UDRAW Spring 2025 Position Descriptions*Additional Positions Forthcoming*

Art and Design

Job Description

Raven Press is an experimental letterpress printing facility located on the second floor of the Studio Arts building near the Old College (North) campus of the University of Delaware. Art & Design Department professor Katie Leech maintains the press and advocates for the importance of typography and physical processes in student education.

This project will allow all students to explore an experiment with typography using a hands-on printing process. While exploring you will also help create an inventory and clean and organize the thousands of letters we have collected for the past 20 so years. There has been interest in having a better understanding of what the letterpress is, historically, and how it works to create content for the masses. Students in English, art, and design have enjoyed the opportunity to work with moving type to create images and printed work like poetry booklets, zines, and small publications.

Time Commitment:

Hours/Week: 5-10 To Apply: If interested, please contact Katie Leech by

email, katiefai@udel.com,

You must be available on Monday or Wednesday.

Required skills:

- 1. Be in good academic standing (GPA of 3.0 or higher)
- 2. Be interested in student learning
- 3. Be organized
- 4. Have good time management skills
- 5. Have good communication skills
- 6. Be attentive to detail
- 7. Be able to commit to at least 5 hours of work per week (limit of up to 10 hours)
- 8. Be interested in learning about typography & printmaking (non-artists are welcome)

Subject Line:

Raven Press Research Assistant

The following information:

- 1. Name
- 2. Weekly Hours of Availability for the Fall 2024 Semester
- 3. Cell phone number
- 4. Preferred email address

- 5. A short statement about your interest in working at Raven Press.
- 6. Resume or CV (optional)

Biochemistry

Job Description

A biochemistry laboratory is looking for a student to help us keep our research laboratory running. Responsibilities include: 1) cleaning chemical glassware, 2) sterilizing biochemical equipment 3) restocking supplies, and 4) keeping the lab organized. Chemicals used in our lab pose minimal risk, but safety training will be provided. We will teach you everything else you need to know about working in our laboratory. Most of the communication will be with the graduate students. Students who major in STEM fields such as chemistry, biochemistry, engineering, or life science are particularly encouraged to apply.

Required Skills: An interest in science, good organizational abilities, and effective communication skills. Love of cleaning glassware.

Approximately 4 hours of work are needed per week.

Please contact: rozovsky@udel.edu

Business Administration

Job Description

Seeking a student RA to support various social entrepreneurship research projects to improve the educational experience of future students. The RA will get experience in providing guidance and editing support for forthcoming educational publications and classroom materials. All majors are welcome to apply. An interest in social issues/justice, environmental, education, and/or business topics is highly preferred.

Contact: Stephanie Raible – sraible@udel.edu

Cellular Engineering and Applied Synthetic Biology / Chemical Engineering Job Description

The Cellular Engineering & Applied Synthetic Biology Lab, led by Prof. Mark Blenner, engineers biological systems to solve problems in sustainability, human health, and national defense. The lab generates systems level data and creates synthetic biology tools to speed the design, build, test cycle for yeast, mammalian cells, and microbial communities. His group is interested in solving problems in complex environments, such as biomanufacturing, and wild environments outside the lab.

Several projects are open.

Project #1: Engineering mammalian cells for biopharmaceutical production.

Project #2: Engineering yeast for the production of sustainable chemicals and food products. **Project #3:** Identifying insect gut microbes associated with increased plastic degradation.

Project #4: Study of plastic degrading enzymes and accessory proteins. The research assistant will be included as a member of the Blenner group and would participate in weekly lab meetings and will talk multiple times per week with the graduate student mentor.

Required Skills:

- Be in good academic standing (GPA of 3.0 or above); GPA > 3.6 preferred.
- Some background and/or interest in biochemistry, microbiology, biomolecular, chemical engineering, or bioengineering
- Diligent, organized, and attentive to details
- Good time-management skills
- Students interested in graduate school are preferred

Time commitment:

Approximately 10-12 hours per week, depending on the student's availability **Contact:** Prof. Mark Blenner via email (blenner@udel.edu)

Chemical Engineering

Cellular Engineering and Applied Synthetic Biology / Chemical Engineering

Title: Synthetic Biology Lab Manager / Administration

Lab: Cellular Engineering & Applied Synthetic Biology / Chemical Engineering
Job Description: The Cellular Engineering & Applied Synthetic Biology Lab, led by Prof. Mark Blenner,
engineers biological systems to solve problems in sustainability, human health, and national defense. In
some projects, the outcome is engineered microbes capable of making value added compounds in a
renewable and petroleum-free manner. In other projects, we are applying synthetic biology to
mammalian cell cultures to improve production of biopharmaceuticals, gene therapy vectors, and cell
therapies. In yet other projects, we are discovering biological systems for waste plastic recovery,
degradation, and upcycling.

Our lab is looking for someone to coordinate lab orders, stocking, general upkeep and standard common reagent preparation. The position does involve doing some amount of bench work, but focuses more on supporting the research activities of the lab.

Communication and Media

Job Description

Dr. Gambino conducts research on human-computer interaction and media psychology. For the Spring semester, Dr. Gambino and his research team will be conducting studies on the social and emotional effects of interaction with generative AI. Research assistants will work with Dr. Gambino and graduate students in the ICAMP (interpersonal communication and media psychology) lab to design and run studies. Most often, this will consist of running participants

through studies, designing and testing stimuli for studies, or organizing study-related materials. Research assistants will be expected to attend bi-weekly lab meetings (schedule pending).

Required Skills: Interest in communication research / undergraduate-level expertise in research methods – Training will be provided.

Preferred Skills: Experience with web design or photo editing software is a plus, but it is not necessary.

Time Required: Up to 10 hours per week, flexible.

To Apply: Contact Dr. Gambino at <u>gambino@udel.edu</u> with your CV, a description of your interest in the position, and the skills you would bring to the lab.

Communication and Media

Project Description: Dr. Ellithorpe's lab conducts research related to media use and media effects, especially topics such as video games and decision making, health behaviors, and media enjoyment. Research assistants will work with Dr. Ellithorpe and the graduate students in the lab to run lab studies, assign credit in SONA for online studies, and help design, create, and test stimuli for studies. RAs will also be expected to attend the biweekly lab meetings (schedule allowing).

Required skills: Interest in communication and media, familiarity with video game controls (console and/or PC). Further training will be provided.

Preferred skills: Experience with video and photo editing software is a plus, but not necessary.

Time required: Up to 10 hours per week, flexible.

To apply: Email Dr. Ellithorpe at mellitho@udel.edu with your CV, a description of your interest in the position, and the skills you would bring to the lab. _

Computer and Information Sciences

We seek a motivated undergraduate student to join the Sensify Lab as an Undergraduate Research Engineer. In this role, you will support the lab's IT and software engineering needs. Responsibilities include helping to set up lab spaces for human factors experiments, developing and maintaining research documents, and setting up IT infrastructure to support specific research projects. You will work with graduate students, faculty, and project collaborators to support the lab's goals.

Candidates should have some programming experience, be open to learning new technologies, and have strong problem-solving skills. Knowledge of web development, data analysis, ticketing systems, and/or visualization tools is a plus.

This position offers an opportunity to gain practical experience in a collaborative academic setting and build your technical skills.

To apply: Please send your resume and a short statement of interest to Dr. Mauriello (mlm@udel.edu). Applications will be reviewed on a rolling basis.

Education

Job Description

The Birds and the Bees: <u>asdsexed.org</u> is the largest repository of resources for teaching sex education to people with intellectual and developmental disabilities including autism.

Research assistants will

- Identify and explain existing sex education resources for the website;
- Create a database of sex educators who focus on disability from across the country; and
- Translate research articles for lay audiences.

Required Skills

- The ability to work independently.
- Comfort with sensitive topics.
- Clear writing.

Recommended Skills

- Comfort with WordPress.
- Comfort with Canva.

Contact: Sarah Curtiss – curtiss@udel.edu

Environmental Science

Project Description: We are seeking a student who is interested in environmental science and sustainable agriculture to assist with a data synthesis project on nitrogen losses from agricultural systems and our ongoing greenhouse and field experiments. The data synthesis is a collaborative research project that will involve reading through the scientific literature and extracting data from papers, organizing data, and regularly sharing findings with a group of researchers. Additional tasks may include field work such as collecting plant or soil samples and assisting with lab work.

Required Skills: Ability to read scientific papers and extract key information, attention to detail, and good organizational skills.

Time required: Up to 10 hours per week, flexible.

Contact: Email Alex Huddell at <u>ahuddell@udel.edu</u> with the subject line "**UDRAW position** application". Please send the following information:

- 1. Resume/CV
- 2. Short description of your interest in the position
- 3. Weekday availability

Education

MATHEMATICS METHODS AND MOTIVATION LAB

School of Education

Faculty Mentor(s): Christina Areizaga Barbieri

Hours/Week: 8-10

Required Skills

Dr. Barbieri's research program centers broadly on instruction for students who struggle in math. Specifically, her work focuses on the evaluation and application of learning principles to improve mathematical competencies and motivation for math, especially for students at risk for low mathematics achievement. Dr. Barbieri studies mathematical competencies from preschool to adulthood. A core part of her work aims to understand how common mathematical errors can be used most effectively to reduce misconceptions and improve learning in math content areas that students commonly struggle with. Recently this has involved both algebra and fractions, both gateway topics for success in STEM disciplines and careers. Dr. Barbieri also considers the role of motivation and attitudes towards mathematics in student learning. In 2025, Dr. Barbieri's various projects on mathematical cognition and learning will have a range of both in-person and remote activities for an undergraduate scholar to receive mentoring in, such as analyzing students' problem-solving skills and explanations, reading and coding/notetaking literature, creating databases, coding for meta-analyses, preparing conference submissions, and potentially collecting data in classrooms. This apprenticeship can either be inperson or remote and mainly asynchronous for Spring 2025, with the exception of some inperson meetings each week. Preference given to those who are interested in participating in inperson data collection in local schools but this is not required. Those interested in mainly remote work should specify that when applying. This position is currently only available to undergraduate students who qualify for federal work study. See the UDRAW program website for more information on how to check your qualifications. Please contact Dr. Christina Barbieri – barbieri @udel.edu for more information. More information about Dr. Barbieri's lab can be found here: https://sites.udel.edu/barbieri/

· Be in good academic standing (GPA of 3.0 or higher)

- · interested in student thinking and learning
- · Diligent, organized and attentive to detail
- · Have good time-management skills
- · Have a stable Wifi connection and access to a laptop
- · Be able to commit to at least 8 hours a week (up to 10) of work (excluding finals week).

Recommended Skills

The following are **preferred** but not required:

- · Education, Psychology, or other Social Sciences majors preferred.
- · Have experience using Excel.
- · Have experience using R, SPSS or another statistics software.
- · Some experience tutoring mathematics (at any grade level)
- · Comfortable thinking and talking about mathematics (at various grade levels)
- · Interest in attending graduate school
- · Availability to stay on for fall 2025 if interested and in good standing.

Education

Title: Understanding Teacher Candidates' Perceptions of Joy in Courses and in Teaching

Are you interested in ways to improve the teaching profession? Deliberately focusing on joy in teaching may be one way to help education. This qualitative research study examines the experiences of teacher candidates over their final year of college. The research focuses on understanding candidates' perspectives on finding joy in their coursework and in their job and if/how centering joy contributes to feelings of efficacy and/or resilience. The research team (two professors, Dr. Jill Ewing Flynn and Dr. Kisha Porcher, and two graduate students in education) has collected data in three ways: coursework related to the research questions, 30-60 minute interviews, and artifacts from participants' student teaching experiences. We are looking for a research assistant who can assist with coding and, if the student desires, additional work such as analyzing data and reviewing other relevant research. Training in qualitative data coding and support will be provided to the student by Dr. Flynn. Meetings will primarily take place on Zoom and coding will be done independently, on the student's schedule. While an interest in education is helpful, students from all disciplines are welcome to apply.

Required Qualifications:

- Be eligible for work study
- Be in good academic standing

- Be able to commit to 5 hours of work per week (flexible according to student's schedule)
- Be diligent and detail-oriented
- Be organized and have good time management skills

Preferred Qualifications:

- Be available for more than one semester (e.g., Fall 2024, Winter 2025, Spring 2025)
- Have interest in issues related to education/be an education major
- Have interest in collaboration on presentation or publication (if student desires)

For more information contact Dr. Flynn at jeflynn@udel.edu.

To apply, email the following to Dr. Flynn (jeflynn@udel.edu):

- A short statement about why you are interested in the position and how you meet the qualifications (1-2 paragraphs is fine)
- Resume
- Names of two people who can serve as a reference (at least one of which is a current or former professor)

Education

<u>Job Description</u>: The undergraduate research scholar will work with Dr. Bryan VanGronigen's research program, which centers on (a) how to improve schools and (b) how to develop educational leaders who work in schools. Depending on interest and/or fit, the scholar is welcome to work on one or more of the following projects during the Spring 2025 semester:

- **Project A** is a study of educators who are participating in a professional development workshop on how to provide high-quality feedback to teachers so that those teachers improve their practice to, in turn improve how students learn. If working on this project, scholar responsibilities could include cleaning and analyzing data, and/or writing up findings.
- **Project B** is a study examining the resources that schools report using to help improve their performance. We're primarily interested in learning more about what schools say they should spend money on to, in their minds, be better for educators, students, and communities. If working on this project, scholar responsibilities could include assisting with data gathering, cleaning and analyzing data, and/or writing up findings.

A number of other projects are either in progress or under development, so if a scholar is interested in the research program in general, feel free to reach out to explore potential alignment among interests and work needed.

Required Skills: The scholar will join a multi-site research team, and our only required skill is your ability to work collegially, professionally, and independently.

<u>Preferred Skills</u>: While our team will mentor you with what you need to know, we can move faster if you have a working proficiency of Microsoft Word and Excel and the Google Apps suite

(Docs, Sheets, Forms). Moreover, while not required, we'd hope you have an interest in education and educators, even if you're not an education major or minor. All are welcome!

Approximately 3 to 10 hours per week dependent on project workload needs.

Contact Dr. Bryan VanGronigen for more information and/or to apply – bvg@udel.edu

Fashion and Apparel Studies

Fashion History and discovery. We are seeking a student interested/knowledgeable in fashion history, art and art history, or material culture. Research on social, cultural influences and art movements of the 1920s and how those were expressed through women's clothing of the time period is the focus of this project. Includes hands-on work in the Historic Fashion and Textiles Collection and working with the FTC database. This research is part of a larger project to develop both museum and virtual exhibitions celebrating the impact of social and cultural influences on dress in the 1920s.

Contact: Dr. Belinda Orzada - orzada@udel.edu

Geography and Spatial Sciences

Advancing transformational energy justice across the renewable energy supply chain

Department of Geography & Spatial Sciences

Principle Investigator: Dr. Lindsay Naylor, lnaylor@udel.edu
Postdoctoral Scholar: Dr. Mara van den Bold, mvdbold@udel.edu

Transcription services needed!

Job Description: Work with qualitative researchers to prep already collected data for analysis. For spring 2025 this post will be 100% devoted to transcribing interviews. Transcription is the practice of typing up audio interviews. The use of AI is prohibited.

This is an opportunity to learn more about the wind energy transition in the U.S. Although the operation and use stage of renewable energy technologies like wind and solar are highly visible, it remains that mineral extraction, manufacturing, and waste disposal are less visible and can place profound tolls on individuals, communities, and precious resources. To meet the goal to advance understandings of transformational energy justice in these contexts, we will use mixed qualitative methods to examine how power relations, values, and structural inequalities get built into energy decisions and energy transitions, and we look to apply and further develop related analytical tools to help inform future just transition decision making. The interviews for this project help us to meet these research goals.

Required Skills: attention to detail, familiarity with Microsoft Word or GoogleDocs **Training:** Students will need to be certified by CITI in ethics in research with human subjects—
this training will be part of the UDRAW position; students will learn how to transcribe audio files with Dr. van den Bold.

Time: Up to 10 hours per week

Please send a 1-page resume and email detailing interest in position to Dr. Naylor

Human Development and Family Studies

Job Description

The Queer Development Lab is leading the LGBTQ Socialization Project and the LGBTQ+ Youth Empowerment Review. In the LGBTQ Socialization Project, we study the processes through which LGBTQ+ teens and young adults learn from others how to build community bonds, strengthen and understand their LGBTQ identity, and develop skills for navigating discrimination. In the LGBTQ+ Youth Empowerment Review we are gathering published literature to summarize what we know so far about LGBTQ+ positive youth development and how to support LGBTQ+ youth to flourish.

Primary tasks for research assistants will be:

- Identifying and reaching out to LGBTQ-serving organizations regionally
- Reviewing and summarizing academic literature on LGBTQ youth development and mental health
- Transcribing interviews from complete data collection

Students seeking this opportunity should have experience or interest in working with LGBTQ individuals and issues. Research assistants may have opportunities to work in a limited capacity on other related LGBTQ research projects based on their interests and project needs. Research assistants will be expected to meet weekly with all members of the Queer Development Lab, led by Dr. Eric Layland.

Time Commitment: Up to 10 hours/week (must be available for 11:30am meetings on Wednesday)

How to apply: Follow this link to submit your resume and indicate your interest in working in the Queer Development Lab. For questions: layland@udel.edu. You may submit your interest form directly without contacting Dr. Layland.

Marine Science and Policy

Job Description

The Carlisle Lab in the School of Marine Science and Policy (College of Earth, Ocean, and the Environment) is seeking an undergraduate student to work on projects using stable isotope analysis (SIA) to investigate a variety of marine ecological questions. Some of the current SIA projects include investigating the ecological role of sharks in coastal Delaware and Virginia as well as building a food web model of an oyster reef within Delaware Bay. We are seeking an undergraduate student to assist in the laboratory processing of tissue samples for SIA. This work will include all steps needed to prepare SIA samples for processing including fish ID/dissection, chemical treatments on samples, and boating samples for SIA analysis. The undergraduate

student will not only work directly on active research, but they will also develop valuable laboratory skills and learn relevant theory. The expected time commitment for this position is 5-10 hours/week and the laboratory work will take place at UD's marine campus in Lewes.

Qualifications

- Able to work on the Lewes campus at least 1 day a week
- Strong organizational skills
- Background or interest in marine ecology

Contact: Dr. Aaron Carlisle (carlisle@udel.edu)

Marine Science and Policy

Project Description: Lab assistant in an Environmental Chemistry Lab

Dr. Mi-Ling Li's Chemicals, Health, Ecotoxicology Research group (CHEER) is seeking a motivated and detail-oriented lab assistant. The primary responsibilities of this role include cleaning and maintaining labware, assisting with field sampling, and general lab support. A graduate student will train the student on all assigned tasks. More information about the research group can be found here https://www.miling-li.com/

Contact: Email Mi-Ling Li for more information: milingli@udel.edu

Material Cultures

Job Description

The student will work on a project that focuses on the experiences of undergraduate students and faculty participating in research projects related to interdisciplinary material culture studies. The study seeks to understand students' a) interest and skills for interdisciplinary, material culture studies scholarship, b) perspectives on what being a researcher entails, and c) perspectives on their field/major of study and possible career paths. The student will transcribe interviews, help with literature review, help prepare Google slide presentations, and conduct other duties related to the research project.

Requirements

- Interest in social science research (especially qualitative research)
- Strong organization skills
- Ability to work independently and follow directions

Time Required

• 5 hours per week, flexible.

Training will be provided. This position is open to students from any college or major but may be of special interest to students in the following areas: anthropology, sociology, and education.

To Apply

• Contact Dr. Carla Guerrón Montero at <u>cguerron@udel.edu</u> with your resume and a brief paragraph explaining your interest in the position.

Medical and Molecular Science

Parashar Laboratory at Department of Medical and Molecular Sciences

Position 1: Protein expressionist

Job Description: Student will work with a faculty member in the lab to conduct protein techniques used in protein expression workflow. The student's responsibilities will include: (1) making and sterilizing bacterial growth media, (2) large-scale bacterial culture harvesting by centrifugation, (3) making gels and performing protein electrophoresis, (4) protein gel scanning and documentation, (5) dish washing using automatic dishwasher. Training will be given for each of the above tasks.

Required Skills: Theoretical knowledge in Microbiology will help. Previous experience performing any of the above-mentioned tasks is a plus. Strong interpersonal skills are necessary.

Approximately 10 hours of work are required per week.

Position 2: Gene cloner

Job Description: Student will work with a faculty member in the lab to conduct genetic techniques used in molecular cloning workflow. The student's responsibilities will include: (1) setting-up PCR reactions, (2) plasmid isolation from bacteria, (3) running agarose gel electrophoresis, (4) performing gel extraction of nucleic acids, (5) performing genetic transformations in bacteria. Training will be given for each of the above tasks.

Required Skills: Theoretical knowledge in molecular biology and cloning will help. Previous experience in performing any of the above-mentioned tasks is a plus. Strong interpersonal skills are necessary.

Approximately 10 hours of work are required per week.

Position 3: Protein Purification Specialist

Job Description: Student will work with a faculty member in the lab to conduct techniques used in protein biochemistry. The student's responsibilities will include: (1) setting-up SDS-PAGE runs, (2) scanning SDS-PAGE gels and labeling gel pictures, (3) Preparing solutions for protein purification. Training will be given for each of the above tasks.

Required Skills: Theoretical knowledge in protein biochemistry will help. Previous experience in performing any of the above-mentioned tasks is a plus. Strong interpersonal skills are necessary.

Approximately 10 hours of work are required per week.

Position 4: Mass Spectrometry Data Analyst

Job Description: The student will collaborate with a faculty member to analyze mass spectrometry data and assist in various aspects of data interpretation and reporting. Responsibilities will include: (1) processing and analyzing mass spectrometry data using specialized software for proteomics, (2) validating and interpreting protein identification results and preparing detailed reports, (3) assisting in troubleshooting data analysis issue. Comprehensive training will be provided for all tasks.

Required Skills: A foundational understanding of mass spectrometry and data analysis is beneficial. Previous experience with data analysis software or mass spectrometry is a plus. Strong analytical skills and attention to detail are essential, along with effective communication skills for presenting findings and collaborating with the research team.

Approximately 10 hours of work are required per week.

Plant and Soil Sciences

Interdisciplinary position in Sustainable Food Systems/Plant and Soil Sciences/Environmental Sciences/Chemistry/Biology

Job Description: The Seyfferth Lab conducts research at the intersection of chemistry, biology, environmental sciences, plant, and soil sciences. Two main projects are:

- 1. 1) To understand how contaminants in soil and water enter the food that we eat. Importantly, we strive to decrease the amount of toxic compounds in our food supplies in sustainable ways that benefit society and the environment.
- 2. 2) To understand how sea-level rice impacts biogeochemistry in coastal soils.

See http://udel.edu/~angelias/Seyfferth/Welcome.html

Due to the interdisciplinary nature of the work, we have many different projects that can suit student's interests and we have employed students from Environmental Engineering, Chemistry, Biology, Geology, Environmental Sciences, and Plant and Soil Sciences. Typical tasks include field work, wet chemistry lab work, sample preparation, plant tissue analysis, soil analysis and water analysis.

Required skills: Strong interpersonal and organizational skills, and good time management.

Preferred skills: Microsoft Excel and preparing solutions in a laboratory setting.

Time commitment: Approximately 3-hr or more blocks of time, 3-10 hours per week.

Contact: Please reach out to the PI, Dr. Angelia Seyfferth, at angelias@udel.edu if you are interested in this position.