UNIVERSITY of WEST FLORIDA

SURP 2024

SUMMER UNDERGRADUATE RESEARCH PROGRAM SYMPOSIUM

presented by

OFFICE OF UNDERGRADUATE RESEARCH

AND

HAL MARCUS
COLLEGE OF SCIENCE AND ENGINEERING

AUGUST 9 | 10AM - 12PM

SURPRISE & DELIGHT:

Be sure to stop on the first floor lobby to say thank you to the Pensacola Section of the American Chemical Society for providing a special treat from ***Smallcakes: A Cupcakery & Creamery*** in Pensacola.

SURP Breakfast with Scholars Special Invitation

8:30 am - 9:30 am
Building 4, Room 406

SURP Symposium: Poster Session

10:00 am - 12:00 pm
Building 4, Floors 2-4

Poster presentations are listed by department with the student's **Floor/Panel#** next to their name. *(See map and alphabetical list on the inside back cover)*

What is a Magic Moment?

Throughout the program, you will see "Magic Moments." **Magic Moments** are points in time when students felt confident as a researcher, when something clicked for them, or when they felt the pride of having a research "win". We ask SURP students to document these moments to help build their identity as a "researcher" and contribute to their self confidence in getting through some of the more challenging parts of research.

The Office of Undergraduate Research (OUR) and Hal Marcus College of Science and Engineering (HMCSE) celebrate student-centered research by our faculty and research staff.

The 2024 Summer Undergraduate Research Program (SURP) is the tenth year in which we have invested in an intensive undergraduate research experience requiring selected students to devote 225 or more hours to a research project under close supervision of a faculty mentor.

Additionally, faculty from across the university mentor undergraduate and graduate students over the summer and throughout the year in other programs, from course-based research to graduate thesis projects. Thank you for joining us for today's celebration of all OUR and HMCSE summer research efforts by our faculty, staff and students.

POSTER PRESENTATIONS
Anthropology

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Siena Ward	**2/3**			
Social and Structural Determinants of Dental Health in a New Mexico Forensic Sample		None	Dr. Allysha Winburn, CASSH - Anthropology	Office of Undergraduate Research

POSTER PRESENTATIONS
Art & Design

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Lilly Adams	**4/58**			
The Art of Inquiry: Exploring Artistic Approaches to Research		None	Carrie Fonder, CASSH - Art & Design	Office of Undergraduate Research
Tate Williams	**4/59**			
Contemporary Japanese Ink Scrolls		None	Marzia Ransom CASSH - Art & Design	Office of Undergraduate Research

MAGIC MOMENT

When I received a new lab notebook to mark the beginning of a new year of research. It might seem insignificant, but the excitement of filling out a new notebook reminded me that I've found something I truly love to do and that I've become quite capable in my field.

Research is only one of the things that bring me joy outside of the classroom. I love to oil paint, work on my cookbook, and attempt to garden in the unforgiving Florida weather.

- Bonnie Bruner, Biology

Pictured above: Bonnie Bruner imaging her Epidermal Growth Factor Receptor transfected cell line.

POSTER PRESENTATIONS
Biology

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Leyna Alvarado	**4/57**			
Quantification and Characterization of Microplastics in Turtle Grass (Thalassia testudinum) and Shoal Grass (Halodule wrightii)		None	Dr. Alexis Janosick, HMCSE - Biology	Biology Department
Finn Balawender	**4/49**			
Influence of salinity and substrate on the composition of marine annelids in Pensacola Bay		None	Dr. Viktoria Bogantes, HMCSE - Biology	Office of Undergraduate Research
Hope Barrett	**4/50**			
Expanding the Knowledge of Non-Native Annelid Worms in the Florida Panhandle		None	Dr. Viktoria Bogantes, HMCSE - Biology	Biology Department
Baye Bowman	**4/63**			
Assessment of Microplastics in the Gut Contents of Vermilion Snappers (Rhomboplites aurorubens) in the Gulf of Mexico		None	Dr. Alexis Janosik, HMCSE - Biology	Office of Undergraduate Research
Heaven Brandt	**2/1**			
Understanding the effects of the Atypical Antipsychotic Aripiprazole on Neutroplils		None	Dr. Peter Cavnar, HMCSE - Biology	Office of Undergraduate Research
Bonnie Bruner	**4/69**			
Phage-Mediated Inhibition of the Epidermal Growth Factor Receptor		Zina Yousef	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
Anessa Carter	**4/64**			
Exploring the presence of Molidae in the Gulf of Mexico using environmental DNA metabarcoding		None	Dr. Alexis Janosik, HMCSE - Biology	CEDB

BIOLOGY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Maggie Davis	**4/51**			
Exploring Genetic Connectivity of the Eastern oyster Crassostrea virginica around Pensacola, Florida		None	Dr. Viktoria Bogantes, HMCSE - Biology	CEDB
Caleb Hanners	**4/68**			
Phage-based targeting of Phospho-Tau in Alzheimer's Disease		Kayla Dunson	Dr. Rodney Guttmann, HMCSE - Biology	U-RISE Program
Paige Holst	**4/60**			
Elasmobranch eDNA on artificial reefs in northwest Florida		None	Dr. Alexis Janosik, HMCSE - Biology	John Thayer & Joan Ames Burr Undergraduate Research
Liz McConnell	**3/42**			
A New Class of Organic Semiconductors via Cascading Cyclization		Jefferson Jiang Declan McGurk, Dr. Tanay Kesharwani	Dr. Prerna Masih, HMCSE - Biology	John Thayer & Joan Ames Burr Undergraduate Research and Office of Undergraduate Research

MAGIC MOMENTs

When I successfully completed my first gel electrophoresis by myself.
I remember that I was so worried that I would mess up or break the machine somehow, but it went really well. When I sent my mentor a picture of my gel she said it looked great and that boosted my confidence in the lab so much. I finally felt like I was supposed to be here and that I did know what I was doing.

- Maggie Davis, Biology

When my lab mates and I were able to create, isolate, and collect one of our compounds we plan on using to make semiconductors within just 2 days, which is the fastest we've been able to. It's gratifying to be able to efficiently perform all of the techniques as a team.

- Liz McConnell, Biology

MAGIC MOMENT

When I was out sampling with Dr. Tominack and we were working with our equipment out at the beach. Two people came up to me and Dr. T and asked what we were doing. We worked together and told them just like practicing the elevator pitch and they said that the research sounded cool and that it was important work that we were doing. Hearing them say that really boosted my confidence in what we were doing and knowing that it was going to make a difference.

- SURP 2024 Student

BIOLOGY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Declan McGurk	**3/41**			
Trisubstituted Benzofurans via Electrophilic Sulfur Cyclization		Langley Knighten, Maria J. Peña Bú, Faith Christofferson, Sierra Rich, & Dr. Tanay Kesharwani	Dr. Prerna Masih, HMCSE - Biology	Office of Undergraduate Research
Brianna Nicholson	**4/65**			
Quantification of Microplastics in Atlantic Ghost Crabs (Ocypode quadrata) Along the Florida Gulf Coasts		None	Dr. Alexis Janosik, HMCSE - Biology	CEDB
Daniel Owens	**2/2**			
Assessing Aquatic Sampling Methods for Implementation in K-12 Curriculums		None	Dr. Sarah Tominack HMCSE - Biology	Office of Undergraduate Research
Emily Ramsden	**4/67**			
Development of MaSp2 Spidroin using M13 Phage Display		Joey Peterson	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
Allison Thompson	**4/66**			
Using Oysters (Crassostrea virginica) as Bioindicators for Microplastics in Northwestern Florida		None	Dr. Alexis Janosik, HMCSE - Biology	Office of Undergraduate Research

POSTER PRESENTATIONS

CEDB | Center for Environmental Diagnostics and Bioremediation

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Emma Mensen	**4/72**			
Epiphyte Biomass and Community Composition on Pensacola Bay Seagrasses		Seirra Rich, Morgan Armstrong, Barbara Albrecht, Dr. Amanda Croteau, Dr. Jane Caffrey	Dr. Jane Caffrey, HMCSE - CEDB	Office of Undergraduate Research
Denzel Ortiz-Hernadez	**4/70**			
Why settle here? Understanding Epibenthic Settlement Dynamics in Perdido Bay		None	Dr. Amanda Croteau, HMCSE - CEDB	Office of Undergraduate Research
Sierra Rich	**4/71**			
Porewater Nutrients in Seagrass Beds		Emma Mensen, Morgan Armstrong, Barbara Albrecht, Dr. Jane Caffrey	Dr. Jane Caffrey, HMCSE - CEDB	Office of Undergraduate Research

POSTER PRESENTATIONS

Chemistry

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Ian Bell	**3/25**			
Determination of Protein Content in Different Brands of Eggs		Orion Schulte, Jennifer Willis, Victoria Hennick, Megan Brown	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Darius Bora	**3/33**			
Colorimetric Characterization of Ligands for Metal Cation Detection		Anne Harper, Brianna Meredith, Dr. Tanay Kesharwani, Dr. Pam Benz	Dr. Pam Benz, HMCSE - Chemistry	Office of Undergraduate Research

MAGIC MOMENT

When I felt confident explaining to non-scientists what my research project was.

My magic moment grew my self-confidence and improved how I describe the steps and goals of my research project. In the SURP workshops, we practiced elevator sentences and drew the steps to our research project which gave me a better understanding and different ways to explain to non-scientists what my research project was.

- SURP 2024 Student

CHEMISTRY CONT.

Student / Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Megan Brown 3/28			
Synthesis of 1,4,8-Triazacycloundecane (TACU)	Emily Twitchell	Dr. Ajay Lajmi, HMCSE - Chemistry	Chemistry Department
Faith Christofferson 3/26			
Spilling the Tea on Steeping Times	Benjamin Hensor, Victoria Hennick, Megan Brown	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Yessenia Cintron 3/29			
Salts Kill	Jarod Hoffman, Victoria Hennick, Megan Brown	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Furanyl Derivatives as Renewably Sources Redoxmers	None	Dr. Jacob Tracy, HMCSE - Chemistry	Chemistry Department
Trevor Hemming 2/9			
Green Synthesis of Copper(I) Alkynides	None	Dr. Timothy Royappa, HMCSE - Chemistry	John Thayer & Joan Ames Burr Undergraduate Research
Arav Jain 3/39			
Computational Study to Determine Bond Gap of Organic Molecules	None	Dr. Tanay Kesharwani, HMCSE - Chemistry	John Thayer & Joan Ames Burr Undergraduate Research

MAGIC MOMENT

When I blew the cap off a round bottom flask from pressure buildup during a reaction and it shattered. In that moment I was shocked but also really excited for some reason. Perhaps the adrenaline, it was really cool and made me realize "Wow, I am really doing chemistry here!" Even though it wasn't the desired effect, I'll remember it for years to come.

- Emily Twitchell, Chemistry

Pictured above: Emily Twitchell running samples on the NMR.

CHEMISTRY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Summer Keck	**3/46**			
Stay Fruity: Analyzing Metal and Mineral Content in Canned Fruit		Alana Davis, Victoria Hennick, Megan Brown	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Chancy Lee	**3/44**			
Synthesis of Trifluoromethyl Alkynyl Ketones through Mild Oxidative C-C Bond Cleavage - Exploration of Functional Group Tolerance		None	Dr. Jacob Tracy, HMCSE - Chemistry	Office of Undergraduate Research
Sara Lypko	**2/10**			
Synthesis and Crystallization of Rosocyanine and Rubrocurcumin		None	Dr. Timothy Royappa, HMCSE - Chemistry	Willis and Victoria Mullet Innovation Award
Dena Mahawongnan	**3/45**			
Synthesis of Difluorinated Tetramic Acid Derivatives using Green Solvents		None	Dr. Jacob Tracy, HMCSE - Chemistry	Willis and Victoria Mullet Research
Bianca Malone	**2/11**			
Optimization of a Novel Copper(I) Phenylacetylide Synthesis Route		None	Dr. Timothy Royappa, HMCSE - Chemistry	U-RISE Program
Lilly Nincevic	**3/43**			
Continuation of the Synthesis of Trifluoromethyl Alkynyl Ketones through the Mild Oxidative C-C Bond Cleavage of Trifluoromethyl Propargyl Alcohols		None	Dr. Jacob Tracy, HMCSE - Chemistry	Office of Undergraduate Research

CHEMISTRY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Sara Plott	**2/12**			
Growing X-ray quality crystals of long-chain aliphatic carboxylic acids		Ryan Russell, Dr. Tanay Kesharwani	Dr. Timothy Royappa, HMCSE - Chemistry	American Chemical Society Project SEED
Malane Qi	**3/48**			
Design and Synthesis of Novel Molecular Nanocars		None	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research
Amanda Schwartz	**2/17**			
Green Synthesis of Fluorinated Copper (I) Phenylacetylides		None	Dr. Timothy Royappa, HMCSE - Chemistry	Hal Marcus Foundation
Emily Twitchell	**3/27**			
Synthesis and Isolation of an Orthoamide Carbocation Metalloenzyme Mimic Building Block		Megan Brown	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research and Chemistry Dept
Samantha Watkins	**2/18**			
Synthesis of Copper(I) Aminophenylacetylenes		None	Dr. Timothy Royappa, HMCSE - Chemistry	Hal Marcus Foundation
June Wible	**3/31**			
A Slippery Slope: Authenticity of Olive Oil Through FTIR and GC-MS VOC Analysis		Darius Bora, Victoria Hennick, Megan Brown	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Amino Acid Solubilizing Groups: Organic Redox Flow Batteries		None	Dr. Jacob Tracy, HMCSE - Chemistry	Office of Undergraduate Research
Chyanne Womack	**3/47**			
Synthesis and Isolation of the starting material, 1,4-Ditosilate Butane		Josh Schumacher	Dr. Ajay Lajmi, HMCSE - Chemistry	Hal Marcus Foundation and OUR
Kilea Yetter	**3/34**			
Direct Measurement of the Speed of Sound of Gases at Various Pressures and Temperatures		Joey C. Peterson, Caden Solis, Mikayla Swatscheno	Dr. Karen Molek, HMCSE - Chemistry	Office of Undergraduate Research


INFINITY 2
Lumenera
Eyepieces

Taking Research to the Next Level

The Office of Undergraduate Research (OUR) is a centralized office that supports student and faculty engagement in undergraduate research campus-wide. This support occurs through (1) student programs, (2) faculty programs, and (3) advocacy and engagement in the campus community. At UWF, students who engage with faculty on research projects are more connected to their disciplines, more successful during their time at UWF, and better prepared for future careers. OUR helps undergraduate students find research projects, secure funding for research, build skills that help make them more successful in research and beyond, and provide opportunities for them to practice communicating about their research.

During the summer, we take student research to the next level through the Summer Undergraduate Research (SURP) program. Student researchers receive a stipend as well as funds to purchase materials and supplies for their research projects -- an investment that is invaluable to these students and which allows them to fully engage in research in a way that isn't possible during the academic year. In addition to devoting more than 225 hours on their research projects under the close supervision of a faculty member, SURP students work with OUR throughout the summer to develop professional skills, such as communicating their research to various audiences, incorporating research experience into their resumes, and learning how to network.

OUR provides financial support to students conducting research through several programs. Students can apply for funds to pay for research supplies, travel expenses to present their research at conferences, or to provide an hourly wage to conduct research. Even the process of applying for OUR funding is part of the student's professional development, which can include writing a research proposal and putting together an itemized budget!

POSTER PRESENTATIONS
Computer Science

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Zahria Davis	**2/7**			
MEDUSA: Mobile Environment for Developing Situational Awareness		Rhys Mistele	Dr. Thomas Reichherzer, HMCSE - Computer Science	Computer Science Foundation and Office of Undergraduate Research
Stephanie Eager	**2/8**			
Applying Clustering to UWF-ZeekData22		Germano Correa Silva De Carvalho, Asmi Mishra, Brittany Lane	Dr. Sikha Bagui, HMCSE - Computer Science	John Thayer & Joan Ames Burr Undergraduate Research and Computer Science Foundation

POSTER PRESENTATIONS
Earth & Environmental Sciences

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Joe Agin	**2/15**			
Influence of Beach Wrack Pile Structure on Wind Flow and Sediment Deposition		Dr. Peter Tereszkiewicz	Dr. Phillip Schmutz, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research
Leo Young	**2/16**			
The University of West Florida Campus Ecosystem Study: light, texture, and community analysis of controlled burning on pine stand regeneration		Katherine Lundgren, Alexis Bjornstad	Dr. Frank Gilliam, HMCSE - Earth & Environmental Sciences	John Thayer & Joan Ames Burr Undergraduate Research and OUR

MAGIC MOMENT

When I got published.

I started my research journey my Freshman year of college. As a Freshman, it can be overwhelming getting a feel for college life and doing research. SURP has helped me become confident in my ability to be a research student. This was reinforced when I got published in an IJERT Journal in May 2023. Without SURP, I would have never had the time or motivation to do this.

- Drake Fulton, Electrical and Computer Engineering

Josh Pfneisel is changing the media for his H9C2 (rat heart) cells.

K-means Clustering with Pyspark

```
[103]: from pyspark.sql import SparkSession
from pyspark.sql.types import StructType, StructField, IntegerType, FloatType, StringType, TimestampType, LongType, DoubleType
from pyspark.ml.clustering import KMeans
from pyspark.ml.evaluation import ClusteringEvaluator
from pyspark.ml.feature import VectorAssembler, StandardScaler
from pyspark.sql.functions import col
from pyspark.sql import functions as F
from sklearn.metrics import confusion_matrix, precision_score, recall_score, accuracy_score
from pyspark.sql.functions import when, col, isnan

[61]: spark = SparkSession.builder.master('local[*]').appName("K-means with file").config('spark.ui.port','4050').getOrCreate()

[62]: file_path = "/home/gc100/Downloads/part-00000-318611a1-7cdc-4dd0-9348-c6368917fd0c-c0
df = spark.read.csv(file_path, header = True, inferSchema = True)
```

Germano Correa Silva De Carvalho studying how to identify attacks on databases that our computers and cellphones have to store information.any pictures working together.

POSTER PRESENTATION

Electrical & Computer Engineering

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Drake Fulton	**2/4**			
Development of a Machine Learning Method for Condition Monitoring of Power Transformers		Nagaraju Brahmanapally	Dr. Bhuvaneswari Ramachandran, HMCSE - Electrical & Computer Engineering	Webb Electric Company of Florida, Inc.
Tony Pham	**2/5**			
Autonomous Driving Vehicle		Josh Young	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Webb Electric Company of Florida, Inc.
Josh Young	**2/6**			
Solar Power Autonomous Driving Vehicle		Tony Pham	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Webb Electric Company of Florida, Inc.

POSTER PRESENTATIONS

Mathematics & Statistics

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Thanh Bui	**2/24**			
Linear Failure Rate Odds Ratio Generator of Distributions		None	Dr. Shusen Pu, HMCSE - Mathematics & Statistics	Office of Undergraduate Research
Tyler Daw	**2/22**			
The Efficient Community Detection Algorithm on Complex Networks		None	Dr. Jia Liu, HMCSE - Mathematics & Statistics	Office of Undergraduate Research
Joaquin Estevez	**2/20**			
Predicting Student Graduation using the ELS: 2002 data		Dr. Achraf Cohen	Dr. Achraf Cohen, HMCSE - Mathematics & Statistics	John Thayer & Joan Ames Burr Undergraduate Research
Luis Madrigal Gonzalez	**2/23**			
New Modified Burr III Exponentiated Odds Ratio-G Distribution		None	Dr. Shusen Pu, HMCSE - Mathematics & Statistics	Willis & Victoria Mullet Innovation Award
Emmanuel Paalam	**2/19**			
A Comparative Approach to Predicting Student Dropouts using ELS: 2002 Study		Thuong Huynh, Dr. Achraf Cohen	Dr. Achraf Cohen, HMCSE - Mathematics & Statistics	Office of Undergraduate Research

MAGIC MOMENTs

When I was discussing my proposal with my mentor and he mentioned that presenting the poster would work as a prior experience for future conferences. It increased my self confidence because I was imagining the scenario of me presenting at important conferences, and it was really exciting. The experience that contributed to this event was the SURP.

- Joaquin Estevez, Mathematics & Statistics

Happens every time a participant enters the research lab. Every participant not only helps me with my research but is there to learn more about themselves through my research. The data I record directly helps the athletes I am working with improve their own training and learn more about their physical and mental strengths and weaknesses.

- Joel Ayers, Movement Sciences & Health

POSTER PRESENTATIONS
Mechanical Engineering

Student / Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Victoria Apolinar 4/61			
Snake Robot Model: Muscle Actuation	None	Dr. Maher Amer, HMCSE - Mechanical Engineering	Office of Undergraduate Research

POSTER PRESENTATIONS
Movement Sciences & Health

Student / Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Joel Ayers 4/53			
Impact of Quadriceps/Hamstrings Peak Torque Ratio on Landing Mechanisms Alterations Using Loadsols	Thomas Vargas	Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research
Ryan Conner 4/52			
MASTERS Athlete Study	None	Dr. Ludmila Cosio-Lima, UKCOH - Movement Sciences & Health	Office of Undergraduate Research
Vy Le 4/55			
Neuroprotective effects of exercise mimetics against Parkinson's Disease	None	Dr. Youngil Lee, UKCOH - Movement Sciences & Health	Usha Kundu, MD College of Health
Josh Pfneisel 4/56			
Effects of Metformin on Doxorubicin-Induced Cardiotoxicity	None	Dr. Youngil Lee, UKCOH - Movement Sciences & Health	Office of Undergraduate Research
Thomas Vargas 4/54			
Comparing gait performance in collegiate athletes across different sport categories under single-task and dual-task conditions	Joel Ayers	Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research
Samuel Jaugan-Perez 4/62			
Plantar cutaneous sensitivity and plantar force distribution during gait in patients with chronic ankle instability	Morgan Despres	Dr. Jeffrey Simpson, UKCOH - Movement Sciences & Health	Office of Undergraduate Research

POSTER PRESENTATIONS
Physics

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Teddy Al-Bayaty	**3/35**			
Cascading Raman in Gas Filled Hollow-Core Optical Fibers: System Development and Validation		Dr. Laszlo Ujj	Dr. Aaron Wade, HMCSE - Physics	Office of Undergraduate Research
Mack Partridge	**3/36**			
Resonance Enhancement in Coherent Raman Scattering Applied for Liquid Solutions and Crystals		None	Dr. Laszlo Ujj, HMCSE - Physics	Office of Undergraduate Research

POSTER PRESENTATIONS
Psychology

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Elizabeth Black	**3/37**			
Executive Functioning and Sensory Processing In ADHD		None	Dr. Vanessa Rainey, CASSH - Psychology	Office of Undergraduate Research
Amanda Schraer	**3/38**			
Personality and Aggressive Driving		Lonneke Pottinga, Sarianna Thomas	Dr. Steve Kass, CASSH - Psychology	Office of Undergraduate Research

MAGIC MOMENT

When Christina showed me how much space financially I have freed up for the facility at this point. It impacted my confidence by making me realize that I am contributing for the potential betterment of Collections not only by freeing space for future educational opportunities but also aiding in the potential upkeep and upgrading of the building itself. Christina's excitement of the situation also made me feel more confident since I was helping to take some of the weight off her shoulders.

- Mikayla Schad, UWF Archaeology Institute

MAGIC MOMENTs

When I was finally able to figure out how to do something I was struggling with on a software I have been learning.

My project requires technological skills that I have never had to use before and it was very satisfying to persist and be able to not only get results but to learn a new skill. It impacted my self-confidence because struggling with something makes the results feel more meaningful than they would if it were an easy process. My mentor sets up challenging opportunities for me to learn new skills and I think it is because she really believes I can do it which is very motivating. Knowing that someone else believes in you can help you believe in yourself.

- Elizabeth Black, Psychology

When I had to build my own spreadsheet to organize articles.

I was going in with little experience but I wanted some way electronically to organize what I had read. It was to my surprise when looking up YouTube videos on how-to's I learned I was not far off on how people doing dissertations and theses do theirs. It helped to realize that research does not have to be overly complicated. It helped that my mentor let me build my own spreadsheet and try on my own telling me that it is always messier in the beginning and reassuring me that I'll learn more from the process that just being told how to do it.

- Honor Bell, Social Work

POSTER PRESENTATION
Social Work

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Honor Bell, III	**2/13**			
An Exploration of the Barriers for Macro Practice Education: A Prerequisite for Effective Social Workers		None	Dr. Matt Knierim, UKCOH - Social Work	Office of Undergraduate Research

POSTER PRESENTATION
UWF Archaeology Institute

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Funding/Research Support
Mikayla Schad	**2/14**			
Making Space for the Past, One Half-Box at a Time, in UWF's Collections Facilities		None	Christina Bolte, CASSH - UWF Archaeology Institute	Office of Undergraduate Research

Special Events Hosted by OUR

SURP students participate in weekly professional development workshops to build soft skills, such as communication and networking. We try to make these workshops as engaging as possible, getting students up on their feet and talking to each other and sometimes campus guests.

One of the fundamental workshops that SURP students participate in is **Resumé Writing.** Students make quick recordings of the small tasks they are working on each week of the program. Toward the end of the summer, students discuss how their research skills align with skills that employers will want to see -- for example, a poster presentation is a great example of how they have practiced communicating difficult concepts to a broad audience. The next step is to build out their resumé with tangible examples of experience. Through this workshop, students reflect on their emerging skills as professionals and learn to communicate them to potential employers.

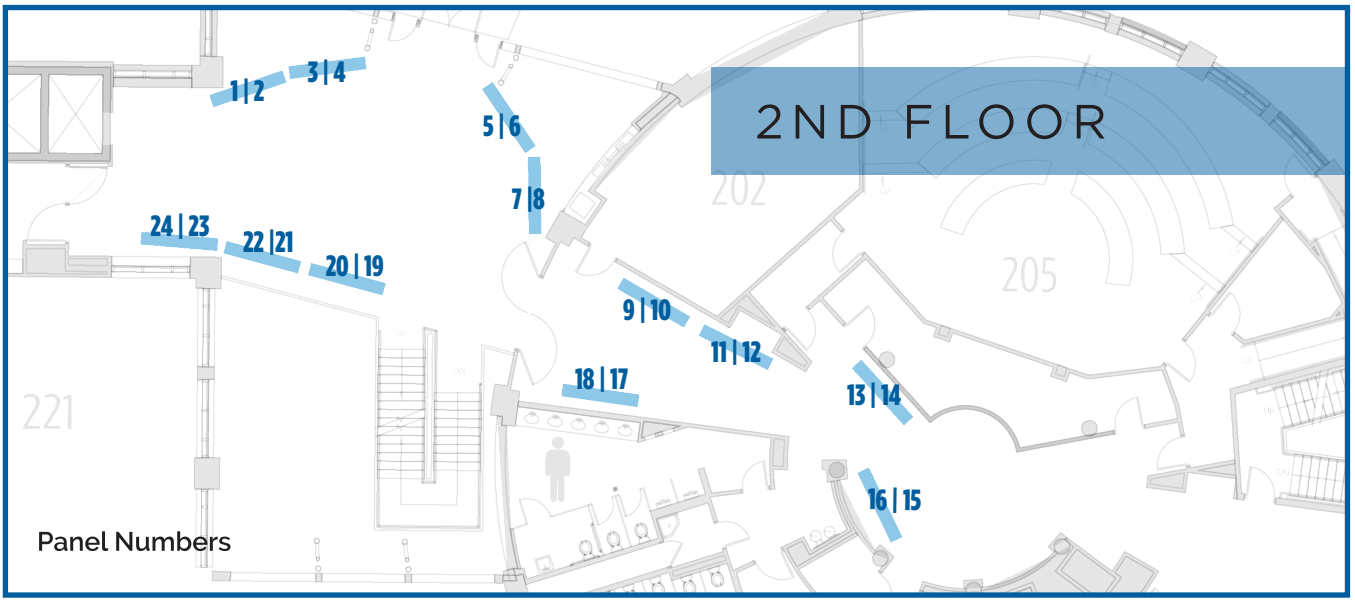
Chalk Talks are quick summaries of their research that students give to small groups. The chalk talks aren't prepared presentations, but are instead more impromptu discussions with their peers. During the unscripted presentations, students are encouraged to sketch out experiments, processes, or cycles that may be part of their research projects to help support the discussion. Chalk talks have proved to be really powerful tools for SURP students gaining confidence in communicating their research, especially to non-expert audiences.

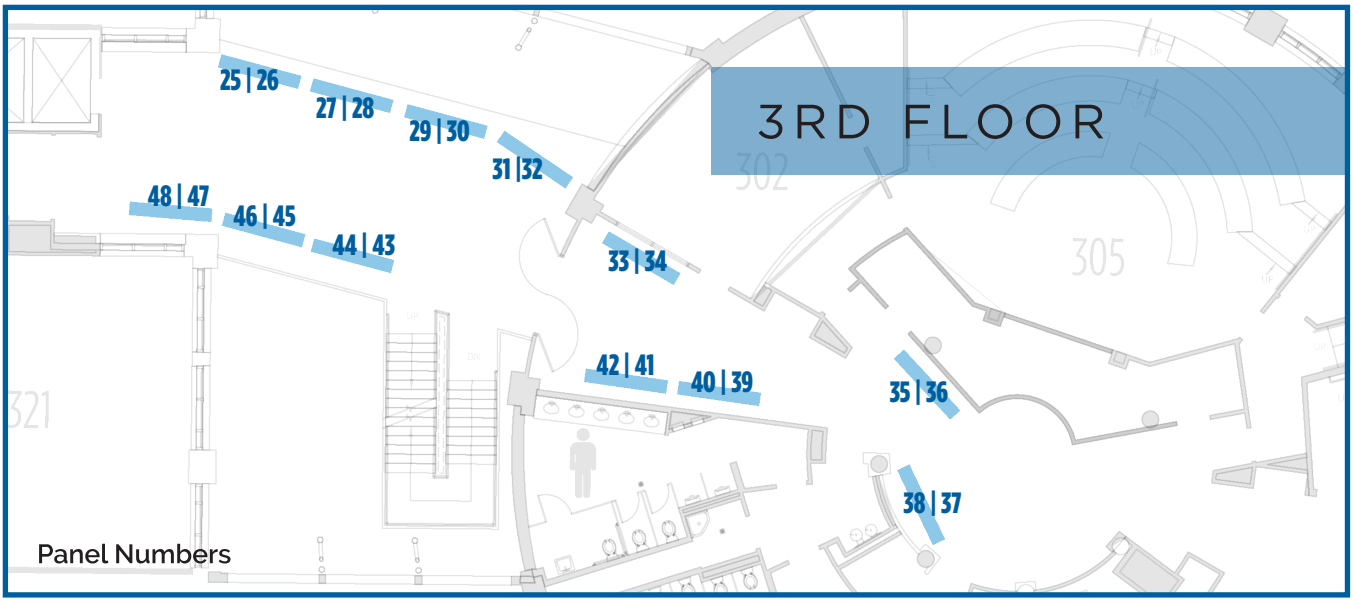
OUR hosts a **Mocktail Networking Party** every summer and invites UWF faculty and staff from Career Services, the Library, etc. to attend and talk with the SURP students. The networking party is low stakes practice for our students with less structured, but extremely important, "chit chat" that happens in professional settings and can often lead to collaborations or partnerships around shared interests.
party is low stakes practice for our students with less structured, but extremely important, "chit chat" that happens in professional settings and can often lead to collaborations or partnerships around shared interests.

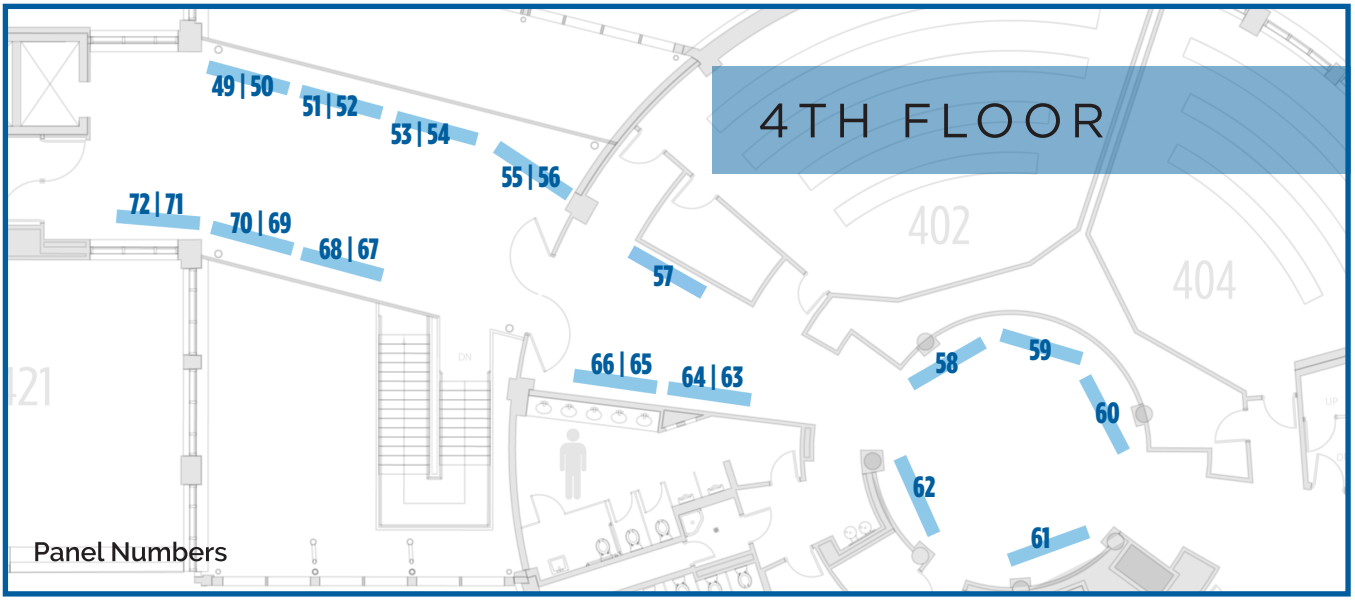
SURP Reflection ePortfolios

During the summer 2024, OUR incorporated a reflective ePortfolio into the SURP experience. We created a series of reflection prompts for students to critically think about their professional growth as a researcher at different key points in the program. Through these reflections, the students are able to observe their own development - as they recognize their contributions to the research process, as they begin to ask relevant questions and engage in dialogue with their mentors and peers, and as they start taking on more ownership of the research projects - and should begin to identify themselves as “researchers”, a fundamental step on their professional journey.

POSTER PRESENTATIONS MAP







LAST	FIRST	FL/Panel #	
Adams	Lilly	4	58
Agin	Joe	2	15
Al-Bayaty	Teddy	3	35
Albrecht	Barbara	4	72
Alvarado	Leyna	4	57
Apolinar	Victoria	4	61
Armstrong	Morgan	4	72
Ayers	Joel	4	53
Balawender	Finn	4	49
Barrett	Hope	4	50
Bell	Ian	3	25
Bell III	Honor	2	13
Bjornstad	Alexis	2	16
Black	Elizabeth	3	37
Bora	Darius	3	33
Bowman	Baye	4	63
Brahmanapally	Nagaraju	2	4
Brandt	Heaven	2	1
Brown	Megan	3	28
Bruner	Bonnie	4	69
Bui	Thanh	2	24
Carter	Anessa	4	64
Christofferson	Faith	3	26
Cintron	Yessenia	3	29/30
Connor	Ryan	4	52
Davis	Alana	3	46
Davis	Maggie	4	51
Davis	Zahria	2	7
Daw	Tyler	2	22
De Carvalho	Germano	2	8
Despres	Morgan	4	62
Dunson	Kayla	4	68
Eager	Stephanie	2	8
Estevez	Joaquin	2	20
Fulton	Drake	2	4
Hanners	Caleb	4	68
Harper	Anne	3	33
Hemming	Trevor	2	9
Hennick	Victoria	3	25
Hensor	Benjamin	3	26
Hoffman	Jarod	3	29
Holst	Paige	4	60
Huynh	Thuong	2	19
Jain	Arav	3	39
Jaugan-Perez	Samuel	4	62
Jiang	Jefferson	3	42
Keck	Summer	3	46
Knighten	Langley	3	41
Lane	Brittany	2	8
Le	Vy	4	55
Lee	Chancy	3	44
Lundgren	Katherine	2	16
Lypko	Sara	2	10
Madrigal Gonzalez	Luis	2	23
Mahawongnan	Dena	3	45
Malone	Bianca	2	11
McConnell	Liz	3	42
McGurk	Declan	3	41
Mensen	Emma	4	72
Meredith	Brianna	3	33
Mishra	Asmi	2	8
Mistele	Rhys	2	7
Nicholson	Brianna	4	65
Nincevic	Lilly	3	43
Ortiz-Hernandez	Denzel	4	70
Owens	Daniel	2	2
Paalam	Emmanuel	2	19
Partridge	Mack	3	36
Pena Bu	Maria	3	41
Peterson	Joey	4	67
Pfneisel	Josh	4	56
Pham	Tony	2	5
Plott	Sara	2	12
Pottinga	Lonneke	3	38
Qi	Malane	3	48
Ramsden	Emily	4	67
Rich	Sierra	4	71
Russell	Ryan	3	48
Schad	Mikayla	2	14
Schraer	Amanda	3	38
Schulte	Orion	3	25
Schumacher	Josh	3	47
Schwartz	Amanda	2	17
Solis	Caden	2	13
Swatscheno	Mikayla	2	13
Tereszkiewicz	Dr. Peter	2	15
Thomas	Sarianna	3	38
Thompson	Allison	4	66
Twitchell	Emily	3	27
Vargas	Thomas	4	54
Ward	Siena	2	3
Watkins	Samantha	2	18
Wible	June	3	31/32
Williams	Tate	4	59
Willis	Jennifer	3	25
Womack	Chyanne	3	47
Yetter	Kilea	3	34
Young	Josh	2	6
Young	Leo	2	16
Yousef	Zina	4	69

More MAGIC MOMENTs

When I realized that, along with help from my mentor, I had successfully designed a research project. I completed an excel sheet with everything that needed to be done and that I would use to track both the taking and processing of my samples. It was then that I fully understood that this was my design and I was in complete control of this project which greatly impacted my self confidence and assuredness that I am capable of doing this.
- Anessa Carter, Biology

When some of my research was added to the project's database for future use. This area of the project didn't have anything in the database before my research was added. This moment made me more confident in my identity as a researcher. I now know that I can make a meaningful contribution to this ongoing research project.
- Zahria Davis, Computer Science

My SURP "magic moment" may sound superficial, but my reason to cherish it primarily stems from the fact that it solidified a reality that was already coming to be. My magic moment was actually accepting the first paycheck for the work that I've done. My primary interest is to use SURP to be a stepping stone towards my later career and graduate school which I plan on attending. Collecting that paycheck (even though it would've been useful in a monetary sense) gave more satisfaction as the evidence of uncertain fruits for my labor.
- Ryan Conner, Movement Sciences & Health

Various 2024 SURP Students

When I completed my first synthesis run. It made me feel more confident that I could actually succeed in a lab. My instructor's encouragement and guidance were what allowed this moment to occur.

When I was out in the field doing a collection for the first time with my mentor. Seeing my mentor so confident in what we were doing made me feel more confident too, and more excited to dive into my research. I love working in the field and being able to do my own field research still feels a bit surreal; my mentor and fellow lab members have made this a great experience so far.

When I succeeded on making my product on my first attempt. The solution was supposed to produce white chunks, and with no prior experience in this lab, I was shocked to see this result on the first try. My mentor and other lab students, Megan Brown and Emily Twitchell, were there to support me on this success.

When I first made the graphs that I was researching using some of the methods I was told to use. When I ran the graph, they came out perfect, and I felt more confident and at ease about my research.

Office of Undergraduate Research
UNIVERSITY of WEST FLORIDA

11000 University Parkway
Pensacola, FL 32514
850.474.2298 - **uwf.edu/our**
850.474.2688 - **uwf.edu/hmcse**

Hal Marcus College of Science and Engineering
UNIVERSITY of WEST FLORIDA