National Science Foundation's Established Program to Stimulate Competitive Research (NSF EPSCoR) Research Infrastructure Improvement (RII) Award OIA-2148788
Harnessing the Data Revolution for Fire Science

Undergraduate Research Opportunity Program (UROP) Research Scholarship Application for Summer 2024 or Academic Year 2024-2025

Announcement for:

Full-time undergraduate students attending
College of Southern Nevada; Great Basin College; Nevada State University;
Truckee Meadows Community College; University of Nevada, Las Vegas;
University of Nevada, Reno; and Western Nevada College

Submission Deadline: Friday, March 8, 2024

Application materials and faculty recommendations must be submitted no later than 5:00 PM PST of the submission deadline date.

IMPORTANT: Undergraduate students enrolled at any NSHE institution are encouraged to apply for this opportunity. Applicants selected for this award may receive ONE undergraduate research scholarship for either Summer 2024 or Academic Year 2024-2025. You may apply for the Summer, the Academic year, OR if you have no strong preference, indicate both programs. If you choose "BOTH", and are selected, you will be assigned to either the Summer or Academic Year program. Applications will be ranked on quality and merit of the proposal, regardless of program preference.

Eligibility:
   a. Applicants must be U.S. citizens, permanent residents of the United States, or non-U.S. citizen students with a valid visa.
   b. Applicants must be enrolled full-time at any NSHE institution during the time they are conducting their research. For the purposes of this scholarship, full-time during summer is a minimum of 1-3 credits, and full-time during fall/spring is a minimum of 12 credits.
   c. A grade point average of 3.0 is recommended on the applicant's most recent transcript.
   d. UROP student research must be supervised by a NSHE faculty mentor.
   e. UROP awardees must maintain their undergraduate status throughout the entire award period.
   f. Students having received a UROP scholarship under the current NSF EPSCoR Track 1 award are NOT eligible to apply UNLESS the research project is tied to the NSF EPSCoR Harnessing the Data Revolution for Fire Science (HDRFS) outlined on pgs. 3-4.
      • Research proposal thematic to the research themes of the HDRFS project are of special interest. Students awarded a scholarship for HDRFS-related research will be eligible to apply for future UROPs and, as part of award terms, will participate in supplemental mentorship and academic/professional development opportunities.

Women and members of underrepresented groups are especially encouraged to apply. NSF defines underrepresented groups as Alaska Natives, Native Americans, Blacks or African Americans, Hispanics, Native Hawaiians and other Pacific Islanders, and Persons with Disabilities. Applicants who are first generation college-going (neither of their parents graduated from college) and/or geographically isolated (separated by geographic barriers or distance) are also of special interest.

Research areas: Students working in any area of science, technology, engineering, or mathematics (STEM) are eligible. Fields related to research thrusts of the NSF EPSCoR Harnessing the Data Revolution for Fire Science (outlined on pgs. 3-4) are of particular interest. These include (but are not limited to): Biology, Civil & Environmental Engineering, Climatology, Computer Science, Data Analytics, Ecology, Economics, Education, Environmental Studies, Geography, Hydrology, Journalism, Natural Resources, and Political Science. Students with research tied to medical sciences are encouraged to apply for the National Institutes of Health IDeA Network for Biomedical Research Excellence (NIH INBRE). For more information, visit http://www.unr.edu/inbre.

Deadline: Friday, March 8, 2024

Scholarship amount: $4,000 for students and $750 for faculty mentors. Past recipients of a NSF-EPSCoR undergraduate research scholarship under the current HDRFS award are not eligible to apply, unless undergraduate research supports any of the research areas of interest outlined in the HDRFS project.

Award Periods: Summer Program: June 3 - August 9, 2024
                        Academic Year Program: October 7, 2024 – May 30, 2025

I. PROGRAM DESCRIPTION AND INSTRUCTIONS

A. ABOUT UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM (UROP)

The Nevada System of Higher Education (NSHE) announces the Undergraduate Research Opportunity Program (UROP) to promote undergraduate research opportunities at all NSHE institutions. The program is supported by funding from the Nevada NSF EPSCoR Harnessing the Data Revolution for Fire Science (HDRFS) project. Students working in any STEM discipline or addressing STEM-related issues are eligible, but at least 50% of the proposals will be awarded to projects that support the research themes of the HDRFS project (pgs.3-4). **Students with research tied to medical sciences are encouraged to apply for the National Institutes of Health IDeA Network for Biomedical Research Excellence (NIH INBRE). For more information, visit http://www.unr.edu/inbre.**

This solicitation is announcing two separate UROP scholarship opportunities:
- Summer Program: June 3 - August 9, 2024
- Academic Year Program: October 7, 2024 – May 30, 2025

Applicants selected for this award may receive ONE undergraduate research scholarship for either Summer 2024 or Academic Year 2024-2025. You may apply for the Summer, the Academic year, OR if you do not have a strong preference, indicate BOTH on the application. If selected, you will be assigned to either the Summer or Academic Year program. Applications will be ranked on quality and merit of the proposal, regardless of program preference. Each UROP program will have two divisions: Lower Division, for students with 59 credits or less; and, Upper Division, for students with 60 credits or more.

Proposals must be original and written by the applicant. The research must be conducted during the research period for which it is funded, under the guidance of a NSHE faculty. Scholarships will provide $4,000 per student awardee and $750 to the faculty mentor for the purchase of materials and supplies directly related to the project. Students are urged to carefully read the following guidance and supporting documents. Applications that do not follow the instructions provided will not be considered.

B. ABOUT HARNESSING THE DATA REVOLUTION FOR FIRE SCIENCE (HDRFS)

The overarching goal of the project *Harnessing the Data Revolution for Fire Science* (HDRFS) is to increase the capacity of Nevada (NV) for wildland fire research, education, and workforce development, and to demonstrate this increased capacity through fire research in the regionally important sagebrush ecosystem. HDRFS will balance capacity development with advancement of knowledge and discovery in the wildland fire continuum over a wide range of fire sizes investigating scaling (SCALE) and fire impacts through common experiments of four fire science areas: 1) *Ecology* (ECO), 2) *Hydrology* (HYDRO) between fire events, 3) *Fire Processes* (FP) and 4) *Fire Emissions and their Atmospheric Aging* (FEAA) during fire events. This will be achieved through strategic investments in expertise, facilities, *Cyberinfrastructure Innovations* (CII), and *Education and Workforce Development* (E-WFD), creating end-to-end pipelines for research and STEM advancements. HDRFS will innovate in data acquisition and science, including the use of intelligent unmanned aerial system (UAS) sensor platforms, computer vision (CV), data fusion, and machine learning (ML) that will ignite fire science capability amongst environmental and engineering researchers.

Ecology (Eco) – The goal of the ecology component is to quantify the role that fire-induced successional stages of sagebrush ecosystems play in determining (i) net ecosystem CO_2 and ET fluxes, and their component biogeochemical fluxes; (ii) how successional plan community types affect burn severity and the subsequent biophysical responses to experimental fire; and (iii) how these responses contribute to recovery or modification of plant communities in order to improve quantitative understanding and prediction of fire effects in the sagebrush ecosystem.

Hydrology (Hydro) – The Hydrology component of the HRDFS project studies the impacts of fire on the hydrology of a sagebrush ecosystem. This includes how fire affects infiltration, runoff, and evapotranspiration by changing soil properties and land cover (litter, vegetation), scaled from individual plots to whole watersheds.

Fire Processes (FP) – This component of the HRDFS project is focused on building a multi-scale center for fire process modeling that integrates full physics and hybrid computational fluid dynamics fire behavior models with artificial intelligence and measured data to improve the understanding of fire energy release and fire effects. The further integration of model outputs tied to remotely sensed data and virtual reality inspired 3D environments is expected to enhance fire decision making and fire effects interpretation that will improve the understanding of fires' role in sagebrush ecosystems.

Fire Emissions and their Atmospheric Aging (FEAA) – This component of the HRDFS project studies the physical and chemical evolution of smoke plumes at different spatial and temporal scales using laboratory and field experiments. Specifically, the aim is to investigate the interaction of plume dynamics (dilution and cooling) with photochemical aging processes and how it affects aerosol optical, chemical, and toxicological properties.

Cyberinfrastructure Innovations (CII) – This component of the HRDFS project integrates science workflows and performs engineering research in the areas of: field site networks and edge computing; regional networks, regional computing, and science data exchange; UAS automation and novel sensor deployment; multi-source data aggregation, alignment, and fusion; deep learning applications in feature recognition and classification; and interdisciplinary tools for training dataset development in deep learning applications.

Education and Workforce Development (E-WFD) – The focus of E-WFD infrastructure-building is to create pathways between higher education and STEM careers. Strategic workforce areas of focus are future classroom educators in STEM, data analytics professions, fire science research and application, and cyberinfrastructure training in support of interdisciplinary Earth science applications. Key activities include immersive internship and training programs, undergraduate research, and educational content creation.

Broadening Participation (BP) – The overarching goal of our BP Plan is to enhance inclusivity, interdisciplinary team building, career development, and retention through best practices in mentorship, team science, and an effective culture of support.

C. FINDING A RESEARCH MENTOR

Establishing a good working relationship with a faculty member is a key element in a successful research project. Your goal is to find a faculty member whose research matches your interests and abilities. This can take time but is well worth the effort. Keep a positive attitude and be persistent. While finding a faculty mentor can be challenging, here are some suggestions that can help you with this process:

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Where to Look if you don't have a mentor:
- Access the Nevada STEM Mentor Network database to search over 160 NSHE faculty mentor profiles (https://stemmentor.epscorspo.nevada.edu/).
- Ask your faculty advisor, one of your professors, or a teaching assistant for suggestions.
- Students attending UNR or UNLV may contact the centralized Offices of Undergraduate Research and students attending community or state colleges may contact a campus UROP contact (see list of contacts below).

> Having trouble identifying a research mentor?
> Visit the Nevada STEM Mentor Network website to access
> a searchable database and other valuable resources at
> **stemmentor.epscorspo.nevada.edu.**

NSHE faculty who have agreed to, or who are interested in being a research mentor are encouraged to attend Week 1 sessions of the UROP Application Writing Workshop (page 6) series so as to learn more about the program, meet students and sign up to be listed in the Nevada STEM Mentor Network database.

NSHE Campus Contacts:

University of Nevada Reno, Office of Undergraduate Research: http://www.unr.edu/undergradresearch

University of Nevada, Las Vegas, Office of Undergraduate Research: https://www.unlv.edu/our

College of Southern Nevada
Robyn Rohde, Center for Academic Success (Charleston Campus), Robyn.Rohde@csn.edu

Great Basin College
Ping Wang, Director of the ASC (Elko), ping.wang@gbcnv.edu, http://www.gbcnv.edu/asc/english.html
Rita Pujari, NSF and NASA (Pahrump), rita.pujari@gbcnv.edu

Nevada State University
Aster Sigel, Director of Undergraduate Research, aster.sigel@nevadastate.edu

Truckee Meadows Community College (Dandini Campus)
Adine Stormoen, Assistant Director, Veterans Upward Bound, astormoen@tmcc.edu

Western Nevada College
Ron Belbin, Student Success Librarian, Ronald.Belbin@wnc.edu

NEED ASSISTANCE WITH YOUR APPLICATION?
Receive UROP Application Writing Assistance!

The UROP Application Writing Workshops will be held online for all Nevada System of Higher Education campuses and are a collaborative effort between UNR, UNLV and NSC Writing Centers.

Virtual session content will include:
- Learning more about the UROP application, eligibility, roles, and responsibilities and connecting with potential mentors/mentees.
- Working with experienced writing center staff to draft and edit UROP applications., while learning proper writing techniques for future applications. *Students should come prepared with a research concept/idea.*
- Finalizing UROP applications through a peer editing process while being led by experienced writing center staff. *Students should come prepared with a strong draft of their UROP scholarship application.*

Students from campuses not hosting a workshop are encouraged to reach out to their Campus Contact listed in the application for independent UROP support and are also invited to attend ANY of these workshops:

WEEK 1: UROP APPLICATION OVERVIEW
Tuesday, February 6, 2024, 2:30-3:30 PM
https://nshe-nevada-edu.zoom.us/j/91716676992?pwd=NjYrUzQ5VndscXJvK2s3ZWRoTUpEQT09
Friday, February 9, 2024, 1:00-2:00 PM
https://nshe-nevada-edu.zoom.us/j/93112503106?pwd=RXFuSkV5bXBwZEVObEYvVGxSaEFrQT09

WEEK 2: DRAFTING THE PROJECT DESCRIPTION/APPLICANT STATEMENT
Tuesday, February 13, 2024, 2:00-3:30 PM
meet.google.com/iwk-xqdy-tda
Wednesday, February 14, 2024, 1:00-2:30 PM
meet.google.com/iwk-xqdy-tda

WEEK 3: REFINING THE APPLICATION THROUGH PEER REVIEW EDITING
Wednesday, February 21, 2024, 4:00-5:00 PM
https://unr.zoom.us/j/89626026715?pwd=RHZvamVTZ3pFN1FQZTdPRmJtNWp0UT09&from=addon
Friday, February 23, 2024, 12:00-1:00 PM
https://unr.zoom.us/j/82502677524?pwd=NitwRmhoRVl1bXBvdlczbEpHaWJVUT09&from=addon

WEEK 4: FINAL DRAFTING, OPEN QUESTIONS & WRITING ASSISTANCE
Tuesday, February 27, 2024, 4:00-5:00 PM
https://unr.zoom.us/j/84594016532?pwd=SGRja0xQRGhhNHFXYzVUZGVmckNwQT09&from=addon
Wednesday, February 28, 2024, 3:30-4:30 PM
**Participants can also join and eat snacks in Nevada State University, LAS Room 125
https://nsc-edu.zoom.us/j/81097659078
Friday, March 1, 2024, 12:00-1:30 PM PM
meet.google.com/iwk-xqdy-tda

Maureen McBride, Director of UNR Writing Center, http://www.unr.edu/writing-center
Erin Zimmerman, Director, UNLV Writing Center, http://writingcenter.unlv.edu
Rachel Herzl-Betz, Director, NSC Writing Center, https://nsc.edu/academics/writing-center/

To attend the writing workshops, register at https://www.surveymonkey.com/r/writing2024-2025

D. ELIGIBILITY

Eligibility:
    g. Applicants must be U.S. citizens, permanent residents of the United States, or non-U.S. citizen students with a valid visa.
    h. Applicants must be enrolled full-time at any NSHE institution during the time they are conducting their research. For the purposes of this scholarship, full-time during summer is a minimum of 1-3 credits, and full-time during fall/spring is a minimum of 12 credits.
    i. A grade point average of 3.0 is <u>recommended</u> on the applicant's most recent transcript.
    j. UROP student research must be supervised by a NSHE faculty mentor.
    k. UROP awardees must maintain their undergraduate status throughout the entire award period.
    l. Students having received a UROP scholarship under the current NSF EPSCoR Track 1 award are <u>NOT</u> eligible to apply <u>UNLESS</u> the research project is tied to the NSF EPSCoR Harnessing the Data Revolution for Fire Science (HDRFS) outlined on pgs. 3-4.
        • Research proposal thematic to the research themes of the HDRFS project are of special interest. Students awarded a scholarship for HDRFS-related research will be eligible to apply for future UROPs and, as part of award terms, will participate in supplemental mentorship and academic/professional development opportunities.

Women and members of underrepresented groups are especially encouraged to apply. NSF defines underrepresented groups as Alaska Natives, Native Americans, Blacks or African Americans, Hispanics, Native Hawaiians and other Pacific Islanders, and Persons with Disabilities. Applicants who are first generation college-going (neither of their parents graduated from college) and/or geographically isolated (separated by geographic barriers or distance) are also of special interest.

E. AWARD INFORMATION

1. UROP funds are awarded to encourage student engagement in undergraduate research and should be administered as a scholarship through the Institution's Financial Aid Office.
2. Since acceptance of this award may impact a student's income level to a degree that could affect eligibility for other scholarships, fellowships, and student loans, all students <u>must</u> consult with a campus financial aid advisor as part of the application process.
*Students receiving the Governor Guinn Millennium Scholarship should consult with a financial aid counselor to determine the effect that this award may have on a student's need-based financial aid.
3. NSHE does not provide tax advice. Any questions about possible tax liabilities should be referred to the IRS web sites: http://www.irs.ustreas.gov.
4. To further ensure the UROP is a positive experience, scholars are strongly encouraged to consider UROP time commitment, course workload and work/family obligations.
5. If you applied to, and are selected for, both a NV NSF EPSCoR and NV Space Grant scholarship awards during the same time period, you must select which scholarship you would like to accept. You may then reapply for the award you didn't select during the following application period.

F. PROGRAM GUIDELINES

1. Research must be conducted under the direction of a NSHE faculty mentor who has agreed to supervise the research project. NSHE adjunct faculty or Graduate Research Assistants may be identified as co-mentors, working collaboratively with lead mentor to support UROP scholar.

2. Proposals are requested that involve the STEM disciplines, especially in areas related to HDRFS. Students who are working outside of STEM disciplines (e.g., economics, education, journalism, policy) are welcome to apply but should propose projects that support the advancement of STEM-related research and education. Proposals on the education, communication, or policy of project-related topics are also welcomed.

3. It is acceptable for proposals from two or more students to be part of a larger research project; however, each proposal must demonstrate the unique research contribution to the group research project and will be reviewed on its own merit.

4. Awardees must be present during the entire program period, and the research is to be completed by the end dates as designated by the award.

5. Successful candidates are required to provide programmatic feedback for NSF evaluations through participation in reporting surveys and/or questionnaires.

6. Each student **must** prepare and present a poster at Nevada Undergraduate Research Symposium, held in the Fall and Spring of each year. Scholars attending an institution that does not host a research symposium, they will be invited to participate in one at an adjacent institution. The exact date and location will be provided to awardees accordingly. The poster should represent the research done over the course of the funded project period.

7. Each awardee will submit a signed obligation form, a digital headshot, and a summary of their proposed research to Michele Casella at the time they accept the scholarship. The summary and photo will be used to announce UROP awardees on NSHE publications and websites. Awardees will also be required to register in the NSF EPSCoR Data Outcomes Collection System (EDOCS) for reporting purposes.

8. **Awardees conducting research tied to HDRFS research themes (pgs. 3-4), are invited to apply for future UROP scholarships under this project. Students awarded a scholarship for HDRFS-related research will participate in supplemental mentorship and academic/professional development opportunities during their second UROP experience, and each UROP scholarship they are awarded thereafter.**

NOTE: All NSHE students, <u>except those with medical science research</u>, are eligible to apply for a UROP scholarship. The application process is different for <u>lower division</u> students (those who have completed 59 or fewer semester credits overall) and <u>upper division</u> students (those who have completed 60 or more semester credits overall). We anticipate awarding scholarships to both divisions in proportion to the number of applications that are received. Be sure to read the directions that follow carefully and fill out all required forms clearly and completely, as applications lacking any of the required information will not be considered.

II. APPLICATION INSTRUCTIONS

Each application consists of completing an online form and will request the upload of a <u>single PDF</u> attachment at the end. The online form will ask for general information and serve as your application's cover page. Please prepare your application materials (items 2-5 or 2-6 below) ahead of time and <u>merge all your documents into a single PDF file.</u> At the end of the online application process, you will be able to upload a single PDF file with all the required application materials. You will receive a confirmation message as soon as your application has been submitted. If an applicant does not receive confirmation that his/her application was received, please contact Michele Casella, <u>mcasella@nshe.nevada.edu</u>, to verify receipt of application by the NSHE Sponsored Programs Office. To further understand the UROP application process, refer to "The Application Process: Who does what?" (**Form A in Appendices**)

A. LOWER DIVISION STUDENTS (59 or fewer credits completed)

1. **Application & Checklist (online forms):** Applicants will need to complete the online application at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/.
2. **Applicant's Statement:** Applicants should prepare a statement that answers the following questions:
   - What are your educational goals? What are your career goals?
   - How will participation in this program assist you in achieving your career goals?
   - What relevant courses have you completed?
   - Do you have any prior research or applicable work experience?
   - What research are you interested in conducting with your mentor? Be as specific as you can about the research questions and methodologies you propose to use to conduct the work. Be sure to include a realistic, achievable research timeline.

   This statement must be written solely by the undergraduate applicant and is limited to a total length of two pages. Statements must be single-spaced with 1" margins, in 11-pt. Times New Roman font. Handwritten statements will not be accepted. Students seeking writing assistance should register for one of the UROP Application Writing Workshops, referenced on page 6.
3. **Scanned transcripts or downloaded "unofficial" pdf transcripts from your college website:** Transcripts of all college courses completed must be submitted, including a list of courses in which applicant is currently enrolled.
4. **Resume or Curriculum Vitae (CV) (Form C in Appendices):** The student applicant must submit a resume or CV, limited to two pages.
5. **Endorsement Letter(s):** At least one letter is to be written by the supervising faculty mentor(s) indicating their approval of the proposed project and describing their level of involvement in the project. It is very important that the letter describe the objectives/hypotheses and timeline for the student's proposed research project and be customized to highlight student's abilities and strengths for a successful research experience. Mentor letters for students with GPA below 3.0 should also specifically describe the student's readiness for a research experience. Mentors have the option of submitting their letter separate from the student application package. This can be done at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/.

B. UPPER DIVISION STUDENTS (60 or more semester credits completed)

1. **Application & Checklist (online forms):** Applicants will need to complete the online application at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/.
2. **Project Description (limit two pages, including all graphs or pictures):** The formulation of the research project may be a result of a collaborative effort by the applicant and mentor; however, the project description **must be written solely by the undergraduate applicant.** It should be a concise statement including clear hypotheses to be tested or questions to be asked. The project description must be written in a way that is understandable to reviewers whose background may be outside the applicant's specific field of research. The two-page project description should be single spaced with 1" margins, in 11-pt. Times New Roman font and must include the following sections:
   - a. Abstract (50-100 words)
   - b. Introduction
   - c. Objectives
   - d. Research hypotheses or questions
   - e. Plans for research and/or creative work
   - f. Timetable

g. Plans for dissemination of results

Students seeking writing assistance should register for one of the UROP Application Writing Workshops, referenced on page 6.

3. **References/citations (Form B in Appendices):** Not included in the two-page limit for the project description.
4. **Scanned transcripts or downloaded "unofficial" pdf transcripts from your college website:** Transcripts of all college courses completed must be submitted, including a list of courses in which applicant is currently enrolled.
5. **Resume or Curriculum Vitae (CV) (Form C in Appendices):** The student applicant must submit a resume or CV, <u>limited to two pages</u>.
6. **Endorsement letter(s):** At least one letter is to be written by the supervising faculty mentor(s) indicating their approval of the proposed project and describing their level of involvement in the project. It is very important that the letter describes the objectives/hypotheses and timeline for the student's proposed research project and be customized to highlight student's abilities and strengths for a successful research experience. <u>Mentor letters for students with GPA below 3.0 should also specifically describe the student's readiness for a research experience.</u> Mentors have the option of submitting their letter separate from the student application package. This can be done at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/.

C. PROJECTS INVOLVING HUMAN SUBJECTS OR VERTEBRATE ANIMALS

Prior approval by the Institutional Review Board (IRB) for human subjects and/or the Institutional Animal Care and Use Committee (IACUC) for animal subjects is not required for proposal submission. However, students chosen to receive a scholarship under this program who anticipate the use of human or animal subjects in their research must receive approval of their research protocols by the appropriate review board prior to the beginning of research and release of funds.

1. Human Subjects: If this proposed project involves the collection of information from human beings through interaction or observation, include an attachment (not included in the two-page limit) that provides sufficient information to enable reviewers to evaluate potential risks to subjects. Include information concerning the subject population, type(s) of information to be gathered, and measures to be taken to protect privacy and reduce risks.
2. Vertebrate Subjects: If this proposed project involves living vertebrate animals in any way, include an attachment (not included in the two-page limit) that provides sufficient information to enable reviewers to evaluate the choice of species, number of animals to be used, and any exposure of animals to discomfort, pain, or injury.

III. PROPOSAL REVIEW PROCESS AND EVALUATION CRITERIA

Applications will be reviewed by a panel of faculty from throughout the NSHE system. There will be separate panels for upper and lower division proposals. Awardees are eligible to participate in only one of the two divisions. Proposals will be selected based on a statewide, merit-based review. Eligible STEM-related research topics are welcome; however, at least 50% of all awards will be granted to those whose research is related to the fire science research thrusts of the HDRFS project. The selection process will include a review committee that will focus on the following review criteria:

1. Has the "Applicant's Statement" (lower-division student) or "Project Description" (upper-division student) identified an important research topic and clearly articulated its relevance to science / society?
2. Have the activities / methods been described in sufficient detail to assess the likelihood that the student will have a successful experience? Is there sufficient access to equipment/resources? Is the timeline achievable?

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3. Has the applicant demonstrated a level of academic preparation and excellence, as reflected by his/her appropriate coursework and/or other measures, which would predict success in a research experience? Does the applicant have other background experience and/or extracurricular activities which would help predict success in a research experience?
4. Are the applicant's recommendation letters supportive of his/her participation in the program, including specific reference to his/her potential for success in this program?

IV. PROPOSAL SUBMISSION, AWARD NOTIFICATION AND TIMELINE

A. SUBMISSION OF PROPOSALS

All required documentation listed in this announcement under **II. Application Instructions** should be submitted by no later than **Friday, March 8, 2024, 5:00 PM PST**. The Application and Application Checklist can be accessed at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/. Please be advised that the site will not accept late applications so allow yourself enough time to troubleshoot and submit before the deadline.

Incomplete or illegible applications will not be accepted. It is the applicant's responsibility to ensure all components are complete and included in the package.

Faculty mentors are invited to submit their Letter of Endorsement as part of the completed application package or separately at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/.

You will receive an email confirming receipt of your application. If you do not receive notification, please contact Michele Casella, mcasella@nshe.nevada.edu, (702) 522-7076 for assistance.

B. NOTIFICATION

Letters of award, as well as letters of regret, will be sent to all applicants after a statewide review has been conducted.

C. OBLIGATION TO THE GOVERNMENT

Applicants for the award will be considered without regard to race, creed, color, sex, age, national origin and/or physical impairment.

D. CONTACTS

Potential applicants with questions regarding this program are strongly encouraged to contact a Program Leader.

University of Nevada, Reno	University of Nevada, Las Vegas	NSHE Sponsored Programs & EPSCoR
Dr. Tanya Kelley;	Dr. Rafael Oganesyan;	Michele Casella
Email: tanyak@unr.edu	Email: Rafael.oganesyan@unlv.edu	Email: mcasella@nshe.nevada.edu

APPENDICES

Forms A-C

FORM A

Register for one of the UROP Application Writing Workshop sessions listed on page 6 to learn more about the application process and to receive application writing assistance.

The Application Process: Who Does What?

Activity/Responsibility	Student	Faculty Mentor
Review UROP program Request for Proposals (RFP)	The student should carefully read the UROP application, paying close attention to eligibility, preparation, and submission guidelines. The student should forward a copy of the program guidelines to the faculty mentor. A database of over 160 NSHE mentors are listed on the Nevada STEM Mentor Network website. https://stemmentor.epscorspo.nevada.edu/ Students may also reach out to UROP Campus Contacts (page 5) for assistance. Both UNR and UNLV have Offices of Undergraduate Research who can also assist. All students are strongly encouraged to attend the online UROP Application Writing Workshops listed on page 6 for writing assistance and assistance with the RFP.	Faculty mentors should identify and encourage outstanding students to apply for UROP. The faculty mentor should review program guidelines to understand the role of the faculty mentor in advising the student throughout all phases of the UROP application process. Mentors are encouraged to attend Session 1 of the UROP Application Writing Workshops listed on page 6 to learn more about the RFP.
Develop the idea for a Research 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. **Students with HDRFS-related research are eligible to apply for future UROPs funded through this project.**	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 completes the UROP Checklist and Application Cover Page online and attaches all elements of the proposal described in Section II: Application Instructions (page 8) as a single pdf within the portal. Student should provide mentor with a final copy of the application.	The faculty mentor reviews a draft of the proposal, which includes the applicant statement or project description, timeline, resume(s), and budget to ensure that the proposed work can be performed and supervised within the space, time frame, or level of support indicated.

| Submit the application | All required documentation listed in this announcement under **II. Application Instructions** should be completed and uploaded by no later than the deadline date/time. The Application and Application Checklist can be accessed at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/. Prepare your application materials ahead of time and merge all your documents into a single PDF file. At the end of the online application process, you will be able to upload a single PDF file with all the required application materials. You will receive a confirmation message as soon as your application has been submitted. Please be advised that the site will not accept late applications so allow yourself enough time to troubleshoot and submit before the deadline.

The application should be submitted no later than 5:00 PM PST Friday, March 8, 2024. **Late or incomplete proposals will not be reviewed.**

If the student does not receive a confirmation of receipt, within 1 day of submitting, it is his/her responsibility to follow up via email, mcasella@nshe.nevada.edu. | Student mentors are invited to submit letters of recommendation and support separate of the student application package at https://hdrfs.epscorspo.nevada.edu/urop-say24-25/ but must submit prior to the deadline date of Friday, March 8, 2024, 5:00 PM PST. Faculty mentors will receive a confirmation of receipt. They will also be copied on student notification of award or decline. |

FORM B

References Cited
Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. If the document is available electronically, the website address also should be identified. Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal.

FORM C

STUDENT CURRICULUM VITAE (CV) BUILDER

What is a Curriculum Vitae?

A Curriculum Vitae ("CV" or "vitae") is a comprehensive, biographical statement emphasizing your professional qualifications and activities. In general, curricula vitae are three or more pages in length. Because a CV is similar to a resume, you may find the "Resume and Cover Letter Construction" guide helpful. An advantage to the C.V. format is the significant freedom to choose the headings and categories for your information and the strength reflected in their arrangement.

When Is a Curriculum Vitae Appropriate?

A CV should **only** be used when specifically requested. This might occur in the following instances:

- Applications for admission to Graduate or Professional Schools
- Independent consulting in a variety of settings
- Providing information related to professional activities (e.g., applications for professional memberships and leadership positions, and presentations at professional conferences)
- Proposals for fellowships or grants
- Applications for positions in academia, including:
- School administration, (e.g., elementary or secondary school principals, superintendents, deans of schools)
- Institutional research and consulting
- Higher Education positions in teaching, research, and administration

Possible Sections to Include in Your C.V.

Heading	Name, address(es), and phone number(s), including area code(s)
Education	Listing of academic degrees beginning with the degree in progress or most recently earned. Include name of institution, city and state, degree type (B.A., B.S., M.A., etc.), area of concentration, month and year degree was (will be) received. Note: You may wish to include the title (using the format appropriate to your particular academic field) of your thesis. If you are an undergraduate and your GPA is 3.5 or higher, it is appropriate to include it. You may also include "Relevant Coursework" under this heading.
Honors and Awards	Receipt of competitive scholarships, fellowships, and assistantships; names of scholastic honors; teaching or research awards.

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Relevant Experience	Listing of positions (part-time, full-time, volunteer, temporary and permanent) related to the work sought. Include: department, firm, agency, or organization; complete name; city and state; job/position title; dates; also include a brief description of your activities/duties, using strong action verbs. List these in reverse chronological order.
Other Experience	Groupings of other experiences (including volunteer work and/or internships) can enhance your C.V. Your experience can also be broken into other categories such as: Teaching, Counseling, Administration, Volunteer, Community, Internship, etc. Entries within each section should be in reverse chronological order.
Professional Associations	Memberships in national, regional, state, and local professional organizations should be listed. Also list significant appointments to positions or committees in these associations. Student memberships in professional associations are appropriate.
Publications	Give bibliographic citations (using the format appropriate to your particular academic discipline) for articles, pamphlets, chapters in books, research reports, or any other publications that you have authored or co-authored. In the fine arts, this can include descriptions of recitals and art exhibits.
Presentations	Give titles of professional presentations (using the format appropriate to your particular academic discipline); name of conference or event; dates and location; if appropriate in your discipline, also include a brief description. Presentations should be listed in reverse chronological order.
Recent/Current Research	Description of research projects recently conducted or in progress. Include the type of research and a brief description of the purpose.
Community Involvement	Appropriate and relevant volunteer work, church work, community service organizations, etc.
References	Optional to end vitae with statement "Available upon Request." If you are responding to an advertisement that asks for references, include those requested on a separate addendum sheet.
Qualifications or Skills	A summary of particular or relevant strengths or skills which you want to highlight. (Typically, this is not included as a separate section, but addressed in other sections. Occasionally, however, it may be appropriate to list special computing or language skills.)
Personal Information	Do not include marital status, age, ethnicity, race, religion, place of birth or citizenship.