

2024 CNAS Undergraduate Research Symposium (UGRS) Presenter Instructions

Dear 2024 CNAS UGRS presenters,

We are excited to have you participate in our conference. This document contains comprehensive information on how to prepare and play a part as a presenter in this conference.

Deadline for abstract submission: April 15, 5:00 PM (April 1 is first day of submission).

Things to do to for the Symposium

A. Submit your abstract:

First, please contact your research advisor to ask about the general format of an abstract in your research field. After completing your abstract, ask your advisor to check the science and format of your abstract.

- Abstracts may not be longer than 200 words.
- Please submit your abstract by April 15, 5:00 PM (the submission window opens on April 1).
- Please email your abstract to Gale Lininger: galelininger@missouristate.edu

B. Poster: *The in-Person poster session on April 25 at PSU Ballroom*

Poster Guidelines:

- Abstracts may not be longer than 200 words. (WORD document - see format examples on next page) – Times New Roman 12 pt font and double-spaced.
- Presenters: please see the “Judging Criteria” document updated on the Website. This will provide you with guidelines for the poster preparation.

Poster Exhibition Guidelines and Schedule Details:

- All displays must be set up by **12:00 noon on Thursday, April 25**. They will remain posted until **3:15 PM**
- Poster display boards will be provided; therefore, you must limit the size of your poster to **58 inches in width x 46 inches in height**.
- Presenters will bring their own presentation materials. Your display will be secured to the display board using either Velcro ‘dots,’ tape, binder clips, or similar devices. Appropriate adhesive/attachment materials will be provided when you check-in to set-up your poster.

- Presenters and Judges (only) will be allowed in the Poster area **from 12:00 noon to 1:30 pm** (this is the time for judging to occur and presenters must be present to answer questions).
 - To make this more comfortable for you, we lunch will be provided (we anticipate having Pizza!) for you in the room from 12:00 to 1:30.
 - **From 1:45–3:15 pm** – the campus community and general public are invited to view your poster and ask you questions, so please plan on staying during that time too.
- ✚ At 3:30 pm, our Awards ceremony will begin and the award winners in each category will be announced.

Event Schedule

TIME	ACTIVITY
11:45 – 12:00	All displays/posters must be set up
12:00 – 3:15	Poster presentation
12:00 – 1:30	<i>Judging:</i> Poster presentation to the judges
12:00 – 1:30	Lunch provided
1:45 – 3:15	Poster presentation to the campus community and general public
3:30 – 4:45	Awards ceremony

Clause: If you require any accommodation for the symposium day (including an unplanned absence), please contact Gale Lininger: galelininger@missouristate.edu We are committed to making every effort to address and accommodate your needs.

C. EXAMPLE ABSTRACTS FORMAT FOR IN-PERSON POSTERS:

GENERATIONAL EXPOSURE TO CERIUM OXIDE NANOPARTICLES ALTERS PERFORMANCE OF WHEAT EXPOSED TO PERFLUOROOCTANESULFONIC ACID

Preston Clubb. Chemistry and Biochemistry. Faculty Advisor: Cyren Rico

This study investigated the effects of generational treatments of wheat with cerium oxide nanoparticles (CeO₂-NPs) followed by exposure to perfluorooctanesulfonic acid (PFOS). Wheat was grown for 21 days (short-term exposure) or 90 days (long-term exposure) in soil with PFOS (50 ppm). Biomass production, chlorophyll content, enzyme activity, and membrane damage were measured at short-term exposure, while elemental concentration of grains harvested from long-term study was analyzed. Results showed that generational exposure to CeO₂-NPs improved chlorophyll content but reduced concentrations of important macro- and micro-elements in the grains. The data seems to suggest that continuous exposures to contaminants could negatively affect the nutritional quality and grain elemental composition in succeeding generations.

INTELLIGENT TRAFFIC INTERSECTION MONITORING VIA LIVE CAMERA

Tyler Songer, John Meents, Guvanch Garryev, Robert Safford, Cameron Briggs. Computer Science, Faculty Advisor: Mohammed Y. Belkhouche

This project aims to accurately track and monitor a city traffic intersection via a live camera feed. We used the publicly accessible Springfield city traffic intersection cameras as our main sample source, provided by Ozark Traffic. We track the position of all cars within view of the camera using a machine learning algorithm to detect them. We log statistics such as the number of cars and data specific to the cars. Expanding on the information gathered, we can accurately log different forms of traffic.