

Opportunity Title: Chemical Engineer Fellowship with ARL at Northeastern

Opportunity Reference Code: ARL-R-WMRD-6573584808

Organization

U.S. Army

Reference Code

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How to Apply

[Apply for this opportunity directly at this link.](#)

In replying to this research opportunity, please submit a short (<1 page) description of proposed research with your application.

Description

The Chemical Engineering Department at Northeastern University and the CCDC Army Research Laboratory (ARL) have a fellowship opportunity available for a Chemical Engineer. This opportunity will allow the appointed fellow to receive a very generous stipend and to have their tuition waived as they pursue a PhD and conduct research with ARL.

What the research is about:

The research seeks to understand and transcend the molecular processes that limit the design and optimization of advanced, high-strength polymeric materials for protective, personnel armor. Collaborative, multi-disciplinary computational and experimental approaches are taken to optimize molecular structure and materials processing to achieve a step change in performance.

Keywords: fiber, structure, properties, characterization, processing, aramids, ballistic test, design

What you will be doing:

The selected fellow will collaborate with faculty from Northeastern's Chemical Engineering Department and scientists at ARL to process and study aramid fibers. The fellow will perform research to determine if through chemistry, processing, and structural reorganizations within the individual fiber, in addition to some engineering of the final fabric layout, it is possible to exhibit a 50-100% increase in ballistic performance over the state of the art.

Incentives

Include: annual stipend, health insurance, inbound travel and moving expenses reimbursed according to established policies, professional travel and other costs for training related to the project reimbursed and approved by ORAU and ARL.

As a graduate student at Northeastern University, tuition is waived.

The initial appointment is typically for one year and may be renewed for up to three additional years based upon recommendation of the Army Research Lab and subject to availability of funds.

A very generous stipend greater than the standard Northeastern University Chemical Engineering graduate stipend will be provided to the selected participant.

[You can learn more about the Army Research Lab Research Associateship Program at this link.](#)

Qualifications

An exceptional recent BS grad applicant who strongly desires to perform graduate level research towards a PhD degree, specifically at

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Northeastern University.

Applicant should be able to demonstrate excellence and have a desire to work to solve cutting edge processing, chemistry, and structure/property questions that we have about new high-performance anti-ballistic fibers.

U.S. Citizenship is required for this opportunity.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([2](#)👁)
 - **Engineering** ([1](#)👁)

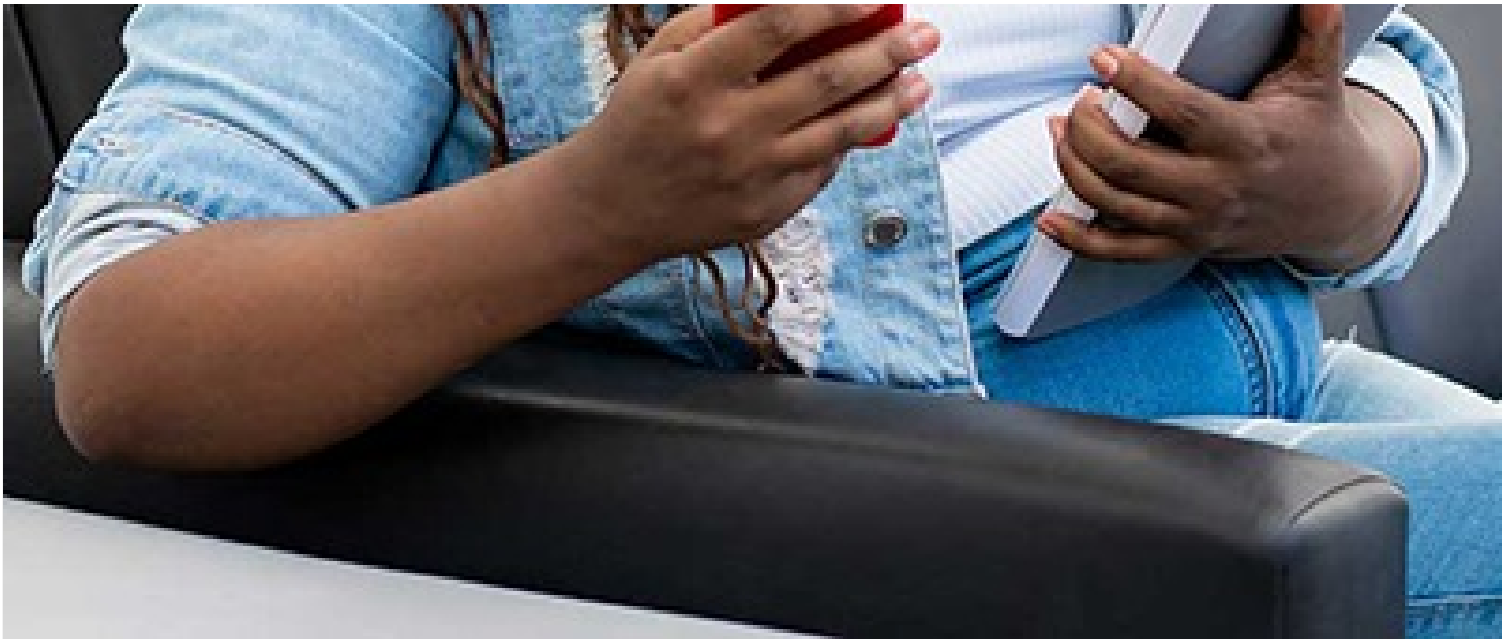


ORAU Pathfinder



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Whether you are just starting your career or already at a senior level, ORAU offers internships, fellowships, research opportunities, and contract positions that can provide you with invaluable experience. Download the ORAU Pathfinder mobile app and find the right opportunity to propel you along your career path!

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