

SUMMER UNDERGRADUATE RESEARCH PROGRAM

presented by

OFFICE OF UNDERGRADUATE RESEARCH AND

HAL MARCUS
COLLEGE OF SCIENCE AND ENGINEERING

AUGUST 8, 2025 10AM - 12PM 11th Annual SUMMER RESEARCH SYMMER POSIUM MILES POSIUM MI

presented by
OFFICE OF
UNDERGRADUATE RESEARCH
AND

HAL MARCUS COLLEGE OF SCIENCE AND ENGINEERING



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 *Nothing Bundt Cakes* in Pensacola.

AWARD NOMINEES:

Look for this symbol to recognize who has been nominated for the first-ever SURP Awards.



SURP Breakfast (Special Invitation) 8:30 am - 9:30 am Building 4, Room 102

SURP Symposium: Poster Session 10:00 am - 12:00 pm, All floors

Awards Ceremony 11:30 am - 12:00 pm, 1st Floor

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)



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 2025 Summer Undergraduate Research Program (SURP) is the eleventh 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 SURP Legacy Researchers

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Bonnie Bruner	1/1		Biology	SURP Legacy
EGFR-Targeted Phage Sca Like Speed Dating, but fo		None	Dr. Rodney Guttmann, HMCSE - Biology	Mullet Innovation Award
Yessenia Cintron	1/3		Chemistry	SURP Legacy
Furanyl Derivatives as Renewably Sourced Redo	oxmers	None	Dr. Jacob Tracy HMCSE - Chemistry	UWF Academic Affairs
Arav Jain	1/9		Physics	SURP Legacy
Computational Study to a Relationship Between the shift and Pressure of Gas Molecule Interactions	e Raman	None	Dr. Aaron Wade, HMCSE - Physics	John Thayer & Joan Ames Burr Undergraduate Research
Katherine Lundgr	en 1/2		Biology	SURP Legacy
Quantification of Micropla Black Skimmers along the of Florida		None	Dr. Alexis Janosik, HMCSE - Biology	UWF Academic Affairs

POSTER PRESENTATIONS SURP Legacy Researchers

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Sara Lypko	1/4		Chemistry	SURP Legacy
Synthesis and Crystallizat of Rosocyanine	ion	None	Dr. Tim Royappa, HMCSE - Chemistry	UWF Academic Affairs
Bianca Malone	1/10		Chemistry	SURP Legacy & Former U-RISE
Colorimetric Characteriza Highly Fluorescent Ligand Cation Detection & Comp Analysis of Ligand-Metal I	ds for Metal utational	Dominic Bolden, Alana Davis	Dr. Pam Benz, HMCSE - Chemistry	Department of Chemistry; Office of Undergraduate Research; Tanner Endowment
Emmanuel Paa	alam 1/7		Math & Statistics	SURP Legacy
Accelerating Feasible Clin Design: A Machine Learni Using Features Engineere Unstructured and Tabular	ng Study od from	None	Dr. Achraf Cohen, HMCSE - Mathematics & Statistics	Department of Mathematics & Statistics
Brianna Perea	1/8		Math & Statistics	SURP Legacy
Kumaraswamy Exponention Odds Ratio Family of Dist		Declan McGurk, Sean Fang, Michael Fang	Dr. Shusen Pu, HMCSE - Mathematics & Statistics	Office of Undergraduate Research; UWF Academic Affairs
Malane Qi	1/5		Chemistry	SURP Legacy
Development of Environm Benign Electrophilic Cycliz Reaction		Preston Chew, Dr. Tanay Kesharwani	Dr. Ajay Lajmi, HMCSE - Chemistry	UWF Academic Affairs; Office of Undergraduate Research
Emily Twitchell	1/6		Chemistry	SURP Legacy
Synthesizing and purificat unsymmetrical triazaphen orthoamide intermediate		None	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research
Tate Williams	1/11		Art & Design	SURP Legacy & Light
AUTHENTICITY.		None	Marzia Ransom, CASSH - Art & Design	Office of Undergraduate Research

Be sure to read about our **LEGACY RESEARCHERS** in the centerfold, pages 13-14.

Anthropology

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Josephine Jo	seph 2/12			SURF
Screen Time, Sleep, and Difference by Childhood in a Longitudinal Study	Depression:	None	Mudasir Mustafa, CASSH - Anthropology	Summer Undergraduate Research Foundations Program

Art & Design

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Tate Williams	1/11			SURP Legacy & Light
AUTHENTICITY.		None	Marzia Ransom, CASSH - Art & Design	Office of Undergraduate Research

POSTER PRESENTATIONS Biology

Student Julia Allgeyer	Floor/Panel 3/44	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support SURP
A Look Inside the Jelly: In quantification of gelating in the northern Gulf of M	ous zooplankton	None	Dr. Alexis Janosick, HMCSE - Biology	Office of Undergraduate Research
Sean Bacon	3/57			SURF
Using M13 Phage Display Synthesize Synthetic Sp		None	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
Natasha Brown	4/78			SURP
Examining the Diversity of Hermit Crab Symbion Coast of Northwest Flor	ts on the Gulf	None	Dr. Viktoria Bogantes, HMCSE - Biology	UWF Academic Affairs

MAGIC MOMENTS

My research magic moment was when I started my first experiment on my own. During that experiment I tested my abilities and knowledge while working in the Lab. I gained a lot of knowledge on what to do and what not to do, and it has helped boost my confidence everyday I show up to Lab.

- Joseph Flanigan, Summer Light Researcher, Biology

Since my first Summer of 2019 to the present, I have been blessed with excellent students; this 2025 group is no exception. Even before we began, I knew that they were going to distinguish themselves by their self-motivation and inner direction. Mastering numerous field sampling skills (despite the Florida heat and even a major downpour!), along with techniques in the lab, they have already produced publishable data.

- Dr. Frank Gilliam, Earth & Environmental Sciences

BIOLOGY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Bonnie Bruner	1/1			SURP Legacy
EGFR-Targeted Phage Scre Like Speed Dating, but for	-	None	Dr. Rodney Guttmann, HMCSE - Biology	Mullet Innovation Award
Emma Constant	2/35			SURP
The Effects of Dopamine o Neutrophil Cell Adhesion	n	None	Dr. Peter Cavnar, HMCSE - Biology	Office of Undergraduate Research
Dustin Duval	4/95			SURP
Fungal Ecology of Northwe How do different species of impact soil nutrient compo	of fungi	Zeke Miller	Dr. Sarah Tominack, HMCSE - Biology	Office of Undergraduate Research; Summer Undergraduate Research Foundations Program
Joseph Flannigan	3/60			SURP Light
Identification of Phage Bin pTau217 Using Phage Displ		None	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
Carly Goodman	3/58			SURP
Identifying Alzheimers Disc Biomarkers using Phage Di		None	Dr. Rodney Guttmann, HMCSE - Biology	Identifying Biomarkers grant to Dr. Guttmann

BIOLOGY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Alyssa-James Gra	y 4/96			SURP
Fungal Ecology of North Florida: Continued Invest on the UWF Campus		Zeke Miller	Dr. Alexis Janosik, HMCSE - Biology	UWF Academic Affairs; Summer Undergraduate Research Foundations Program
Caleb Hanners	3/63			Former U-RISE
Targeting of pTau 181 With Phage Display	h	None	Dr. Rodney Guttmann, HMCSE - Biology	
Chelsey Heenan	3/47			Former U-RISE
Beneath the Surface: A M Dive into the Parasites of		None	Dr. Alexis Janosik, HMCSE - Biology	
Ella Hubbard	3/45			SURP
Detecting the Crystal Dar (Crystallaria asprella) in the Panhandle Using Environi	he Florida	None	Dr. Alexis Janosik, HMCSE - Biology	UWF Academic Affairs
Jefferson Jiang	2/22			SURP
Cascading Cyclization of Diarylbutadiynes to Form Fused Heterocycles		Liz McDonnell, Declan McGurk	Dr. Prerna Masih, HMCSE - Biology	John Thayer & Joan Ames Burr Undergraduate Research; Office of Undergraduate Research; UWF Academic Affairs
Alayna Kliche	3/61			SURP Light
Development of Calpain using a Peptide-Phage Li Screening Method		None	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
lmani (Dante) Kni	ght 4/80			SURP
Shape Variation in the Ho of the Amazon Molly		None	Dr. Waldir Berbel-Filho, HMCSE - Biology	Office of Undergraduate Research
Katherine Lundgr	en 1/2			SURP Legacy
Quantification of Micropla Black Skimmers along the of Florida	astics in	None	Dr. Alexis Janosik, HMCSE - Biology	UWF Academic Affairs

BIOLOGY CONT.

Student Flo	or/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Bryley Lyublanovits	3/62			SURP Light
Developing Assays to Monitor HER2-Positive Cell Behavior: A Study Using HEK293 Cells	Pilot	None	Dr. Rodney Guttmann, HMCSE - Biology	Office of Undergraduate Research
Declan McGurk	2/34			SURP
DMTSF-mediated electrophilic cyclization for the synthesis of 3-thiomethyl-substituted benze furan derivatives		Langley Knighten, Maria Peña Bú	Dr. Prerna Masih, HMCSE - Biology	UWF Academic Affairs
Kainan Murphy	4/97			SURP
Developing a Controlled Funga Culture Collection	al	Zeke Miller	Dr. Sarah Tominack, HMCSE - Biology	UWF Academic Affairs; Summer Undergraduate Research Foundations Program
Zoe Salandy 3/46				SURP
Characterizing organisms from Antarctic Sediments of Two Fjord Habitats	,	None	Dr. Alexis Janosik, HMCSE - Biology	UWF Academic Affairs
Evan Tomlinson	4/79			SURP
Investigating the Diversity of Ta Zooplankton in the Pensacola La A study of species diversity an temporal trends	Bay:	None	Dr. Sarah Tominack, HMCSE - Biology	John Thayer & Joan Ames Burr Undergraduate Research
Hunter Turpin 4	/98			SURP
Genomic Investigation of a Lor Pine-Associated Mushroom	·	Zeke Miller	Dr. Sarah Tominack, HMCSE - Biology	UWF Academic Affairs; Summer Undergraduate Research Foundations Program
D'Juan Wimberly	3/59			SURP
Identification of Phage Binders Phosphorylated Tau in Human Using Phage Display		None	Dr. Rodney Guttmann, HMCSE - Biology	Department of Biology

POSTER PRESENTATIONS

CEDB | Center for Environmental Diagnostics and Bioremediation

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Jacob Feldma	an 2/42			SURP
Factors affecting Vibrio v abundance in Oyster liquo		None	Dr. Lisa Waidner, HMCSE - CEDB	CEDB
Lauren Mills	2/43			SURP
You'll never guess what I community Science and J Engagement to Understa Snook Range Expansion i Florida Panhandle	Angler nd Common	None	Dr. Amanda Croteau, HMCSE - CEDB	Office of Undergraduate Research
Lily Sirois	4/81			SURP
Seagrass beds: analysis o environmental variables a population composition a	gainst	Sierra Rich, Morgan Armstrong, Michael Swords, Rick O'Connor, Thomas Derbes, Chris Verlinde, Barbara Albrecht	Dr. Jane Caffrey, HMCSE - CEDB	Office of Undergraduate Research

POSTER PRESENTATIONS Chemistry

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Julia Beyer	2/24 2/25			SURP
"Furan" for a Surprise What's Really in Baby		Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	Office of Undergraduate Research
Fermentation Information for Kombucha via GCN	-	Kyra Pierce, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Itamar Blau	3/48			SURP
Difluorination of Tetra Derivatives with Water		None	Dr. Jacob Tracy, HMCSE - Chemistry	Department of Chemistry

MAGIC MOMENTS

During my magic moment, I was gathering information on my research topic by interviewing experts in the field. After my interview, my mentor informed me that the expert I had spoken with was very impressed by my abilities as an interviewer and researcher. This skyrocketed my confidence and led to more meaningful preparation that enhanced my understanding of my topic.

- Jonathan Peterson, Summer Light Researcher, Biology

My research magic moment was when I realized I could independently troubleshoot a data analysis issue and explain my approach clearly during a check-in with Dr. Siedlik. That moment gave me a strong sense of capability and ownership over the project, which really boosted my confidence as a developing researcher. This confidence came from a mix of mastery experience and social persuasion; the trust Dr. Siedlik placed in me and the hours I had invested in learning and applying new methods.

- Soni Sherpa, Summer Foundations Researcher, Biology

CHEMISTRY CONT.

Student F	loor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Dominic Bolden	2/36			SURP
Colorimetric Characterization Highly Fluorescent Ligands fo Metal Cation Detection		Bianca Malone, Alana Davis	Dr. Pam Benz, HMCSE - Chemistry	Office of Undergraduate Research; Department of Chemistry; Tanner Endowment
Trent Callahan	3/70			SURP Light
Reactions of copper(I) oxide acids - triphenylphosphine co		None	Dr. Tim Royappa, HMCSE - Chemistry	Office of Undergraduate Research
Yessenia Cintron	1/3			SURP Legacy
Furanyl Derivatives as Renewably Sourced Redoxm	ers	None	Dr. Jacob Tracy HMCSE - Chemistry	UWF Academic Affairs
Alana Davis	2/37			SURP
Computational Analysis of Ligand-Metal Binding		Bianca Malone, Dominic Bolden	Dr. Pam Benz, HMCSE - Chemistry	Tanner Endowment; Department of Chemistry; Office of Undergraduate Research
Shannah Dillman	2/27			
Buzzkill: A Heavy Metal Analysis of Honey		Trent Callahan, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Kyna Finley	2/32			
Gardening of the Galaxy: How Compost can Impact Gr and Nutrient Values of Plants Lunar, and Martian Soil		None	Dr. Karen Barnes, HMCSE - Chemistry	Independent Research

CHEMISTRY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Madison Jordan	3/69			SURP
Cupration of Weak Acids		None	Dr. Timothy Royappa, HMCSE - Chemistry	UWF Academic Affairs
Juan Kearney	3/54			SURP
Functionalization of Cyclo	odextrins	Davis Tran	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research; UWF Academic Affairs
Wyatt Kirkpatrick	3/64			SURP
Macrocyclic Orthoamide Synthesis Methodology E	volution	Feliciano Rivera Rovira	Dr. Ajay Lajmi, HMCSE - Chemistry	UWF Academic Affairs
Chancy Lee	3/50			SURP Light
Synthesis of Trifluorometh Alkynyl Ketones	hyl	None	Dr. Jacob Tracy, HMCSE - Chemistry	Office of Undergraduate Research
Sara Lypko	1/4			SURP Legacy
Synthesis and Crystallizat of Rosocyanine	ion	None	Dr. Tim Royappa, HMCSE - Chemistry	UWF Academic Affairs
Bianca Malone	1/10			SURP Legacy & Former U-RISE
Colorimetric Characteriza Highly Fluorescent Ligand Cation Detection & Comp Analysis of Ligand-Metal	ds for Metal utational	Dominic Bolden, Alana Davis	Dr. Pam Benz, HMCSE - Chemistry	Department of Chemistry; Office of Undergraduate Research; Tanner Endowment
Gia Marsh	2/33			OUR Works
Good as Au: A Comparat Analysis of Girl Scout Coo	ive	George Shannon, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	Office of Undergraduate Research

MAGIC MOMENT

This will be my second year doing SURP, I feel as though even getting the opportunity to do this is already a magic moment. Though if I had to pick a magic moment it would definitely be learning and using all of the instruments, new methods of using them, different modes, ways to utilize them to analyze samples and more, I am always enthusiastic to run instrumentation, even if it is time consuming getting promising results is the magic moment. Having everyone help eachother learn how to use and do everything is also a very communal activity and is rewarding on its own bringing a sort of lab culture to the table.

- Emily Twitchell, Legacy Researcher, Chemistry

CHEMISTRY CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Luiz Martin	3/68			
Triphenylphosphine ami complexes	ide copper(l)	Asa Vormittag, Jade Wheeler	Dr. Tim Royappa, HMCSE - Chemistry	Independent Research
Elizabeth McCon	nell 2/23			
Hocus Crocus? Saffron of Determination and Determination of Adulterants		Samuel Santos, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Daniel Mikus	3/49			SURP
Progress towards Amino Acid-derived Catholyte of use in Redox Flow Batte	dimers for	None	Dr. Jacob Tracy, HMCSE - Chemistry	UWF Academic Affairs
Breonna Munday	2/29			
The Egg-cellent and The A Comparative Analysis Mineral, and Heavy Meta Poultry and Fish Eggs	of Protein,	Jasmine Harrison, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Malane Qi	1/5			SURP Legacy
Development of Environ Benign Electrophilic Cyc Reaction	mentally	Preston Chew, Dr. Tanay Kesharwani	Dr. Ajay Lajmi, HMCSE - Chemistry	UWF Academic Affairs; Office of Undergraduate Research
Ethan Sanz	3/71			SURP Light
Optimization and Scale- Phenylacetylide Synthes		None	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research
Orion Schulte	2/26			
Determination of Furan by GCMSMS	in Coffee	Julia Beyer	Dr. Karen Barnes, HMCSE - Chemistry	Independent Research
Mikayla Swatsch	eno 3/51			U-RISE
Difluorination of Tetram Derivatives with a Green		Benjamin Hensor, Victoria Hennick, Megan Brown	Dr. Jacob Tracy, HMCSE - Chemistry	
Merle Swilley	3/67			SURP
Synthesis of a Calpain Pa Active Site Mimic	rotein	None	Dr. Ajay Lajmi, HMCSE - Chemistry	John Thayer & Joan Ames Burr Undergraduate Research

Reflections in Research: A Student Showcase

During the summer 2024, OUR incorporated a reflective ePortfolio into the summer research 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.

During the summer 2025, OUR expanded the Research ePortfolio program. Students who are participating in summer research for the second time, the "Legacy" students, created more polished professional "showcase" ePortfolios with a public audience in mind - in particular related to future job or graduate school applications. Through Legacy workshops, the students discussed ePortfolio design concepts such as audience awareness, selection of representative work and visuals, and translation of their research experience to career readiness and skills development. This focus on documenting how the research experience transfers to other professional and academic contexts, even students in disciplines that do not typically use ePortfolios as part of their resume package benefit from the discussion and critical thinking involved in its creation.

Please visit the Legacy students' posters alongside their ePortfolios in a special place on the first floor of the building.



POSTER PRESENTATIONS Chemistry

Student Floor/F Davis Tran 3/	Panel 55	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Synthesis of a Unsymmetrical Polyamine Mimicking the Active Sit Carboxypeptidase A		None	Dr. Ajay Lajmi, HMCSE - Chemistry	SURP UWF Academic Affairs
Emily Twitchell 1	/6			SURP Legacy
Synthesizing and purification of an unsymmetrical triazaphenalene-typorthoamide intermediate	oe	None	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research
Guenivier Ward 2/	30			
Where's the Beef?; Taco Meat Anal	lysis	Ava Gallagher, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Chyanne Womack 3/	66			SURP
Synthesis of Triazacyclotridecane		None	Dr. Ajay Lajmi, HMCSE - Chemistry	John Thayer & Joan Ames Burr Undergraduate Research
Hannah Woolson 2/	28			SURP Light
A Pedagogical Synthesis of Aspirin Implementation in a Secondary Sch Chemistry Lesson		None	Dr. Karen Barnes, HMCSE - Chemistry	Office of Undergraduate Research
Taylor Wright 2/	′31			
Hit Me Baby One More Time: Consistency is Key For A Shot of Espresso		Mason Kellner, Orion Schulte	Dr. Karen Barnes, HMCSE - Chemistry	CHM4930 Topics In Adv Chem
Amara Wynder 3/	65			SURP
Palladium Catalyzed Synthesis of Solvent Orange-60		Wyatt Kirkpatrick	Dr. Ajay Lajmi, HMCSE - Chemistry	Office of Undergraduate Research; UWF Academic Affairs

MAGIC MOMENT

My research magic moment was when all my pea plants died and I had to completely redo my testing strategy from scratch. It started as a devastating failure but became a turning point where I realized I could adapt, problem-solve, and keep moving forward despite everything going wrong. This moment reshaped my self-confidence through a messy mix of emotional chaos, reluctant resilience, and the encouragement of mentors who helped me rebuild my experiment and my mindset

- Summer Researcher

POSTER PRESENTATIONS Commerce

Student Joyce Nguyen	Floor/Panel 4/99	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support SURP
How Hotels Can Win on S	Social Media	None	Dr. Xuan V. Tran, LBJCOB, Commerce	Lewis Bear Jr College of Business
Nina Vu	4/100			SURP
Authentic Vietnamese Flavors: Research and Improvement Proposals for Vietnamese Restaurants in Pensacola		None	Dr. Xuan V. Tran, LBJCOB, Commerce	Office of Undergraduate Research

POSTER PRESENTATIONS Computer Science

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Kaio Nasser Silva	3/52			SURP
UWF-ZeekData22		None	Dr. Sikha Bagui, HMCSE - Computer Science	Department of Computer Science
Koa New	4/75			SURP
Studying the Effectiveness Mobile Environment for Do User Situation Awareness App	eveloping	Ka Yan Harrison, Katalina Pho, Dr. Steven Kass, Ayden Craig, Zachary Tisdale, Derrike Nunn	Dr. Thomas Reichherzer, HMCSE - Computer Science	Department of Computer Science
Sebastian	_ /			
Ruiz Maldonado	3/53			SURP
DSCAN on ZeekData to de	etect attacks	None	Dr. Sikha Bagui, HMCSE - Computer Science	Office of Undergraduate Research

MAGIC MOMENT

My research magic moment was when I went to the hotel to collect data and film for my project. Although the weather was expected to be 80 percent rainy that day, the weather turned out to be sunny at that time. The unexpected sunshine not only made filming of higher quality but also boosted my self-confidence because it felt like a sign that things were going to go well.

- Summer Researcher

MAGIC MOMENT

I have no problem telling others about what I am researching, but I never imagined there would be so many people that are interested in what I am doing. Of course, that's probably because it is an everyday activity for me, but I love hearing their genuine intrigue (especially when they ask questions). I even had someone tell me that my notes read like some of the papers they had to take in their grad level classes, and I swear I about cried!

- Damien Cruikshank, Summer Researcher, English



Pictured above: Damien Cruikshank - Close Reading in Action; Inset: Searching for academic sources

Cybersecurity & Information Technology

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Olivia Bunch	3/56			SURP
ARGObot: A Conversation for Academic Advisors to Student Engagement and Information Delivery Using Language Models	Enhance Optimize	None	Dr. Maryam Taeb, HMCSE - Cyber/IT	Office of Undergraduate Research

POSTER PRESENTATIONSEarth & Environmental Sciences

Student Savannah Braswe	Floor/Panel ell 2/15	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support SURP Light
Mapping Water Quality and Thalassia Occurrent Santa Rosa Sound		Jocelynn Lindgren	Dr. Matthew Schwartz, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research
Jocelynn Lindrer	n 2/14			SURP
Mapping Water Quality and Thalassia Occurrence Santa Rosa Sound		Savannah Braswell	Dr. Matthew Schwartz, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research
Alex MacDonald	4/82			SURP Light
CURE-Based Learning in STEM Education	ר	None	Emily P. Harris, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research

EARTH & ENVIRONMENTAL SCIENCES CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Aspen Schelonka	2/18			SURP
University of West Florida Campus Ecosystem Study Effects of Permanent Ope on Longleaf Pine Regener	v: enings	Sydney Howard, Alyssa Sosa, Oliver Smith	Dr. Frank Gilliam, HMCSE - Earth & Environmental Sciences	Department of EES; Office of Undergraduate Research; John Thayer & Joan Ames Burr Undergraduate Research
Taylor Smith	4/74			SURP
Investigation of Land Use Changes Under Projected Level Rise Regimes		None	Dr. John D. Morgan, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research
Avi Williams	4/83			SURP Light
The Ripple Effect: Research in General Education	ch	None	Emily P. Harris, HMCSE - Earth & Environmental Sciences	Office of Undergraduate Research

POSTER PRESENTATION Electrical & Computer Engineering

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Faith Buttitta	4/86			SURP Light
Maximizing Flight Durat Power Systems for UAV	•	Christian Marcellino, Mike Redmyer, Kaitlyn Williams, Daniel Nascimento de Andrade	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Office of Undergraduate Research; Bear Family Foundation Eng Program; Webb Electric Company of Florida, Inc.
Jonathan Lavoie	4/91			SURP
Launching UWF to Robe Mechanical Interactions		None	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Gulf Power Engineering Fund
Jade Palewicz	4/92			SURP
Launching UWF to Robe Computer Vision	oSub 2025:	None	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Webb Electric Company of Florida, Inc.

ELECTRICAL & COMPUTER ENGINEERING CONT.

Student Codi Petersen	Floor/Panel 4/93	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support SURP
Launching UWF to Robo Tagging System Design	sub 2025:	None	Dr. Tarek Youssef, HMCSE - Electrical & Computer Engineering	Gulf Power Engineering Fund
Carson Salvator	4/90			SURP Light
Battlefield-Integrated Reconnaissance Drone (E	BIRD)	Brooke Babin, Keanu Peoples	Dr. Hakki Sevil, HMCSE - Electrical & Computer Engineering	Office of Undergraduate Research
Magdalena Vongkasemsiri	2/17			SURP
Investigating the Release and Microplastics by 3D		None	Sam Russel, HMCSE - Electrical & Computer Engineering	Office of Undergraduate Research

POSTER PRESENTATIONS

English

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/
Alex (Damien)	_			Funding Support
Cruikshank	2/19			OUR Works + SURP
To Err is Human: An Anal as a Social Construct as I in Vivienne Medrano's Ha and Helluva Boss	Portrayed	None	Dr. Kevin Scott, CASSH - English	Office of Undergraduate Research

POSTER PRESENTATIONS Mathematics & Statistics

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Dru Adams	4/94			SURP
Temporal Trends in Sea T Effects of Environmental and Anthropogenic Even		None	Dr. Samantha Seals, HMCSE - Mathematics & Statistics	Office of Undergraduate Research
Atiye Buker	2/21			SURP
Feature Engineering for S Assessing Clinical Trial Fe		None	Dr. Achraf Cohen, HMCSE - Mathematics & Statistics	Department of Mathematics & Statistics

MATHEMATICS & STATISTICS CONT.

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support
Geru Mejia Rojas	s 4/89			SURP
Random construction o spaces and Steiner syst		None	Dr. Jorge Flores, HMCSE - Mathematics & Statistics	Office of Undergraduate Research
Emmanuel Pa	aalam 1/7			SURP Legacy
Accelerating Feasible Clinical Trial Design: A Machine Learning Study Using Features Engineered from Unstructured and Tabular AACT Data		None	Dr. Achraf Cohen, HMCSE - Mathematics & Statistics	Department of Mathematics & Statistics
Brianna Perea	1/8			SURP Legacy
Kumaraswamy Exponer Odds Ratio Family of D		Declan McGurk, Sean Fang, Michael Fang	Dr. Shusen Pu, HMCSE - Mathematics & Statistics	Office of Undergraduate Research; UWF Academic Affairs

POSTER PRESENTATIONS Mechanical Engineering

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support	
Kira Benton 4/76				SURP	
Sonoluminescence within a Magnetic Field		None	John Stutz, HMCSE - Mechanical Engineering	Office of Undergraduate Research	
Vanessa Lopez 4/84					
Matrix Configurations for Carbon-Reinforced Runnin Specific Prosthesis (RSP)	ng	None	Dr. Maher Amer, HMCSE - Mechanical Engineering	Office of Undergraduate Research	
Andrew Puharic	2/16			SURP	
NASA HERC RC Rover		None	Dr. Maher Amer, HMCSE - Mechanical Engineering	Bear Family Foundation Engineering Program	
Ethan Shelstad	4/85			SURP	
Mycorrhizae Signal Detection and Processing		None	Dr. Maher Amer, HMCSE - Mechanical Engineering	Bear Family Foundation Engineering Program	
Kaitlyn Williams	4/77			SURP	
An Analysis of Mach-depe Decrease in Drag on Inver Nozzle Projectile Bases		None	John Stutz, HMCSE - Mechanical Engineering	Office of Undergraduate Research	

POSTER PRESENTATIONS Movement Sciences & Health

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support		
Ava Baldauf 2/39				SURP		
Plantar cutaneous sensit parameters in patients wankle instability	-	Jamie Campbell	Dr. Jeffrey Simpson, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Kristen Bouingto	n 2/38			SURP		
Investigating the effect of Transcutaneous Vagus N Stimulation (tVNS) on paramanagement in knee and osteoarthritis	erve ain	None	Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Alana Centeno Sanchez	2/41			SURP		
The Effect of Daily Strete Mobility and Functional I in First Responders	ching on	None	Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Emily Miller	3/72			SURP		
Barriers and Facilitators and Use of Sport Perform Data Among Collegiate S Coaches	mance Analytic	None	Dr. John Todorovich, UKCOH - Movement Sciences & Health	Usha Kundu, MD College of Health		
Jonathan Peterso	on 3/73			SURP		
Analyzing Soccer Coache Understanding on their U Athletes' Data		Emily Miller	Dr. John Todorovich, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Henry (Fisher) Pi	ke 4/88			SURP		
The Effect of Whole-Boo Therapy on Perceived Pe Recovery in Collegiate A	erformance and	Marina Winans	Marina Winans & Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Hayden Struckel	4/87			SURP		
Targeted Neuromodulati Shiftwave Chair: Advance Management and Quality Individuals with non-spe low back pain	ing Pain ⁄ of Life in	Marina Winans, Jessica Corpuz	Dr. Armaghan Mahmoudian, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		
Sophie Tarantino	2/40			SURP		
Investigating the impact dual tasking and knee m on gait characteristics in athletes	uscle fatigue	Jamie Campbell	Dr. Jeffrey Simpson, UKCOH - Movement Sciences & Health	Office of Undergraduate Research		

MAGIC MOMENTS

My Summer 2025 experience has allowed me to grow into a resilient scientist with an even greater passion for seabirds, especially the Black Skimmer. I found myself having to shift gears on my project from the time I submitted my proposal to weeks before the end of the summer symposium; however, these obstacles opened my eyes to the reality of research in this field and the value of an open mind and flexibility.

One of my most memorable experiences while conducting this study had to be when I was collecting water samples with my little brother near a nesting colony. As we were walking along the beach to the second sampling site, we came across two coastal stewards who showed us through their telescopes the new baby Black Skimmer hatchling with its parents. This was a very special moment for me that further instilled my drive to learn about these seabirds and hopefully contribute to the protection of this species through the completion of my project.

- Katherine Lundgren, Legacy Researcher, Biology

My research magic moment was when I got my first interview for my soccer analytic research.

I felt over the moon to finally see it come together for the first time. After the interview I was overjoyed with the confidence t
hat I just spoke to someone at a hug University who took the time to talk with me on my topic.

- Emily Miller, Summer Researcher, Exercise Science

POSTER PRESENTATIONS

Physics

Student	Floor/Panel	Co-Author(s)	Faculty Mentor	Summer Program/ Funding Support	
Madalyn Chavarria Service	2/13			SURP	
Spectral profiling of a mixture of Raman active gasses for LiDAR applications		None	Dr. Aaron Wade, HMCSE - Physics	Office of Undergraduate Research	
Arav Jain	1/9			SURP Legacy	
Computational Study to Relationship Between th shift and Pressure of Gas Molecule Interactions	e Raman	None	Dr. Aaron Wade, HMCSE - Physics	John Thayer & Joan Ames Burr Undergraduate Research	

Public Health

Student	tudent Floor/Panel		Faculty Mentor	Summer Program/ Funding Support SURP		
Claudi Li	2/20			SURP		
Barriers and Facilitators of Accessing Mental Health Services Among College-Going Youth		None	Dr. Karishma Chhabria Unrue, UKCOH - Public Health	John Thayer & Joan Ames Burr Undergraduate Research		

Supporting Student Research and Professional Growth

Benefits of Summer Research:

During the summer, we take student research to the next level through our summer research programs. 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 significant time and energy to their research projects under the close supervision of a faculty member, research students work with OUR throughout the summer to develop professional skills, such as communicating their research to various audiences, connecting research to job-ready skills, and learning how to network.



Professional Development Workshops:

Summer Research 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. Some examples of these workshops include "Chalk Talks" and the Mocktail Networking Party.

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 research 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, and other departments to attend and talk with the research 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.



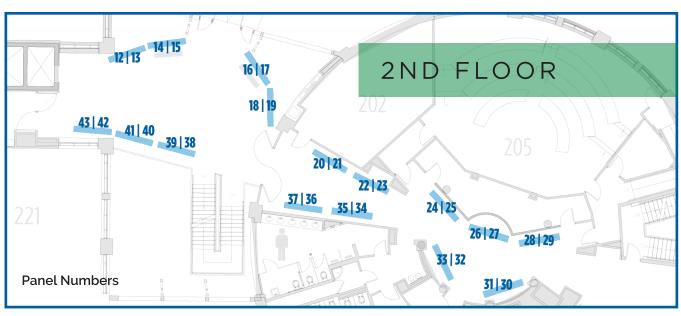
Empowering Research at Every Level

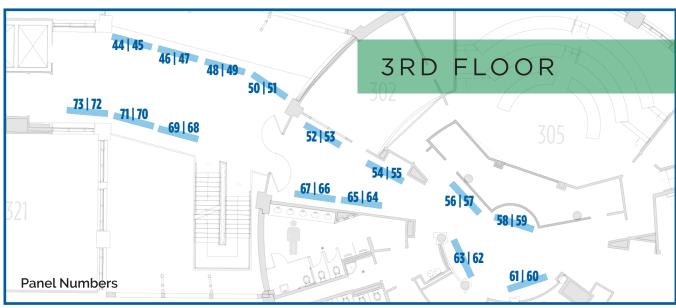
The Office of Undergraduate Research (OUR) is a centralized office that supports student and faculty engagement in undergraduate research campus-wide. This support occurs through (1) student programs, (2) faculty programs, and (3) advocacy and engagement in the campus community. At UWF, students who 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.





POSTER PRESENTATIONS MAP







LAST	FIRST	FL/	Panel #	LAST	FIRST	FL/	'Panel #
Adams	Dru	4	94	Malone	Bianca	1	10
Allgeyer	Julia	3	44	Marsh	Gia	2	33
Bacon	Sean	3	57	Martin	Luiz	3	68
Baldauf	Ava	2	39	McConnell	Elizabeth	2	23
Benton	Kira	4	76	McGurk	Declan	2	34
Beyer	Julia	2	24	Mejia Rojas	Geru	4	89
Beyer	Julia	2	25	Mikus	Daniel	3	49
Blau	Itamar	3	48	Miller	Emily	3	72
Bolden	Dominic	2	36	Mills	Lauren	2	43
Bouington	Kristen	2	38	Munday	Breonna	2	29
Braswell	Savannah	2	15	Murphy	Kainan	4	97
Brown	Natasha	4	78	Nasser Silva	Kaio	3	52
Bruner	Bonnie	1	1	New	Koa	4	75
Buker	Atiye	2	21	Nguyen	Joyce	4	99
Bunch	Olivia	3	56	Paalam	Emmanuel	1	7
Buttitta	Faith	4	86	Palewicz	Jade	4	92
Callahan	Trent	3	70	Perea	Brianna	1	8
Centeno Sanchez	Alana	2	41	Petersen	Codi	4	93
Chavarria Service	Madalyn	2	13	Peterson	Jonathan	3	73
Cintron	Yessenia	1	3	Pike	Henry (Fisher)	4	88
Constant	Emma	2	35	Puharic	Andrew	2	16
Cruikshank	Alex (Damien)	2	19	Qi	Malane	1	5
Davis	Alana	2	37	Ruiz Maldonado	Sebastian	3	53
Dillman	Shannah	2	27	Salandy	Zoe	3	46
Duval	Dustin	4	95	Salvator	Carson	4	90
Feldman	Jacob	2	42	Sanz	Ethan	3	71
Finley	Kyna	2	32	Schelonka	Aspen	2	18
Flannigan	Joseph	3	60	Schulte	Orion	2	26
Goodman	Carly	3	58	Shelstad	Ethan	4	85
Gray	Alyssa-James	4	96	Sirois	Lily	4	81
Hanners	Caleb	3	63	Smith	Taylor	4	74
Heenan	Chelsey	3	47	Struckel	Hayden	4	87
Hubbard	Ella	3	45	Swatscheno	Mikayla	3	51
Jain	Arav	1	9	Swilley	Merle	3	67
Jiang	Jefferson	2	22	Tarantino	Sophie	2	40
Jordan	Madison	3	69	Tomlinson	Evan	4	79
Joseph	Josephine	2	12	Tran	Davis	3	55
Kearney	Juan	3	54	Turpin	Hunter	4	98
Kirkpatrick	Wyatt	3	64	Twitchell	Emily	1	6
Kliche	Alayna	3	61	Vongkasemsiri	Magdalena	2	17
Knight	Imani (Dante)	4	80	Vu	Nina	4	100
Lavoie	Jonathan	4	91	Ward	Guenivier	2	30
Lee	Chancy	3	50	Williams	Tate	1	11
Li	Claudia	2	20	Williams	Kaitlyn	4	77
Lindgren	Jocelynn	2	14	Williams	Avi	4	83
Lopez	Vanessa	4	84	Wimberly	D'Juan	3	59
Lundgren	Katherine	1	2	Womack	Chyanne	3	66
Lypko	Sara	1	4	Woolson	Hannah	2	28
Lyublanovits	Bryley	3	62	Wright	Taylor	2	31
MacDonald	Alex	4	82	Wynder	Amara	3	65
MacDonald	HICK	4	02	vvyridei	Alliala	3	05

More MAGIC MOMENTS

My Research magic moment was when I started to gradually improve my code after trying many different approaches. It was really motivating because I felt that I was able to get great results by using my creativity. My mentor was really helpful throughout the process of improving my programs since he is always willing to answer my questions. Also, it impacted my confidence because at the very beginning I was not sure if I was going to understand some complex concepts of mathematics but now I feel that I can explain what I am studying in detail. The events that contributed to this moment were our meetings with me mentor and just my persistent attitude to spend several hours a day to understand the concepts of my project and improve my methods to get better findings..

- Geru Mejia Rojas, Summer Researcher, Mathematics & Statistics

My research magic moment was when I went on my first big data collection trip out in the field. It was a whole day packed with snorkeling, collecting samples, and learning field techniques I had never heard of before. It was the first time in this project that I really felt I 'belonged' in research; the trip really helped kick my imposter syndrome. The moment really boosted my self-confidence in ways I didn't expect. Although I went in knowing absolutely nothing, I left that trip feeling so much more knowledgeable and capable. My mentor, the amazing Dr. Caffrey, never discouraged me from asking the 'embarrassing' questions, and made sure I was both learning and having fun. My lab partner, Sierra Rich, did a very similar project last year; she basically took me under her wing and helped me through the motions...I'm honestly really bummed that the project is nearly over - my work with them has been, without a doubt, the best school experience I've ever had.

I remember her first time showing me how to gauge percent coverage with the quadrats while snorkeling...

I was so scared of getting it wrong, but she eased my nerves and figured out how to teach me in the ways I learn best.

In slower moments when we had breaks to chat, Dr. Caffrey took the time explaining the local ecology and how things related to the species we were studying. She does a fantastic job at meeting me where I am and breaking things down to the informational level I need. Having the both of them as my guides in the field seriously made so many valuable moments that I will never forget. They're truly, in a positive way, shaping me into the independent researcher I will soon become...



- 1. Magdalena Vongkasemsiri assembling the sensor boxes for printer emissions.
- 2. Lily Sirois recording Halodule wrightii, macroalgae, and epiphytes at a Santa Rosa Sound collection site.
- 3. Avi Williams and Alex MacDonald working with their faculty mentor on determining best places to install air quality sensors used for the Introduction to Earth Sciences course and the course-based undergraduate research experience focused on investigating local air quality trends.
- ${\it 4. Emmanuel Paalam}\ formally\ posing\ with\ his\ SURP\ 2025\ research\ presentation\ poster.$



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