

Call for Proposals

2025 Provost Undergraduate Research and Innovation (URI) Summer Fellowship Program

Online Submission Deadline: March 3, 2025

<https://njit.infoready4.com/#freeformCompetitionDetail/1959274>

(Please be logged in to the NJIT network)

Undergraduate research provides students a unique opportunity to learn necessary and important skills to research and innovate towards taking a leadership role in society. As a student-centered research institution, NJIT is committed to providing opportunities for research participation beginning at the undergraduate level.

ABOUT THE PROGRAM: *The NJIT Provost Undergraduate Research and Innovation (URI) Summer Fellowship Program* is a 10-week program that provides summer stipend support (\$5,000 each) to undergraduate student awardees from all disciplines to pursue research under the guidance of a faculty advisor or programmatic mentorship on a competitive basis. Eligible undergraduate students should apply online with their proposals following the instructions provided below. The program concludes with presentations at the NJIT International Summer Undergraduate Research Symposium on July 23-24, 2025.

URI and GHRI Fellowship Programs:

Due to the generosity of our donors, there are several fellowships that fund the URI during the summer program. We have listed some below. Students are awarded these fellowships after they are accepted without further documents or interaction with the applicant.

- *NJIT Provost URI Summer Fellowship* - applications from any discipline will be accepted and considered.
- *Grace Hopper Research Institute (GHRI) Artificial Intelligence (AI) Summer Fellowship:* Special funding is available for eligible projects that focus on any aspect of artificial intelligence, including but not limited to machine learning, natural language processing, robotics, AI ethics, and applications of AI across various disciplines.
- *B Kiernan Research & Innovation Fellowship*
- *Stevenson Family URI Fellowship*
- *PSEG Fellowship*

Proposal Focus Areas: When submitting a proposal, applicants will be asked to select one of the following options on the proposal submission form.

ARTIFICIAL INTELLIGENCE, MACHINE INTELLIGENCE, and ROBOTICS: Research in the areas of the human-machine interface, cyber-human systems, robotics – including bioinspired, medical, social and industrial autonomous systems – intelligent infrastructure, artificial intelligence, machine learning and augmented and virtual reality, and AI ethics.

BIOSCIENCE AND BIOENGINEERING: Research in the areas of biomedical devices, sensors and instrumentation, brain health and neuroscience, tissue engineering, biological sciences and behavior, molecular biology, evolutionary sciences, and gene therapy and phenotype-related research.

DATA SCIENCE AND MANAGEMENT: Research in the areas of the study and practice of data science and analytics and the extraction of information and knowledge from data that can be used for medical, financial, business management, scientific and engineering applications.

ENVIRONMENT AND SUSTAINABILITY: Research on urban ecology, solar physics and space weather, environmental sensors, sustainable infrastructure, intelligent transportation systems, global climate change, biodiversity and conservation, clean water, waste management, renewable energy, smart grid systems and additive/ advanced manufacturing systems.

MATERIALS SCIENCE AND ENGINEERING: Research in the areas of advanced materials, including smart energetic and composite materials, quantum materials, biomaterials, polymers, membrane technologies and nanotechnologies.

Program Period: This 10-week program begins on May 20, 2025 and ends on July 24, 2025.

Application Deadlines: Application Deadlines: All application material, including the online application form, research proposal excluding the faculty letter of support, are to be submitted online via InfoReady link by 11:59 PM EST on **March 3, 2025**.

The faculty letters of support must be submitted for using the InfoReady link (please see below) by 11:59 PM EST on **March 10, 2025**.

Program Requirements: Please consider the following requirements carefully before applying.

- Fellowship students should not be engaged in outside employment or coursework during the program period. Participation requires **full-time engagement** by the student.
- All Fellowship students are expected to fully participate in all aspects of the program and fill-out the time-sheet for hours of work with their respective advisors.
- All Fellowship students are required to participate in the *NJIT Undergraduate Research & Innovation Summer Symposium* on July 23-24, 2025.
- All Fellowship students are required to attend the workshops offered during the summer.

ELIGIBILITY: Any **current** NJIT student who will be **enrolled as an undergraduate in the Fall 2025 semester** may apply.

AWARDS: The **Summer Fellowship Award amount is \$5,000 stipend**. Please be aware that this award is paid during summer 2025.

HOW TO APPLY: Submission of all applications is online via InfoReady. Applications are due March 3, 2025. Review the information provided in this document. Application links and forms are supplied at the end.

FACULTY GUIDELINES

Faculty are expected to support the application and proposal writing process as follows:

- Provide a letter of support of the student
- Provide guidance during the proposal writing process

LETTERS OF SUPPORT: Due Date: **March 10, 2025**

Prospective faculty advisors are expected to write a letter of support that will accompany the application on or before the deadline.

More than one student letter of support: Faculty advisors who are writing support letters for more than one student applicant must rank the proposals, indicating which projects they would most like to see funded. This process will not preclude lower ranked students from being accepted, but the advisor's insight about each

student/project is useful information for the review committee to take into consideration.

What is included in the Letter of Support: Letters of support must include the advisor's opinion of the student and must place the proposed research project in the context of any ongoing research. The following questions should be addressed in the letter of support:

- Is this a new project or part of an ongoing investigation?
- Will this project spawn additional work that extends beyond the summer?
- What primary benefits will this project have for both the student and advisor?

STUDENT PROPOSAL GUIDELINES

RESEARCH PROPOSAL: Due Date: March 3, 2025

Please adhere to the following organizational guidelines when writing your research proposal. Keep in mind that the members of the review committee are not necessarily experts in your field. Research proposals are expected to be written by the student with input from the faculty advisor.

In particular, a successful proposal will demonstrate:

- Clear statement of research problem
- Significance and originality of the approach
- Logical project design and clear methodology
- Expected outcomes and deliverables

RESEARCH PROPOSAL STRUCTURE

- The recommended proposal length is **3 pages, single-spaced, 12-pt font and 1 inch margin (all sides)**.
- The abstract and bibliographic references are not included in the 3-page limit.
- **Saving/Submitting your RESEARCH PROPOSAL: Save as Your Lastname_proposal.doc or .docx or .pdf (this is to be uploaded to your online application)**

Abstract (200 words or less): Concisely state the specific aim of your project. What are the specific questions you seek to answer? What are your specific goals and objectives for the summer? **This is not included in the 3-page proposal length limit.**

Background: Clearly and logically lay out the problem or question that you will attempt to answer. Provide sufficient background to help the general reader understand your project. You must describe your project in language accessible to a general audience. What is known and not known in this area of research? What outcomes do you hope to achieve? Provide citations from the relevant literature.

Significance: Explicitly and clearly explain why this problem is important. How important is it to find a solution to this problem? Who will find this work interesting? What makes this project and research novel?

Project Design: As specifically as possible, describe how you will attack your problem, using language accessible to the general audience and not going into highly technical detail. While it is true that research often

goes in unforeseen directions, success in a 10-week summer project requires a very high level of focus. The clearer your goals, the more likely you are to have a productive experience.

It is important that you indicate the ways in which you as a student will make an independent or creative contribution. If your work requires compliance with published university research policies e.g., work with human subjects, animals, hazardous material, etc., please explain what steps you will take to obtain the required approval.

Expected Outcomes and Deliverable: Please explain the expected outcomes from the proposed research project. How would you demonstrate that the specific goals and objectives of the summer research are met? Provide a clear description of the deliverables.

Bibliography: Provide any relevant references and bibliography that is used in the proposal. The bibliography should be on a separate page that is not included in the 3-page proposal length limit.

SUBMISSION FORMS/APPLICATION LINKS

Students: [InfoReady Application](#) (Use your normal NJIT login.)

Questions: [Frequently Asked Questions](#)

Program Information: [Undergraduate Research Program Summer Provost Fellowship](#)

Any questions should be directed to the URI Team at uri@njit.edu.