

AUTHOR KIT

2017 Undergraduate Research Conference Annual Proceedings

NOTE - All faculty authors must register, attend the conference, and present their paper in order for their paper to be published in the Conference Proceedings.

Please follow the formatting instructions below carefully, so that the proceedings will have a consistent look and feel.

***Sample Paper**

*A sample paper is provided below for your reference.

Title Page (top part of first page only)

Title of Paper

The title must be centered 3 lines below the margin in 12 font increments.

'Times New Roman' typeface is required, **bold** faced, **14 point**.

Authors and Affiliations

The authors' name must be centered 2 lines below the title.

'Times New Roman' typeface is required, **bold** faced, **12 point**.

The affiliation(s) must be 2 lines below the author name(s). If there are multiple affiliations due to multiple authors, they should appear as shown in the sample paper below.

'Times New Roman' typeface is required, **12 point**, *not* bold faced.

Footer

The footer shown at the bottom of this page should appear on every page of your paper. The footer is centered with 10 point type and in italics:

Body of the Paper

The body begins under the title information on the first page and continues with all subsequent pages.

First Page

The body of the paper must begin 4 lines below the affiliation(s) on the first page (following all title information, on the same page).

The paper will be in a one-column format with left justification, skipping one line between paragraphs. There must be a 1 inch margin all around (top, left, right, and bottom).

Times New Roman typeface is required, 12 point, skipping one line between paragraphs.

Second and All Subsequent Pages

There must be a 1 inch margin all around (top, left, right, and bottom) in one column format, left justification, single spaced, skipping one line between paragraphs.

Times New Roman typeface is required, 12 point, using only standard symbols and abbreviations in text and illustrations.

Abstracts

An additional section during registration asks for a copy of this abstract so that it may be included in the Undergraduate Research Conference Program. In the paper, the abstract should appear at the beginning and not on a separate page (see sample).

Headings

Section headings should follow the format shown below. There must be one space between the heading and the paragraph.

Level One Heading (Centered, 14 point, bold)

Level Two Heading (Left justified, 12 point, bold)

Level Three Heading (Left justified, 12 point, not bold)

Page Numbering

Do not number the pages.

Length

There is no set limit for the number of pages a paper can or must be.

Tables and Figures

Tables and figures should be inserted in the text where the author believes they best fit. They may be moved around a little to better correspond to the space requirements of the E-Journal. If necessary, tables and figures may occupy an entire page to ensure readability and may be in either portrait or landscape orientation. Insofar as possible, tables should fit onto a single page. All tables and figures should be germane to the paper. Figures should be a resolution of at least 300x100 pixels. Tables should be labeled with the title at the beginning (**in bold**), with data entries single-spaced, and numbered. Column labels should be half-line spacing above data.

Table 1. The title of the table. And any additional information.

Figures should have their captions follow the image. Captions should be single-spaced, with title in **bold**. Additional text should not be in bold. The Editorial staff may adjust layout to allow optimal use of space.

References/Bibliography

The references or bibliography section follows the body of the paper, and begins 4 lines below the body using the same margins as the body. The referencing requirement is to American Psychological Association format (APA). When referring to them in the text, remember to cite sources as (author last name, year).

‘Times New Roman’ typeface is required, 10 point.

Biographical Information

The biography must begin 4 spaces below the bibliography using the same margins as the body. Consider each author as a separate paragraph, skipping one line between each author.

Author’s name must be in capital letters, followed by up to 4 lines of text per author.

‘Times New Roman’ typeface is required, 10 point.

A Sample Undergraduate Research Conference Paper

Julia C. Frederick, Ryan C. Winters

University Honors Program
University of Louisiana at Lafayette

Terrence Chambers

Chemical Engineering Department
University of Louisiana at Lafayette

Abstract

This paper doesn't really say anything important. The only purpose is to illustrate the proper formatting of papers for the 2017 Undergraduate Research Conference. Beyond that, this paper also describes the undergraduate research enterprise at this university, its benefits for students at any university, and the current progress of LaCOEUR initiatives. Included is a truncated set of data illustrating the success of our Mini-grant program for funding undergraduate research on the University of Louisiana at Lafayette campus.

Introduction

While many trade conferences provide undergraduate students the ability to participate in viewing the research of more experienced professionals, one of the most important experiences for students must include undergraduate research and faculty-to-student collaboration. Multiple sources show that by providing this opportunity to undergraduate students, the student increases in integrative learning which provides extensive hands-on benefits (Astin, 1993, Kuh, 2008, Laird et al., 2008, Munroe, 2016, Mumford et al., 2017, Shultz, 2013). In addition to the advantage of interdepartmental and integrative learning, Stebner et al. (2016) synopsized:

Hunter et al. (2007) found a correlation between conducting research and an increased level of confidence in students' ability to think critically and conduct research. The biggest boost to student confidence was taking part in research that was relevant and beneficial to their field. In creating research that can positively impact their field, students gained an increased clarity in career direction, specifically toward employment in research fields (Hunter et al., 2007). When

undergraduates create meaningful research they develop an increased feeling of community and sense of belonging within their department and academic field (Howitt, 2010).

By creating more undergraduate research initiatives, undergraduate students have a higher likelihood of being able to get involved and become prepared through this experience to join the communities of graduate programs. This meaningfulness they experience during matriculation through research can be practiced through many prospects. As shown in the data provided, the Undergraduate Research Conference has been a space that provides multiple disciplines, faculty, and students to interact and begin multi-layered collaboration.

Mini-Grant Funding

Incentives for undergraduate research create an environment of support and community in an otherwise isolated setting. From 2015-2017, the number of accepted undergraduate research mini-grants has grown to include a larger number of granted submissions. Numbers show these grants are up from 14% of proposed grants being funded to 38% being fully funded.

The reason faculty often co-opt undergraduate students for research is numerous, but can be fiscally motivated. Undergraduate students provide for a diversity of labor to faculty that expands research throughout the community in a vertical direction. As well undergraduate students are not expected to be paid the same rates as graduate students, which in turn delivers more labor for less investment, and the students still receive a valuable pay-off of experience and a small profit for their time. And as always, undergraduate students are more available and are as ready to learn as graduate students, which suggests that the money spent on research could prosper quicker results from a more continuous stream of labor (D. Bellar, personal communication, July 6, 2017). It is evident from these points that undergraduate research grants often are financially responsible.

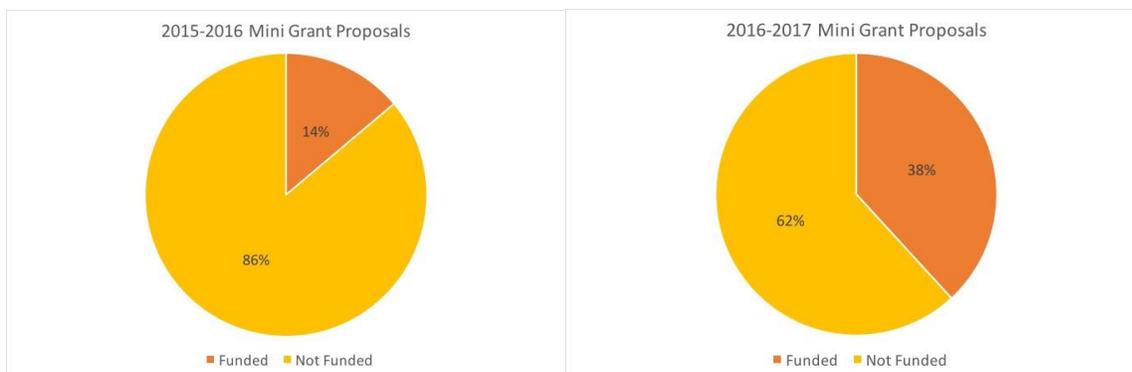


Figure 1. Chart of Funded Research Grants. Mini-grant funds provide both student and faculty an opportunity to expand their professional and educational pursuits.

LaCOEUR

To continue the improvements to research initiatives on the University of Louisiana at Lafayette campus, the Louisiana Council On Excellence in Undergraduate Research (LaCOEUR) was formed to provide a mini-grant research funding opportunity, conference publication opportunity, and a consistent board for continued development in undergraduate research. This resource can be created at any university that has individuals committed to undergraduate research.



Figure 2. Louisiana Council On Excellence in Undergraduate Research Logo. Colors are representative of the University Honors Program at the University of Louisiana at Lafayette.

Summary and Conclusions

In summary, we have introduced the concept of mini-grants for increasing undergraduate research, which in turn can be considered a fiscally responsible research alternative for faculty. As well, we have demonstrated the benefits for students of participating in undergraduate research, and the benefits of creating a committee to spearhead this type of research.

It is difficult to collect data of undergraduate research that ascertains whether the students benefit in a longitudinal sense from their experience. Instead, we can interpret short-term results of funding, participation, and topic focus to determine an increased or decreased meaningfulness of research to the university environment. Additional information will continue to be gathered as we expand on the Undergraduate Research Conference at the University of Louisiana at Lafayette and measure outcomes of the experience for students.

References

- Astin, A. (1993). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
Hunter, A.B., S.L. Laursen and E. Seymour. 2007. Becoming a scientist: The role of undergraduate research in students' cognitive, personal, and professional development. *Science Education*, 91(1), 36-74.

Howitt, S., Wilson, A., Wilson, K., and Roberts, P. (2010). Please remember we are not all brilliant: Undergraduates' experiences of an elite, research-intensive degree at a research-intensive university. *Higher Education Research and Development*, 29(4), 405-420.

Kuh, G. (2008). Why integration and engagement are essential to effective educational practice in the 21st century. *Peer Review*, 10(4), 27-28.

Laird, T., Daniel C., and Kuh, G. (2008). Classroom practices at institutions with higher-than-expected persistence rates: What student engagement data tell us. *New Directions for Teaching and Learning*, 115, 85-99. doi: 10.1002/0.327.

Munroe, D. (2016). Interdisciplinary community-connected capstone courses: A Model for engaging undergraduates with public policy. *CUR Quarterly*, 36(3), 11-20. doi: 10.18833/curq/36/3/2.

Mumford, K., Hill, S., & Kieffer, L. (2017). Utilizing undergraduate research to enhance integrative learning. *Council On Undergraduate Research Quarterly*, 37(4), 28-32. doi:10.18833/curq/37/4/13.

Shultz, Norah. (2013). Learning communities as a first step in an integrative learning curriculum. *About Campus*, 18(4), 26-29. doi: 10.1002/abc.21128.

Stebner, S., King, A., & Baker, L. (2016). Expectations and experience: An Exploratory study of undergraduate research experiences as viewed through the experiential learning theory. *NACTA Journal*, 60(4), 364-371.

JULIA C. FREDERICK

Dr. Frederick currently serves as the Director of the Honors Program at the University of Louisiana at Lafayette and as a professor in the History Department. Her research interests include Latin American History, indigenous cultural history of the Central and Southern Americas, Asian culture and geography, and pedagogical formats in Honors-related teaching. She is responsible for the guidance of all undergraduate research theses, and is the university director of the Eugene Scassa Mock Organization of American States (ESMOAS). Dr. Frederick is the creator of the Undergraduate Research Conference, and a co-creator of LaCOEUR.

RYAN C. WINTERS

Mr. Winters currently serves as the Academic Advisor of the Honors Program at the University of Louisiana at Lafayette. His research interests are in counseling, college population advising, theoretical applications of pedagogical approaches to teaching counseling, and Restrictive Environmental Stimulus Therapy (REST). Mr. Winters has a Masters of Science in Counseling, is a Provisionally Licensed Professional Counselor, and serves as the webmaster of the LaCOEUR website and administrator of the Conference Proceedings.

TERRENCE CHAMBERS

Dr. Chambers is the Mosing Endowed Chair in Energy and the Director of the Energy Efficiency and Sustainable Energy (EESSE) Center at the University of Louisiana at Lafayette. His research interests include alternative energy, virtual reality, optimization, and artificial intelligence. He is the author of over 60 publications, and has been awarded roughly eight million dollars in externally funded research grants. Along with numerous grants from industry and state agencies, federal grants have been obtained from NSF, DOE, ED, and NASA. He is a registered Professional Engineer in the state of Louisiana. Dr. Chambers is a co-creator of LaCOEUR.