***MICHAEL B. KLIPPER***

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**EDUCATION**

# *Carnegie Mellon University* D.A., Mathematical Sciences 2011

M.S., Mathematical Sciences 2008

* Graduate QPA: 4.15 (includes A+ grades)
* Graduate coursework includes courses in set theory, logic, analysis, and discrete mathematics.
* The D.A. degree focuses on teaching. I wrote a textbook draft as a teaching thesis. (See below.)

*Carnegie Mellon University* B.S., Computer Science, Discrete Math & Logic 2005

* Undergraduate QPA: 3.98 (University Honors), Dean’s List each semester

**TEACHING EXPERIENCE**

*Lecturer at University of Georgia:*

Introduction to Set Theory, Ordinals, and Cardinals (MATH 4900) Spring 2017

Modern Algebra and Geometry I (MATH 4000) Spring 2015, Fall 2013

Independent Study in Logic (MATH 4950) Fall 2016

Introduction to Higher Mathematics (MATH 3200)

Spring 2018, Spring 2016, Spring 2014, Spring 2013, Fall 2012

Sequences and Series (MATH 3100) Fall 2015, Fall 2014

Calculus II (MATH 2260) Spring 2016, Fall 2014, Spring 2014, Fall 2013, Spring 2013, Spring 2012

Calculus I (MATH 2250) Spring 2018, Fall 2017, Fall 2016, Fall 2015, Fall 2012, Fall 2011

Precalculus (MATH 1113) Fall 2016, Fall 2015, Spring 2015, Spring 2014, Spring 2013, Spring 2012, Fall 2011

* + Most courses are 3-credit courses which meet 150 minutes a week for 15 weeks, though Calculus courses are 4-credit courses meeting 200 minutes a week for 15 weeks.
  + In Precalculus and Calculus courses, some of the HW and tests were not written by me. (The courses have some centralized HW and mass exams.) Apart from that, I wrote the HWs, quizzes, and tests.
  + I write supplementary handouts for all my upper-level courses (i.e. courses beyond Calculus).
  + The Math 4900 course in Spring 2017 was a brand new course for the department.

*Lecturer at Carnegie Mellon University (as graduate student):*

Analysis II Spring 2011

Analysis I Fall 2010

Concepts of Mathematics Summer 2009, Summer 2010

Differential Equations and Approximation Summer 2008

Precalculus Summer 2007

Calculus of Approximation (half-semester course) Summer 2007

* Summer courses included both Carnegie Mellon undergraduates and advanced high-school students.
* Summer courses meet daily for 6 weeks in 80-minute classes. The other courses meet three times a week for 15 weeks in 50-minute lectures.
* I taught Analysis I and II from my own teaching thesis (the textbook draft described below).
* I designed all homework assignments, quizzes, and tests for these courses.

# *Teaching Assistant at Carnegie Mellon University:*

# Analysis II Spring 2009, Spring 2010

Analysis I Fall 2008, Fall 2009

Integration and Differential Equations Fall 2007

Differential and Integral Calculus Spring 2006, Spring 2008

Concepts of Mathematics Fall 2003, Fall 2005, Spring 2006

Great Theoretical Ideas in Computer Science Spring 2003

Differential Equations and Approximation Fall 2002

* + Responsibilities: Running recitation sections twice a week for 50 minutes, grading homework and exams (this responsibility was shared), holding weekly office hours, proctoring exams, and  
    occasionally reviewing / designing assignments and exams

*Completed teaching preparation with the Eberly Center for Teaching Excellence at Carnegie Mellon University:*

Completed the College and University Teaching course Spring 2010

Attended teaching seminars (see transcript from the Eberly Center) 2006-2007

*Instructor at Andrew's Leap, a summer program at Carnegie Mellon for advanced high-school students exploring collegiate computer science:*

Teacher of computer science theory Summer 2006

Teacher of beginning programming Summer 2002

*Tutoring through Academic Development at Carnegie Mellon University:*

One-on-one tutor 2002-2005, 2006-2008

**DEPARTMENTAL SERVICE AT UNIVERSITY OF GEORGIA**

* Organized the Undergraduate Mathematics Major Fair in Springs 2012-2015, featuring guest speakers, undergraduate research, and faculty presentations
* Co-wrote major exams in the Math Department:
  + Mass final exam for Calculus I course for Spring 2015 (along with Dr. Lisa Townsley)
  + Carl F. Kossack Prize Exam for Spring 2016 (along with Dr. Lenny Chastkofsky)
  + Carl F. Kossack Prize Exam for Spring 2017 (along with Dr. Lenny Chastkofsky and Dr. Roy Segars)
* Committee Membership in the Mathematics department includes:
  + Lecturer Hiring Committee (November 2017 to March 2018)
  + Lecturer Hiring Committee (August 2015 to June 2016)
  + Calculus Textbook Committee (August 2014 to May 2015)
  + Curriculum Committee (since August 2014)
* Advises undergraduates with their course schedules, mentors faculty teachers
* Served on a lecturer hiring committee for statistics (April to June 2012)
* Proctored part of the UGA High School Mathematics Tournament in Falls 2011-2016

**SERVICE OUTSIDE THE DEPARTMENT**

*Volunteer with Learning Ally (since Fall 2012)*:

* I read and record textbooks to provide audio resources for students, primarily those with   
  print disabilities such as dyslexia and blindness.

**SKILLS**

*Teaching Skills:*

* + Runs courses with sizes ranging from one student to forty or fifty students
    - I had a student ask me if they could do research with me, but I don’t do research in my position, so I offered a Fall 2016 independent study course where we met once a week and went over new material and exercises together.
  + Teaches a wide range of undergraduate material, from precalculus to abstract algebra and analysis
    - I’m especially fond of introductory proof courses, such as Introduction to Higher Mathematics (University of Georgia) and Concepts of Mathematics (Carnegie Mellon University), which first expose students to proper proof techniques and habits.
  + Creates a library of handouts to supplement class material and provide further enrichment
  + Strong at one-on-one consultation, via office hours or appointments
  + High faculty evaluation scores

*Computer Skills:*

* + Basic document creation software, such as Microsoft Word, Excel, and Powerpoint
  + Significant experience with LaTeX
  + Symbolic computation software, primarily Mathematica
  + Programming in C, C++, Java, or SML

*Miscellaneous Skills:*

* Can speak and write well in French (though not fluent)

**TEACHING THESIS**

*Analysis for the Beginning Mathematician*. Completed March 2011

* + A writing sample from this book is available upon request.

This is a textbook which teaches the topics of a typical first-year calculus sequence but focuses on proof. Students learn how to rigorously justify the main theorems of calculus. The book can be used with strong first-year students or with sophomores or juniors at most universities. Features include:

* + At least 700 exercises for students to solve, with about 15 exercises on average per section of  
    material. Exercises cover a wide variety of topics with varying difficulty.
  + Casual yet precise writing style, with informal discussion of strategy before proofs of most theorems
  + Repeated exposure to theoretically-illustrative examples to challenge students’ intuition

**AWARDS**

*At the University of Georgia:*

Sandy Beaver Excellence in Teaching Award 2017

* This award is given to four faculty members in the Franklin College at the University of Georgia, recognizing a sustained commitment to high-quality instruction.

*At Carnegie Mellon University:*

Hugh D. Young Graduate Student Teaching Award 2011

* + This award recognizes graduate student teaching in the Mellon College of Science, one of the seven colleges of Carnegie Mellon University

Graduate Student Teaching Award – 2nd Place 2011

* + This award recognizes graduate student teaching in all of Carnegie Mellon University. There isn’t usually an award presentation for the runner-up, but that year the award committee decided to make an exception.

Phi Kappa Phi National Honor Society 2005

Phi Beta Kappa National Honor Society 2004