

# URCA

## Undergraduate Research and Creative Activities

Fall 2022

### What Is URCA?

URCA is a program designed to get undergraduate students more involved in research and creative activities. There are two ways in which students can participate in URCA: as Associates and as Assistants.

**Associates:** These are year-long positions in which a student designs his or her own research or creative activity project and then works with a mentor to see it through. Associates are required to attend monthly meetings and to present their scholarly work at the Spring Symposium. Associates earn a stipend and can also receive money for project-related equipment and travel. Only a maximum of 10 students are accepted into this program each year.

**Assistants:** These are semester-long positions in which students assist faculty with their research or creative activities. Assistants are not required to attend monthly meetings or present their work. Up to 90 students each semester may receive a stipend for being Assistants; however, each semester several students also participate as unpaid Assistants. It is also possible for Assistants to earn course credit for their participation.

**Mentor:** Dr. Carolyn Butts-Wilmsmeyer

**Department:** Biological and Environmental Sciences

Dr. Carolyn Butts-Wilmsmeyer is a mentor for her 8 URCA assistants: Mary-Margaret Benware, Patrick Carney, Milena Di Blasi Milena, Hannah Labby, Tyson Lobb, Ifeoluwa Peace Osikoya, Fatima Romo, and Riwarz Poudel.

This group of assistants works both in the lab and from their computer to help solve questions pertaining to the biological systems around us, which includes factors of environmental sustainability and human health. Each assistant works on their own individual project, but they come together to brainstorm ideas. This represents the meaning of URCA, which is to give students the opportunity to work on real-world problems closely with a SIUE faculty member. In Dr. Butts-Wilmsmeyer's words, "I could not ask for a more fun group of students to work with."

#### Why do you like about the URCA program?

"The URCA program is an absolutely phenomenal opportunity for our students and gives them a chance to learn hands-on skills while working with real-world projects, all before they graduate. I also love that students have the chance to not just conduct research but also present it to the campus community at the spring Showcase each year. "

Dr. Carolyn Butts-Wilmsmeyer

**For More Information Visit:** <http://www.siue.edu/urca>

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What are you doing in Dr. Butts-Wilmsmeyer Lab?

- ⇒ Preparing corn samples
- ⇒ Extracting phenolic and flavonoid compounds
- ⇒ Detecting mycotoxins
- ⇒ Creating models of predictability of corn compounds



**Mary-Margaret Benware**

Interests—  
 Environmental sustainability— using less pesticides by finding naturally resistant biotic and abiotic stressors in crops.

Favorite Part about URCA—  
 “Working with other scientists!” But also having different interests and perspectives

Favorite Part about Lab—  
 BOTH laboratory research & statistical programming

**Hannah Labby**

Interests—  
 Medical sciences and a childhood of raising sweet corn

Favorite Part about URCA & Lab—  
 Working with other “intelligent and considerate peers” & “supportive URCA mentor”

**Patrick Carney**

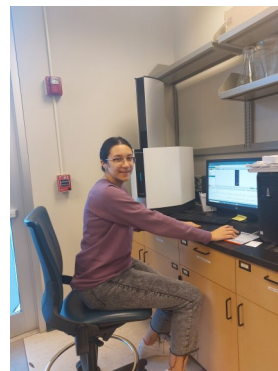
Interests—  
 Healthcare field and growing up near corn fields

Favorite Part about URCA—  
 “Connecting with faculty and fellow researchers” & a “positive experience”

Favorite Part about Lab—  
 Preparing the corn for analysis (acetone washes on the corn several times)

**Goal**

*More sustainable farming &  
 Protect the food supply and ourselves from mycotoxins!*



**Mentor:** Dr. Ezra Temko

**Department:** Sociology

Young Elected Officials (YEO) Network partnered with Dr. Ezra Temko on the now published **Communities Moving Past the Daddy Daughter Dance: Adapting Gender-Exclusive Events for the 21st Century**. URCA assistants Emily Love, Destiny Baxter, Heidi Masching, and Adam Loesch helped co-author this report. There are many events such as “Daddy Daughter Dance” and “Mommy and Me Teas” that are gender specific, which can exclude children and families based on their gender and/or family structure. The report explains how these events have negative impacts on diverse family structures. Events such as “Family Dances” and “Bowling Bonanzas” are more gender-inclusive, which can create an environment for diverse family structures. The report provides information and resources for advocacy and implementation of these events.

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