Daniel Condon

Curriculum Vitæ

Education

2015–2022	**Ph.D. Mathematics**, *Indiana University, Bloomington*
2015–2017	**M.A. Mathematics**, *Indiana University, Bloomington*
2011–2014	**B.S. Applied Mathematics**, *Georgia Institute of Technology*

Research Interests

Algebraic and Enumerative Combinatorics, Social Choice

Teaching

Williams College

Fall 2022	**Discrete Math, MATH 200**, *Instructor of Record*
	- A first class in proofs

Indiana University

Spring 2022	**The Mathematics of Voting, CLLC-L 130** , *Instructor of Record*
	- Designed course
Fall 2021	**Introduction to Calculus with Applications, J113**, *Instructor of Record*
Spring 2021	**Introduction to Finite Math. 2, D117** , *Instructor of Record*
Summer 2020	**The Math. of Decision and Beauty, M106** , *Online Co-Instructor*
Fall 2019	**Finite Mathematics, M118** , *Instructor of Record*
Summer 2019	**The Math. of Decision and Beauty, M106** , *Instructor of Record*
Spring 2019	**The Math. of Decision and Beauty, M106** , *Instructor of Record*
Fall 2018	**The Math. of Decision and Beauty, M106** , *Instructor of Record*
Summer 2018	**The Math. of Decision and Beauty, M106** , *Course Developer*
	- Developed teaching materials and resources for a general education course covering music theory, graph theory, voting theory, game theory, and projection.
	- Helped organize graduate student instructors.
Spring 2018	**Introduction to Finite Math. 1, D116**, *Instructor of Record*
Fall 2017	**The Math. of Decision and Beauty, M106**, *Instructor of Record*
Fall 2016	**Basic Algebra for Finite Mathematics, M018**, *Instructor of Record*
Summer 2016	**Finite Mathematics, M118**, *Instructor of Record*

Georgia Institute of Technology

Fall 2014	**Calculus 2, MATH 1502**, *Recitation Leader*
Spring 2014	**Calculus 2, MATH 1502**, *Recitation Leader*

Fall 2013 **Calculus 1, MATH 1501**, *Recitation Leader*

Awards

2022 Carl Ziegler Teaching Award

2021 David A. Rothrock Teaching Award

2020 David A. Rothrock Mathematics Fellowship

2019 Schober Travel Award

2018 David A. Rothrock Teaching Award

2016 James P. Williams Memorial Award

Service

2020–2022 **Machine Learning for Research Club Officer**, *Indiana University*

2021–2022 **Peer Mentor**, *Indiana University Department of Mathematics*

2020–2021 **Peer Mentoring Program Organizer**, *Indiana University Department of Mathematics*

Spring 2021 **Directed Reading Program Mentor**, *Indiana University Department of Mathematics*, The Game of Cops and Robbers on Graphs, Bonato, Nowakowski

2019 – 2021 **Grad Student Combinatorics Seminar Organizer**, *Indiana University Department of Mathematics*

2019 – 2020 **Grad Student Combinatorics Seminar Organizer**, *Indiana University Department of Mathematics*

Spring 2019 **Directed Reading Program Mentor**, *Indiana University Department of Mathematics*, Winning Ways for your Mathematical Plays, Berlekamp, Conway, Guy

Fall 2018 **Directed Reading Program Mentor**, *Indiana University Department of Mathematics*, Winning Ways for your Mathematical Plays, Berlekamp, Conway, Guy

Talks

Fall 2021 **Information Theory and Decision Trees.** Machine Learning for Research Club

Spring 2021 **Generating Functions and Error Correcting Codes.** Generatingfunctionology Seminar, *Indiana University Department of Mathematics*.

Spring 2021 **Introduction to Generating Functions, Parts 1-3.** Generatingfunctionology Seminar, *Indiana University Department of Mathematics*.

Fall 2020 **Random Forests.** Machine Learning for Research Club, Beginner Project Group

Fall 2020 **Decision Trees.** Machine Learning for Research Club, Beginner Project Group

Fall 2020 **Flag Varieties.** Algebraic Combinatorics Seminar, *Indiana University Department of Mathematics*.

Fall 2020 **Intersections of Schubert Varieties in the Grassmannian, Part 1.** Algebraic Combinatorics Seminar, *Indiana University Department of Mathematics*.

Spring 2020 **Decision Trees.** Machine Learning Seminar, *Indiana University Department of Mathematics*.

Spring 2020	**Polyominoes.** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
Spring 2020	**Combinatorial Game Theory.** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
Spring 2020	**Voting Theory.** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
Fall 2019	**Constraint Programming in Combinatorics.** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
Fall 2019	**Combinatorial Designs and Finite Geometries** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
Fall 2019	**Generating Functions and Sicherman Dice** Grad Student Combinatorics Seminar, *Indiana University Department of Mathematics.*
2014	**The Colored Cubes Problem.** Joint Math Meetings Combinatorics Session

Papers

Preprints

Simple Relationships Between Lozenge Tiling Functions of Related Regions. In Revision

Published

Lozenge Tiling Function Ratios for Hexagons with Dents on Two Sides. *Electron. J. Combin.* Vol. 27-3 (2020)

The Color Cubes Puzzle with Two and Three Colors (with Ethan Berkove, David Cervantes Nava, and Rachel Katz) *The Mathematics of Various Entertaining Subjects* Vol. 2 (2017) pp. 125-140

Automorphisms of S_6 and the Colored Cubes Puzzle (with Ethan Berkove, David Cervantes Nava, and Rachel Katz) *Australas. J. Combin.* Vol. 68 (2017) pp. 71-93

On Generalizations of Separating and Splitting Families. (with Samuel Coskey, Luke Serafin, and Cody Stockdale) *Electron. J. Combin.* Vol. 23 -3 (2016)

Other Experience

2022	**INMAS Data Science Internship**, *Eperture LLC*

Outreach, Work With Youth

2018, 2021	**Science Fest Volunteer**, *Indiana University*
2021	**CYT Live Instructor**, *Johns Hopkins*, Cryptography

Other Interests

Creative Writing

Tabletop Roleplaying Games
○ Organized online play with multiple groups during quarantine

Backpacking
○ Wilderness First Responder trained
○ Pacific Crest Trail Thru Hike, 2017
○ Pennine Way Thru Hike, 2016
○ Appalachian Trail Thru Hike, 2015

Caving
○ NCRC Orientation to Cave Rescue trained