Concordia University, NE, 2000

Experience

Aug. 2018 – Present, Lecturer, Texas A&M Mathematics Department

Aug. 2016 – July 2018, Bryan Mathematics Department Head, Blinn College

2008 – 2018, Full-time Mathematics Instructor, Blinn College

2007 – 2008, Part-time Mathematics Instructor, Blinn College

2007 – 2008, High School Mathematics Teacher, Navasota High School

2005 – 2007, Center Director, Sylvan Learning Center, Brenham

2004 – 2005, Part-time Mathematics Instructor, Highland Community College

2003 – 2005, High School Mathematics Teacher, Wamego High School

2001 – 2003, Graduate Student and Teaching Assistant, Kansas State University

2000 – 2001, High School Mathematics Teacher, Luther High School North

Recent Courses Taught

In April 2019, I agreed to work on an Enhancing the Design of Gateway Experiences (EDGE) Grant with Jennifer Whitfield. As part of the grant, I have taught Math 140 exclusively since Fall 2019.

Spring 2021

MATH 140 – Mathematics for the Business and Social Sciences (2 sections with TSI and 1 jumbo section/ 420 students), synchronous online

Math 140 consists of application of common algebraic functions, including polynomial, exponential, logarithmic and rational, to problems in business, economics, and the social sciences; includes mathematics of finance, including simple and compound interest and annuities; systems of linear equations; matrices; linear programming; and probability, including expected value. TSI is the Texas Success Initiative, which requires students to be co-enrolled in a credit-bearing mathematics course and a supplemental student success course. The supplemental success course is designed to provide foundation materials. The one jumbo section taught this semester was turned over to me midsemester by another instructor who was unable to finish the semester.

Fall 2020

MATH 140 – Mathematics for the Business and Social Sciences (2 jumbo sections with TSI/ 450 students), hybrid

Due to COVID and classroom distancing, classes was conducted via Zoom and in-person simultaneously. Students were assigned one day that they could attend in-person and the other class day they were required to attend online. Many students chose to attend online only. To engage both online and in-person students the courses were flipped. Students watched closed caption videos, developed by the instructor outside of class and during class they would work in breakout rooms online or in-person, socially distanced groups on a group assignment over the material covered in the videos.

Spring 2020

MATH 140 – Mathematics for the Business and Social Sciences (2 jumbo sections with TSI/ 500 students) in-person and online

The course began in-person with standard lectures. The department used tested the idea of common exams for all MATH 140 students this semester. Then in March, COVID forced all courses to move online. The course changed to asynchronous with the use of closed-captioned lecture videos, weekly discussion forums, and weekly online quizzes. All materials including exams were administered via the learning management system.

Fall 2019

MATH 140 – Mathematics for the Business and Social Sciences (2 jumbo sections/ 600 students)

Spring 2019

MATH 147 – Calculus I for Biological Sciences (1 lecture section/ 100 students)

Math 147 is an introduction to differential calculus in a context that emphasizes applications in the biological sciences.

MATH 150 – Functions, Trigonometry, and Linear Systems (3 lecture sections/ 275 students)

Math 150 consists of graphs, functions, college algebra and trigonometry, linear systems and vectors.

Fall 2018

MATH 147 – Calculus I for Biological Sciences (1 lecture section/ 75 students)

MATH 150 – Functions, Trigonometry, and Linear Systems (3 lecture sections/ 360 students)

Courses Taught at Blinn College

MATH 0308 – Pre-Algebra with Lab

MATH 0309 – Pre-Algebra without Lab

MATH 0310 – Beginning Algebra

MATH 0312 – Intermediate Algebra

MATH 1314 – College Algebra

MATH 1316 – Plane Trigonometry

MATH 1324 – Mathematics for the Business and Social Sciences

MATH 1325 – Calculus for Business and Social Sciences

MATH 1332 – Contemporary Mathematics

MATH 1342 – Elementary Statistical Methods, asynchronous online, blended, and in - person

MATH 1350 – Mathematics for Teachers I (Fundamentals of Mathematics I), asynchronous online and in - person

MATH 1351 – Mathematics for Teachers II (Fundamentals of Mathematics II), asynchronous online and in - person

MATH 1414 – College Algebra for Engineers

MATH 2412 – Pre-Calculus Math

MATH 2413 – Calculus I, asynchronous online and in - person

MATH 2414 – Calculus II

MATH 2415 – Calculus III

Recent Honors and Awards

Spring 2021 – Outstanding Service Award, Department of Mathematics, Texas A&M University
“In recognition to her continuous availability to help and support the transition to online learning.” – Mathematics Department Awards Committee

Departmental Service Activities

Summer 2021 – Present

- Program Co-Coordinator for Undergraduate and Graduate Mathematics Programs with Angie Allen, writing Academic Programming Assessments for each of the three undergraduate programs and three graduate programs in the department

Spring 2021

- Provided technology support to faculty, with Justin Cantu, by creating trainings about Canvas, Gradescope, Honorlock, and eCampus. Held weekly hours to answer questions regarding technology used in teaching online.
- Assisted in hiring and scheduling Business Math Teaching Assistants (BMTAs)

Fall 2020

- Provided technology support to faculty, with Justin Cantu, by creating trainings about Zoom, eCampus, and Gradescope (Ben Lynch). Held weekly hours to answer questions regarding technology used in teaching online. Set up and moderated weekly forums for instructors to share their experiences in teaching online.

Spring 2020

- Created online materials, including closed-captioned lecture videos (I captioned the videos myself), discussion forums, and weekly course modules, for all MATH 140 Spring sections when all courses went online.
- Co-mentored 2 graduate students in teaching MATH 140

Fall 2019

- Proctored Make-up Exams for the Mathematics Department
- Mentored a graduate student and a new APT faculty member in teaching MATH 140

Spring 2019

- Proctored Make-up Exams for the Mathematics Department
- Helped with the Math and Stat Fair

Fall 2018

- Proctored Make-up Exams for the Mathematics Department

Committees

May 2021- present

Member of the College of Science Canvas Support Team

The team was created by the dean of the College of Science to support faculty in the transition to a new learning management system, Canvas. Held training throughout the summer both in-person

and via Zoom. Answered questions addressed by faculty using a ticket system that was developed for the College of Science.

Spring 2021

Member of the TAMU Polling/Student Response Systems Task Force

The task force was created by the Teaching and Transformative Learning Technologies Committee. The purpose of the task force was to make a recommendation to the university about a university-wide student response system. The task force was disbanded by Academic Innovation after three preparation meetings; thus no products were investigated and no recommendation was made.

Fall 2019 – June 2021

Member of the TAMU Mathematics Department APT committee

The academic professional track committee reviewed and made suggested changes to the newly adopted department promotion guidelines. I reviewed the annual performance evaluations materials (including student evaluations and faculty annual reports) for 12 faculty members and presented a summary to the committee. The committee met each week during the spring semester. The committee discussed the annual performance evaluations of 27 faculty members and provided a recommendation, with supporting documentation, to the Assistant Head for Academic Professional Track Faculty on each faculty members' performance appraisal ranking.

Scholastic Activity

University/Local (Grants)

Whitfield, J. (PI), Texas A&M University, Open Education Resource Grant, Widening Access for all Students in MATH 140 and MATH 142 with Low- or No-cost Open Education Resources, \$100,000, June 2019 – May 2022. Senior Personnel: Allen, A., Bollinger, K., **Coffelt, V.**, Kilmer, K., Lynch, R., Orchard, P., Shields, S.

This grant was funded by the Provost Office at Texas A&M University for the creation of two open education textbooks; Mathematics for Business and Social Sciences and Calculus for Business and Social Sciences. My contributions were to align University student learning outcomes for MATH 140 with state student learning outcomes for MATH 1324, developed section student outcomes and section performance indicators for MATH 140, co-author the Mathematics for Business and Social Sciences text, and assisted in the design of both textbooks. I also aided in the creation and development of online homework problem sets.

Whitfield, J. (PI), Texas A&M University, Enhancing the Design of Gateway Experiences (EDGE) Grant, Increasing Student Success in Gateway Courses for the Applied Calculus Course Sequence, \$290,500, January 2019 – May 2022. Senior Personnel: Allen, A., Bollinger, K., **Coffelt, V.**, Orchard, P., Shields, S.

This grant was funded by the Provost Office at Texas A&M University for the creation of supplemental materials for gateway courses, MATH 140 and MATH 142. My contributions were to co-author lecture notes as a companion to the MATH 140 OER textbook (both student and instructor versions), checkpoint for understanding questions, activities to promote active learning, created practice exams for students, and a core-curriculum assignment for MATH 140. I also created course videos to be viewed by all MATH 140 students.

Conference Presentations

Shields, S., Allen, A., Bollinger, K., **Coffelt, V.**, Herbert, B., Orchard, P., & Whitfield, J. (2020, November). *Customizing Textbooks without Publishers: Empowering MATH Faculty to Create an Open Educational Resource (OER)*. Presented as a 10-minute asynchronous Lightning Talk at the 2020 Open Education Conference.

<https://www.youtube.com/watch?v=qRgh911qtPs&t=27s>

This presentation described how Texas A&M organizations partnered and supported a team of Mathematics faculty in authoring two OERs, identifying specific strategies and lessons learned regarding faculty support in authoring new OERs and describing how the project directly supports Texas A&M's Student Success Initiative.

Shields, S., Allen, A., Bollinger, K., **Coffelt, V.**, Orchard, P., Whitfield, J., Scott, T., & Oswald, E. [TAMU Math Department]. (2020, October 30). *OpenSource TAMU Final* [Video]. YouTube. <https://www.youtube.com/watch?v=qRgh911qtPs&t=27s>

Whitfield, J., Shields, S.M., & Herbert, B. (2020, September). *Customizing textbooks without publishers: Empowering MATH faculty to create an open educational resource (OER)*. Presented via Zoom at the 2020 Texas A&M Chancellor's Summit on Academic Technology. Contributing Presenters: Allen, A., Bollinger, K., **Coffelt, V.**, Orchard, P. This presentation overviewed the process a faculty group from Texas A&M's Department of Mathematics (MATH) is using to create OER materials, focusing on the discovery, curation, and implementation of OERs to make two courses more engaging and inclusive by opening free access to high-quality materials aligned with course outcomes.

Allen, A., Bollinger, K., **Coffelt, V.**, Herbert, B., Orchard, P., Shields, S., & Whitfield, J. (2020, April). *Opening the Door to Math: Making Math Accessible Through Open Education Resources*, TAMU Transformation Teaching & Learning Conference (TTLC), College Station, TX. (Conference cancelled because of COVID)

Coffelt, V. (2016, November). *Elevating Expectations*, 40th American Mathematical Association of Two-Year Colleges (AMATYC), Denver, CO.

This was a 50-minute presentation on creating a classroom environment which encourages higher level thinking.

Coffelt, J., **Coffelt, V.** (2015, March). *iCheat*, 27th International Conference on Technology in Collegiate Mathematics (ICTCM), Las Vegas, NV.

This was a 50-minute presentation on different ways students try to cheat in the classroom or online environment. The presentation included cheating with technology, such as a smartwatch, smart phone, or calculator. Attendees were given pens and erasers with cheats printed in/on them.

Coffelt, J., **Coffelt, V.** (2014, November). *Creating Multiple Choice Questions in Calculus Courses*, 40th American Mathematical Association of Two-Year Colleges (AMATYC), Nashville, TN.

This was a 50-minute interactive workshop where attendees were given open-ended calculus I, calculus II, and calculus III problems and asked to create a multiple-choice

question for the problem. The attendees presented their problem to the entire workshop. Then the presenters demonstrated how they developed a multiple-choice question for each of the problems provided to the attendees.

Coffelt, J., **Coffelt, V.** (2014, November). *If at First You Don't Succeed, Integrate Again*, 40th American Mathematical Association of Two-Year Colleges (AMATYC), Nashville, TN. This was a 5-minute presentation as part of a series of short presentations on calculus in the classroom. The presentation discussed multiple ways to integrate the expression $e^x \sin(x)$.

Coffelt, J., **Coffelt, V.** (2013, November). *Stop the Zombie (Calculator) Apocalypse*, 39th American Mathematical Association of Two-Year Colleges (AMATYC), Anaheim, CA. This was a 50-minute presentation on using calculators in the classroom to enhance rather than inhibit student learning.

Coffelt, J., **Coffelt, V.** (2013, November). *Notable Notes*, 39th American Mathematical Association of Two-Year Colleges (AMATYC), Anaheim, CA. This was a 50-minute presentation on using student lecture notes to engage students in active learning in a lecture environment.

Coffelt, J., **Coffelt, V.** (2012, November). *iCheat*, 38th American Mathematical Association of Two-Year Colleges (AMATYC), Jacksonville, Florida. This was a 50-minute presentation on different ways students try to cheat in the classroom or online environment. The presentation included cheating with technology, such as a smartwatch, smart phone, or calculator. Attendees were given pens and erasers with cheats printed in/on them.

Coffelt, J., **Coffelt, V.** (2011, November). *iCheat*, 37th American Mathematical Association of Two-Year Colleges (AMATYC), Austin, TX. This was a 50-minute presentation on different ways students try to cheat in the classroom or online environment. The presentation included cheating with technology, such as a smartwatch, smart phone, or calculator. Attendees were given pens and erasers with cheats printed in/on them.

Textbooks

Allen, A., Orchard, P. (2021). *Calculus for Business and Social Sciences*. Texas A&M University Libraries OAKTrust. (link coming soon). Contributing Authors: Bollinger, K., **Coffelt, V.**

This was an open education textbook designed especially for Calculus for Business and Social Sciences (MATH 142) at Texas A&M University. I was involved in the initial design process for the text.

Bollinger, K., & **Coffelt, V.** (2020). *Mathematics for Business and Social Sciences*. Texas A&M University Libraries OAKTrust. <https://hdl.handle.net/1969.1/188687>.

This was an open education textbook designed especially for Mathematics for Business and Social Sciences (MATH 140) at Texas A&M University. This text has been

primarily used at Texas A&M University in MATH 140, since Fall 2020, but also has been viewed by individuals in 9 countries outside the United States. The text included an introduction to matrices, solving systems of equations, linear programming, functions, and mathematical finance. Detailed and up-to-date statistics of the books usage can be found at the link above.

Miller, J., & Gerken, D. (2017). *College Algebra & Trigonometry*. Third Ed. McGraw-Hill.

Acknowledgements: **Coffelt, V.**

My contribution was to write Stepped-Out Solutions for online trigonometry homework sets for Connect Math Hosted by ALEKS.

Coburn, J., & Coffelt, J. (2014). *College Algebra Essentials*. Third Ed. McGraw-Hill. Digital Contributor: **Coffelt, V.**

My contribution was to create online homework sets for Connect Math Hosted by ALEKS and write Stepped-Out Solutions for online homework problems.

Coburn, J., & Coffelt, J. (2014). *College Algebra*. Third Ed. McGraw-Hill. Digital Contributor: **Coffelt, V.**

My contribution was to create online homework sets for Connect Math Hosted by ALEKS and write Stepped-Out Solutions for online homework problems.

Textbook Resources

Bollinger, K., & **Coffelt, V.** (2021) *Math 140 Course Binder*. Texas A&M University.

The binder included checkpoints for understanding, groupwork assignments, practice exams for students, and a core curriculum assignment. All materials in the binder were developed over several semesters to align directly with the course objectives and student learning outcomes for Mathematics for Business and Social Sciences at Texas A&M. All instructors of the course used these materials during the semester. Checkpoints for understanding were multiple choice questions designed to gauge student learning while in the classroom. Groupwork assignments allowed students to engage in the content and verbalize their understanding of the material.

Coffelt, V. (2021) 32 Lecture Videos for Math 140. Texas A&M University.

Lecture videos are assigned to all students completing Mathematics for the Business and Social Sciences at Texas A&M University. These videos covered portions of *A Companion to Mathematics for Business and Social Sciences*. All videos were created in the College of Science light studio and closed-captioned by the Mathematics Department.

Bollinger, K., & **Coffelt, V.** (2020) *A Companion to Mathematics for Business and Social Sciences*. Texas A&M University.

Student lecture notes for Mathematics for Business and Social Sciences. These partial completed student lecture notes included all student learning outcomes for each section, student reflection questions at the end of each section, and space for students to take notes over examples covered during class.

Memberships

August 2008 – August 2019

Member of American Mathematical Association of Two-Year Colleges (AMATYC)

November 2009 – November 2011

Fellow in AMATYC Project ACCCESS (A mentoring and professional development initiative for new community college faculty.)