UTRGV | The University of Texas Rio Grande Valley
College of Engineering and Computer Science

NSF REU Site: *Interdisciplinary Research Experience for Undergraduates in Materials Science and Engineering at UTRGV*

APPLICATION PACKET CHECKLIST

The applicant should **complete and return the following documents by email to**: mataz.alcoutlabi@utrgv.edu

- ☐ **Student Application pages (Page 2-3)**
- ☐ **Ranking of Project Preference (Page 4)**
- ☐ **Statement of Understanding (Page 5)**
- ☐ **Letter of Interest (Instructions Page 6)**

To be completed by your referee (One reference letter required)

- ☐ **Letter of Recommendation**
- ☐ **Must be sent directly from the email address of the person writing the recommendation. (**Please ask your recommender to Email: mataz.alcoutlabi@utrgv.edu)
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Deadline: March 31st, 2026

Selection of the Summer REU interns will be made as applications are received and will continue until all positions are filled. Incomplete applications will not receive full consideration.

For more information and questions:

Email: mataz.alcoutlabi@utrgv.edu

Web site: https://www.utrgv.edu/reu_mse/

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STUDENT APPLICATION

Please type or print clearly and answer each question completely.

1. Full legal name

_____
Last First MI

2. Permanent (Home) Mailing Address:

_____
Number and Street or P.O. Box

_____
City State Zip Code

_____
Phone #

3. Emergency Contact: Name: _____ Phone #: _____

4. Current Mailing Address, Telephone (your mobile# preferred):

_____
Number and Street or P.O. Box

_____
City State Zip Code

_____ _____
Phone #

5. Applicant E-mail address: _____

6. Birth Date
Month_____Day_____Year_____

7. Gender
M/F_____

8. Ethnicity _____

9. Current Undergraduate Institution Name & Type (Public, Private, Community College)

_____
Institution Name

10. Does your current undergraduate institution have limited access to research (e.g. 4-year teaching college, or Primarily Undergraduate Institute (PUI))

Circle one YES / NO

11. Undergraduate Level During 2024-2025 Academic Year (Circle One)

Sophomore / Junior / Senior

12. Academic standing

High School GPA: _____

Current degree program(s) in which you are enrolled: _____

_____

Undergraduate Overall GPA: _____

GPA in your Major: _____

Are you enrolled in any Minor tracks? _____If yes, which one(s) and what are the GPAs?

_____

What is your expected date of Graduation from your Major? Month_____Day_____Year_____

13. Future Interest: after receiving your degree, are you interested in graduate school, medical school, law school, other professional school, full-time employment, or "not sure?"

_____

14. Academic Awards/Recognition: list any academic awards or scholarships you have received while in college

_____

_____

15. Briefly describe any previous research activities you have completed as independent study, hourly work, or internships, including any resulting publications and/or presentations.

_____

_____

_____

16. Have you ever been convicted of a felony? No_____Yes _____(attach explanation)

17. How did you hear about the REU program? Check one:
from □NSF flyer □poster □one of your professors □online □other

18. I hereby certify that to the best of my knowledge the information furnished on this application is true and complete without evasion or misrepresentation. I understand that if found to be otherwise, it is sufficient cause for rejection of my application or dismissal from the REU program.

_____

Applicant's Signature Date

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Ranking of Project

indicate your 4 choices of research project (4 choices ranked as F, C, D, E etc.) below

My top 4 rankings of projects:

1. _____

2. _____

3. _____

4. _____

Ranking of projects will be considered but cannot be guaranteed. If several selected applicants rank the same topics, you will be contacted to work out project selection.

A. Electrochemical Sensor for Dopamine detection by EIS technique

B. Ultra-fast Laser-Assisted Nano-particle Synthesis, Collection, and Analysis

C. 2D ZnO-Nanoflakes (NFs)-based Multichannel Array Platform for Wearable Human Sweat Analysis

D. Harnessing Multipurpose Nanoparticles for Enhanced Porous fibrous Composite Membrane Production via Pickering Emulsion

E. Synthesis of Gold and Iron Nanoparticles with Single-Stranded Circular DNA Passivation by Reactive High-Energy Ball Milling (RHEBM) as a Potential Biosensor

F. Fabrication and characterization of fiber-reinforced hydrogel biomaterials

G. Fabrication and Characterization of Proton Exchange Membrane Fuel Cell Sensor for Volatile Organic Compound (VOC) Detection

H. Investigation of the structure and morphology of nanomaterials used as Lithium-ion battery electrodes.

I. Study of Two-Dimensional Nanomaterial Infused Photocurable Polymer Nanocomposite Device Fabrication by Direct Ink Writing

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STATEMENT OF UNDERSTANDING

Applicants should read and initial each item below and then sign this Statement of Understanding acknowledging acceptance of the requirements and provisions of the Summer NSF REU Site hosted by UTRGV.

☐ **Late arrivals or early/late departures cannot be accommodated. Full-time attendance is required. The program period is 1st June 2026 – August 7th, 2026.**

☐ The primary purpose of the Materials Science and Engineering REU Program is to gain experience in advanced research approaches and techniques in multidisciplinary research activities and in written and oral presentation of research outcomes.

☐ The REU Program centers around the REU student-faculty and REU student-graduate student mentor relationships by which each student is guided in conducting independent research.

☐ The REU student is expected to work independently in an unstructured environment, which is typical of research.

☐ The REU student will deliver a publication ready manuscript draft at the end of the summer program and make a final oral/poster presentation of project results at a special symposium during the last week.

☐ The REU students will participate in all the academic components of the program including the first-week workshops in material research methods, safety training, reporting research results, communication skills, and environmental ethics, as well as seminars, tours, and group meetings during the 10-week program.

☐ The participant will devote full-time to the REU Program during the 10-week summer session. He/she will not take part in other academic or work activities such as attending classes or holding a job.

☐ In general, housing will be provided for non-local REU students. Students should not expect that funds from the REU Program be used to subsidize off-campus housing.

☐ The NSF-REU Site at UTRGV provides all summer interns with stipend of $7000 for program completion (bi-weekly payment). For non-local participants there will be an additional up to $1400 reimbursement for housing and travel.

☐ The REU program has the option of dismissing a student from the program for reasons of misconduct, or who does not follow the requirements and expectations listed above.

I hereby certify that I have reviewed this Statement of Understanding, and I agree with the NSF-REU Site Program and the University of Texas Rio Grande Valley requirements and provisions.

_____

Signature Date Print: Last Name First Name MI

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LETTER OF INTEREST

Please describe on a separate sheet (maximum 2 pages) your interest in the REU Program on Materials Science and Engineering at UTRGV.

Please include the following in your letter of interest:

- your personal goals related to the summer research program
- your interests in Materials Science and Engineering research in general your post-graduation professional plans
- how the REU summer program fits in with your previous experience from coursework, research/independent study, and/or jobs you have had