

UDRAW Fall 2024 Available Positions

Art & Design

Project 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)

Business Administration

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

Chemical Engineering

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.

Required Skills:

- Be in good academic standing (GPA of 3.0 or above)
- Some background and/or interest in laboratory operations.
- Diligent, very organized, and attentive to details
- Good time-management skills

Time commitment: Approximately 10 hours per week, depending on the student's availability

Contact: Prof. Mark Blenner via email (blenner@udel.edu)

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.

Communication Sciences and Disorders

Are you interested in participating in research?

The **Treatment Efficacy and Language Learning (TELL) Lab**, directed by Dr. Amanda Owen Van Horne, and the **Speech Language Acquisition and Multilingualism (SLAM) Lab**, directed

by Dr. Giovanna Morini are looking for research assistants to participate in a joint study across the two labs!

In this role you will have the opportunity to gain hands on research experience working on a project exploring the development of different grammatical structures in children with and without developmental language disorders! You will have the opportunity to:

- Contact families
- Run participants
- Code eye-gaze data

While not a requirement to apply, the labs are particularly looking for students with an eye for detail who would be interested in working closely with other lab members to develop skills related to data analysis.

We are looking for students to start this **fall semester**.

Interested applicants should reach out to Dr. Mackensie Blair (mdblair@udel.edu). Review of materials will begin on **October 1st 2024**.

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

Project Description: Dr. Jordan and Dr. Dyson's research centers primarily on helping students with math learning disabilities. Currently, we are looking for students to assist in our Math Sense Lab. This lab focuses on evaluating the efficacy of our Fraction Sense Intervention as it is tested by teachers in public school 6th-grade classrooms. The FSI team collects student data through a pretest, a posttest, and student workbooks throughout the intervention period. We also observe

classroom sessions and keep audio recordings of every lesson. Most (if not all) tasks will require students to come to the lab (Willard 211) in person, with periodic opportunities for remote work. The FSI lab has two graduate students heading other math cognition based projects, who need assistance with various stages of the research process. Responsibilities will include (but are not limited to):

1. assembling and organizing student materials
2. transcribing lesson recordings
3. entering student data
4. collecting data in schools and working directly with middle school students
5. assisting graduate students with related projects including a study about student motivation around math learning, an analysis of elementary school textbooks, and a study about equation understanding

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 the research process

Recommended Skills:

The following are preferred but not required:

1. Education, Psychology, Cognitive Science, or other Social Sciences majors preferred.
2. Have experience using Excel and other Microsoft Office products and Google Drive.
3. Comfortable thinking and talking about mathematics (at various grade levels)
4. Interest in attending graduate school
5. Availability to stay on for spring 2025 if in good standing.

Time Commitment:

Hours/Week: 5-10 **To Apply:**

If interested please contact Heather Suchanec-Cooper by email, hsuchan@udel.edu, with the Subject Line: **FSI Research Assistant** and 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 why you are interested in working in our lab
6. Resume of CV (optional)

Education

Project Title: Transforming and Understanding Professional Learning

It is important for elementary and middle school teachers to teach math, so students understand the math they are learning. Our research focuses on helping teachers to do this by providing specially designed professional development. In our project (the [TUPL Project](#)), we are trying to understand how teachers use what they learn from professional development to improve their teaching. To assess how they are teaching, we have video recorded several lessons from each teacher. We seek undergraduate researchers to help us analyze the videos and manage these data. Research assistants selected will be trained to use a well-known observation protocol to analyze the videos. This requires several initial training sessions and ongoing support as they begin analyzing video lessons. We are looking for organized and responsible undergraduate research assistants who are interested in this work. Undergraduate researchers will meet regularly with project staff to learn more about the project and discuss issues that arise during their work. Students from all disciplines are welcome to apply.

Required Qualifications:

Be eligible for work study

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

Have a stable WIFI connection and access to a laptop

Be able to commit to 5-10 hours of work (excluding finals weeks).

Be diligent, organized, and attentive to detail

Have good time-management skills

Preferred Qualifications Skills

Preference given to students available for more than one semester (e.g., Fall 2024 and Spring 2025, etc.) and are welcome to stay as long as they qualify for work study and remain in good standing.

Interest in issues related to education

Interest in learning about the research process. Opportunities may exist to collaborate on research studies for presentation or publication for those interested

Please contact Dr. Kelly McKie at kmckie@udel.edu for more information.

More information about the TUPL project can be found

here: <https://delawaremathcoalition.org/professional-development-programs/tupl-project/>

Learn more about the UDRAW work study program

here: <https://www.urp.udel.edu/urp/research-apprenticeship/>

UDRAW pays \$13.25/hour in Fall 2024.

Education

"Paving the Way for Fractions: Exploring Foundational Concepts in First Grade"

Project description: We are looking for motivated and responsible students to join our team as undergraduate research assistants for our project, Paving the Way for Fractions: Exploring Foundational Concepts in First Grade (PI: Dr. Nancy Jordan). RAs will be able to conduct research directly in local elementary schools with first and second graders. This experience will be especially beneficial to students pursuing a career in education, psychology, or cognitive science; however, students from all majors are welcome to apply.

Qualifications: Some daytime availability (8a-2p), experience working with/caring for children, and an interest in how children learn early math concepts.

Time commitment: Up to 10 hours/week

Contact: Abby Losey (alosey@udel.edu) for more information or to apply.

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)

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 greenhouse gas emissions and winter cover crops. This 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 and processing soil or greenhouse gas samples or wet lab chemistry 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 ahuddell@udel.edu 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

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

Human Development and Family Studies

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 1pm meeting on Thursdays)

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](#)

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

[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.

Mechanical Engineering

Title: Lab Intern/Assistant

The Energy Mechanics and Sustainability Laboratory (EMSLab), led by Prof. Jun Xu, conducts research regarding battery safety, durability and manufacturing. Currently, one of the long-term

research projects in the lab is to build a battery safety and reliability database including battery characterization, data input, and analysis.

Our lab is looking for students to conduct research activities involving a good amount of hands-on experiment work along with some theoretical analysis under the mentoring of Prof. Jun Xu and his Postdoc/Ph.D. students. A continued research intern opportunity may be available for excellent performers.

Required Skills:

- Be in good academic standing (GPA of 3.0 or above). GPA > 3.5 is preferred.
- Some background and/or interest in laboratory operations.
- Diligent, accountable, very organized, and attentive to details
- Good time-management skills

Time commitment: Approximately 10-12 hours per week, depending on the student's availability.

Contact: If interested please contact Prof. Jun Xu by email, junxu@udel.edu, with the Subject Line: EMSLab Research Assistant and the following information:

1. Name
2. Weekly Hours of Availability for the Fall 2024 Semester
3. Contact phone number
4. Preferred email address
5. A short statement about why you are interested in working in our lab
6. Resume of CV.

[Neuroscience](#)

Social Neuroscience Research Assistant Job Description

The Impression Formation Social Neuroscience Lab (ifsnlab.org) investigates how we form impressions of people. The lab uses both neuroscience and behavioral research methods. The lab seeks a student for work in the fall to help conduct neuroimaging research. The student's responsibilities will include: (1) creating stimuli, (2) conducting online research, (3) collecting participant data with EEG or fMRI, (4) cleaning and analyzing data, (5) programming studies, and (6) other miscellaneous tasks.

Required Skills: High GPA, attending lab meetings, and a 10 hour a week commitment.

Email: andreaaa@udel.edu

[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) 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) 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.

Plant and Soil Sciences

Effective immediately, the Molecular Plant Breeding & Genomics in the Department of Plant and Soil Sciences is seeking a motivated, well-organized, dependable and have demonstrated ability to work independently and in team's undergraduate student to assist with plant breeding research. The primary duties will include data collection and shelling corn ears.

To apply: Please send your completed application form, letter of interest (including career goals/interests), current resume, and email to Dr. Qi Mu (qimu@udel.edu) and Tecle Weldekidan (tecle@udel.edu)

Psychological and Brain Sciences:

Project Description:

The Birth and Endocrine Signaling Lab is a behavioral neuroscience lab that uses animal research to better understand how hormones affect the development of brains and behavior. We are currently seeking an undergraduate research assistant to help with this work. The student research assistant's responsibilities will include a mix of in-person, hands-on work and computer work that can be done remotely. Specifically, we are looking for someone willing to work with some combination of: live animals, tissue samples, and software for ~8-10 hours per week. Benefits of the position include working alongside a team of undergraduate researchers and

training in various laboratory techniques. This position would be especially helpful to students interested in pursuing medical school or graduate school in biomedical research.

Recommended Skills:

No previous lab experience is necessary, but an interest in neuroscience, psychology, animal behavior, or reproductive biology is preferred.

Time commitment:

8-10 hours per week, excluding finals and breaks. Summer opportunities are also available.

Contact:

Email Prof. Will Kenkel (wkenkel@udel.edu) for information or to apply.

[Social Neuroscience Research Assistant Job Description](#)

The Impression Formation Social Neuroscience Lab (ifsnlab.org) investigates how we form impressions of people. The lab uses both neuroscience and behavioral research methods. The lab seeks a student for work in the fall to help conduct neuroimaging research. The student's responsibilities will include: (1) creating stimuli, (2) conducting online research, (3) collecting participant data with EEG or fMRI, (4) cleaning and analyzing data, (5) programming studies, and (6) other miscellaneous tasks.

Required Skills: High GPA, attending lab meetings, and a 10 hour a week commitment.
Email: andreeaa@udel.edu