

# MSCS MESS

Department of Mathematics, Statistics, and Computer Science  
St. Olaf College, Northfield, MN 55057  
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## MSCS Tailgate Next Week!

On **Thursday, October 21** at **5pm** in **TOH 280**, the MSCS department will be hosting its annual tailgate. Using the Olympics as a theme, the faculty will talk about the many things that make our department special - like classes, research opportunities, and social events. After the presentation, our very own MSCS professors will be hosting a BBQ too... Come join the festivities next Thursday!

### Next Week's Research Seminar

Title: An Introduction to Crystal Bases and Their Combinatorial Models

Speaker: Prof. Adam Schultze

Date: **Friday, October 22**

Time: 3:30pm

Location: RNS 204

**About the talk:** We begin by answering the questions, "What are crystal bases?" and "Why should we care about them?". We then develop the tools needed to build two different combinatorial models for such structures: the Tableau model and the quantum alcove model. We conclude by discussing the benefits and detriments of each model which motivates an isomorphism between the two. Elements of this seminar will be continued in a second talk by Prof. Schultze on November 5...

**About the speaker:** Adam Schultze recently received his Ph.D. in mathematics from SUNY University at Albany. His research area is algebraic combinatorics, a field where abstract mathematical structures, often pertaining to certain symmetries, are broken down into discrete models.

## Practicum Applications Open

Applications are open for the Mathematics Practicum, taking place during Interim 2022. The Practicum is an Interim course that gives you the chance to work on real-life problems in cooperation with local companies and nonprofit organizations. The course typically begins with a visit to the offices of the sponsoring organization, where you'll meet the people who will describe a math/stat-related problem they are anxious for you to attack! Three weeks of on-campus work will follow, culminating in group presentations at the company offices.

The course is intended for junior and senior MSCS majors and concentrators, and enrollment is limited to 15. Students will split into three teams of five, each working on a different problem. Applications are due on **Friday, October 22**, and you will hear back on your application the following week. If you are interested, fill out **this Google Form!**

## Oklahoma City Thunder Internships

From an Ole alum: The Oklahoma City Thunder Strategy and Research Group has posted some paid internship positions targeted at undergraduate students (especially sophomores or juniors). Students with an interest in sports analytics or with a passion for sports might be particularly interested in applying. See **this analyst internship posting** and/or **this software engineer internship posting** for more information.

# Enjoy Your Fall Break!

If you feel the desire to keep doing MSCS-related things over break, here are some fall-themed ideas:

- Count the leaves on the nearest tree
- Calculate the probability of snow in October in Minnesota
- Measure the sum of the angles in a pumpkin
- Come up with a math-related Halloween costume for later this month
- Design an extension that makes leaves fall on webpages
- Or... take a break. You've earned it!

*To submit an article, event, or anything else for publication in the Mess, email [mcgowa2@stolaf.edu](mailto:mcgowa2@stolaf.edu); to receive the Mess digitally each Friday, email [habero1@stolaf.edu](mailto:habero1@stolaf.edu); visit <http://wp.stolaf.edu/mscs/mscs-mess/> for a digital archive of previous MSCS Mess issues.*

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