

# **Math Department Graduate Mentor Program Expansion Proposal**

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This document begins with a brief history of the UCI Math Department Graduate Student Peer Mentor Program and then includes a proposal for expansion to create a new program, the Math Department **Community, Outreach, and Mentoring Program (COMP)**, that is able to

1. support incoming students better, with a specific focus on students from diverse backgrounds
2. create a better sense of community among the graduate students in the Math Department
3. lead to better retention of students, and more success for graduate students in the Math Department
4. connect math graduate students to important resources in the UCI community

## **History of the UCI Math Department Graduate Student Peer Mentor Program**

The Graduate Student Peer Mentor Program in the Math Department was started very informally by a couple graduate students around 2015 or 2016. This involved one or two graduate students eating lunch with all of the incoming students (unpaid), and talking to them about the department and strategies for success in graduate school. In 2017, Daniel Bergman and Jennifer Bryson founded the official program. They recruited a number of graduate student mentors, assigned a couple of incoming graduate students to each mentor, and organized a social event each quarter. We (Kelly Isham and Jesse Kreger) have run (and expanded) the program for the 2018-2019 and 2019-2020 academic years. We will also be involved in leading it during the upcoming 2020-2021 year.

The goal of the Peer Mentor Program is to pair incoming grad students with peer mentors to help make the transition to grad school easier, with a special emphasis on mentoring students from diverse backgrounds and retaining them in the program. Over the summer, the leaders of this program make matches and connect the incoming students with their mentors (based on general interest surveys). Last year, we were given the names and emails of the first year students in July (once the students had UCI email addresses). During the year, we host quarterly social events (with all mentors and first year students) to encourage interaction between the first years and upper years. We also regularly check in with the mentors to make sure they are keeping in contact with their mentees and to serve as a resource if any problems arise. The math

department has provided us with \$200 per quarter to run the social events (mostly spent on food). Mentors, and mentor program coordinators, have been provided with no compensation, even though we put in a very large amount of work into a program that is very important to graduate student success and community in the math department.

During these years, each of the incoming master's and PhD students has been matched with a peer mentor, based on the results of a summer survey. In the 2018-2019 year, we had 22 first year students and 16 mentors. We paired each mentor with 1-2 mentees. In the 2019-2020 year, we had 28 first year students and 12 mentors. We paired each mentor with 2-3 mentees. For the fall social event (both years), we hosted a dinner in the math lounge where mentors and recent alumni talked about strategies for success in grad school. The theme of the fall quarter was teaching and managing stress/time/expectations. For the winter social event (both years), we have hosted a dinner at the UCI on-campus pub. The theme of the winter quarter was getting involved in the math department/UCI volunteering and events. For the 2018-2019 spring social event we took students to a UCI baseball game. For the 2019-2020 spring quarter we did not have a large social event due to COVID-19, but instead hosted virtual program office hours every two weeks. The theme of the spring quarter was comprehensive/qualifying exams and mental health.

### **Proposal for expansion to the Math Department Community, Outreach, and Mentoring Program (COMP)**

From the results of a Spring 2020 math graduate student survey, along with multiple town halls and other meetings, it is clear that many graduate students feel under-supported by the department. In the context of the current Black Lives Matter social movement, we believe that the math department can do more to support Black and underrepresented students in the department. Inspired by the UCI Physics & Astronomy Community Excellence Program (PACE, <https://www.physics.uci.edu/node/13322>) we propose to expand our current mentor program. We believe that this is an essential and urgent need in the math department in order to support and recruit female students, Black students, LGBTQ+ students, and students from diverse backgrounds.

We (Kelly Isham and Jesse Kreger), will continue to help organize and supervise the program in the upcoming 2020-2021 academic year. In addition to us, another graduate student **Mentor Program Fellow (MPF)** will be established. The MPF will receive a 50% fellowship (similar to a 50% TA appointment) in Fall quarter, which will continue throughout the rest of the academic year as long as good standing and good leadership

of the program is maintained. A call for applicants will be sent out to all math department graduate students. The selection criteria and selection of the fellow will be determined by the newly formed Math Department Inclusive Excellence Committee. The MPF will be required to take the Mentoring Excellence Certificate Program offered by UCI Graduate Division, if they have not already completed it.

The main component of expansion is a weekly discussion session (which will be mandatory for first year students), led by the MPF. These weekly discussion sections will occur on Friday afternoons, from 5-6pm, which is directly after the graduate seminar that is required for all first and second year graduate students. Each week the MPF, along with an invited guest speaker, will present and lead a discussion on an important and relevant topic to UCI math graduate students. Possible topics are (this is not a comprehensive list): becoming an anti-racist department, history of women in mathematics, supporting international students, forming study groups during remote learning, studying for qualifying exams, graduate division resources, mental health in graduate school, participating in math department outreach and social justice programs, career planning, mathletes intramural sports and esports teams, how to do math research, how to find an advisor, how to maintain a healthy relationship with an advisor, history of the National Association of Mathematicians, combating imposter syndrome, GPS-STEM, etc

In addition to the weekly discussions, we will retain the core structure of the existing mentor program, which include each incoming student being assigned a mentor that they have to meet at least once a quarter with, and quarterly social events with food. Math department mentors will be encouraged to attend the weekly discussions and support the MPF. Starting in 2021-2022, the MPF will be responsible for creating an application to recruit mentors in the program and for selecting quality applicants. The MPF will also be responsible for i) organizing quarterly meetings among mentors (alone), to share their mentoring experiences, learn from each other and support each other, (ii) reassigning mentees to new mentors if issues arise, and (iii) informing the Inclusive Excellence Committee of common concerns among first year students.

Furthermore, the MPF will also be responsible for participating in and setting up opportunities for recruitment of graduate students, especially female students, Black students, LGBTQ+ students, and students from diverse backgrounds. This will involve going to local universities and conferences and giving presentations, as well as assisting the department as it increases its recruiting efforts. The MPF will also work closely with the Inclusive Excellence Committee to support its initiatives. Finally, the MPF will be responsible for creating and maintaining a website for the COMP.

The Math Department will continue to provide \$200 per quarter for the social events, and the MPF will receive a 50% fellowship, funded by the Math Department, the School of Physical Sciences, or other source of funding to be determined. Finally, another Mentor Program survey will also be administered over the summer by the Math Department DECADE representatives (faculty: Alessandra Pantano, graduate students: Jesse Kreger, John Peca-Medlin) in order to get more suggestions from graduate students in order to improve the program.