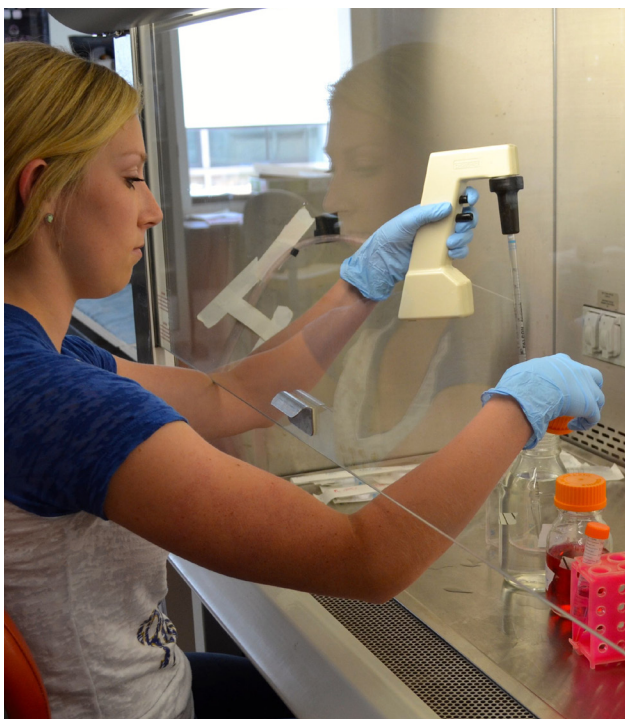




VirginiaTech
Invent the Future[®]

Research Experience for Undergraduates

The Research Experience for Undergraduates (REU), A Multiscale Approach to Biomechanics, is a program for undergraduates interested in exploring a multiscale approach to biomechanical research. Students will be fully integrated into participating research groups and will experience hands-on lab research, group meetings, and close collaboration with other members of related research groups. By conclusion of the program, students will understand the connection between biomechanical research and fundamental biological processes in health, injury, and disease. In addition, career development components will contribute to improving written and oral presentation skills.



REU is 10-week summer research program for undergraduates which integrates fundamental biological processes in health, injury, and disease with biomechanical research, sponsored by the National Science Foundation.

Objectives:

- Examine how multiscale biomechanical research can translate into novel devices for the prevention, diagnosis, and treatment of human injury and disease
- Investigate mechanical properties of structures ranging from subcellular components, such as cytoskeleton structures, to the quantification of tissue properties and whole body analysis
- Explore how biomechanics is a current multidisciplinary research theme which crosses many spatial scales, including intracellular and extracellular matrices, as well as tissue, organ, and multiscale organ systems

Details:

- 10 positions available per year
- Hands-on lab research
- Close collaboration with graduate students
- Training in research ethics, professional presence, and writing abstracts
- Visits to related labs/ organizations such as VBI, Carilion, and VTTI
- Presentation at campus-wide symposium

Program Provides:

- A generous stipend
- Housing / meals on campus
- Funding for travel
- Lively culture of outdoor sports and activities

Application Requirements:

- Must be a US citizen or permanent resident of the United States
- Must be and remain an undergraduate in good standing
- Must plan to complete a degree program
- Students will devote full time to research efforts and must not accept additional employment



CONTACT



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