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Professor Martinez, Professor Gomez, Professor Galanthay, & Professor Brown,

“What do you do with a Ph.D. in Mathematics?” I was repeatedly bombarded with this question after finishing my B.A. at Ithaca College. Luckily, the answer was always clear—teach Mathematics. But what kind of position did I want? I started listing the qualities I wanted in an institution: a smaller school where personal interaction with students was valued, there was a focus on quality teaching using an innovative curriculum, and where undergraduate research was emphasized. I kept finding myself saying, “A school with courses and professors like I had at Ithaca.” I am thrilled to have the opportunity to apply for the position of Assistant Professor at Ithaca College. As an alum, I understand the college’s goals, values, and students. My experience and passion for teaching—especially Statistics, work in supporting diversity and inclusion in Mathematics, previous service, and goals as a potential faculty member at Ithaca College would make me an excellent asset to the College.

Diversity, Inclusion, & Mental Health. Students cannot be fully engaged in the classroom unless they feel recognized, accepted, and respected. I strive to address the great diversity of students as an educator: race, ethnicity, gender (identity), sexual orientation, socio-economic status, religion, accessibility issues, learning styles, and mathematical background. I make it known my office is a safe space as a member of the LGBTQIA+ community, and I hand out gender pronoun cards at the start of every semester. While teaching, I emphasize the contribution of underrepresented groups in Mathematics, especially Eastern Mathematics that has been wrongly credited to Western mathematicians, and give out worksheets/quizzes based around race and socioeconomic issues. I applied for and received a three-year, $30,000 grant to support travel and hotel costs for underrepresented groups for our annual Mathematics conference. I am also helping organize a new poster session for undergraduates at our conference. As Editor-in-Chief for the American Mathematical Society’s Graduate Blog, I hired writers from diverse backgrounds to publish articles addressing issues to underrepresented groups, especially Latinx mathematicians. I stress the importance of mental health by regularly addressing resources available to students at the university and handing out sheets after every exam with a list of University resources as well as national hotline numbers for students that may not feel comfortable using University resources. Finally, I give out anonymous comment cards at the end of every class, so that students can evaluate lectures and ask questions which I respond to in the next class or via email. This gives students a voice, allows me to track how students are progressing, and helps me to continuously grow as an instructor.

Statistics Teaching. Statistics has rapidly overtaken Calculus as the ‘most useful’ Mathematics course that every college student should take. The majority of my teaching experience has been in teaching Statistics courses. In every Statistics course that I teach, nearly every example in lectures, homeworks, and exams are constructed from real-world datasets. I emphasize examples relating to current issues: climate change, sustainability, diversity, the opioid crisis, healthcare, etc. To support student learning, I ensure that at least 30% of the course is centered around group work. Mathematics is a social activity! I also emphasize technology in the classroom, especially Wolfram Demonstrations, to help students visualize the Mathematics
as well as give them opportunities to experiment with the programs themselves. As a faculty member, I would work to expand the diversity of Statistics course offerings. A B.A. with Statistics emphasis would be a great way to make Ithaca College's students more competitive on the job market. These Statistics courses could also be coordinated using topics/data from other departments to emphasize undergraduate interdisciplinary studies.

**Ithaca Forever, ICC, & Undergraduate Research.** As an alum, I was excited to see the College commit to lowering tuition, demonstrate its commitment to faculty, engage more with the community, and emphasize sustainability. I would relish the opportunity to help Ithaca Forever be a success. I would love to develop new innovative courses for the ICC. For example, a course on evolutionary processes from a mathematical perspective. Such a course has a number of instructional cross disciplinary teaching approaches. A similar course has been very successful at UPENN. I would also like to develop online Statistics courses that students, at Ithaca College and elsewhere, could take over the summer and winter sessions. Finally, Syracuse University recently entered into a data sharing program with the City of Syracuse. To further the College's commitment to undergraduate research and year-round learning, I would try to build a similar collaboration, where the City of Ithaca or local businesses would share data with Ithaca College. This would give students real-world, meaningful datasets with community relevance to analyze in courses. It might be possible for these groups to support summer research opportunities for students in exchange for detailed statistical analyses of provided data at a fraction of the traditional costs.

**Service.** I have helped organize the annual Mathematics conference for the past four years at Syracuse University and was the primary organizer for the 2019 conference. For the past four years, I have also served as a Teaching Mentor at the University, where I train new graduate teaching assistants. In this role, I have also served on a number of teaching panels, especially those relating to the inclusivity of international teaching assistants and supporting STEM students, especially from underrepresented groups and weaker academic backgrounds. I have served on a number of committees, including the university graduate finance committee, teaching mentor selection committee, and the Mathematics undergraduate curriculum committee. Additionally, I have served for five years as the WebMaster and Social Media Manager for the Mathematics graduate program. In this role, I have worked to highlight underrepresented groups and student accomplishments. I also designed a new website, including adding thousands of pages of scanned notes and preliminary/qualifying exam materials to support graduate students in the department, personally compiling and writing hundreds of pages of solutions for these exams. Similarly, I supported undergraduates in preparing for their final exams by creating hundreds of pages of past final exam solutions. As professor at Ithaca College, I would work to build similar repositories of materials for students to help students from all backgrounds succeed.

**Conclusion.** I would not be where I am today without the support from faculty and staff at Ithaca College. Their excellent teaching and endless engagement helped shape the mathematician and educator that I am today. Nothing would bring me greater joy than the privilege of returning to Ithaca College to support its reputation of exemplary, personal teaching. Please, visit my Ithaca College application website: https://cgmcwhor.expressions.syr.edu, where I have further diversity and inclusion statements, teaching analyses, samples, and evaluations, lecture videos, detailed possible undergraduate research projects, a thorough research statement with possible collaboration projects at Ithaca, more thoughts on Ithaca Forever and the ICC, and much more! You can also visit my personal teaching website: https://coffeeintotheorems.com. I welcome the opportunity to discuss further how I would fit as a professor at Ithaca College.

Cheers,

_Caleb G. McWhorter_