

DIMITRIOS PAPADOPOULOS

dp399@drexel.edu

EDUCATION

Doctorate of Education, Higher Education

Dissertation: *Transitioning to Proof with Worked Examples*

Drexel University, Philadelphia, PA

September 2016

Master of Science, Mathematics

Drexel University, Philadelphia, PA

June 2010

Bachelor of Science, Mathematics

Temple University, Philadelphia, PA

January 2007

ACADEMIC EMPLOYMENT

Drexel University, Philadelphia, PA

September 2010 - Now

Department of Mathematics - Assistant Teaching Professor

Pennoni Honors College - Adjunct Professor

School of Education - Adjunct Professor

- Course coordinator for freshman calculus sequence: responsibilities included establishing a common curriculum for all instructors' sections, writing common exams, managing common course website, and coordinating proctoring of all exams.
- Other courses taught include Precalculus, College Algebra, Business Calculus, Discrete Mathematics, Discrete Computational structures.
- Created online version of Discrete Computational Structures Course
- Developed and taught two community-based learning courses
- Developed and taught Honors courses on topics such as argumentation and the intersections of mathematics and music
- Taught *Functions and Modeling* for the Dragons Teach program in the School of Education
- Served as head of recruitment committee for math department

Drexel University, Philadelphia, PA

September 2013 - July 2014

College of Arts and Sciences STE{A}M Coordinator

- Coordinated the efforts of College of Arts and Sciences faculty, staff, and students in STE{A}M (Science, Technology, Engineering, the Arts, and Mathematics) related community outreach efforts.
- Established and maintained community partnerships with schools, institutions, and museums in and around the Philadelphia area.
- Established STE{A}M representatives in each of the College's departments to manage efforts on a departmental level.

Drexel University, Philadelphia, PA

September 2008 - June 2010

Department of Mathematics - Teaching Assistant

- Taught a variety of courses as instructor and served as assistant manager in Math Tutoring Center.

HONORS

Full tuition assistantship, Drexel University
Al Herr Teaching Assistant Award

RESEARCH

Papadopoulos, D. (2016). *Transitioning to Proof with Worked Examples* (Doctoral dissertation, DREXEL UNIVERSITY).

Paoletti, T., Krupnik, V., Papadopoulos, D., Olsen, J., Fukawa-Connelly, T., & Weber, K. (2018). Teacher questioning and invitations to participate in advanced mathematics lectures. *Educational Studies in Mathematics*, 98(1), 1-17.

Hegg, M., Papadopoulos, D., Katz, B., & Fukawa-Connelly, T. (2018). Preservice teacher proficiency with transformations-based congruence proofs after a college proof-based geometry class. *The Journal of Mathematical Behavior*, 51, 56-70.

PRESENTATIONS

“Mathematics and Music.” Philadelphia Science Festival, 2014

“Bootlegging by the numbers.” Franklin Institute, Science After Hours. 2015

“Surviving with Fair Division.” Franklin Institute, Science After Hours. 2015

“Transitioning to proof with worked examples.” SIGMAA Conference on Research in Undergraduate Mathematics Education, 2017

“Teacher questioning and invitations to participate.” SIGMAA Conference on Research in Undergraduate Mathematics Education, 2017

Courses Taught

Algebra, Functions, and Trigonometry: Properties of real numbers, algebraic expressions, rational expressions, linear and quadratic functions and graphs, and additional topics from algebra. Topics from geometry and trigonometry essential for the study of calculus.

Calculus I: Functions, limits and continuity, derivatives, transcendental functions, and applications.

Calculus II: Definite integrals, Fundamental Theorem of Calculus, integration techniques, applications of integration, numerical integration and differential equations

Calculus III: Differential equations, modeling, infinite sequences and series, Taylor approximations

Discrete Computational Structures (Online): Covers basic concepts of discrete mathematics that are important to computing, including elementary set theory, recurrence relations, and graph theory

Discrete Mathematics: Elementary set theory, combinatorics, elementary number theory, graphs, and special topics chosen from formal language theory, graph algorithms, coding theory, and other applications

Introduction to Mathematical Analysis I: Covers linear, quadratic, exponential, and logarithmic functions; systems of linear equations; elementary linear programming; matrix algebra; inverse; and mathematics of finance

Introduction to Mathematical Analysis II: Covers limits, continuity, derivatives, indefinite and definite integrals, and applications

Multivariate Calculus: Vectors, curves, partial derivatives, gradient, constrained optimization, coordinate system, multiple integrals, and applications

Secondary Education Mathematics Enrichment (Special Topics Course): Topics in discrete mathematics, pedagogy in mathematics, lesson plans adapting advanced concepts for middle school students

Music and Mathematics (Honors Course): Music theory, acoustics, algorithmically generated music

Proof and Argumentation (Honors Course): An exploration of the modes of proof, justification, and argumentation used across disciplines

Functions and Modeling (Dragons Teach): Focuses on enriching students' mathematical content knowledge, especially concepts required to teach secondary mathematics at various levels

DREXEL UNIVERSITY SERVICE POSITIONS

MSCHE 2022 Accreditation Committee (Compliance Standard) Winter 2020 - Now

- Worked on March 2022 Middle States Self-Study and Visit

Course Coordinator for Freshman Calculus Sequence Fall 2013 - Now

- Coordinated all non-evening sections of the main freshman calculus sequence
- Created and maintained main course website
- Wrote common syllabus, exams, rubrics, etc.

Department Event/Recruitment Coordinator 2014 - Now

- Organized and attended open houses and accepted students days
- Recruited faculty and students to participate in these events

Mathematics Student Organization Advisor 2014-2016

- Supervised trips to conferences
- Attended officer meetings

College of Arts and Sciences Recruitment Committee Summer 2016

- Worked with colleagues in the College of Arts and Sciences on unifying the college's messaging during open houses and accepted students days

Teaching Innovations Committee 2015 - 2016

- Worked with colleagues in the Department of Mathematics on innovations in evaluation and assessment
- Organized teaching innovations colloquium