

SURF 2023

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WHAT IS SURF?

The SURF program provides opportunities for University of New Haven undergraduates from any major to conduct in-depth, hands-on research under the mentorship of a faculty member.

- Participants gain experience in a range of areas including project planning, budget management, research design and methodology, responsible conduct in research, creative problem-solving, and persistence in addressing challenges.
- SURF students form a community of student researchers, learning from each other and faculty mentors through project activities, seminars and dissemination of research results.

Please visit the SURF webpage:

<https://mycharger.newhaven.edu/web/mycharger/surf>

SURF 2023 PROGRAM ANNOUNCEMENT



A 10-week research experience is planned for the 2023 Summer Undergraduate Research Fellowship (SURF) program. The David McHale Fund and the Carrubba Endowment will support a limited number of SURF 2023 faculty-mentored research projects that may be conducted in virtual, hybrid, or on-campus formats. To support fellows, SURF provides a virtual learning community for sharing expertise and research as well as required synchronous virtual seminars.

Students will not be required to be on-campus during the ten-week summer program. However, students who need to be on-campus to conduct lab projects may apply for housing for the period of their on-campus lab work. Students should plan on conducting pre and post lab work virtually.

Undergraduate students from all years (with the exception of seniors graduating before December 2023) are eligible to apply. Projects from all disciplines, including interdisciplinary projects are encouraged.

The program is highly competitive; a limited number of projects will be funded. Information about the application process, program requirements, a list of potential mentors, and resources for preparing a competitive proposal are posted on the SURF page on <https://mycharger.newhaven.edu/web/mycharger/surf-application-materials-and-forms>

Applications are due no later than Monday, March 20 at noon through the online application posted at the link above.

SURF 2023 PROGRAM HIGHLIGHTS



SURF 2023 Program.

■ Summer Program (May 30 – August 4)

- Virtual Research Community
 - Participation in synchronous & asynchronous activities throughout the program.
 - Orientation Week Synchronous Seminars (May 30, May 31, June 1)
 - Progress Report Check-in with SURF staff (July 5 – 7, by appointment)
 - Closing Week Synchronous Seminars (August 1 – August 3)
 - Research projects conducted under the guidance of faculty mentor.

■ Fall 2023

- Fall Showcase & Recorded Presentations (To be arranged)
- Final Report (Extended Abstract)

SURF 2023 AWARDS & REQUIREMENTS

SURF 2023

SURF 2023 AWARDS

A limited number of SURF awards will be made depending on available funding and the cost of projects.

SURF projects are selected for funding by a panel of faculty reviewers in a competitive application process.

All SURF projects are proposed by students in collaboration with a faculty mentor or co-mentors.

SURF 2023 AWARDS

PLEASE VISIT THE WEBSITE FOR MORE DETAILS

SURF awards include:

- **A \$3,000 stipend for each student. Stipends will be awarded in one lump sum in October, upon fulfillment of all requirements.**
- **A \$1,500 stipend for each faculty member for each student supervised. Co-mentors each receive \$750 per student project supervised.**
- **Student housing available ONLY for students conducting lab projects, for the duration of the lab research. Housing applications must be submitted as part of the application process.**
- **The use of on-campus lab facilities: Students may conduct research in an on-campus lab facility, as available.**
- **A budget for lab supplies, not to exceed \$1,200. Proposed budgets must be submitted during the application process.**
- **Special mention on the co-curricular transcript as “Summer Undergraduate Research Fellow.” The summer UNIV 4000 non-credit course will be recorded on academic transcripts, upon successful completion of requirements.**

SURF 2023 APPLICATION PROCESS

- Applications should be prepared offline, using the application questions posted on the website: <https://mycharger.newhaven.edu/web/mycharger/surf>
- Students are responsible for working with mentors to prepare the application. The mentor-student agreement form is required.
- Students requesting a budget for research supplies should consult with their assigned lab managers, as posted on the website. The proposed budget must be submitted as part of the application process.
- Students needing housing to be on campus to conduct lab projects must submit a housing request form as part of the application process.
- On-line applications are due on or before March 20 no later than noon. Only applications submitted through the online form will be accepted.
- Both mentors and students must complete a separate online application form. The mentor form will be posted.
- Details about the application criteria will be provided in a separate presentation.

SURF 2023 ACCEPTANCE PROCESS

After acceptance and before the summer program

- Accepted students will be asked to accept or decline the award within 3 days of the award announcement.
- Accepted students/mentors conducting research involving human subjects or vertebrate animals must be prepared to submit an application to the University IRB or IACUC board within 3 -5 days of acceptance. Students may not begin data collection until IRB/IACUC approvals are received. See the next slide for more information.
- Accepted students must contact their assigned lab manager within 3 – 5 days of acceptance to submit a department-specific order form for research supplies. Orders may not exceed the amount proposed in the application budget.
- Accepted students conducting lab research on or off campus must take lab safety training, as arranged by their assigned lab manager.
- All students must take the CITI Responsible Conduct in Research online training.

SPECIAL RESEARCH REQUIREMENTS

- **Projects that involve human subjects or vertebrate animals must be pre-approved by the relevant Committee:**

- **Institutional Review Board (IRB)**

- Human Subjects

- **Institutional Animal Care and Use Committee (IACUC)**

- Vertebrate Animals

Links

- [CITI Training Modules](#)
- Responsible Conduct in Research instructions
- [Guide for the Care and Use of Laboratory Animals](#)
- [Institutional Animal Care and Use Committee Guidebook](#)
- [Institutional Review Board \(IRB\) for Human Subjects Protection](#)
- [Lib Guide created specifically for the SURF program](#)
- [Zotero](#) (Helps you collect, organize, cite and share your research sources.)
- [Hypothesis](#) (online annotated bibliography)

Applications must be submitted to IRB or IACUC within 3 - 5 days of acceptance into the SURF program to allow time (6 – 8 weeks) for processing.

For more information, follow the links on the SURF webpage under Resources:

<https://mycharger.newhaven.edu/web/mycharger/surf>

PROGRAM REQUIREMENTS

- Active participation in a virtual summer research community: Students will be expected to complete activities and assignments hosted on the UNIV 4000 Canvas course site.
- Attendance is required at virtual synchronous 3-day seminars scheduled during the opening and closing weeks of the summer program. Opening seminars are scheduled for **May 30, May 31, & June 1**, with closing seminars and student presentations scheduled on **August 1, 2, & 3, 2023**).
- A mid-program progress check-in with the SURF Team during the week of **July 5 – 7** is mandatory. Check-in interviews will be conducted virtually, by appointment.
- Students are expected to be available to meet with their mentors at mutually agreed upon times and means of communication throughout the week. Students typically meet with mentors at least once a week, and more often, as needed or requested by the mentor.
- The SURF project requires a commitment to completing the proposed research during the program. Students should plan on spending approximately 25 hours/week or more on SURF research projects.
- Students may accept part-time employment, provided that employment does not interfere with SURF responsibilities, such as attendance at required seminars, and provided that employment does not present a conflict of interest. Students should not accept internships during the SURF summer program.

FALL 2023 PROGRAM COMPLETION

Fall 2023 Program Completion Requirements

- Students must submit a final written report for archiving on the SURF web page in the Fall 2023 semester.
- Students must make a final presentation consisting of a video recording presenting their findings and participate in the Fall Showcase of SURF projects. The final presentations will be shared with SURF donors and made available on University webpages and publications. Students will be asked to sign a Media Release Form.
- Student and mentor stipends will be disbursed in one lump sum, in the fall, after all requirements have been successfully completed.

SURF RESEARCH PROJECTS

SURF 2023



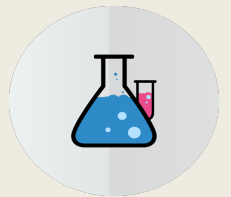
WHAT IS RESEARCH?

The National Council for Undergraduate Research (NCUR) views undergraduate research, scholarship, and creative inquiry as a pedagogical approach to teaching and learning:



“ A mentored investigation or creative inquiry conducted by undergraduates that seeks to make a scholarly or artistic contribution to knowledge. ”

(NCUR, 2022)



SURF RESEARCH PROJECTS



SURF projects are of the highest quality and they are often recognized for their contributions to the field.

- SURF alumni often publish or present the results of their research at regional and national conference.
- Please see the SURF website section on [Current Projects](#) to review
- videos, My Charger Blogs and descriptions of SURF research presented to a wide audience.
- Review [Past Projects](#) on the SURF website.
- Search the [Faculty Mentor List](#) for areas of research.

CHOOSING A RESEARCH PROJECT



- Review [Past Projects](#) on the SURF website.
- Search the [Faculty Mentor List](#) for areas of research.
- Expand a course project (e.g., study the impact of a science documentary).
- Consider interdisciplinary research.
- Explore different designs and methods that can be conducted virtually
- Analyze existing large-scale data sets, such as



[Past Projects](#)

Here you can view some of the papers written since the inception of the SURF program in 2007.



Inter-university Consortium for Political and Social Research

<https://www.icpsr.umich.edu/web/pages/>

SURF FACULTY MENTORS



■ Faculty-mentored research is a high-impact practice!

- Students may ask any faculty member to serve as a faculty mentor.
- Faculty mentors may be selected from any department or school.
- Co-mentored and interdisciplinary projects are encouraged.

■ How do I find a mentor?

- Review the SURF [Faculty Mentor List](#) to learn about faculty research areas.
- Search department and faculty web pages.
- Look through past SURF projects to generate research ideas.
- Speak with your academic advisor, professors and/or department chair for project and mentor recommendations.

■ Schedule appointments with potential mentors to discuss research interests.

Faculty Mentors			
Name	School/College	Contact	Area of Interest & Methods
Jullien, Angelle	Forensic Science/HELC	ajullien@unehaven.edu	Forensic DNA analysis, DNA degradation, and Caspase-3/9 activity assays (COP)
Amabile, Kaysa	Electrical Engineering/TCOE	kamabile@unehaven.edu	Model of devices (e.g., artificial lungs, catheters, vascular grafts), mutant and biofluids interactions, bio-inspired smart materials, anti-biofouling devices, vascular prostheses, tissue engineering scaffolds, and cell-anchoring anti-biofouling surfaces (e.g., neural dressing, bio-inspired devices)
Barnes, Claire, Paula	Criminal Justice/HELC	cbarnes@unehaven.edu	Risk assessment and case management; intervention; disciplinary techniques; surveillance and control; college functioning; terrorism; production and genetic aspects and young adults; violence in the Caribbean; drugs and alcohol; critical criminology; post-traumatic stress; restorative justice; and post-genomic health
Barnes, Stephanie	Criminal Justice/HELC	sbarnes@unehaven.edu	Violence against women; e.g., domestic violence, sexual assault, sexual harassment; gender; race, class and ethnic inequalities; and gender, race, class, and organizations; crime and organizations
Carroll, Amy	Biology and Biochemical Science/COS	acarroll@unehaven.edu	Molecular systematics, biogeography, and phylogeography of algae; reproductive diversity of novel biotopes; and biochemistry assessment of algal communities using molecular tools



WHAT DO MENTORS DO?

- Guide mentees through the application process
- Complete a Faculty Mentor Form as part of the SURF application, including
 - an evaluation of the student's potential as a researcher
 - a Mentoring Plan that describes guidance, activities, and meetings intended to help students achieve their goals and complete a successful research project
- Meet virtually with mentees regularly (at least once/week)
- Participate in SURF virtual seminars and workshops
- Complete CITI RCR modules, just as students do
- Provide guidance in preparing SURF presentations, posters, and final reports
- Notify SURF if mentees do not fulfill responsibilities



INTERVIEW POTENTIAL MENTORS

■ **Be prepared to talk about**

- Your research interests
- Relevant coursework relating to the field of research, including methods
- Any prior research experiences or lab assistantships

■ **Be prepared to ask potential mentors questions you have**

- What are your research interests?
- What are some projects you have mentored before?
- Can you suggest a summer research project you would be interested in mentoring?
- What are your expectations for a mentee?
- Do you have lab space (if applicable)? Would others be working in your lab this summer?
- Do you plan to mentor another student this summer? What do you think about co-mentoring?
- I do not have experience in Is this something I can learn during the summer?

Find someone with whom you are comfortable and who is enthusiastic about working with you.

PLAN THE RESEARCH PROPOSAL WITH YOUR MENTOR

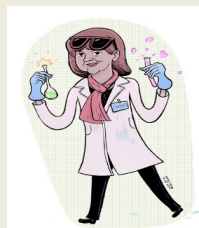
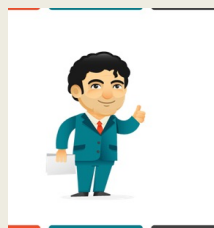


■ **Questions to ask your mentor to guide the application process**

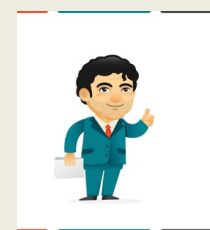
- Can you suggest articles I can read on the research topic?
- Who are the most known and respected scholars on this topic?
- Can you share with me some of your own publications?
- Can you provide sample applications or research reports from other students you have mentored?
- Are the research questions worded correctly?
- Is the scope of the project appropriate for a summer project? Is it doable?
- What can I prepare now to include in the design and methodology section (e.g., interview protocols, survey instruments)
- What permissions/licenses must be secured (e.g., to use a published survey, archival samples, software)?
- What additional skills will I need to acquire for conducting the project (e.g., statistical methods)
- Does this project need IRB or IACUC?
- What lab supplies and equipment are already available (if applicable)?
- How can I be sure to budget for everything that is needed?
- Assuming this SURF project will be funded, what can I do to prepare ahead of time to assure I can complete the project successfully?



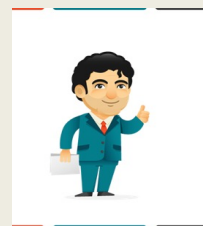
MENTORS



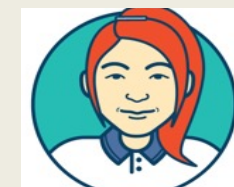
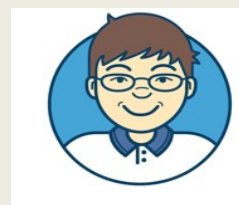
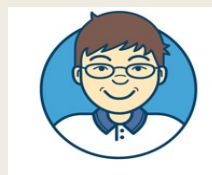
**Interdisciplinary
Mixed Methods**



**Mentor-
Student
Teams**



Related Projects



FOR MORE INFORMATION



Send questions to surf@newhaven.edu

Please visit the SURF webpage:

<https://mycharger.newhaven.edu/web/mycharger/surf>