



IBRC

Summer REU – Injury Biomechanics Research Center

Position title: Undergraduate Research Assistant

Location: The Ohio State University, Columbus, OH

Duration: Full-time, must be able to commit to a minimum of 12 weeks

Salary: \$14.00/hour, maximum of 38 hours/week. Minimum of 30 hours/week.

Laboratory background:

The Injury Biomechanics Research Center (IBRC) at The Ohio State University is a multi-disciplinary research center dedicated to investigating the relationships between human injury and physical mechanical properties. The IBRC has completed research in the field of automobile safety for the last 20 years. The IBRC brings together an interdisciplinary team of engineers, anatomists, anthropologists, physicians, computer modelers and technicians, who focus on both mechanisms of injury and injury thresholds of the human body. The Injury Biomechanics Research Center has the capabilities to test with both anthropomorphic test devices (crash test dummies) and post-mortem human subjects. The IBRC works closely with several departments of Ohio State and many government and industry partners to offer one of the most diverse testing facilities in the country.

For more information about specific research projects conducted in the IBRC, please visit ibrc.osu.edu.

Position summary:

The position will be a full-time appointment in the Injury Biomechanics Research Center, which will allow students to learn all aspects of injury biomechanics including real-world dynamic impact testing using instrumentation, data acquisition, recording high-speed videos & data analysis, and virtual FE simulation utilizing 3D CAD modeling, FE modeling, and FE dynamic simulation. Because the IBRC has multiple on-going projects, students are expected to be involved in a variety of projects at various levels, rather than being assigned to one specific project with one specific role.

Responsibilities:

The responsibilities for this position may include but are not limited to:

- Support researchers and graduate students with preparing and instrumenting subjects for testing
- Facilitate gathering of materials and data for various projects and reports
- Assists with maintenance of instrumentation and data acquisition systems
- Assists with acquisition, compilation, and basic analysis of data and recording high-speed videos
- Performs searches for relevant literature and other media
- Performs general laboratory tasks including housekeeping and organizing research supplies
- Provide assistance with the preparation of project-related reports, manuscripts, and presentations
- Assist with transport of specimens and equipment, between various locations within OSU and to external facilities where testing is conducted

Requirements:

- Applicants must be enrolled in a 4-year degree program and have completed a minimum of two years within the program
- Preferred majors: Mechanical Engineering, Biomedical Engineering, Materials Science Engineering, Health Sciences, Biomedical Sciences, Biology, Forensic Sciences, Anthropology. Other majors will be considered if they have relevant experience or coursework.
- Self-motivation and a high level of responsibility to complete tasks in a timely manner and make significant progress without direct supervision
- Ability to learn new software and research techniques as needed
- Flexibility in adjusting to new work-related requirements as they arise
- Applicants must be able to commit to a minimum of 12 weeks of full-time work. Commitments can extend up to 16 weeks. Tentative work timeline is May 9th – August 12th, actual start and end dates are flexible.

Application deadline: February 23, 2024

Application process: To be considered for the position please submit:

- Your curriculum vitae/resume
- A short (500 words or fewer) paragraph explaining why you are a good candidate for this position, what you are hoping to learn or gain from this opportunity, and how it fits with your academic and professional goals
- A copy of your university transcript or advising report
- We may have positions for Student Research Assistants opening during the spring semester. We do require paid students to commit to working a minimum of 20 hours per week during the school year. If you can meet this commitment and would be interested in being considered for a paid position during the semester, make sure to note this in your application.

All applications should be submitted to ibrc@osu.edu.