

DEPARTMENT OF MECHANICAL & AEROSPACE ENGINEERING

RESEARCH EXPERIENCE FOR UNDERGRADUATES PROGRAM

What is the Research Experience for Undergraduates (REU) Program?

GW's Department of Mechanical and Aerospace Engineering (MAE) offers the REU program option for students enrolled in the mechanical engineering, aerospace engineering, or biomechanical engineering undergraduate programs. Through the REU, interested students have the opportunity to work with MAE faculty who conduct cutting-edge research in many areas of mechanical, aerospace, and biomedical engineering, including work for NASA; the US Airforce, Navy, and Army; NIST; NSF; and a host of private companies. This experience is expected to significantly enhance the academic experience of MAE undergraduates to better prepare them for graduate study or subsequent employment in governmental and private organizations.

Application requirements:

- A GPA of 3.4 or higher at the end of Fall semester of junior year. Exceptions to this must be approved by the MAE Undergraduate Curriculum Committee.
- Approval of faculty supervisor.

Program requirements:

Spring, Junior Year.

- Submit a one-page research proposal to MAE Office by April 1 of junior year. Proposal should be written in consultation with MAE faculty supervisor. Proposal will be subject to approval by the MAE Undergraduate Committee.
- Upon approval, register for 1 credit of MAE 198 for Fall of senior year.

Fall, Senior Year

- Initiate a research project under supervision of faculty supervisor.
- Submit a five-page interim progress report.
- With approval of faculty supervisor, register for 2 credits of MAE 198 for Spring semester.

Spring, Senior Year

- Complete research project and submit final project report by April 15. Project report should be in format suitable for submission to GW student journal "Inquiry."
- Make an oral presentation on the research in the MAE Seminar Series in last week of April.

Each student completing this program with a grade of B+ or higher will receive a certificate of completion. Up to two undergraduate research prizes will be awarded based on the student reports and presentations. Each prize will include a cash award and a certificate. In addition, students may be selected to present the results at national student conferences and/or publish their results in research journals.



MAE students helped develop an FAA-approved replacement for this live-line maintenance platform



MAE wind tunnel



Visualization of flow past dragonfly wing model