2021 "Virtual" Summer Undergraduate Research Symposium
Thursday July 29, 2021
Abstract and Category Instructions

Instructions:
Undergraduate research/creative virtual presentations will be held on Thursday July 29, 2021. We are compiling a symposium booklet with abstracts to be distributed electronically prior to the symposium. **Abstract submissions will be accepted online until 11:59 pm on Sunday July 18, 2021.**

Abstract submission link: https://honorswvu.wufoo.com/forms/p12y5ytr1l07gpo/

Undergraduate presenters are to enter the abstract (150-175 words) along with title, author names, author affiliation(s), and category choice into the online form. Faculty research/creative mentors will be asked to verify and confirm abstract submissions by/before Tuesday July 20, 2021.

Questions? Contact the Office of Undergraduate Research at (304)293-9354 or email SURE-Symp-Abstracts@mail.wvu.edu (email is best).

The **abstract title** (4-13 words) should be grammatically correct, accurate, and convey maximum information. Keywords (specific rather than general, e.g. "copper-zinc alloy" rather than "alloy") should be used to facilitate an online title search. In addition, because the symposium is open to parents and to members of the public, it is best to use title words that can be comprehended by the general public (maybe, your mom or dad). Presenters should use the title to attract people to the presentation. Do not use a title that is so technical that it turns people away. Capitalize the first letter of each main word of the title.

In **author** (first name, middle initial and last name) byline, include ALL authors (including the faculty research mentor) who made substantial contributions to the research. Designate all undergraduates with asterisks after their names. Do not include titles, such as Prof. or Ph.D., before or after author names.

The **author affiliation** is the department/division/center or institution at which the research was conducted or would have been conducted if not virtual (e.g., C. Eugene Bennett Department of Chemistry, West Virginia University, Morgantown, WV 26506-6045). Building name/number and street address are not included.

In your **abstract (150-175 words)**, include the following:

* problem statement or purpose of research (motivation/impact & question addressed/hypothesis tested)
* relevant scholarly or research context indicating attempt at unique contribution
* research methodology (e.g., artistic, theoretical or experimental plan used/approach)
* safety information (if applicable)
* summary of principal findings/results (include numbers, e.g. p=0.02))
* major conclusions

Abstract[1] should be a self-contained, single paragraph (discipline dependent) that allows the reader to determine the nature and scope of the research work (i.e., whether the research presented in your presentation is of interest). Do NOT include references in the abstract! Also, do NOT include figures or tables of information in your abstract, except in the case of organic chemistry abstracts (may include reaction schemes) or artistic abstracts (as necessary).

BE SURE TO GET FEEDBACK FROM YOUR FACULTY RESEARCH/CREATIVE MENTOR ON YOUR ABSTRACT BEFORE SUBMITTING YOUR FINAL VERSION!!

In addition, there will be different categories (e.g., Agricultural Sciences, Biological Sciences, Creative Arts, etc.) to which you may submit the research. Some categories may be combined according to the number of submissions. Presentations will be judged and awards for the best presentations will be given. In a concise, coherent, and structured manner, you should be able to explain (5 minutes max for posters and 10 minutes max for oral/performing arts/visual arts and using your visuals as reference) your project to a researcher outside of your discipline or to a member of the general public. You should be able to field questions about your research.

Sample Abstract: Abstracts will be formatted for the booklet as shown below.

- Title (centered, first letter of main words capitalized, **Times New Roman 14-point font and bold**)
- Authors (centered, Times New Roman 12-point font and normal)
- Author Affiliation (centered, *Times New Roman 12-point font and italic*)
- Abstract (Times New Roman 12-point font and normal)

College Students' Perspectives and Reasoning About Nanotechnology Risks and Benefits

Brittany Witherspoon*[1] and Eva Erdosne Toth[2]
[1]C. Eugene Bennett Department of Chemistry and [2]Department of Curriculum and Instruction/Literacy Studies, West Virginia University, Morgantown, WV 26506

The introduction of novel technologies, such as nanotechnology, has become a topic of interest in scientific literacy and education. Consequently, the perspectives of the public on the risks and benefits associated with Nanotechnology are important. In this study, we collected and analyzed pre-service elementary teachers' perceptions on nanotechnology to further inform a larger scale instructional innovation for pre-service science teacher education. We surveyed students in an elective, media-literacy course through measurement instruments such as pretests, worksheets, and posttests to analyze their perspectives and reasoning as related to the use of nanotechnology for everyday problem solving. The results indicated that students had a "cautiously optimistic" perspective on the application of nanotechnology and that this general perspective was stable and unchanging after instructional innovation. However, we found interesting changes in how students reasoned for these opinions. The significance of the study is that it addresses the concerns of improving public literacy about novel technologies by way of elementary teacher training, and thus it establishes a way for public literacy that starts early in K-12 education.

---

[1] Reference: Coghill, A. M.; Garson, L. R., Eds. *ACS Style Guide: Effective Communication of Scientific Information*; Oxford University Press: New York, NY, 2006; p 20-23.