

# AMANDA HAGER

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[REDACTED] | UT Austin Dept of Mathematics, PMA 8.100, Austin, TX 78712

## APPOINTMENTS

- 2018-Present, Associate Professor of Instruction, The University of Texas at Austin
- 2011-2018, Lecturer, The University of Texas at Austin
- 2010-2011, Assistant Professor, United States Military Academy at West Point

## EDUCATION

### Ph.D., Mathematics, 2010

The University of Iowa, Iowa City, Iowa.

### B.S., Mathematics, with Honors, 2004

The University of Iowa, Iowa City, Iowa.

## AWARDS AND HONORS

- Provost's Faculty Leadership Fellowship, \$17,400. (2020-2021)
- Faculty to Faculty: Amplifying faculty voices to promote change, \$4,800. (2020-2021)
- Provost Teaching Fellows Innovation Award (2020)
- President's Associates Teaching Excellence Award, \$5,000. (2015-2016)
- Dads' Association Centennial Teaching Fellowship, \$4,500. (2015)
- College of Natural Sciences Teaching Excellence Award, \$500. (2015)
- Project NEXt (2010-2011)
- The University of Iowa Outstanding Teaching Assistant Award (2009)
- Sloan Minority PhD Program Fellowship (2007-2010)
- VIGRE Traineeship (2007)
- GAANN Fellowship (2004-2007)

## TEACHING EXPERIENCE AT THE UNIVERSITY OF TEXAS AT AUSTIN

### Instructor

- Plan II (Honors) Mathematics (Fall 2020)
- Discrete Mathematics (Fall 2019)
- MATH 1332/M 302 Introduction to Mathematics (17 classes total, Spring 2015 - Spring 2021)
- MATH 2312/M 305G Preparation for Calculus (22 classes total, Fall 2011 - Fall 2018)
- MATH 2414/M 408S Integral Calculus for the Natural Sciences (Fall 2014)
- MATH 2413/M 408N Differential Calculus for the Natural Sciences (Spring 2012, Spring 2013, Spring 2014)
- Bridge to Calculus (Summer 2013)

- Critical Thinking in the 21st Century (Fall 2012)
- Introduction to Probability (Fall 2011)

### **Course Coordinator**

Designed assessments and scoring rubrics for high school teachers teaching dual-credit courses as part of the OnRamps and PCARP programs. Visited schools to provide tech support and observe classes, gathered assessment data and teacher feedback on program features, assisted with campus visits, and led sessions in professional development seminars held on UT campus.

- OnRamps Precalculus (2013-2014)
- MathBridge (2016-2021)
- CalcBridge (2017-2018)

### **SABIC/KAUST Foundation Year Program Instructor**

- Differential Calculus (2015)
- Differential and Integral Calculus (2014)

## **TEACHING EXPERIENCE AT THE UNITED STATES MILITARY ACADEMY**

### **Instructor**

- Integral Calculus, single and multivariable (2010)
- Abstract Algebra (2011)

### **Undergraduate Research Advisor**

- Vinh Khang Do, Generalizations of the Capital Asset Pricing Model (2010-2011)

## **TEACHING EXPERIENCE AT THE UNIVERSITY OF IOWA**

### **Instructor**

- Basic Algebra II: Remedial College Algebra (2008)

### **Teaching Assistant**

In addition to typical TA duties, organized and led summer workshop to prepare graduate students for qualifying exam in Topology.

- General Topology (2007)
- Introduction to Smooth Manifolds (2008)
- Calculus I (2009)

### **VIGRE Teaching Assistant and Undergraduate Research Mentor**

- VIGRE Heartland REU (2007)

## **OTHER WORK EXPERIENCE**

### **TIDES External Teaching Evaluator (2018-2021)**

Conducted observations of teaching for approximately fifty faculty members in the College of Natural Sciences; read syllabi, and course materials as appropriate, conducted pre- and post-interviews with faculty members; provided formative and summative feedback on teaching practices; conducted assessment of the TIDES (Texas Institute for Discovery Education in Science) external evaluation program.

### **Online Course Designer/Instructor (2016-2018)**

Designed syllabus, assignments, tutoring resources, and exams in Quest and Canvas, supplemented by department-designed instructional materials in Quest, for online independent-study versions of our engineering calculus courses to students through University Extension. Served as instructor of record beginning Spring 2017, which involved grading assignments and exams and providing technical support to enrollees.

### **PUBLICATIONS**

M. Daniels, E. Armendariz, H. Bennett, A. Hager, A. Spice. 2013. Discovery Precalculus, A Creative and Connected Approach, University of Texas at Austin.

### **INVITED PRESENTATIONS**

- Use of OER in UT service courses (panel). The University of Texas at Austin, Austin, TX (2018)
- Fibonacci Nim and other games. South Central Texas Math Teachers' Circle, Seguin, TX (2017)
- Systematic counting. South Central Texas Math Teachers' Circle, Seguin, TX (2015)
- Math deficiencies of incoming freshmen at UT. UT Pre-AP Calculus Institute, The University of Texas at Austin (2012, 2013, 2015)
- Mathematical games. Math Teachers' Circle Workshop (2012)
- Knot invariants, their uses, and the geeks who love them. Saturday Morning Math Group, The University of Texas at Austin (2012)
- Derivation modules for arrangement bundles. The Algebraic Geometry and Topology of Hyperplane Arrangements Workshop, AMS Spring Eastern Section Meeting (2011)
- Sheaf cohomology and freeness of arrangement bundles. Virtual Topology Seminar, Louisiana State University (2009)
- Basics of hyperplane arrangement complements. Junior Topology Seminar, Louisiana State University (2009)
- Freeness of arrangements and arrangement bundles. Mathematical Society of Japan Seasonal Institute on Arrangements of Hyperplanes, Hokkaido University (2009)
- Modular Elements and the topology of arrangement complements. Poster Session, Lib60ber Conference - Topology of Algebraic Varieties, Jaca, Spain (2009)
- The Jones polynomial and other "easy" knot invariants. Heartland Partnership Talk, Central College (2008)
- A calculation of local system homology for discriminantal arrangements. Sectional Meeting, Louisiana State University (2008)

## SERVICE

- Sustainable Open Scholarship Working Group, OER subcommittee, member (2020-2021)
- Online Education Task Force, Fall 2020 Planning Groups, member (2020)
- Faculty Welfare Task Force, Fall 2020 Planning Groups, member (2020)
- Instructional Faculty Chair's Committee, chair (2018-2021)
- Faculty Council Executive Committee, member (2019-2020)
- Faculty Council, member and parliamentarian (2019-2021)
- A2 Faculty Advisory Committee on Budgets, member (2019-2020)
- A3 Committee on Committees, member (2019-2020), chair (2020-2021)
- CNS Non-Tenure Track Faculty Committee, member (2017-2019)
- CNS Teaching Evaluation Committee, chair (2017-2018)
- Math Department teaching mentor (paired with Pablo Duran-Oliva) (2016)
- Math Assessment Committee, member (2016)
- Math Department Calculus Reform Committee, member (2016-2018)
- 21st Century Teaching Evaluation Task Force, member (2016-2017)
- A5 Faculty Welfare Committee, Member (2015-2016), chair (2016-2018)
- B4 Student Life and Athletics Committee, member (2015-2018)
- University Faculty Gender Equity Council, ex-officio member (2016-2018)
- Readiness and Placement Committee, member (2016-2017)
- STEM Council member (Fall 2014-Spring 2016)
- Math Department NTT Annual Review Committee, member (2014-2015)
- STEP team content designer (Spring 2014-Spring 2016)
- Math Department Undergraduate Studies Committee, member (2013-2017)
- Online Learning Working Group, member (Fall 2013)
- TSI Math Curriculum Team, member (2012)
- College Readiness/Placement Exam Design Committee, member (2011-2012)