

Office of Undergraduate Research and Creative Activity

2021-2022 Hooper Undergraduate Research Award (HURA) and Urdea Undergraduate Research Award Requests for Proposals (RFP)

Application Window: Applications will only be accepted February 1, 2021 through March 1, 2021 at 11:59pm

Application materials and faculty recommendations must be submitted electronically using submission system described below.

nau.edu/HURA

APPLICATION SUBMISSION PROCESS

- Download the HURA/Urdea Application Portfolio Template as Word document
 - Download the Budget Template as an Excel document
 - Complete the requirements as outlined in the RFP
- Upload the completed Word and Excel documents into the online application system
 Provide your faculty mentor's name and email address
- It is the student's responsibility to log back into the system to confirm that the faculty mentor has submitted the letter of recommendation by the March 1 deadline

The Hooper Undergraduate Research Award (HURA) program is soliciting applications from fulltime NAU undergraduate students for research, scholarly, or creative projects in any academic discipline. The HURA program, named for Dr. Henry O. Hooper in honor of his dedication to promoting research at NAU, encourages undergraduate students to pursue academic interests outside of their regular coursework by providing funding that will enable them to work on special projects of their own design. Since the inception of the HURA program, more than 400 students across all of NAU's colleges have discovered the benefits of these hands-on learning opportunities in laboratories, studios, libraries, and field sites.

HURA applications are judged on the significance of the project, quality of the proposal, feasibility of timeline, educational benefit to the student, and diversity of disciplines represented. HURA funds cannot be used to replace existing funding being used to support undergraduates already involved in research and other scholarly/creative activities. HURA is not intended to fund students working on faculty research projects. HURA is intended to support student-initiated projects. More than one (1) proposal for the same project will be considered as one application.

Eligibility: NAU undergraduates must be:

- Enrolled as a full-time student in an undergraduate program for both fall and spring semesters of the August 2021 May 2022 award year; and
- In good academic standing at the time of application and during the period in which the project is funded.

Award Requirements

- Academic Credit: Awardees must enroll in at least 1 hour of academic credit (e.g., undergraduate research, independent study, internship, field work, or other appropriate course) for their HURA project each semester they receive HURA funding.
- **Project Period**: HURA grants can be activated July 1, 2021, if all award conditions are met. Projects must be completed and all funds spent on or before April 30, 2022.
- Protection of Research Subjects: Applicants proposing projects that involve human subjects must contact the Institutional Review Board (IRB) —prior to submitting the HURA application— to determine whether or not the project will likely be subject to IRB approval.
- Similarly, applicants proposing projects involving vertebrate animals **must contact** the <u>Institutional Animal Care and Use Committee (IACUC)</u> —**prior to submitting the HURA application** to determine whether or not the project will be subject to IACUC approval.

Award Amount: maximum request is \$3,500

Application Instructions

Submission Process: The student must initiate the application process completing all sections of the application portfolio as described below, and submit the required documents through the online application system. The Faculty Mentor reviews the application portfolio and completes the Faculty Mentor Recommendation section prior to the deadline.

- 1. Begin the application process by downloading and saving the appropriate forms from the <u>HURA website</u> or Urdea website.
- 2. Upload the required Word document and Excel budget template into the online application system.
- **3.** Provide your faculty mentor's name and email address in the system to generate an automatic request for the letter of recommendation. It is the student's responsibility to verify that the recommendation is submitted by the March 1 deadline.

Complete application must be submitted through the online application system by the deadline: March 1, 2021, 11:59PM.

Award notification will be made on or after April 5, 2021.

Formatting (applies to entire application):

- Font: Any standard font (e.g., Times New Roman, Arial, Tahoma, etc.) may be used
- Type size: 12-point or larger
- Spacing: Text may be single- or double-spaced; must be consistent throughout document
- Margins: Page margins must be no less than one-half inch on all sides

The Application Process: Who does what?

Activity/ Responsibility	Student	Faculty Mentor
Review HURA program guidelines and download Application Forms	The student should carefully read HURA program Request for Proposals (RFP) guidelines and download the application forms from the HURA website. The student should forward a copy of the program guidelines to the faculty mentor.	Faculty mentors should identify and encourage outstanding students at the junior academic level or below to apply to HURA. The faculty mentor should review program RFP guidelines to understand the role of the faculty mentor in advising the student throughout all phases of the HURA application process.
Develop the idea for a research, scholarly, or creative project	Students can find ideas for projects from a variety of sources such as courses they have taken, the scholarly interests of a faculty member, or ideas of their own that they would like to explore further. Students may work within or outside of their major field of study.	A faculty member with a general area of interest may encourage a student to pursue a project in that area, but the formulation of the project itself should be primarily the student's responsibility. The faculty member may provide feedback and constructive criticism during the formulation of the project and proposal.
Collaboration	The discussion between student and faculty mentor should lead to an agreement on the nature and scope of the project, the method of inquiry or creative activity, and expected outcomes. Discussions should also include a proposed budget and timeline for completing the project. Students and their faculty mentors should expect to meet more than once during the application process.	
Complete the application	The student prepares all elements of the application described below.	The faculty mentor reviews the project description, timeline, and budget in the document to ensure that the proposed work can be performed and supervised within the space, time frame, or level of support indicated.
Submit the application	The student sends request to faculty for recommendation through the application system and uploads the required documents no later than 11:59 PM on March 1, 2021. Late or incomplete proposals will not be reviewed.	Faculty mentor reviews the final version of HURA application portfolio. The mentor then completes the mentor recommendation no later than 11:59 PM on March 1, 2021. Late or incomplete proposals will not be reviewed.

The Application Components (in order of inclusion):

1. Abstract of project

The applicant will need to provide a short summary of the project that includes an overall statement on the background of the project, potential importance, general overview of the methods, and expected outcomes. The abstract needs to be limited to 250 words.

2. Project Description (a-f may not exceed 5 pages, whether single- or double-spaced)

This section of the proposal provides a clear and concise description of the proposed project and **must include the following section headings in the order shown below.** If a given section is not applicable to a proposed project, the section heading should still be included, followed by the

text "Not Applicable." A "section" can be as brief as one sentence or can be several paragraphs, depending on the project.

- a. **Introduction** to include the purpose/relevance of the project (e.g., research hypothesis to be tested, rationale for the creative/scholarly activity, problem to be investigated, etc.)
- b. **Potential Importance** statement of this creative/scholarly/research activity to the student, university, and the discipline
- c. Methods to be used to carry out project activities, including any relevant statistical analyses
- d. **Expected Outcomes** of the activity: What do you expect to find, learn, and/or produce as a result of conducting this project?
- e. **Dissemination Plan** for the results/outcome: If published, in what journal? If a presentation or performance, when, where, and to what audience? (Be sure to include the NAU *Hooper & Urdea Poster Presentations & Reception* and *Undergraduate Symposium* in your plan.)
- f. **Roles of the Participants** describing the expectations and responsibilities of student and those of the faculty mentor
- **3.** A **Timeline** detailing when various phases of the project will be conducted. Sufficient time should be allocated for writing up the final report upon completion of the project. The timeline template is included in the Application Portfolio template on the <u>HURA website</u>.
- 4. References Cited list (if applicable). This section is optional.

5. Qualifications of the Applicant [NOTE: Resumes/CVs should NOT include applicant names.] The applicant's resume not exceeding 2 pages should reflect past activities and experiences related to the proposed project, if applicable. If other students will be involved, resumes of those students should also be included. Resumes are intended to demonstrate that the applicant(s) are qualified to carry out the work.

6. Budget

There is no "typical" amount of funding per project as each project has different funding needs. Budgets should be developed according to the needs of the project. HURA project budgets may not exceed \$3,500 for an academic year project. **Budgets must be provided using the budget form provided on the** <u>HURA website</u>.

a. **Personnel**: Funding may be requested for up to 15 hours/week of hourly wage (\$12.00 per hour) for a maximum of 14 weeks during the fall and/or spring semesters, depending on the needs of the project. All personnel costs must be justified in terms of the number of hours each specific project task and activity will take to complete. (See examples provided on budget template spreadsheet.)

Summer Activities: Applications proposing summer activities may include personnel expenses according to the needs of the project (\$12.00 per hour for a maximum of 8 weeks between July 1 and August 25, **not to exceed 29 hours/week**). A rationale for summer support must be specifically included in the budget justification. **This will only be approved if** the project requires summer work (e.g., field work, access to remote data archives). With approval, the student will NOT be required to register for Summer Session II.

- b. Operations/Equipment: Students may request funds for necessary expendable project supplies and contractual (e.g., service-based) expenses. Operations expenses must be itemized and clearly justified. Non-expendable equipment purchases (e.g., computers, cameras, monitoring equipment, reference books) cannot be purchased using HURA monies. Do NOT include these in your budget.
- c. *Travel:* Up to \$500 may be requested for travel expenses associated with field work or the presentation of the results of the project at a conference or professional meeting.

NOTE: To receive travel reimbursement for the use of a personal vehicle, or to use a NAU vehicle, you must become a NAU registered driver and pass an online defensive driving course; information, registration form, and course links, are located on the <u>NAU Facility Services Safety &</u> <u>Training</u> website.

Funds awarded for meetings and conferences will not be released until the HURA program office has received evidence that the student has been accepted to present a poster/abstract/talk. However, an applicant may request these funds in the budget before they have been accepted to present, if the event will occur during the award period. All travel expenses should be justified by category of expense (e.g., transportation, lodging, registration fees). Students may also apply to the Student Travel Award program for additional financial support to make presentations or receive awards at meetings or conferences after notification of acceptance; please check the <u>Travel Award website</u> for details regarding this program.

The HURA program does not require or encourage cost-sharing, matching, or in-kind contributions. Projects that include outside support will not be given any more favorable review than projects relying solely on HURA program support. **However**, if a project relies heavily on outside support, applicants must describe these outside contributions in the green columns of the budget form and in budget justification so that the reviewers are clear that the applicant does have the necessary resources to carry out the work.

7. Faculty Mentor/Other Recommendations

Applicants will be required to submit **two** letters of recommendations, one of which must be from the faculty mentor. It is recommended that the second letter of recommendation come from another faculty or administrator in the student's home department. The recommendations **must be completed AFTER** reviewing the final version of these materials.

8. FOR URDEA APPLICANTS ONLY

Students proposing an interdisciplinary project that includes at least one student from the College of the Environment, Forestry, and Natural Sciences **and** one student from the College of Engineering, Informatics, and Applied Sciences may apply to receive up to \$5,000 through the Urdea Undergraduate Research Award.

In addition to completing the requirements for a HURA proposal as outlined above, Urdea applicants will also need to answer the following questions (max 400 words):

- How do you believe working as an interdisciplinary team (with students from different fields of study) will positively impact your project?
- How will it benefit the team members and the discipline(s) of those involved?

Proposal Review

The HURA review committee is made up of faculty and professional research staff at NAU from various colleges and departments. Because review committee members vary in their areas of expertise, it is VERY IMPORTANT that HURA applicants use clear non-technical language and refrain from using unexplained jargon specific to their field of study in their project descriptions; **your proposal will NOT be reviewed by a faculty member from your department.**

The review committee scores each proposal, paying close attention to project design, faculty and student roles, outcomes and dissemination, and feasibility of budget and timeline. Applicants may request copies of their reviews after April 30, 2021.

Terms and Conditions of Award

Students may not receive more than 2 HURA awards per undergraduate academic career.

- 1. Mandatory Awardee Meeting: All HURA recipients are required to attend a grant information meeting following the announcement of award winners in April 2021. Faculty mentors are strongly encouraged, but not required, to attend the meeting along with their mentees.
- 2. Award Activation Documents: All documents requested in the HURA award letter (e.g., signed award acceptance and faculty acknowledgement forms, proof of academic standing and full-time status, 1-credit research course registration, protection of human subjects or vertebrate animals, field research safety plan, and/or any other project-specific conditions) must be on file with the Undergraduate Research Coordinator on or before the deadlines stated in the award letter to activate the award. If summer activities are planned, all activation documents must be on file prior to beginning the work.
- 3. Full-time Student in Good Standing: A HURA recipient must remain a full-time student in good academic standing with NAU during each semester of financial support. It is the student's responsibility to provide documentation of this requirement in order for the award to be activated and continued during the year. Exceptions to this will be considered if academic program requirements conflict with this policy.
- 4. Academic Credit: All HURA Student Primary Investigators must enroll for academic credit for their HURA project <u>every semester</u> that they receive HURA funding. In the award letter, HURA awardees will be instructed to submit evidence that the HURA project has been accepted by an academic department to receive a (minimum) total of 1-credit hour per semester of undergraduate research, independent study, internship, field work, or other appropriate course during the award period. Although this requirement only applies if the HURA application is funded, applicants are strongly encouraged to work closely with their faculty mentors as well as with departmental academic advising staff to ensure that, if funded, the HURA project will be acceptable to an academic department to receive the required number of academic credits.
- 5. Completion of CITI Responsible Conduct of Research (RCR) Tutorials: Every HURA grant recipient must complete and pass the RCR student training modules appropriate for your discipline with scores of 80% or better and submit a copy of the final transcript/certificate. Instructions on how to register and access these tutorials is provided on the <u>Research</u> webpage.

6. Protection of Human Subjects or Vertebrate Animals: If the project involves collecting data from people or vertebrate animals, you must obtain approval from the Institutional Review Board or Institutional Animal Care and Use Committee, respectively, <u>before</u> award funds can be activated. To facilitate the timeliness of gaining approval, applicants should contact the applicable oversight group PRIOR TO submitting a proposal.

For projects involving human subjects, follow these guidelines (under review by IRB):

- a. **Build sufficient time for IRB approval into your plan.** IRB review times vary depending on the quality of the initial submission, complexity of the research, the researcher's responsiveness to IRB requests, and volume of applications currently under IRB review. Keeping in mind these variables may result in shorter or longer review times, a good rule of thumb for planning is to allow up to six weeks for minimal-risk studies, and at least two months for studies requiring Full Board review (generally more than minimal risk).
- b. Keep your study activities and the risks to participants manageable. The greater the complexity of the research and/or the risks to participants, the more IRB review time you will need to build into your plan.
- c. READ the materials on the IRB web pages BEFORE you complete your IRB application. Begin at https://nau.edu/nau-research/research-safety-and-compliance/human-research-protection-program/ and follow links to additional pages.
- d. **Submit your project to IRB prior to (or at least early in) your initial semester.** The IRB's busiest time is between weeks 5 and 11 of the semester. If you must submit your project during this timeframe, plan on additional time for review.
- e. **CITI Basic Human Subjects Certificate**: All student researchers, their mentors, and any other members of the research team must have a current CITI Basic Human Subjects course certificate with scores of 80% or better.
- f. Obtain Letters of Authorization to conduct research at off-campus locations in advance. If you will be recruiting or conducting your research off the NAU campus, or your research will take place in NAU classrooms, contact the research location or professor early to obtain their authorization. Authorization letters should include: 1) PI name; 2) name of the study; 3) a statement that permission to conduct the research is granted and the signer is authorized to grant permission; and 4) name, title, email and phone number of the signer. Upload the authorization letter(s) with your IRBNet research application package.
- g. **Think about data security.** Incorporate robust confidentiality and data security measures into your study design. The greater the risks to participants if data is inadvertently disclosed, the higher the level of security that will be required.
- h. Use current forms and tools found in the IRBNet Forms and Templates library. These documents are frequently revised and updated. Submissions using outdated forms will not be reviewed.
- i. **Be thorough.** Your research application should provide enough information to enable the IRB to fully understand the purpose and nature of your study, study procedures, and security measures, so that we can fully evaluate the potential benefits and risks to participants.
- j. Work closely with your faculty sponsor. S/he has valuable experience to share about submitting IRB applications.
- k. For additional questions, contact the IRB office at 928-523-9551, irb@nau.edu.

- 7. NAU Field Research Safety Plan: Recipients whose HURA projects involve field research must complete the Field Safety online training and a NAU Field Research Safety Checklist plan form in order to activate their funding. This document includes details regarding dates of travel, location and description of field research activities, emergency procedures, physical demands of the work, assessment of risks associated with the activity or physical environment, and methods for mitigating those risks. The form should be completed in collaboration with the faculty mentor, who then signs it as the "University Contact." For more information about the NAU Field Safety Plan policy and guidelines, a handbook is available for you under General Safety at http://nau.edu/Research/Compliance/Environmental-Health-and-Safety/Manuals-Policies/.
- 8. Dissemination of Results: All recipients are required to present at the Hooper & Urdea Poster Session/Reception during NAU's *Undergraduate Symposium* in April 2022. Recipients must register to participate in the NAU *Undergraduate Symposium*. Additionally, all awardees are also encouraged to make presentations at other public venues or professional meetings and should mention all such presentations in the interim progress and final reports described below. Any posters, publications, or presentations should credit or acknowledge the funding for the project to the *Hooper Undergraduate Research Award*.
- 9. Project Reporting: Two reports are required from HURA recipients:
 - a. **Interim progress report** (due 90 days after commencement of the work, but no later than December 13, 2021)
 - Use the template provided on the <u>HURA website</u>.
 - Describe and assess progress toward outcomes compared to timeline included in application
 - Review (and revise) project timeline and/or budget, if warranted
 - Photos of you working on your project, if available.
 - b. Final report (due no later than May 7, 2022)
 - Description extent to which the goals and objectives of the project have been achieved
 - Description of the outcomes/results of the project and how they were disseminated
 - Statement describing the benefits to the student of participation in the research project
 - Summary of how funds were used (e.g., budget vs. actual)
 - Summary of the departmental and/or other contributions to the project
 - Photos of you working on your project, or presenting your results, if available
 - Completion of online questionnaire about your HURA experience

Questions? Contact the Undergraduate Research Coordinator at <u>ug-research@nau.edu</u> (with "HURA Question" in subject line), (928 523-5569), or by appointment.