**Impact Statement Template**

(For NSF RUI, NIH AREA, and other grants requesting similar information)

**The Institution**

The University of Wisconsin - La Crosse (UWL) is one of eleven four-year, comprehensive campuses that focus primarily on educating undergraduate students in a smaller, more intimate setting within the University of Wisconsin System (UW System), which is ranked 13th in *Reuters’ Top 100: The World’s Most Innovative Universities (2016)*. As part of the UW System, UWL embraces the Wisconsin Idea. Proposed by UW System President Charles Van Hise in 1904, the Wisconsin Idea declares that “education should influence and improve people’s lives beyond the university classroom,” and it has become a guiding principle in university outreach. Research is a natural extension of this philosophy, as it extends the reach of education into the world at large, benefiting scholars as well as society. As part of its mission, UWL “expect[s] scholarly activity, including research, scholarship, and creative endeavor, that supports its programs.” The large number of UWL students participating in faculty-mentored research speaks to how this mission is put into action. According to the National Survey of Student Engagement (2017), 30% of UWL seniors indicated that they had participated in research with faculty, which is significantly higher than the 23% nationwide participation rate at master’s universities. It is no coincidence that the university has built a strong academic reputation when research plays such an integral role within students’ educational experience. This is evidenced by UWL’s many public accolades, including being named as the third public university on the *U.S. News & World Report’s Best Regional Universities in the Midwest* (2019) on *Kiplinger’s Best Values in Public Colleges* (2019), ranked fourth by *US News & World Report’s 2019 Top Public Regional Universities in the Midwest,* and being recognized as one of 39 schools by *U.S. News and World Report* for excellence in Undergraduate Research and Creative Projects (2015).

**Support for Research and Scholarly Activities**

In addition to philosophical commitment, the university provides financial support for student research. Each fall semester, UWL holds a competitive faculty grant application process in support of research with funds totaling approximately $283,000, which is intended to support faculty at all professional levels and strongly encourages the involvement of students in the proposed research. Support for faculty research is further augmented by the university’s direct support for research conducted by undergraduate and graduate students, amounting to over $294,000 each year in funding for student-based research proposals, conference travel, and related activities. Proposals are submitted by students to conduct research under the mentorship of a faculty member. Students are encouraged to disseminate the results of their research at UWL’s annual Research and Creativity Symposium, which for the past 20 years has provided the opportunity for students to present their work through oral presentations, poster displays, and gallery exhibits. The event highlights student research accomplishments and the important role faculty plays as mentors in the scholarly activity process. The celebration, open to students representing 35 departments, has grown to include over 150 posters, oral presentations, and exhibits across the campus. UWL has also hosted two national undergraduate research forums, including the National Conference on Undergraduate Research (NCUR) in 2009 and 2013 and the Council on Undergraduate Research (CUR) in 2004. The UWL Undergraduate Research & Creativity Office provides a centralized campus resource to support students’ research and creative activities by offering grant writing and poster development workshops, writing hunkers, support for community partnerships, and course-embedded research training for faculty.

*[CSH Statement:]*

The UWL campus community’s commitment to fostering student research is echoed by the College of Science and Health (CSH). CSH’s support and encouragement of student research is evident through a number of targeted programs offered by the college, including the Dean’s Summer Fellowship Program, the Travel and Supplies Grant Program, and the Undergraduate Research Program. Each initiative funds undergraduate student stipends, travel, and supplies. The Dean’s Summer Fellowship Program provides summer stipends of approximately $4,000 for up to fifteen students each year to conduct research with a faculty mentor; program participants also conduct both seminar and poster presentations during the summer. The Travel and Supplies Program provides $6,000 to $8,000 annually to fund student researchers’ travel to conferences or purchase of consumable supplies.

UWL is also committed to providing students the educational opportunity to work with engaged faculty on real life, hands-on research in and out of the classroom. CSH’s physics department is consistently among the top ranked departments in awarding physics degrees among bachelor’s degree granting programs in the country by the American Physical Society, and the Chemistry & Biochemistry department recently received national accreditation for the biochemistry major from the American Society for Biochemistry and Molecular Biology in January 2017 (ASBMB).

In 2019, UWL’s Therapeutic Recreation Program received the American Therapeutic Recreation Association Excellence in Education award, which is awarded to one program nationally per year. Furthermore, UWL invested in a two-part construction of a new science labs building to replace the current Cowley Hall, where many CSH faculty offices and labs are housed. The new $82 million facilities expand available lab space filled with state-of-the art equipment to support research and instruction. The building includes 36 new instructional labs and 23 research labs that total 187,000 square feet of space for biology, chemistry, geography and earth science, physics, microbiology, river studies, and the radiation center. The facility will be named the Prairie Springs Science Center in honor of a generous $2 million gift provided by Prairie Springs: The Paul Fleckenstein Trust, which will establish educational programs to take place in the new science building opening summer 2018. The combined investment shows the commitment to the advancement of research and education by UWL and the surrounding community.

*[CASSH Statement:]*

The UWL campus community’s commitment to research and scholarly activities is echoed by the UWL College of Arts, Social Sciences, & Humanities (CASSH). This support is evident through the additional support for research offered by the college, including the CASSH Grants for Summer Projects Program and early start incentives for new faculty. Grants and the early start incentive promote and provide support for research, scholarly and creative activities, and curriculum enhancement through funding summer stipends for faculty, supplies and equipment, travel expenses, and student help. Students play an integral role in the research process, and these additional funds broaden the number who have the opportunity to participate in research projects within the college.

UWL believes that research is instrumental to a quality and comprehensive education and is committed to maintaining a culture that fosters innovative research, the involvement of students in research activities, the professional development of faculty, and the use of research to enhance curriculum. Funding of this proposal will further support excellence in student research opportunities at UWL by supporting the principal investigator (PI) in offering an immersive and student-centered research environment.

**Broader Impacts**

1. *Student Impact*

Students will directly benefit from the proposed project through increased opportunities to participate in faculty-mentored research. These opportunities will enrich their educational experience by exposing them to research techniques, equipment, and issues of concern to the broader scientific community. Faculty mentoring will provide more intensive, individualized instruction to encourage dialogue and spark further interest within the discipline. Firsthand experience gained through participation in the proposed research will enhance students’ understanding of the concepts explored by the project and the methods used to explore those concepts. They will acquire research skills through hands-on experience, and this training will in turn prepare them for successful entry into advanced degree programs, thereby increasing the number of undergraduates entering master’s and doctoral programs within STEM disciplines. Participating in the publication of research results will connect them to the scientific community at large, extending their grasp of the subject matter far beyond the classroom and helping them to understand its implications within a much broader context.

1. *Participation of Underrepresented Groups*

UWL works extensively to broaden the participation of students who are members of underrepresented groups within STEM disciplines and within higher education as a whole. The campus’s McNair Program, funded by a U.S. Department of Education TRIO grant, provides low-income, first generation college students and members of traditionally underrepresented groups with support and preparation for graduate school. During their junior year, McNair scholars receive academic advising and partner with a faculty mentor in their department to design a ten-week undergraduate research project. They carry out the research project during the summer session, during which they also visit two doctoral campuses and earn a stipend. During their senior year, scholars present their research at a regional conference and receive assistance with graduate school applications. UWL hosts two additional TRIO grant funded support programs – Student Support Services and Upward Bound, which are designed to motivate and support students from disadvantaged backgrounds. Upward Bound provides outreach and support to disadvantaged high school students to prepare them for college enrollment and graduation. A national study demonstrated that Upward Bound supported students are four times more likely to earn an undergraduate degree than students of similar backgrounds who did not participate in the program, thereby increasing the initial enrollment and successful degree completion of low income, first generation college students. Student Support Services also supports disadvantaged students and students with disabilities through personal, academic, and career support services, providing assistance to 350 students each year. In addition to these federally funded programs, UWL’s Office of Multicultural Student Services (OMSS) works to increase the undergraduate and graduate enrollment and degree completion of underrepresented groups. OMSS conducts recruitment and retention activities as well as special academic support programs for students. The office sponsors numerous cultural events, supports diverse student organizations and services, promotes community outreach efforts, consults and holds joint programming sessions with other student support services offices, and encourages faculty and staff involvement in underrepresented student assistance programs. These efforts, coupled with the UWL culture that highly values diversity in its programs and in the people who learn and work on its campus, ensure that the benefits of academically enriching projects such as the one outlined by this proposal are available to students of diverse races, ages, genders, religions, abilities, socioeconomic statuses, and other individual differences.

1. *Faculty Impact*

Faculty participating in the proposed project will have the opportunity to engage in research that will inform both their professional development and pedagogy. The proposed research will enhance teaching skills and increase the depth of faculty’s own knowledge. Mentoring participating undergraduates will provide a pathway for connecting to students one-on-one, allowing for more intensive instruction and interaction that lends itself toward an enhancement of faculty’s instructional delivery methods. Faculty will also be afforded the opportunity for professional development, to advance knowledge within the field, and to participate in and contribute to the broader scientific community.

1. *Curricular Impact and Responsible Conduct of Research (RCR)*

Curriculum within the classroom will be influenced by the topics investigated by the proposed research. Research methods and results can be incorporated into lectures and discussions as concrete examples of more abstract concepts and theories discussed in the textbook, increasing student retention of the material. The PI’s involvement in the research will itself serve to enhance curriculum as they advance their own knowledge within the field. Enhancements to classroom curriculum will be further augmented by training in Responsible Conduct of Research (RCR) in accordance with UWL’s institutional RCR student training policy. All students participating in the project will undergo RCR training, thereby increasing their attentiveness to and understanding of the ethics of responsible authorship and publication, data ownership and management, protection of human subjects, animal use and care, peer review, conflict of interest, research misconduct, collaborative research, and mentor/mentee responsibilities. Fostering awareness of the ethical issues surrounding research will impact and inform the research activities of faculty and students well beyond the span of the proposed project.

1. *Project Impact*

[Outline the expected impacts specific to the proposed project, such as how it will advance scientific understanding within its particular field, the number of students who will participate in the research, plans to attract qualified undergraduate students to the project, how the project will specifically impact curriculum and/or instructional delivery, how it will impact the career of the PI(s), specific departmental benefits, the anticipated contribution of new research tools to both educational and research opportunities for students and faculty, and any plans for measuring the effects of the project on participating students during and after their undergraduate years.] Results of the proposed research will be broadly disseminated through publications, the university’s website, and regional and national conferences.

In summary, funds received through the requested award will positively impact UWL’s research environment by providing additional opportunities for (1) student involvement in research with faculty mentoring, (2) training undergraduate students for successful entry into graduate programs, (3) enhancing understanding of [subject matter outlined in proposal], (4) informing and enriching curriculum, (5) further professional development of the participating faculty, (6) publication and wide dissemination of results with broad scientific significance, and (7) interacting with the science community at large. These opportunities will build upon the firm foundation of student research excellence established by the university.