

∫ Integram

EMU Mathematical Sciences Department

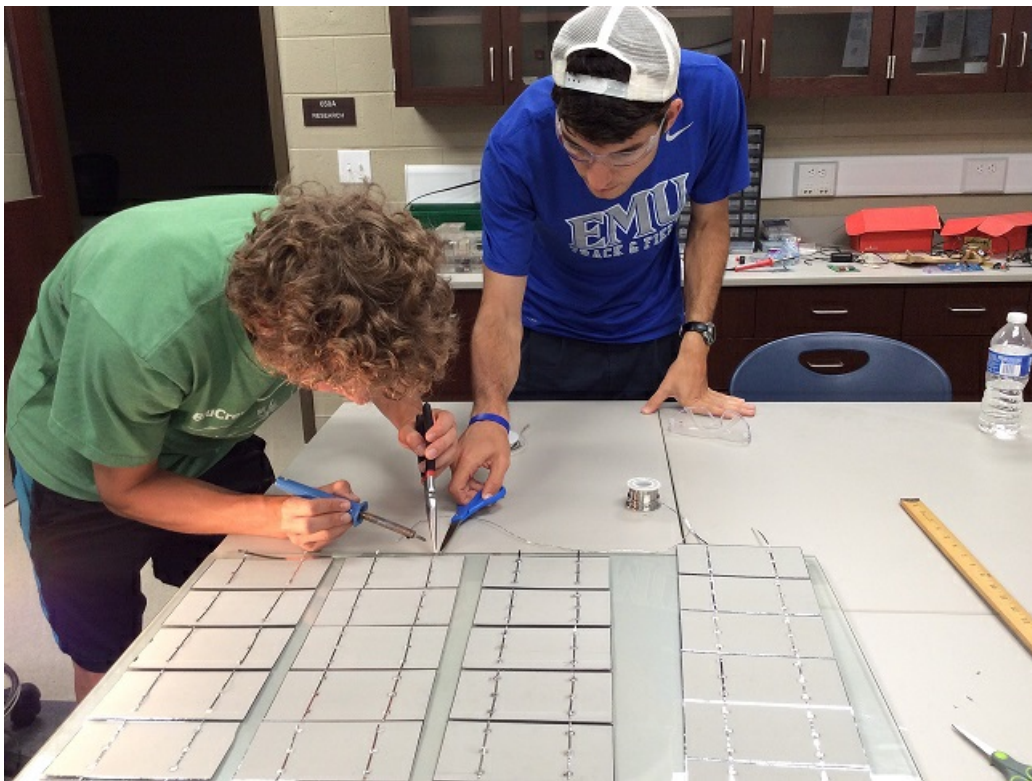
Summer 2016

In this issue:

- [Engineering Major Coming to EMU](#)
- [Department News](#)
- [Congratulations](#)
- [Faculty Updates](#)
- [Problem Corner](#)

[Back to top](#)

Engineering Major Coming to EMU



After many years of dreaming, we are finally celebrating the reality of a new four-year engineering program at EMU! Under the leadership of engineering professors Danny King and Esther Tian, we have developed the curriculum for a Bachelor of Science in Engineering degree with an optional emphasis in either Computer Engineering or Mechanical Engineering. With final approval from EMU's Undergraduate Council and SACS (our institutional accrediting body) now confirmed, we are poised to launch the engineering program welcoming our first cohort of students in Fall 2016. Plans also include renovating the lower west end of the Suter Science Center

as an engineering wing of the building. Stay tuned for more details!

[Back to top](#)

Department News

ASEE Conference

Dr. Esther Tian took two students **Stephan Goertzen** and **Josh Sauder** to the 122nd American Society for Engineering Education (ASEE) Annual Conference held in Seattle in June 2015. Representing ESW @ EMU, they presented the Solar Powered Chicken Coop project in the 5th Annual Student Design & Manufacturing Competition. The contest was broadcasted live. In addition to addressing questions from the judges, all the participants mingled and shared project ideas and experiences. The solar power project aimed to construct a large solar panel from scratch and to provide sufficient electricity to allow for the chicken coop to be energy independent from the grid. The engineering team was awarded Small Project Grant from Engineers for a Sustainable World to carry it out. This project was well received at the conference. The students also attended workshops and technical sessions as well as expositions. As Josh stated in his report, "There was a healthy mix of advanced technology and basic ethics brought to the table at the convention, and the overall trip brought me insight into the engineering community that I didn't think I would have ever gained." The students' travel to the conference was generously supported by the Provost's office and the Dean's office.

Suter East Renovations

The recently completed renovations in the lower east wing of the Suter Science Center include several updated rooms for the MathSci department: a 15-seat engineering classroom, a 32-seat physics classroom, and a new research lab for long-term projects and 3D printing. These spaces include up-to-date features such as writeable walls, an interactive projector system, lab hookups, and computer stations. Danny and Esther are especially glad to have dedicated rooms for their project- and demonstration-heavy courses after several years of lugging equipment all over campus!

3D Printer

To support growing student and faculty interest in design and rapid prototyping, a professional 3D printer was purchased in July 2015. In its initial year, the printer primarily has been used in the Introduction to Engineering class to teach students about 3D models and allow them to design and create objects such as cell-phone stands, keychains, and solar chargers. The printer has also been used for a Physics I lab to study rotational motion of objects and to create physical demonstrations to explain mathematical concepts. We are excited about the capabilities of the printer and look forward to many more creative and collaborative uses in the future.

[Back to top](#)

Congratulations

Math Scholarship Recipient

Sarah Beth Ranck was the recipient of the Brenneman Longacher mathematics scholarship for the 2015 incoming class. Sarah Beth, from Lancaster, PA, is majoring in mathematics and minoring in Spanish. While she doesn't know what exactly she wants to do with math, she is considering math education. She credits some of her passion for math to her dad who also thoroughly enjoys math. Her favorite math memory at EMU so far is when Daniel Showalter tried to use induction to convince the Discrete math class that all cats are the same color.

Graduates

We cheered on six Mathematical Sciences graduates at EMU's 98th annual commencement ceremony on May first: **Alex Bender** (CS), **Stephan Goertzen** (Math), **Jaclyn Kratz** (Math, Secondary Ed), **Isaac Mast** (CS), **Erin Nafziger** (Math, Secondary Ed), and **Ryan Swartzentruber** (Math & Economics).

Congratulations – **and stay in touch!**

[Back to top](#)

Faculty Updates

Welcoming Daniel Showalter



We are pleased to announce that after teaching at EMU on a one-year position in 2015-16, Dr. Daniel Showalter has accepted a tenure-track position as an Assistant Professor of Mathematics. Daniel attended EMU for two years in the late nineties, and then went on to receive a BS in mathematics from Urbana University, an MS in mathematics and a PhD in mathematics education from Ohio University. He will be teaching mathematics, statistics, and computer science courses at EMU. His research interests include rural education, East Asian mathematics, and causal inference on quasiexperimental data. He enjoys coffee conversations, math puzzles, anything multicultural, and dancing with his two little girls.

Thank you, Dee!

After six years of devoted service to EMU, Dee Weikle has accepted a computer science faculty position at James Madison University. We appreciate her attentiveness to student needs, her collaborative research with students, and her efforts to make computer science more visible at EMU. We will miss Dee, but we wish her the best at JMU.

[Back to top](#)

Problem Corner

New Problem:

How many 20-character “words” can be created if the letters of the word must be distinct and in alphabetical order? (A “word” here is simply a string of lower case letters of the alphabet.) Bonus: What if the letters need not be distinct?

Submit your solutions to Owen Byer at byer@emu.edu.

Are you (or do you know) a prospective student who is interested in studying math at EMU?

Contact Owen Byer at byer@emu.edu for information about applying for the

Brenneman-Longacher Endowed Math Scholarship.

Recipients receive \$1,250 per year for four academic years, as long as they continue in the math major.

[Back to top](#)

∫ Integram Summer 2016

Published by the Mathematical Sciences Department
Eastern Mennonite University, Harrisonburg, Virginia

Editor: Charles Cooley
cooleycd@emu.edu

VISIT THE DEPARTMENT HOME PAGE
<http://www.emu.edu/math/>



[Apply](#)

[myEMU](#)

[News](#)

[People](#)

[Offices](#)

[Give to EMU](#)

[Library](#)

[Contact Info](#)

[Jobs at EMU](#)

[Safety and Security Info](#)

[EMU Password](#)

[Website Feedback](#)

Copyright © 2006 - 2017 Eastern Mennonite University
1200 Park Road, Harrisonburg, Virginia 22802
Phone: 540-432-4000 • Fax: 540-432-4444

