

UNDERGRADUATE MATH SEMINAR

The next math seminar of the term will be

DATE: **THURSDAY, October 13**

Time & **12:30 – Pizza in Bailey 204**

Location: **12:50 – 1:45 Seminar in Bailey 207**



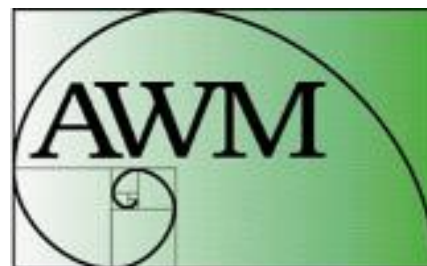
Professor Ellen Gasparovic

Title: Using Math to Assign Students to Schools

Abstract: The School Choice Problem centers on the question of how to fairly match students in a given public school district to its various schools. This involves balancing the needs and preferences of students and their families with the priorities and requirements of schools and cities. We will consider two main mathematical algorithms for matching students to schools that are widely used around the country. In the process, we will focus on what a "fair" school assignment mechanism should entail by examining matching properties such as stability and efficiency.

The Association for Women in Mathematics Meeting this Wednesday!

The Union College chapter of the Association for Women in Mathematics (AWM) will be meeting this week, **Wednesday, October 12 at 4:30pm in Bailey 204**, the math department common room. ALL are welcome and encouraged to attend.



Association for Women in Mathematics

Math Modeling Contests ... a Chance to Win Glory and \$\$\$

The 2023 Mathematical Contest in Modeling (MCM) and Interdisciplinary Contest in Modeling (ICM) will take place **February 16-20, 2023**. These are international contests designed to provide students with the opportunity to work as a team to engage in modeling and problem solving, open to students of all disciplines. You will form a team of up to three students, choose one of six contest problems (continuous, discrete, data insights, operations research/network science, environmental science, and policy), and work over 96 hours to develop a solution to a real-world problem.

For contest and scholarship details and past years' problems, go to:

<https://www.comap.com/contests/mcm-icm>.

Training sessions will be provided. Please contact **Professor Jue Wang** (wangj@union.edu) if you are interested in participating.

**COMAP's 2023
MCM® / ICM®
CONTEST
February 16-20**

Is your team registered yet?
The registration deadline is
February 16, 2023 at 3:00 pm ET

Register today:
www.mcmcontest.com

COMAP's Mathematical Contest in Modeling (MCM®) / Interdisciplinary Contest in Modeling (ICM®) is an international math modeling contest for undergraduate students. It is designed to provide students with an opportunity to work as a team to engage in and improve their modeling, problem solving, and writing skills.

Questions? Email: mcm@comap.com

Follow @COMAPMath for real-time contest info.
Follow COMAPCHINAOFFICIAL on Weibo.

Contest Sponsors:
MAA ICM SIAM ASA AMS

Winter Term Prescheduling: Advising Starting; Waitlist Sign-up Next Week

Even though we are only at the halfway point of the fall term, it is time to start thinking about winter term courses! Academic advising, during which students should talk with their faculty advisor to plan their winter term course schedule, starts this week. Next week, "Student Planning" (Self-service) will open for Waitlist course sign-up.

Timeline:

- *Faculty Academic Advising:* Monday, October 10 – Friday, October 28
- *Waitlist Course Sign Up on Student Planning:* Monday, October 17 – Friday October 21
- *Waitlist Course Review & Approval by Depts:* Monday, October 24 – Friday, October 28
- *Winter Term Course Registration (by appt):* Monday, October 31 – Thurs. November 3

Some Math and Statistics Courses: This winter, the math department will be offering several interesting courses beyond the calculus sequence that are suitable for math majors and minors.

- **Math 199** is the department's "bridge course," intended to help students make the transition from computationally oriented courses to more theoretical proof-writing courses. It is a **required** course for all math majors and minors that is *usually* taken *after* a student has taken Math 115.
- **Math 227** (Financial Mathematics). This NEW course covers the fundamentals of financial mathematics, including calculating present and accumulated values for various streams of cash flows, learning the terminology associated with these calculations including simple and compound interest, discount, and force of interest. Students will examine financial instruments including annuities, loans, bonds, stocks and interest rate swaps, and how these can be used. The focus of the class will be on problem solving and making the necessary relevant calculations.
- **Math 234** (Differential Equations). This course takes a somewhat more theoretical approach to the study of differential equations than its 100-level counterpart, Math 130. Note that students may only take one of these two courses.
- **Math 340** (Linear Algebra). This is a foundational course in math that is **required** for math majors. The primary objects of study in this course are vector spaces and the linear maps between them, which are implementable via matrix multiplication.

There are also a pair of courses in Statistics.

- **Statistics 104** (Introduction to Statistics) This course provides the conceptual foundations and analytical skills for students to be able to quantify uncertainty and to make rational decisions in the face of uncertainty. It addresses the collection of high-quality data the basic statistical analysis of such data.
- **Statistics 264** (Regression Analysis). In this course, both the theory and application of regression analysis to develop regression models to fit real-world data sets are studied.

Check the online course descriptions to see course prerequisites before registering!

Calculus Help Center: free calculus tutoring!

The math department runs a Calculus Help Center (CHC) that offers **free, drop-in, tutoring** in calculus courses through Math 117. It is Sunday through Thursday, 7:30-10:00pm in the Sorum House seminar room.