NORTHERN ARIZONA UNIVERSITY

2017-18 Hooper Undergraduate Research Award (HURA) Requests for Proposals (RFP)

Application Window: Applications for FY 2018 will only be accepted
February 1, 2017 through 11:59PM, Wednesday, March 1, 2017

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

nau.edu/HURA

REVISED APPLICATION SUBMISSION PROCESS

Step 1: Student completes the **HURA Applicant Information registration online** before March 1.

Step 2: Student sends application portfolio and PDF of unofficial transcript to faculty mentor in sufficient time for the faculty mentor to complete Step 3.

Step 3: Faculty Mentor completes recommendation section and emails 2 PDFs (application portfolio and unofficial transcript) to ug-research@nau.edu by 11:59pm on March 1.

It is the responsibility of the student applicant to confirm that the faculty mentor has completed the process by the deadline.

The Hooper Undergraduate Research Award (HURA) program is soliciting applications from full-time 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, the quality of the proposal, feasibility of timeline, the educational benefit to the student and the 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 fulltime student in an undergraduate program for both the Fall and Spring semesters of the August 2017 – May 2018 award year (exceptions for some majors may apply); and
- in good academic standing at the time of application and during the period in which the project is funded.

Award Amount: maximum request is $3,500

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 that they receive HURA funding. Summer Session II enrollment will ONLY be required IF the student's application for summer work is NOT approved.
- **Project Period**: HURA grants can be activated as early as July 1, 2017, if all award conditions are met. Projects must be completed and all funds spent on or before April 30, 2018.
- **Protection of Research Subjects:** Applicants proposing projects that involve human subjects **must contact** the Institutional Review Board (IRB) http://nau.edu/Research/Compliance/Human-Subjects/—**prior to submitting the HURA application**—to determine whether or not the project will likely be subject to IRB approval. [See IRB Special Instructions on nau.edu/hura page for additional information.]
  Similarly, applicants proposing projects involving vertebrate animals **must contact** the Institutional Animal Care and Use Committee (IACUC) http://nau.edu/Research/Compliance/Animal-Care/—**prior to submitting the HURA application**—to determine whether or not the project will be subject to IACUC approval.

The Application Process: Who does what?

The following table shows the distribution of responsibilities between the student applicant and the faculty mentor that should be (generally) reflected in HURA applications.

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 and then combines all completed components of the application into a single document, named HURA18_Your7-digitStudentID#.	The faculty mentor reviews the project description, timeline, and budget in the HURA18_Your7-digitStudentID# document to ensure that the proposed work can be performed and supervised within the space, time frame, or level of support indicated.
Register the application [NEW STEP]	The student completes the **Applicant Information registration** online at SelectSurvey on or before March 1: http://bit.ly/2f9wJD6	The faculty mentor has no responsibility for this step.

Submit the application	The student creates the final version of the HURA application portfolio and sends these via email in sufficient time so that the mentor can review the application portfolio, complete the mentor section, and submit the entire HURA portfolio no later than 11:59 PM Sunday, March 1, 2017. **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, saves the file as a PDF, and emails it, along with the student's unofficial transcript to ug-research@nau.edu no later than 11:59 PM Sunday, March 1, 2017. **Late or incomplete proposals will not be reviewed.**

Application Instructions

Submission Process: The student must initiate the application process completing all sections of the application portfolio as described below. The Faculty Mentor reviews the application portfolio, completes the Faculty Mentor Recommendation section, saves the document as a PDF, and submits the entire application portfolio (PDFs of completed application portfolio and unofficial transcript) via email to ug-research@nau.edu prior to the deadline.

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.

Application Components (in order of inclusion):
ALL application components listed below MUST be submitted to the mentor as a single MSWord file, named HURA18_Your7-digitStudentID# (e.g., HURA18_1234567).

1. 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? [Hint: Be sure to include the NAU *Hooper 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

2. 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 HURA web site.

3. **References Cited list** (if applicable). This section is optional and is not counted toward the 5-page limit.

4. **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.

5. 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 or $2,000 for a project taking place over one semester only. **Budgets must be provided using the budget form provided on the HURA web site.**

Personnel: Funding may be requested for up to 15 hours/week of hourly wage ($10.00 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 ($10.00 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.

Operations: Students may request funds for necessary expendable project supplies and contractual (e.g., service-based) expenses. Operations expenses must be itemized and clearly justified.

Equipment: Equipment purchases (e.g., computers, cameras, monitoring equipment, reference books) cannot be purchased using HURA monies. Do NOT include these in your budget.

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 NAU Facility Services Safety & Training 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 duration of the award. All travel expenses should be justified by category of expense (e.g., transportation, lodging, registration fees, but no per diem costs). 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 Travel Award website 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.

6. Faculty Mentor Recommendation

The Faculty Mentor Recommendation (at the end of the Project Information section of the Application Portfolio) must be completed by the applicant's faculty mentor AFTER reviewing the final version of these materials. The Faculty Mentor will submit the Application Portfolio as a PDF along with a PDF of the student's unofficial transcript, as described in the next section.

Submitting the Application:

(1) The student begins the HURA application process by downloading and saving the appropriate forms from the HURA website.

(2) The student then combines the project information, project description, timeline, references cited (if applicable), resume(s), and budget (in that order) into **one MS Word file** named HURA18_Student7-digitID# (e.g., HURA18_1234567) and emails this to the mentor along with a PDF of the student's current unofficial transcript (named LastName_FirstInitial_Transcript).

(3) **NEW**: Student **REGISTERS** the application online at **SELECTSURVEY**: http://bit.ly/2f9wJD6. (HURA Applicant Information Registration) on or before March 1, 2017.

(4) Upon receipt, the faculty mentor reviews the application portfolio materials, completes the faculty recommendation section, and **saves the Word file as a PDF**. When the mentor forwards this document along with the student's unofficial transcript PDF to ug-research@nau.edu, the application portfolio is considered complete.

Complete application (including the Application Portfolio PDF and the unofficial transcript PDF) must be **submitted by the mentor** to ug-research@nau.edu by the **deadline: March 1, 2017, 11:59PM**.

Award notification will be made on or after **April 10, 2017**.

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 24, 2017.

TERMS AND CONDITIONS OF AWARD

Students may not receive more than 2 HURA awards in their undergraduate academic careers.

Mandatory Awardee Meeting: All HURA recipients are **required** to attend a grant information meeting following the announcement of award winners in April 2017. Faculty mentors are strongly encouraged, but not required, to attend the meeting along with their mentees.

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.

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.**

Academic Credit: All HURA Student Primary Investigators must enroll for academic credit for their HURA project **every semester** that they receive HURA funding including Summer Session II, if applicable. 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.

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 this webpage: http://nau.edu/Research/Compliance/Human-Research/Training/.
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 (IRB: http://nau.edu/Research/Compliance/Human-Subjects/) or Institutional Animal Care and Use Committee (IACUC: http://nau.edu/Research/Compliance/Animal-Care/), respectively, **before** 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, award recipients should follow these guidelines (under review by IRB):
- **Build sufficient time for IRB approval into your plan.** IRB review times vary depending on the quality of the initial submission, the complexity of the research, the researcher's responsiveness to IRB requests, and the 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).
- **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.
- **READ the materials on the IRB web pages BEFORE you complete your IRB application**. Begin at http://nau.edu/Research/Compliance/Human-Subjects/ and follow links to additional pages.
- **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.
- **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.
- **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) the PI name, (2) the 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) the name, title, email and phone number of the signer. Upload the authorization letter(s) with your IRBNet research application package.

- **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.
- **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.
- **Be thorough.** Your research application should provide enough information to enable the IRB to fully understand the purpose and nature of your study, the study procedures, and the security measures, so that we can fully evaluate the potential benefits and risks to participants.
- **Work closely with your faculty sponsor.** S/he has valuable experience to share about submitting IRB applications.
- **For additional questions**, contact the IRB office at **928-523-9551**, irb@nau.edu.

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/.

Dissemination of Results: All recipients are **required** to present at the Hooper poster session/reception the evening prior to NAU's *Undergraduate Symposium* in April 2018. 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*.

Project Reporting: Two reports are required from HURA recipients

- Interim progress report (due 90 days after commencement of the work, but no later than November 30, 2017)
  - Use the template provided on the HURA website.
    - 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

- Final report (due no later than May 6, 2018)
  - 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, via email at ug-research@nau.edu (with "HURA Question" in the subject line), by phone (928-523-1026), or by appointment.