Stony Brook University

Explorations in STEM Research Program 2020
Sponsored by PSEG

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Office Hours: VIRTUAL and by appointment

Description: Explorations In STEM Research prepares students for careers in industry and academic STEM fields. The Program recruits high potential undergraduates with low exposure to research. Students with demonstrated need and/or underrepresented status are encouraged to apply. Selected students are paired with a faculty mentor in laboratories across campus to become part of a team of researchers, including graduate students and in some cases, post-doc fellows. To supplement the research experience, the Program includes weekly professional development activities, including career exploration, networking, communication, and presentation skills. Students are required to create and present a formal research poster at the end-of-term celebration heralding student achievements.

Objectives:
Upon completion of the program, the student will have an increased capacity to:
1. Analyze and evaluate primary scientific research papers in a related STEM field.
2. Apply current research techniques in a research project
3. Understand the basic concepts of scientific research.
4. Develop an individual career development action plan (IDP) to further career concept and prepare for goal attainment.
5. Present a research project to an academic audience.
6. Increase interest in STEM research and related careers in industry or academia.

There is no required textbook for this program. All materials will be distributed electronically during relevant professional development group and individual sessions.

Attendance & Participation Requirements:
● Spend a minimum of 35 hours per week at your lab placement
● Attend all professional development seminars via Zoom; schedule is below. Be an engaged participant (active listening, contributing to discussion, asking questions).
● Meet at least three times with the Graduate Program Assistant.
● Participate in the End-of-Term Poster Celebration.

Assignments:

- ❑ By June 3ᵗʰ: Complete the CITI training online.
- ❑ By June 10ᵗʰ: Select a scientific paper directly related to your research project (with the help of your PI / Graduate Student mentor).
- ❑ By June 17ᵗʰ: Complete assignment for the scientific paper (to be posted on Bboard).
- ❑ By June 24ᵗʰ: First draft of the Individual career Development action Plan (IDP).
- ❑ TBD: Complete the online mid-term assessment.
- ❑ By July 8ᵗʰ: Update your resume & create your LinkedIn profile.
- ❑ By July 24ᵗʰ: Finalize abstract for your research project.
- ❑ By July 27ᵗʰ: Finalize your research poster and be ready to rehearse.
- ❑ TBD: Attend a focus group to discuss your experience in the program.
- ❑ By July 31ˢᵗ: Submit final draft of the IDP.
- ❑ July 31ˢᵗ: Present your research at the Celebration.

Communication Competency

You convey an image of yourself every time you express yourself-whether it is through the written or spoken word. As such, successful professionals must have effective written and oral communication skills. Therefore, please take time to avoid communication errors (such as improper grammar, improper sentence and paragraph structure, misspelling and incorrect punctuation). Communication competency is often considered by faculty and industry supervisors when evaluating student performance.

All correspondence about the program will go to your Stonybrook.edu email account. You are expected to check this account regularly.

**NOTE: For each event, Zoom calendar invites will be sent out by Rachel in advance. BE SURE TO CHECK YOUR STONY BROOK EMAIL TO FIND THE ZOOM LINK.

Student Support

Plan to meet at least three times with Rachel throughout the summer to review your assignments, ask questions, and get advice. You may meet with Rachel as often as needed. Appointments can be made through Handshake (https://stonybrook.joinhandshake.com/login). Contact Rachel for additional information/questions about using Handshake.

If you need additional support or are having trouble on site, feel free to contact Karen or Marianna.

University Student Conduct Code can be found at
http://studentaffairs.stonybrook.edu/ucs/docs/universitystudentconductcode.pdf

Stony Brook University

Weekly Schedule

WEEK	DAY/DATE	TIME	TOPIC	
0	Wed. May 20	3:00pm - 4:00pm	*Orientation. Introduction to program. Review of responsibilities. Meet & Greet.	
1	Wed. May 27	12:30pm - 2:00pm	*Responsible conduct of research. Reading scientific papers.	Dr. Marvin O'Neal
1	Fri. May 29	*2:00pm*	*REU Python workshop (optional)*	*Dr. Michael Zingale*
2	Wed. June 3	12:30pm - 2:00pm	*Individual Development Plan	Dr. Navid Vafaei-Najafabadi
3	Wed. June 10	9:00am - 11:00am	Introduction to R	Dr. Alice Baniel, Jacob Feder
3	Wed. June 10	*12:30pm - 2:00pm*	*Crafting a Fellowship Application (optional)*	*Jennifer Green*
4	Wed. June 17	9:00am - 10:30am	Your brand. Resume. LinkedIn	Tara Campbell
5	Wed. June 24	9:00am - 11:00am	Industry Panel with PSEG Alumni & Corporate Representatives	Briana Brown, Roger Carlson, Ed Fabian, Yuri Fishman, Anie Philip
6	Wed. July 1	*12:00pm*	*Physics Grad. Program Director Seminar (optional)* NO MEETING - ONLINE MIDTERM ASSESSMENT THIS WEEK	
7	Wed. July 8	9:00am - 11:00am	Developing Your Research Poster	Rachel Perlman
7	Wed. July 8	4:00pm - 5:30pm	*Networking 101	Dr. Alfreda James
8	Wed. July 15	*12:00pm* 4:00pm - 5:30pm	*Optional Physics Grad Student Roundtable* *CIE Graduate School Panel	TBD
9	Wed. July 22	12:30pm - 2:30pm	*"Creating Connections" (Virtually!) Center for Communicating Science	TBD
9	Mon. July 27	9:00am - 11:00am	Poster Presentation Practice Sessions	

POSTER FILES DUE (final) by 12:00pm TUESDAY JULY 28th

WEEK	DAY/DATE	TIME	TOPIC	
10	TBD	TBD	End of Term Assessment	Catherine Scott
10	Fri. July 31	9:00am - 12:00pm	*Closing Symposium/Celebration Poster Session (virtual)	

*with Center for Inclusive Education (REU program participants)

Additional Opportunities

***PYTHON TUTORIAL:** Fridays, 2:00pm-3:30pm, beginning May 29
Link to register: https://sbu-phy-ast-reu.github.io/reu-python-tutorial/

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn.

Student Accessibility Support Center (SASC): If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, 128 ECC Building, (631) 632-6748, or at sasc@Stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website: https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities and search Fire Safety and Evacuation and Disabilities.

University Resources:

SBU Library Guide to Academic Integrity: http://guides.library.stonybrook.edu/academicintegrityforstudents

SBU Library Research Guide: http://library.stonybrook.edu/research/research-basics/

SBU URECA: http://www.stonybrook.edu/commcms/ureca/

SBU Career Center: http://career.stonybrook.edu/

SBU Career Center Guide to Researching Employers: http://career.stonybrook.edu/students/prepare/research-employers

SBU Library Guide to Industry Databases: http://guides.library.stonybrook.edu/business/find-company-info

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You convey a certain image of yourself every time you express yourself-whether through the written or spoken word. Errors (i.e. improper grammar/sentence/paragraph structure, misspelling, incorrect punctuation) are unacceptable. Faculty members also consider communication competency when evaluating student performance in addition to coursework.

Email and Internet:
You must have an active Stony Brook University e-mail account and access to the Internet.
All instructor correspondence will be sent to your SBU e-mail account.

Net-Etiquette Guidelines:
• Remember that given the absence of F2F communication it's easy to misunderstand what is being said
• Carefully review and read materials you receive electronically to ensure that you fully understand
• Carefully re-read and understand what you will be sending to ensure that you are not misunderstood
• Avoid cluttering your messages with excessive emphasis (stars, arrows, exclamations)
• When responding to a message, to avoid confusion include the relevant part of the original message in your message, or refer to the original's content
• Be specific and clear, especially when asking questions
• DO NOT USE ALL UPPERCASE characters: this looks like shouting and makes the message less readable
• Not all readers have English as a native language, so make allowance for unintended discourtesies
• Do not abuse new users of computer networks for their lack of knowledge
• Follow the same standards of politeness as you do in any other aspect of your life

Technical Information:
This program uses Blackboard for the facilitation of all communication and assignments. The Blackboard Community is accessed at https://blackboard.stonybrook.edu

Getting Technical Help:
For help with Blackboard, see DoIT's comprehensive Student Guide to Blackboard Basics.
https://it.stonybrook.edu/services/blackboard/students.
To report a Blackboard outage or other Blackboard-related issue, see https://it.stonybrook.edu/services/itsm.