

Cristina Elena Korb

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Education

University of Florida

Doctor of Philosophy, Mathematics

2015 - 2021

GPA 3.87

University of Florida

Masters of Science, Mathematics

2015 - 2018

GPA 3.84

Western Carolina University

Bachelor and Masters of Science, Applied Mathematics/Minor Computer Science

2010 - 2013

GPA: 3.77 (*magna cum laude*) Honors College graduate

Southwestern Community College

Associate of Arts

2009 - 2010

GPA: 3.84 Honors College graduate.

Awards

2017-2018: [Calvin A. VanderWerf Award for Excellence in Teaching](#), University of Florida

- Awarded annually to two Graduate Student teachers university-wide among a field of thousands.

2018: Mathematics Graduate Student Teaching Award, University of Florida

2018: [Eleanor Ewing Ehrlich Award](#), University of Florida

- Awarded annually to one female Graduate Student teacher in the Math department.

2017: Certificate of Excellence in Teaching, University of Florida

2012-2013: New Graduate Student Incentive Grant, Western Carolina University

2010-2012: Chancellor's Achievement Award, Western Carolina University

- A four-semester award that funds tuition and fees for one outstanding Southwestern Community College Student.

Positions Held and Teaching Experience

NORTHWESTERN UNIVERSITY

Instructional Postdoctoral Fellow

Evanston, IL

2021-current

- Math 218-1 Single-Variable Calculus with Precalculus
- Math 220-1 Single-Variable Differential Calculus

UNIVERSITY OF FLORIDA

Graduate Teaching Assistant

Gainesville, FL

2015-2021

LECTURER

- **Calculus 2** (Spring 2020)

- Led a **flipped style classroom** with 60 students where class time was used for guided group work and reinforcement of ideas presented in pre-recorded lectures.
- **Managed responsibilities of teaching assistants** and collaborated with course coordinator and other lecturers.

- Assisted with exam making for the entire 300 student class.
- **Numerical Analysis** (Fall 2019, Spring 2020)
 - Served as substitute/guest lecturer for 1-2 weeks a semester for my advisor's class.
 - Lectured **higher level undergraduates** using code written for TI-Nspire CX CAS calculator and Matlab.

SOLE INSTRUCTOR

- **Basic College Algebra** (Summer 2017 - AIM)
 - Offered services to **support first-year students** in their academic transition from high school to college as part of the AIM (Achievements in Mainstreaming) Program at UF. AIM classes are **targeted towards minorities and first generation college** students.
 - Held classes 5 days a week, since AIM classes move at a slower, more detailed pace.
- **Precalculus Algebra**(Fall 2017 - AIM)
- **Trigonometry** (Summer 2016, Fall 2018)
- **Survey of Calculus 1** (Summer 2019 Online)
- **Survey of Calculus 2** (Summer 2017 Online, Summer 2018 Online)
- **Elementary Differential Equations** (Summer 2020 Online)

TEACHING ASSISTANT

- **Basic College Algebra** (Fall 2015, Spring 2016, Fall 2017 Online, Spring 2018)
- **Precalculus Algebra and Trig** (Fall 2016)
- **Survey of Calculus 1** (Fall 2019)
- **Calculus 1** (Spring 2017)
- **Calculus 2** (Spring 2018, Fall 2019 Online)
- **Calculus 3** (Spring 2019)
- **Linear Algebra**(Fall 2020)

GRADER

- **Intermediate Differential Equations** (Summer A - 6 week class)
 - Graded 6 proof-based exams for 55 students.

MENTORING

- Spring 2021: Served as graduate student mentor for MCM/ICM Mathematical Contest in Modeling participants. Assisted with contest preparation seminars.
- Summer 2018: Served as a mentor for an undergraduate student in the SURF program (Summer Undergraduate Research at Florida). Provided support and supervision of the student and meet regularly with the student to review his progress and to provide guidance in moving forward in his project.

SANTA FE COLLEGE

Adjunct Professor

Gainesville, FL

2016-present

- **College Algebra**(Spring 2016 - Fall 2020)
 - Created **online exams with custom made questions**.
 - Graded assignments using Canvas **Speed grader using rubrics** and giving detailed student feedback.
- **Precalc Algebra** (Spring 2020, Summer 2020)
 - Developed an online course from scratch including **recording my own video lectures**
 - Gained experience working with WebAssin and Honorlock.

WARREN WILSON COLLEGE

Part Time Instructor

Asheville, NC

2013-2015

- **Statistics** (Fall 2013, Spring 2014, Fall 2014, Spring 2015, Summer 2015)
 - **Smaller class size** helped to enhance math and communication skills.
- **Precalculus Algebra** (Fall 2014, Spring 2015)

WESTERN CAROLINA UNIVERSITY

Adjunct Instructor

Cullowhee, NC

2013-2015

- **Applied Statistics** (Spring 2013, Spring 2015)
- **College Algebra** (Fall 2014)
- **Mathematical concepts** (Fall 2014, Spring 2015)

WESTERN CAROLINA UNIVERSITY

Undergraduate Research Assistant - Computer Science Department

Cullowhee, NC

Summer 2012

- Assisted with creating a webpage that utilizes the storm surge database to locate, describe and map storm surge and high water mark data. This page can be found at <http://stormsurge.wcu.edu/about.php>

SOUTHWESTERN COMMUNITY COLLEGE

Learning Consultant & Tutor

Sylva, NC

2009-2012

- Acquired a **Level 2 tutoring certification** through College Reading and Learning Association, an internationally certified tutoring program.
- Provided drop in tutoring or semester long one-on-one not only for mathematics courses but also for courses in **Computer Science, Spanish and French, English as a Second Language and Physics**.
- Other duties included providing **assistance with computer use, successful habits, and study skills** and proctoring exams.

Research interests, Presentations and Papers

Research interests

My research interests are in mathematical biology modeling, specifically developing vector borne diseases models and spatially explicit simulation models.

Presentations

- **Graduate Student Biomath Seminar**, University of Florida (Spring 2018, Fall 2018, Spring 2019)
 - Presented papers related to my research.
- **Teaching Center - New Teaching Assistants Orientation**, University of Florida (August 2018)
 - Gave a talk to around 400 new incoming TAs on "How to get students to participate".
 - I was part of a panel taking questions from the audience.
- **Warren Wilson College** (Fall 2014)
 - Gave a talk on "How to be an effective tutor" to new and veteran tutors.
- **Western Carolina University** (Spring 2013)
 - Presented my Masters Project: "A Comparative study on the efficacy of frames and orthonormal basis used in signal transmission and recovery".
- **Smoky Mountain Undergraduate Conference on the History of Mathematics** Western Carolina University (Spring 2012)
 - Gave a talk on the "History of International Mathematical Olympiads".

Papers

- "*Wolbachia* establishment and invasion in *Ae aegypti* populations to suppress Zika transmission" (in progress)

Skills

Computer: Matlab, \LaTeX , Mathematica, Java(beginner), R(beginner), Microsoft Office

Languages: Romanian(mother tongue), Spanish(advanced), French(intermediate)

Classroom Instruction Tools: Canvas, Moodle, Blackboard, MyMathlab, WebAssign, Honorlock, ProctorU, Smartboard, Graphing calculators, Zoom