INDIANA SPACE GRANT
2022 – 23 UNDERGRADUATE STEM RESEARCH
CALL FOR PROPOSALS

The Purdue University Northwest Student Research Office is requesting applications for the Indiana Space Grant Undergraduate Research Program. The grants are for PNW undergraduate students conducting research with a PNW faculty/staff mentor in a STEM (science, technology, engineering, and mathematics) field. The grants will fund up $1000 per project to cover research expenses. Grant funds must be expended and submitted for processing before **March 31, 2023.**

Application Deadline: **Deadline for submission is Friday, February 10th, 2023 @ 11:59pm (EDT).**

Eligibility Criteria:

- The student(s) must be active undergraduate(s) at PNW. The lead student must be a US citizen.
- The PNW students must be conducting research in STEM programs (Science, Technology, Engineering, and Mathematics).
- Student(s) must have a PNW faculty/staff mentor.

Faculty/staff Mentor Role: Faculty/staff members can help you explore your research interests and develop a strong project. You will identify a faculty/staff sponsor/advisor, and this person will help you develop your application materials and oversee your project if you are awarded the grant. Faculty/staff mentors will be required to submit a faculty/staff mentor approval form, thus certifying their mentorship on the project.

Application Process: Applications must be submitted by the student(s) via the online application form.

Requirements:

- The project must be completed by March 31, 2023.
- All budgeted expenses must be submitted for processing by no later than March 31, 2023.
- All intellectual property generated by this project will belong to the sponsor, in this case NASA. If you need clarification on this requirement, please contact sro@pnw.edu.
- PNW mentors must have received approval for any project that involves regulatory restrictions including human subjects (IRB), animals (PACUC), or biohazards/r-DNA. Projects involving regulatory restrictions that have not received approval will **NOT** be eligible for this funding cycle.
- Student(s) must present their project at the 2023 Days of Discovery.
- Student(s) recipients will submit a written report at the conclusion of the student funding period, March 31, 2023.
- Funding will be allocated to departments and all expenses should be processed through the department.
- Students and faculty/staff must complete the Purdue University's required CITI RCR Training before submitting their proposal.

Evaluation Criteria:
Proposals will be rated on a scale of 1(poor) to 5 (outstanding) based on the following criteria:

- Is the research problem or question well defined?
- Is the significance of the project clearly presented?
- Is the project objective or hypothesis clearly articulated?
- Are the research design, methods, and activities well described?
- Does the budget appear reasonable and does the proposal provide a clear justification for items included in the budget?
- Does the proposal convey a well thought out project with potential for success?

Required Application Sections: Please have the following information available prior to beginning the online application.

1. Applicant/Faculty/staff Mentor Information
2. Proposal Narrative
3. Budget Form
4. Faculty/staff Mentor Approval
5. Student Certifications

Application Instructions:

You will be required to enter the following information in the online form.

1. Applicant/Faculty/staff Mentor Information

a. Name(s), email address(es), and college of all student researchers
b. Name(s), email address(es), and college of faculty/staff mentor(s)

2. Proposal Narrative

a. Format

- Two-page maximum (excluding references)
- Single-spaced
- 1-inch margins on all sides
- 12 point Times New Roman OR 11 point Arial font
- No name on the proposal document (this will be captured elsewhere in the application)
- Save document as .pdf for upload

b. Content Requirements

I. Project Title: A brief title of the research project.

II. Abstract/Problem Statement/Research Question: (Question to be investigated) State the problem that the research is trying to solve, or write a question that the research will try to answer.

III. Significance of the Problem (*Rationale*)/Literature Review: Explain why this project should be done.

- **Significance:** Explain why your proposed work is relevant, and succinctly make the case that your research question will expand the body of knowledge or move conversations forward in your field. Describe what new information you are trying to discover, or what new process is being used or what new type of analysis is being used on the problem.
- **Literature Review:** What other ideas does your project build on? Connect your work to renowned scholars in the field. The reviewer should understand where your project fits within the larger whole of current explorations.

IV. **State Hypothesis and/or Objectives:** What do you expect to learn through this research? If appropriate in your discipline, state a hypothesis. Detail the objectives that will be achieved. Make your objectives SMART:

S = Specific
M = Measurable
A = Achievable
R = Results-focused
T = Time-bound

V. **Research Design, Methodology, and Activities (*Research plan*):** Describe the techniques and methods that will be used to perform the research. Explain your action steps, including all instrumentation and software you will use, from data gathering to analyzing the results. Connect back to your SMART objectives. Convince the reviewer that if you follow the steps above, your project will be successful.

VI. **Location:** Provide location for research activities. This can be a lab, classroom, or office at any of the Purdue Northwest Campuses. You must work under direct supervision of your mentor.

VII. **References:** (excluded from page total, but included in the same document)**: Include the references cited in this application**

3. Budget Form

a. The application must include a budget (up to $1000) explaining how you propose to use the funds. Research expenses can be any costs associated with the research: materials, study participant fees, supplies, or any other item required for the project. Grants may be used for student stipends. Funds will be distributed to your department and all purchases must be made through the department.

b. Please use the budget form. Once complete, save as an Excel or PDF file and upload in the appropriate field of the online application.

c. Please email sro@pnw.edu with any questions regarding the allowability of budgeted items.

4. Faculty/staff Mentor Approval

a. Faculty/staff mentors must complete the Responsible Conduct of Research (CITI) training prior to proposal submission.

b. Your faculty/staff mentor must provide application approval. During application, the applicant will provide one faculty/staff mentor's email (@purdue.edu). The faculty/staff

mentor will receive a request by email, to login to InfoReady to review the student's submission and approve it. If you have more than one faculty/staff mentor, it is only necessary for one of them to approve the application.

c. Students engaging in research using human subjects must have an IRB protocol approved with the faculty/staff mentor as PI before submitting the proposal. Faculty/staff mentors are asked to certify IRB-related information on the Faculty/staff Mentor Approval Form. Information about IRB can be found at https://www.irb.purdue.edu/.

d. Proposals without mentor/faculty/staff approval will not be considered.

5. Student Certifications

All students who receive awards must agree to:

- All students must complete the Responsible Conduct of Research (CITI) training prior to submitting the proposal. Funds will not be awarded until training is completed.
- Submit a final report by March 31, 2023 via InfoReady. Students will receive emails from InfoReady with instructions on how to complete this final report.
- Participate during the Days of Discovery in Spring 2023.