Hello Hokies! The Office of Undergraduate Research is hiring peer mentors for 2022 summer programs. In addition, if you are graduating this Spring, please consider joining the UREP program and document your research journey for a graduation cord. Check out the Office Bulletin section below for guidance! This week's newsletter features research programs that welcome applications from any discipline, and students who are particularly interested in Wireless Communications, Data Science, Statistics, Machine Learning, Alcohol Research, Translational Biomedicine, Cell & Molecular Biology, Cancer Research, Materials Science & Engineering, Animal Sciences, Consumer Networking Technologies, Computational Neuroscience, Geometry Processing, Experimental Psychology, Neural Networks (Neural Nets), Physics, Astronomy, Rehabilitation Engineering, Future Space Materials Science, Human Diagnostic Technology, and Population Biology. Programs taking applications from international students are marked with asterisks (**). This newsletter also features a free directory for fully-funded graduate programs, a student leadership development symposium, as well as a presentation opportunity for students studying humanities.

Let us know what you think about the newsletter by taking the quick survey at the end of the newsletter! (8 minutes read)

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1.1 Office Hours & Survey
Office hours will be held virtually at this point until further notice. You need to be logged into your VT Zoom account before opening the link. (Personal ID number: 540 231 3580) The next three office hours will be:
   Wednesday, Feb. 16, 2022, from 9 am to 10 am
   Thursday, Feb. 24, 2022, from 2 pm to 3 pm
   Friday, Mar. 4, 2022, from 12 pm to 1 pm
We can always be reached at ugr@vt.edu if you need help with undergrad research experience.

1.2 Summer Peer Mentor Application
We are recruiting peer mentors to assist with the 2022 summer research programs at Virginia Tech. Please see here for more information about the position. If you have any questions about the position or application process, please contact Keri Swaby at kswaby@vt.edu. The deadline is Mar. 8 at 9 am.

1.3 Cord for Graduating Seniors
As a graduating senior, you can join the Undergraduate Research Excellence Program (UREP) program and document your research journey for a graduation cord. Learn more and sign up to join the program online. Please contact Keri Swaby, the director of the Office of Undergraduate Research, at kswaby@vt.edu for
inquiries. The deadline to complete the program for a graduation cord is Mar. 4, 2022, at 9 am.

2.1 English to Engineering (E2E) Undergraduate Research and Enrichment Program**
The program is focused on issues surrounding sustainability in aerospace propulsion. Applications into the program will require a short proposal, for study or research, that addresses ways to make air travel more economically and/or environmentally sustainable. First-, second- and third-year students (including non-engineers) are particularly encouraged to apply. Contact Profs. Todd Lowe (kelowe@vt.edu) and David Gray (dagray3@vt.edu) for inquiries. Click here to learn more about the program. The deadline is Feb. 18, 2022, at 5 pm.

2.2 Data Science for the Public Good (DSPG)**
The program is part of the broader Data Science for the Public Good (DSPG) initiative offered by Virginia Tech's Agricultural and Applied Economics Department. The program allows young scholars to conduct research at the intersection of statistics, computation, and the social sciences to determine how information can be leveraged to inform public policy. Click here to learn more about the program. The deadline is Mar. 4, 2022.

2.3 VT/Duke Univ. Summer Research Program "Learning to Communicate"
Selected students will develop machine learning (ML) algorithms that take advantage of special features of new waveforms proposed for 6G wireless communication. The team will be highly interdisciplinary and will include students from Virginia Tech familiar with wireless communication, as well as students interested in machine learning. Students will design experiments, collect data, and analyze over the air performance, some working onsite using Virginia Tech’s CORNET testbed (https://cornet.wireless.vt.edu/), some virtually using CORENT-based remote lab experiments. Click here to learn more about the program. The deadline is not specified.

2.4 Dr. J. Michael Bowers Summer Undergraduate Research Fellowship**
SUMMER

The School of Neuroscience and College of Science at Virginia Tech are pleased to announce a new summer fellowship for a Virginia Tech undergraduate student from an under-represented group with the opportunity to participate in 10 weeks of independent STEM-related research. This fellowship, the Dr. J. Michael Bowers Summer Undergraduate Research Fellowship, is in honor of the School of Neuroscience’s first faculty recruit, Dr. Mike Bowers, and will provide a $4000 stipend for the fellow.

Objectives:

· To provide independent research experience to an undergraduate from an under-represented group, something Dr. Bowers was extremely passionate about.
· To expose early career stage students to experiential learning in any STEM-related field to increase the likelihood of long-term careers in related fields.
· To develop and foster creative problem solving and science communication skills.

Application materials:

· The applicant must submit a brief cover letter that describes why they are interested in participating in independent research and how this opportunity may contribute to their career trajectory.
· An up-to-date resume
· An up-to-date unofficial transcript and GPA
· A letter of commitment from the College of Science faculty member that will host and mentor the fellow during the summer

Eligibility:

· Must be a rising sophomore or junior at Virginia Tech and in good standing with the university
· Must be from a group considered under-represented at Virginia Tech
· Must have already identified (and have a commitment from) a College of Science laboratory and faculty member to host the fellow during the fellowship period
· Must be able to devote oneself to full-time research for 10 weeks in the summer
· Must be able to present discoveries and advances accomplished over the summer at the Virginia Tech Summer Undergraduate Research Symposium

Important dates:

· Applications are due March 15th, 2022
· Program runs from May 23 – July 29, 2022

Applications must be submitted electronically as a single PDF (with the files in order listed above) to Jonathan Hedrick (hedrickl@vt.edu).

Questions regarding the Dr. J. Michael Bowers Summer Undergraduate Research Fellowship can be directed to Dr. Michael Fox (mfoxli@vt.edu) or Jonathan Hedrick (hedrickl@vt.edu).
3.1 AWESOME Summer Program Series at the University of Missouri
The program series provides numerous opportunities for students in different fields. The programs, organized by deadline, are listed below.

**Feb. 20**
- Alcohol Research – psychology addiction research
- Translational Biomedicine – students planning on research careers and looking at MU for graduate training
- Cell & Molecular Biology – for students interested in molecular and cellular biology and looking at MU for graduate training
- Cancer Research – students planning on careers in cancer research, diagnosis, or treatment and considering MU for graduate/professional studies
- Materials Science & Engineering REU – a broad array of materials engineering research
- Animal Sciences – for students considering PhDs in animal sciences. This is not a pre-vet program.

**Mar. 1**
- Consumer Networking Technologies REU – computer sciences
- Computational Neuroscience REU

Click [here](#) to learn more about all the programs.

3.2 Summer Geometry Initiative (SGI) at MIT**
The initiative is a six-week paid summer research program introducing undergraduate and graduate students to the field of geometry processing. No prior research experience or coursework in geometry processing is necessary to participate in SGI; students who have excelled in the math, science, and/or computing programs available to them are strongly encouraged to apply. Click [here](#) to learn more about the program. The deadline is **Feb. 15, 2022**.

3.3 Moral Psychology Research Lab at Harvard U**
This summer internship is in moral psychology, social cognition & decision-making. This program is seeking applicants with an interest in experimental psychology. This internship is designed to be an introduction to the field, so we welcome applicants whether or not they have prior research experience. Click [here](#) to learn more about the program. The deadline is **Feb. 22, 2022**.
3.4 Research and Design Experience for Undergraduates, Graduates, and recent Graduates with SCI
The program is open to individuals with SCI and individuals with the diagnosis of Spina Bifida, with special consideration given to students who are currently/formerly supported by the Craig H. Neilsen Foundation. Individuals with SCI have been a historically underrepresented population in STEM fields of study and careers. Contact Josh Marino, Education & Outreach Coordinator, at josh.marino@pitt.edu for inquiries. Click here to learn more about the program. The deadline is May 1, 2022.

3.5 Tripods NSF REU & STEM for All**
Through these two programs, students will take a comprehensive approach to neural nets (neural networks), focusing on both the theoretical and applied aspects of this beautiful, emerging discipline. Students will learn the basic theory of neural nets in the mornings, followed by intensive programming sessions in the afternoons. Please note that the Tripods NSF REU program requires candidates must be U.S. Citizens or permanent residents, but the STEM for All program is open to everyone. Click here to learn more about the program. The deadline is Feb. 21, 2022.

3.6 Physics & Astronomy Summer Research Program at Ukentucky
The program focuses on individual mentored research projects in nuclear physics, condensed matter physics, and astronomy, related through the central theme of symmetry, tailored for accessibility to 2nd and 3rd-year undergraduates. Click here to learn more about the program. The deadline is Feb. 15, 2022.

3.7 ASPIRE Program with Human Engineering Research Laboratories at UPittsburgh
The mission of the program is to continuously improve the mobility and function of people with disabilities through advanced engineering in clinical research and medical rehabilitation. The ASPIRE REU program is designed to promote greater involvement and understanding of Rehabilitation Engineering and assistive technology – while fostering an understanding of the problems faced by individuals
with disabilities. Click here to learn more about the program. The deadline is Mar. 13, 2022.

3.8 Research Program with Embry-Riddle Aeronautical University
The program allows students to use the institution's leading-edge laboratories to conduct multidisciplinary research in aerospace engineering, chemistry, and applied space biology with a goal of improving future space materials science and human diagnostic technology. Click here to learn more about the program. The deadline is 11:59 p.m. EST on Feb. 28.

3.9 Mountain Lake Biological Station at UVA
The program focuses on population biology at the intersection of field-based studies of ecology, evolution, and behavior. Student researchers work closely with researcher mentors incompatible areas of interest. Click here to learn more about the program. The deadline is Feb. 20, 2022.

4.1 Fully-Funded Graduate Programs Directory
Check out the free directory of over 1,000 full funding awards on ProFellow! Click here to learn more about the program.

5.1 The ACC Student Leadership Symposium
This symposium will offer you a unique experience to collaborate with other passionate student leaders on current issues affecting college students today. Through this experience, you will have an opportunity to learn from other student leaders, reflect on the current issues impacting your college experience, and share your experience upon return to Virginia Tech. Click here to learn more about the program. The deadline is Feb. 17 at 11:59 p.m.

6. Paper & Presentation Opportunities
- Richard Macksey National Undergraduate Humanities Research Symposium, Johns Hopkins University| Deadline Feb. 15, 2022
Let us know what you think about the newsletter by taking this quick survey!

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