

# Chloe Urbanski Wawrzyniak

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## Education

**Rutgers University**, New Brunswick, NJ May 2020  
Doctor of Philosophy in Mathematics

**Indiana University**, Bloomington, IN May 2015  
Bachelor of Science in Mathematics

## Awards

AMS Rutgers University Student Chapter Award for Leadership Spring 2019  
TA Teaching Excellence Award Fall 2018

## Courses Taught

### Instructor of Record

Course	Program	Semester
Preparation for Calculus	Rutgers Department of Mathematics	Fall 2019
Calculus 2 for Mathematical and Physical Sciences	Rutgers Department of Mathematics	Summer 2019
Introduction to Real Analysis	Rutgers Department of Mathematics	Summer 2019
Online and Hybrid Teaching	Rutgers Teaching Assistant Program	Spring 2019
Survey of Modern Mathematics	Columbia High School Program	Summer 2018
Thinking and Problem Solving: Math in the Real World	Columbia High School Program	Summer 2018
Introduction to Mathematical Reasoning	Rutgers Department of Mathematics	Summer 2017

### Teaching Assistant

Course	Program	Semester
Introduction to Real Analysis	Rutgers Department of Mathematics	Fall 2018
Introduction to Real Analysis	Rutgers Department of Mathematics	Spring 2018
Advanced Calculus for Engineering	Rutgers Department of Mathematics	Fall 2017
Introduction to Abstract Algebra	Rutgers Department of Mathematics	Spring 2017
Calculus 1 for Mathematical and Physical Sciences	Rutgers Department of Mathematics	Fall 2016

Syllabi and student evaluations for past courses can be found at [math.rutgers.edu/~ceu11/PastCourses](http://math.rutgers.edu/~ceu11/PastCourses).

## Other Teaching Experience

### Math 123: Preparation for Calculus

July 2019 - Present

*Co-Coordinator*

- Co-chair committee for design and implementation of new half-semester class 123: Preparation for Calculus
- Develop learning goals, course content, and course structure for 123
- Teach first implementation of the course
- Support other instructors during first implementation through, for example, online communication, Canvas site design, and coordination of undergraduate Learning Assistants

### Rutgers Program in American Language Studies

March 2019 - Present

*Instructor*

- Support first-year international students in their mathematics courses
- Meet biweekly with students in the Rutgers Pathways program to answer questions and help with their mathematics homework

### Rutgers Mathematics Program P2C2 Reform Committee

January 2019 - Present

*Committee Member*

- Design and implement innovations in precalculus to calculus 2 (P2C2) classes, such as active learning and flipped classrooms
- Investigate existing literature on best practices for teaching calculus and precalculus
- Initiate and implement focus groups to gather information from current P2C2 instructors
- Examine existing precalculus and calculus course structures for areas of improvement

### Rutgers TA Project (TAP)

January 2018 - Present

*TAP Associate*

- Provide instructional support and guidance for new and current teaching assistants in the form of
  - Yearly [orientation for new TAs](#)
  - [Workshops](#) on topics such as implicit bias, active learning, dealing with difficult students, and time management
  - [Courses](#), including one on [online and hybrid teaching](#)
  - Media such as a [blog](#) and [podcast](#)
- Consult with departments and school leaders on TA development issues, including organizing department-specific workshops for TAs and other interested clientele such as PTLs and NTTs
- Develop TA-related programming with a small team of other TAP associates
- Advise the TA Project Director on related strategic and operational matters

### Rutgers Academy for the Scholarship of Teaching and Learning

August 2017 - Present

*Fellow*

- Discuss pedagogy in monthly meetings with faculty and other graduate students across
- Lead discussion sessions on topics such as student and instructor self-efficacy and time management in academia

### Rutgers Mathematics Department Teaching Group

June 2016 - Present

*Co-organizer*

- Organize and attend weekly meetings to discuss teaching-related topics
- Invite guest speakers including education researchers, the Senior Director of the Rutgers Learning Centers, and workshop organizers from Rutgers Health Outreach, Promotion, and Education (HOPE)
- Participate in College Mathematics Instructors Development Source (CoMInDS), a weekly teaching webinar hosted by the Mathematical Association of America

**Rutgers B-STAR**

Summers 2016, 2017

*Math Instructor*

- Prepare entering business students in Newark and New Brunswick for their first-year math courses
- Support students as they work through individualized lessons in ALEKS

**One-Day Teaching Events****Math Teacher's Circle**

December 2017

- Led a professional development workshop for current elementary and middle school math teachers
- Topic: Spherical Geometry

**Johns Hopkins Center for Talented Youth**

July 2017

- Led a workshop for middle and high school students in the Johns Hopkins Gifted and Talented Youth Program
- Topic: Spherical Geometry

**Leadership Activities****Rutgers PreDoctoral Leadership Development Academy**

September 2019 - Present

*Fellow*

- Learn about university structure, leadership, and current issues in higher education from leaders across the Rutgers community
- Interview Rutgers leaders about their experience and perspectives
- Observe meetings led by university leaders

**Rutgers Mathematics Department**

April 2016 - Present

*Member – Liaison Committee*

- Assess current unmet needs of graduate students
- Coordinate with graduate director to improve graduate program
- Design recruitment brochure for PhD in Mathematics program
- Plan and oversee open house for graduate program

**Rutgers Mathematics Directed Reading Program**

August 2016 – May 2019

*Organizer*

- Pair advanced undergraduates with graduate students for independent study
- Schedule presentations by undergraduates in the program about their projects

**Rutgers Mathematics Department**

February 2016 – May 2016

*Organizer – Basic Notions Seminar*

- Invited faculty members to speak about their research to first- and second-year students
- Informed graduate students of seminar details, such as each week's speaker and his or her title and abstract
- Designed and maintained website for seminar information

## Research Activities

### Publications

- On the Stability of the Hull(s) of an  $n$ -Sphere in  $\mathbb{C}^n$ . Joint with P. Gupta. In preparation

### External Talks

Analysis and Geometry in Several Complex Variables

*Texas A&M University at Qatar, January 2019*

- Title: Stability of hulls of the  $n$ -sphere under small perturbations

43rd Annual New York Regional Graduate Mathematics Conference

*Syracuse University, March 2018*

- Title: Polynomial Convexity: Easy to State, Tough to Prove

### Invited Workshops

- Mathematical Sciences Research Institute: The  $\bar{\partial}$ -Problem in the Twenty-First Century, June 2018
- American Institute of Mathematics: Problems on holomorphic function spaces and complex dynamics, April 2019

**Professional Memberships:** American Society of Mathematics, Graduate Student Member

**Proof Comprehension Research Group**

March 2017 - Present

*Graduate Student Member*

### Other Conferences Attended

- Joint Mathematics Meetings – Baltimore, January 2019
- Complex Geometry and Several Complex Variables – Notre Dame, March 2018
- Northeast Research on Undergraduate Math Education (RUME) Conference – Montclair State University, November 2017
- AMS Sectional Meeting – SUNY Buffalo, September 2017
- Midwest Several Complex Variables Conference – Brown University, June 2017

### Internal Talks

- Rutgers Graduate Student Analysis Seminar
  - Polynomial Convexity – December 4, 2017
  - Geometric Proofs of Picard's Theorems – March 7, 2017
- Rutgers Graduate Student Pizza Seminar
  - Many Complex Notions of Convexity – September 28, 2018
  - Cats are Liquid – January 26, 2018
  - Reinventing the Wheel... Or Can We? – October 7, 2016
  - The Miracle of Modern Notation – October 23, 2015

## Course Management Systems and Other Instructional Technologies

- Canvas
- Perusall
- Big Blue Button
- Adobe Connect
- Google Hangouts
- Google Drive
- Kaltura
- Poll Everywhere
- Socrative
- Plickers

## General Technologies

- Audacity
- LaTeX
- HTML/CSS
- Microsoft Excel
- Microsoft Access
- Mathematica