

THE SUMMER UNDERGRADUATE RESEARCH PROGRAM (SURP) HAS GIVEN ME THE OPPORTUNITY TO BUILD CONNECTIONS WITH PROFESSORS ON CAMPUS AND PURSUE RESEARCH AT MY UNIVERSITY. I'VE LEARNED VALUABLE FIELD SURVEY SKILLS, HOW TO COMMUNICATE EFFECTIVELY WITH MY LABORATORY TEAM, AND IT HAS INSPIRED ME TO CONTINUE FURTHER RESEARCH HOPEFULLY AT THE GRADUATE LEVEL.

- Sierra Landreth, December 2022
Dr. Susan Piacenza, Mentor



Photos taken of green sea turtles by Sierra Landreth at the Navarre Beach Fishing Pier during field surveys.

Presentation panel #19.

SURP HAS HELPED ME BUILD VALUABLE PROFESSIONAL SKILLS THAT ARE EXTREMELY USEFUL IN MANY DIFFERENT PRACTICES. IT HAS ALSO GIVEN ME THE OPPORTUNITY TO WORK ON A PROJECT THAT I HAVE HAD ON MY MIND FOR QUITE A LONG TIME THAT HAS A LOT OF POTENTIAL.

- Matt Carlson, December 2021
Dr. Christopher Varney, Mentor

Presentation panel #2



SURP HAS ALLOWED ME TO HEAVILY ADVANCE MY PHYSICAL LAB SKILLS AND TEACH ME HOW TO BE MORE RESOURCEFUL WITH MY TIME AND ENERGY.

- Cooper Catalani, Spring 2023
Dr. Hui-Min Chung, Mentor

Cooper Catalani reseraching fruit flies in Dr. Chung's lab

Presentation panel #9

7th Annual
SUMMER
RESEARCH
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2021
August 12

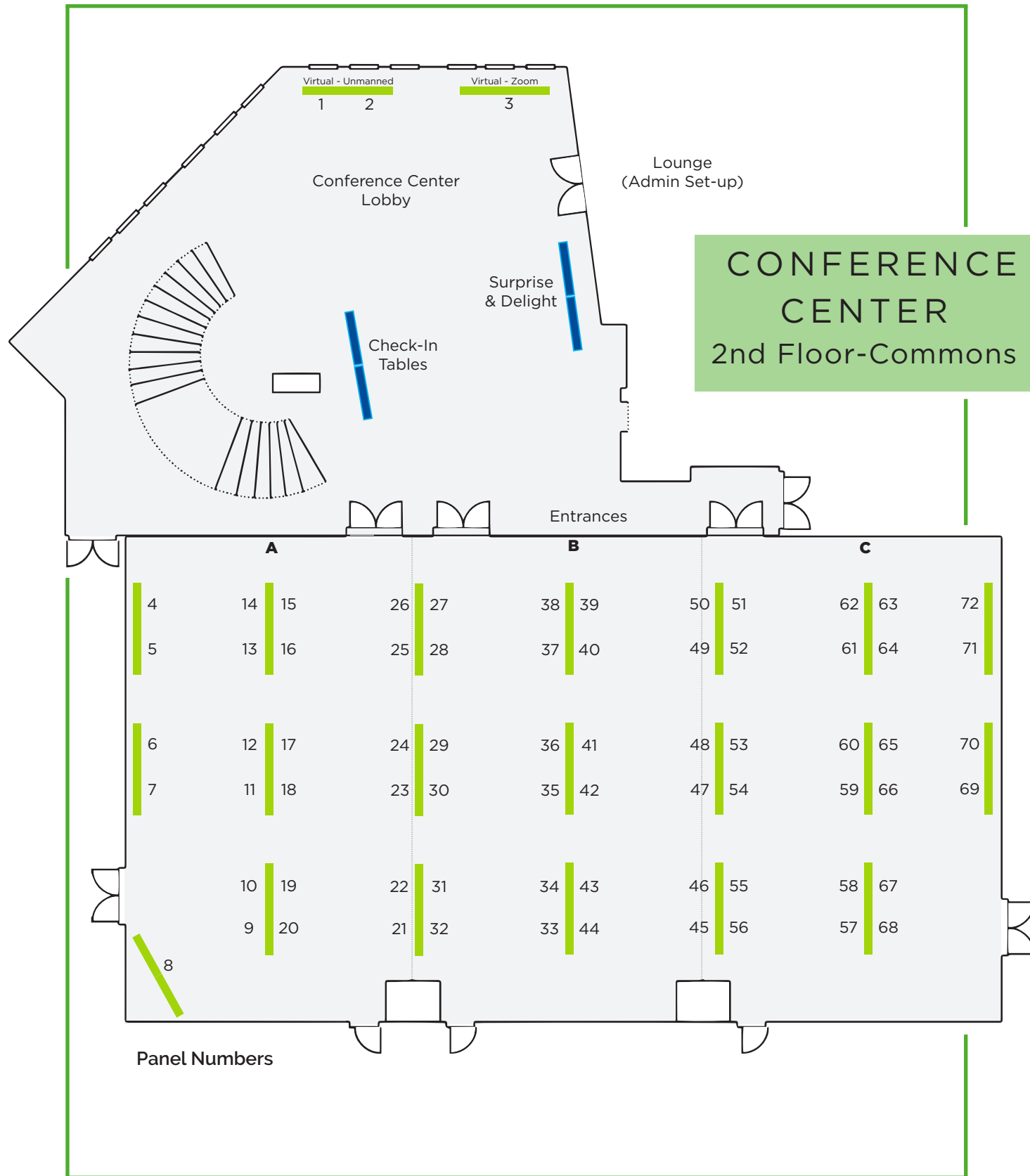


UNIVERSITY of
WEST FLORIDA | Hal Marcus College of
Science and Engineering

SURP

SUMMER
UNDERGRADUATE
RESEARCH PROGRAM

POSTER PRESENTATIONS MAP



FUNDING FOR MANY OF THE PROJECTS CAME FROM THE FOLLOWING ENDOWMENTS:

AppRiver

Burr Family

Hal Marcus

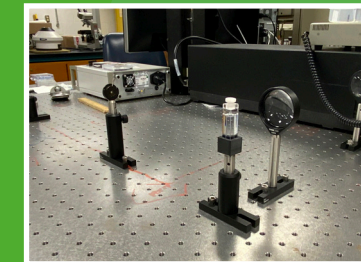
Mullet Family

Office of Undergraduate Research (OUR)

National Institutes of Health (NIH)

The Hal Marcus College of Science and Engineering (HMCSE) celebrates student-centered research by our faculty and research staff. The 2021 Summer Undergraduate Research Program (SURP) is the seventh year in which we have invested in an intensive undergraduate research experience requiring selected students to devote 250 or more hours to a research project under close supervision of a faculty mentor.

Additionally, HMCSE faculty 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 HMCSE and OUR summer research efforts by our faculty, staff, and students.



Poster Session

10:00 a.m. - 12:00 p.m.
UWF Conference Center

Poster presentations are listed by department with the student's **Panel #** (see map to the left) next to their name.

SURPRISE & DELIGHT:

Be sure to stop in the 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.

Jeanell Varnadore #14***Scoliosis, Kyphosis, Lordosis: Frequencies in the New Mexico Decedent Image Database***Faculty Mentor(s): Dr. Allysha Winburn, CASSH-Anthropology
Funding or other research support: OUR
Student College: CASSH - Anthropology**Genna Edwards #57*****Variability in SUID Determinations: Resource Limitations, Perceptions of Bias/Noise, or Emotional Factors Influencing Sleep-Related Infant Death Reporting in Florida***Faculty Mentor(s): Dr. Meredith Marten, CASSH-Anthropology
Funding or other research support: OUR
Student College: CASSH - Anthropology**Zhariyah James #13*****Abfraction Lesions: Analyzing the Cause by Identifying Similarities***Faculty Mentor(s): Dr. Allysha Winburn, CASSH-Anthropology
Funding or other research support: OUR
Student College: HMCSE - Biomedical Sciences

My participation in SURP has improved my knowledge in not only my discipline, but also a discipline I did not know I was interested in. I did not think I could ever achieve this, especially while an undergraduate, and I am more confident in my work. I feel more professional, self-assured, and I believe I have something over my peers since having this experience. Working with an amazing faculty mentor showed me that I can achieve a lot through this program. You can start your professional career before even getting your degree.

- Zhariyah James, May 2024



Sunny Doan researching fruit flies in Dr. Hui-Min Chung's biology lab.

Cooper Catalini #9***The Effect of Alcohol Dehydrogenase Enzyme Activity in Maintaining Health of Fruit Flies***Co-Author(s): Sunny Doan
Faculty Mentor(s): Dr. Hui-Min Chung, HMCSE-Biology
Funding or other research support: AppRiver
Student College: HMCSE-Biomedical Sciences
(picture on back cover)**Adrienne Eslaquit #15*****Comparison of fish communities at recently developed vs. established artificial reefs in the northern Gulf of Mexico***Faculty Mentor(s): Dr. Susan Piacenza, HMCSE-Biology
Funding or other research support: AppRiver
Student College: HMCSE-Marine Biology**Makailyn Hernandez #4*****Metabolic Temperature Sensitivity of Different Species of Killifish (Fundulus spp.)***Co-Author(s): Lauren Bantista, Dr. Wayne Bennett
Faculty Mentor(s): Dr. Wayne Bennett, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Marine Biology**Lauren Bednaroski #16*****Validating sea turtle morphometrics by comparing manual and remote measurements of individuals held at rehabilitation facilities across the state of Florida via stereo-video cameras***Co-Author(s): Emma Roberto
Faculty Mentor(s): Dr. Susan Piacenza, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Marine Biology

Lauren Bednaroski swims next to a sea turtle during her research.

Dhanvi Patel #18***Analyzing CSF Tau Concentrations in Alzheimer's Disease and Control Patients***Faculty Mentor(s): Dr. Rodney Guttman, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Biomedical Sciences

Pensacola sunrise and science: these plastic tubes are used to collect environmental DNA (eDNA) in the water at Pensacola Beach.

Carolyn Hornfeck #17***Identifying Trophic Structures and Roles of Elasmobranchs using Environmental DNA and Metabarcoding***Co-Author(s): Melissa Schreiner, Bailey Walkinshaw
Faculty Mentor(s): Dr. Alexis Janosik, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Marine Biology**Sierra Landreth #19*****Creating a Sea Turtle Photograph Identification Database at Navarre Beach Pier***Co-Author(s): Dr. Susan Piacenza
Faculty Mentor(s): Dr. Susan Piacenza, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Marine Biology
(picture on back cover)

Jackson Reimer performs a stereo-video camera survey at Pensacola Beach Pier.

Jackson Reimer #20***Does fishing pier environmental footprint influence sea turtle occupancy and bycatch?***Co-Author(s): Lauren Bednaroski, Emma Roberto, Tabitha Siegfried, Christopher Noren, Dr. Susan Piacenza
Faculty Mentor(s): Dr. Susan Piacenza, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Biology**Terelan Le #26*****Creating a Sea Turtle Photograph Identification Database at Navarre Beach Pier***Co-Author(s): Kieu Tran, Dr. Prerna Masih, Dr. Tanay Kesharwani
Faculty Mentor(s): Dr. Prerna Masih, HMCSE-Biology
Funding or other research support: Hal Marcus Endowment
Student College: HMCSE-Biomedical Sciences**Jordan Kleinschmidt #24*****Regeneration in Marine Sponge Species***Faculty Mentor(s): Dr. Alexis Janosik, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Marine Biology**Elizabeth Everett #23*****Biofilm: The New Threat of Marine Litter***Faculty Mentor(s): Dr. Alexis Janosik, HMCSE-Biology
Student College: HMCSE-Marine Biology**Allie Linkous #11*****Modulating Calpain Activity by LSEAL***Co-Author(s): Maddy Scott, Sydney Truax
Faculty Mentor(s): Dr. Rodney Guttman, HMCSE-Biology
Funding or other research support: OUR
Student College: HMCSE-Biomedical Sciences**Adrian Moreno #10*****Investigating the Microbial Variants in Kombucha and Its Effect on Reproduction and Motor Activity in Drosophila melanogaster***Faculty Mentor(s): Dr. Hui-Min Chung, HMCSE-Biology
Funding or other research support: Mullet Family Endowment
Student College: HMCSE-Chemistry/Biochemistry



Sarah Rabinowitz researching UWF's very own campus as an ecosystem by measuring and collecting longleaf pine sections from the Edward-Ball Nature Trail and the Baars-Firestone Wildlife Sanctuary.

Sarah Rabinowitz #5
The University of West Florida campus ecosystem study: using dendrochronology to analyze tree growth of longleaf pines
 Co-Author(s): **Heather Patten**, Dr. Frank Gilliam
 Faculty Mentor(s): Dr. Frank Gilliam, HMCSE-Biology
 Student College: HMCSE-Environmental Sciences

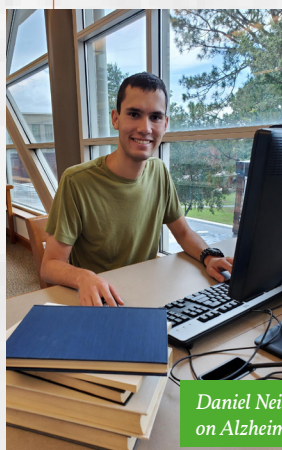
Naomi Semaan #22
Investigating the Molecular Nature of Light and Alcohol responding genes in *Donax variabilis*
 Faculty Mentor(s): Dr. Hui-Min Chung, HMCSE-Biology
 Funding or other research support: Mullet Family Endowment
 Student College: HMCSE-Biomedical Sciences



Andrew Brown conducting bacteriophage research.

Andrew Brown #21
Exploring Marine Phage Hunting Using Host-Specific and Metagenomic Approaches
 Co-Author(s): **Emma Roberto**
 Faculty Mentor(s): Dr. Hui-Min Chung, HMCSE-Biology
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology

Bailey Walkinshaw #25
Turning to natural samplers: exploring the potential of sponges as a reservoir for environmental DNA
 Co-Author(s): **Samantha Engster**
 Faculty Mentor(s): Dr. Alexis Janosik, HMCSE-Biology
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology



Daniel Neidigk reviewing current literature on Alzheimer's disease.

Daniel Neidigk #1 (virtual)
Writing Project on Directed Evolution to Develop a Treatment for Alzheimer's Disease
 Co-Author(s): Dr. Rodney Guttman
 Faculty Mentor(s): Dr. Rodney Guttman, HMCSE-Biology
 Funding or other research support: OUR
 Student College: HMCSE-Biomedical Sciences



Hunter Rider holding a Blacktail Redhorse specimen collected from the Conecuh River.

Hunter Rider #29
A Race Against Time: Detecting the River Redhorse in the Escambia River using environmental DNA Metabarcoding
 Faculty Mentor(s): Dr. Alexis Janosik, HMCSE-Biology
 Funding or other research support: OUR
 Student College: HMCSE-Biology

Angelina Walling #30
Exploring Environmental and Pathogenic Microbial Diversity within our Community
 Co-Author(s): **Aliyah Sylvester**
 Faculty Mentor(s): Dr. Jeanetta Floyd, HMCSE-Biology
 Funding or other research support: OUR
 Student College: UKCOH-Psychology

Angelina Walling beginning the protocol for extraction of DNA from the soil samples collected from local areas



Courtney Collins research focuses on how to improve coral survival rates during times of increased water temperatures.

Courtney Collins #27
The Removal and Reintroduction of Symbiodiniaceae in *Montipora carpicornis*
 Co-Author(s): **Anthony Alberda**, Dr. Jane Caffrey
 Faculty Mentor(s): Dr. Jane Caffrey, HMCSE-CEDB
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology

Hope Ebert #28
Water Quality at Bruce's Beach
 Co-Author(s): **Julianna O'Bar**, Dr. Jane Caffrey
 Faculty Mentor(s): Dr. Jane Caffrey, HMCSE-CEDB
 Funding or other research support: OUR
 Student College: HMCSE-Graduate Student, Biology

Alexia Figueroa #38
Short Term Variability in Sulfide Levels and the Effect on Seagrass Beds
 Faculty Mentor(s): Dr. Jane Caffrey, HMCSE-CEDB
 Funding or other research support: OUR
 Student College: HMCSE-Biology

Jessica Marquis #37
Using Citizen Scientists for Seagrass Monitoring
 Faculty Mentor(s): Dr. Jane Caffrey, HMCSE-CEDB
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology

Erica Kim #31
Worth the Hype? A Comparative Analysis of *Centella Asiatica* Components in Cosmetics Using Solid Phase Micro-Extraction (SPME) and Gas Chromatography-Mass Spectrometry (GC-MS)
 Co-Author(s): **Kate Harper**, Dr. Karen W. Barnes
 Faculty Mentor(s): Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Biochemistry

Corey Akerson #39
Synthesis of an Unsymmetrical Polyamine
 Faculty Mentor(s): Dr. Ajay Lajmi, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Biomedical Sciences

Lauren Carnley #32
Fruit for Thought: Authenticity of Citrus Flavors Used in Alcoholic Beverages
 Co-Author(s): **Kate Harper, Erica Kim**, Dr. Karen W. Barnes
 Faculty Mentor(s): Dr. Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Biomedical Sciences



Valentina Duque Castano not presenting
Synthesis of Copper (I) Acetylides
 Faculty Mentor(s): Dr. Tim Royappa, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Chemistry/Biochemistry



Joel Lukens working to better understand how the biological world functions through the chemistry of our environment.

Joel Lukens #34
To Bloom or Not to Bloom: Using Molecular Environments to Control Overall Fitness of Dinoflagellates
 Co-Author(s): **Dave Kawula**, Dr. Karen W. Barnes
 Faculty Mentor(s): Dr. Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology

Hal Marcus embodied the Argo Spirit.

Harold E. Marcus was a revered figure in the Pensacola community. He could often be found cheering on the Argos at UWF football games, dining with students on campus, hosting bingo nights at the Azalea Trace Retirement Community, or attending services at Temple Beth-El. As a longtime supporter of the University of West Florida, Hal gifted \$5 million to UWF in 2016, creating the first-named college, the Hal Marcus College of Science and Engineering.

Throughout the years, Hal, and his late wife Pat, generously provided scholarship support and funding resources for UWF initiatives, including the Archaeology Department, the Research Experience Away Program, and the Pat & Hal Marcus Excellence Scholarship. However, his most prominent gift, the naming of the College of Science and Engineering, has served to enhance the student experience and raise the profile of science and engineering programs at the University. In addition, the gift has created new opportunities for students in the STEM disciplines, making them more competitive for the best available jobs in the state or acceptance into the highest quality graduate programs in the nation.

Because of Hal's generosity, the college has been able to fund, in part or full, the following:

- Summer Undergraduate Research Program
- Research Away Experience Program
- BioBoot Camp
- STEM Living Learning Community
- Student Scholarships
- Great Minds lecture series
- Graduate Student Research Awards
- Graduate Assistantships
- Chemistry and Math success sessions
- Faculty and student research equipment

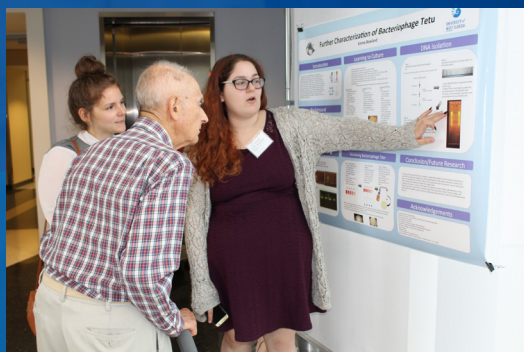
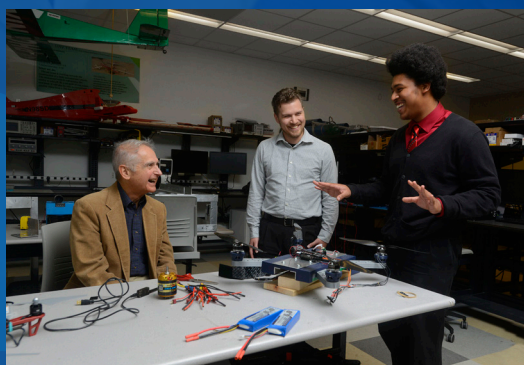
Hal's generosity is felt in all parts of the college. Because of him, student lives have been forever changed.

I HAVE MADE NUMEROUS INVESTMENTS OVER THE YEARS, BUT THE INVESTMENT IN EDUCATION IS THE BEST ONE I HAVE EVER MADE.

- Hal Marcus



Thank you, Hal Marcus!



We are forever grateful to you!

Leia Fannin #52
SALDI-MS of Real World Samples
 Co-Author(s): **Michelle Lapak, Taylor Best, Victoria Drake, Rosemary Nguyen**, Dr. Karen Molek
 Faculty Mentor(s): Dr. Karen Molek, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Chemistry

Kate Harper #33
The Future of Fragrance: An Analysis of Volatiles in Citrus Perfumes by SPME and Liquid Extraction GCMS
 Co-Author(s): **Erica Kim**, Dr. Karen W. Barnes
 Faculty Mentor(s): Dr. Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Chemistry



Anne Harper placing a sample vial into the HPLC 2.

Anne Harper #64
Photo-Chemically Produced Reactive Oxygen Species by Motor Oils
 Co-Author(s): **Ian Parker, Lauren Heidenreich**
 Faculty Mentor(s): Dr. Pam Benz, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Chemistry

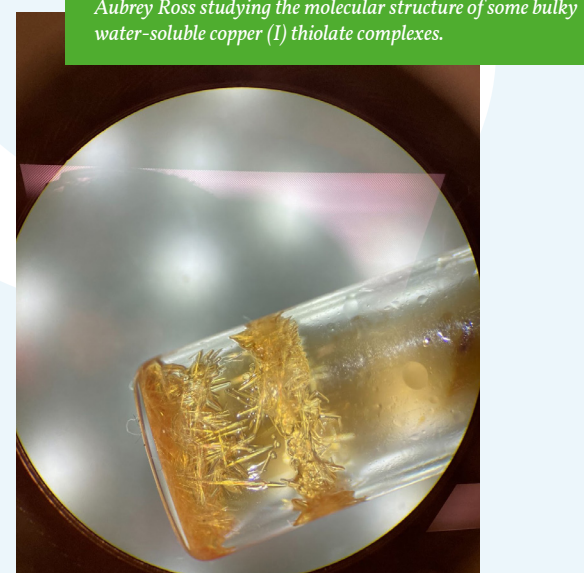
Dave Kawula #35
Heavy Metal Determination in Local Watersheds Considered for Human Habitation
 Co-Author(s): **Joel Lukens**, Dr. Karen W. Barnes
 Faculty Mentor(s): Dr. Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Marine Biology

Patrick Luciani #36
Fool's Gold: An Exploration of Authenticity of Saffron by FTIR
 Co-Author(s): **Elise Mueller, Erica Kim, Kilea Yetter, Amanda McFarland**, Dr. Karen W. Barnes
 Faculty Mentor(s): Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Chemistry

Summer Mando #41
Spice of Life: Determination of Volatile Components in a Variety of Saffrons Using SPME-GCMS
 Co-Author(s): **Erica Kim, Kate Harper, Lauren Carnley, Amanda McFarland**, Dr. Karen W. Barnes
 Faculty Mentor(s): Karen Barnes, HMCSE-Chemistry
 Student College: HMCSE-Biomedical Sciences

Amanda MacFarland Not presenting
Spice of Life: Determination of Volatile Components in a Variety of Saffrons Using SPME-GCMS
 Co-Author(s): **Lauren Carnley, Kate Harper, Erica Kim, Tracey Holliday**, Dr. Karen W. Barnes
 Faculty Mentor(s): Karen Barnes, HMCSE-Chemistry
 Funding or other research support: Burr Family Endowment
 Student College: HMCSE-Chemistry

Aubrey Ross #50
Molecular Structure of Some Bulky Water-Soluble Copper(I) Thiolate Complexes
 Co-Author(s): **Audrey Steman**
 Faculty Mentor(s): Dr. Tim Royappa, HMCSE-Chemistry
 Funding or other research support: Burr Family
 Student College: HMCSE-Chemistry



Aubrey Ross studying the molecular structure of some bulky water-soluble copper (I) thiolate complexes.

Shane Miller #49
Optimizing Synthesis of Copper(I)-Hexynide
 Faculty Mentor(s): Tim Royappa, HMCSE-Chemistry
 Student College: HMCSE-Chemistry

Elise Mueller #43
Bluer than Blue: Study of the Response of Anthocyanins in Butterfly Pea Flower, Red Cabbage, and Fruit Juices
 Co-Author(s): **Patrick Luciani, Kate Harper**, Dr. Karen W. Barnes
 Faculty Mentor(s): Karen Barnes, HMCSE-Chemistry
 Funding or other research support: OUR
 Student College: HMCSE-Biomedical Sciences

Jeremy Redfern #40
SALDI-MS of Real World Samples
 Co-Author(s): **Michelle Lapak, Taylor Best, Victoria Drake, Rosemary Nguyen**, Dr. Karen Molek
 Faculty Mentor(s): Ajay Lajmi, HMCSE-Chemistry
 Funding or other research support: NIH
 Student College: HMCSE-Chemistry/Biochemistry

Charlie Womack #51
Designing new routes to pharmaceutical building blocks via the acid-base reaction of copper(I) oxide with a weak acid in the presence of a ligand
 Co-Author(s): **Megan Hinrichsen, Tyler Thompson**, Dr. Timothy Royappa
 Faculty Mentor(s): Dr. Tim Royappa, HMCSE-Chemistry
 Funding or other research support: Burr Family
 Student College: HMCSE-Chemistry



Director Chase Livingston and cinematographer, Baileigh, watch actors, Alex and Christopher practice their lines.

Chase Livingston #8
A short film highlighting the UWF campus while also telling an engaging and interesting story
 Faculty Mentor(s): Dr. Paul Pilger, CASSH-Communication
 Funding or other research support: Burr Family
 Student College: CASSH-Communication Arts

Tori Cerna #48
Examining Criminology and Criminal Justice Research: Funding and Findings
 Co-Author(s): **Alexander Johnson, Mariana Suarez Velasquez, Sarah Pizaris, Jordan Wilder, and Haydon O'Brien**
 Faculty Mentor(s): Dr. Matt Crow, CEPS-Criminology & Criminal Justice
 Funding or other research support: Burr Family & OUR
 Student College: CEPS-Criminal Justice



In my time spent working with my mentor, Dr. Zhiyong Hu, I have grown to better understand and appreciate the versatile potential in utilizing machine learning methods within the study of environmental and ecosystem sciences.

- Cameron Jackson, Spring 2022

Cameron Jackson #45
Species Distribution Modeling of Seagrass in the Gulf of Mexico
 Co-Author(s): Dr. Zhiyong Hu
 Faculty Mentor(s): Dr. Zhiyong Hu, HMCSE-EES
 Funding or other research support: OUR
 Student College: HMCSE-Environmental Science/Natural Science

Jordan Fazio #44
September rainfall climatology in the Gulf Coast region of the USA: What is the role of tropical cyclones?
 Faculty Mentor(s): Dr. Jason Ortegren, HMCSE-EES
 Student College: HMCSE-Earth & Environmental Sciences (EES)

Ethan Richardson #47
Utilizing a Thermal Infrared Unmanned Aerial Vehicle to Quantify Beach Surface Moisture
 Faculty Mentor(s): Dr. Phillip Schmutz, HMCSE-EES
 Funding or other research support: OUR
 Student College: HMCSE-Environmental Science/Natural Science

Gabe Small #46
Creating a Orthomosaic Map in Order to Assess Land Change
 Faculty Mentor(s): Dr. Zhiyong Hu, HMCSE-EES
 Funding or other research support: Burr Family
 Student College: HMCSE-Environmental Science/Natural Science

Camila Carvajal #53
Expenditure Patterns of UWF Students Not Local to Escambia and Santa Rosa Counties
 Faculty Mentor(s): Nicole Gislason, Haas Center
 Funding or other research support: Burr Family
 Student College: COB-Economics

Nick Carsow #54
Creation of an Open Source 3D Printer
 Faculty Mentor(s): Nicole Gislason, Haas Center and Dr. Joseph Piacenza, HMCSE-Mechanical Engineering
 Funding or other research support: OUR
 Student College: HMCSE-Mechanical Engineering

Rayne Henry #3 Virtual
Visually Communicating the Life and Afterlife of Nicolaus Maniacutius through the Medieval Reproduction of His Text, Ad incorrupta pontificum nomina conservanda
 Co-Author(s): Dr. Marie-Thérèse Champagne
 Faculty Mentor(s): Dr. Marie-Thérèse Champagne, CASSH-History
 Funding or other research support: Burr Family
 Student College: CASSH-Art/Studio Art

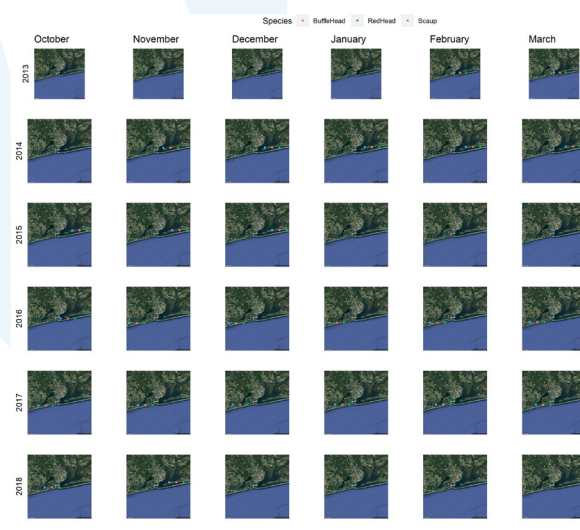
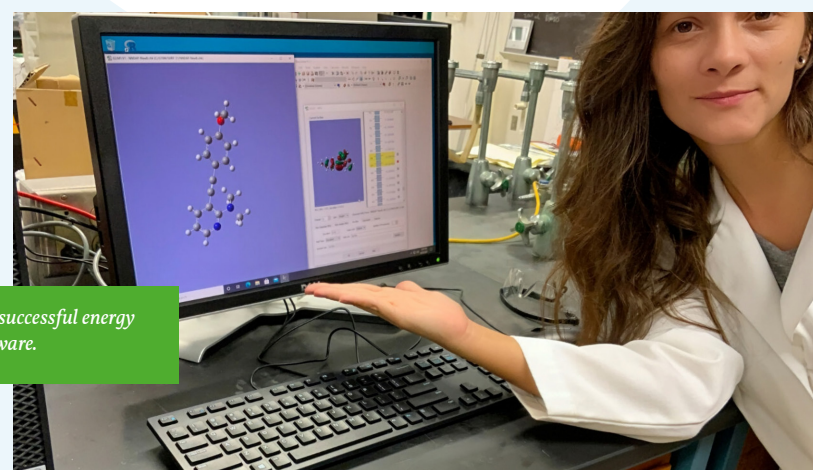
Clark Bailey #3 Virtual Zoom
Simulation and Control of Flow of Virus-Laden Aerosols in Enclosed Areas
 Faculty Mentor(s): Dr. Cheng Zhang, HMCSE-Mechanical Engineering
 Funding or other research support: Mullet Family
 Student College: HMCSE-Mechanical Engineering

Brandon Houck #67
3D Printer Filament Recycling and Life Cycle Analysis
 Faculty Mentor(s): Dr. Joe Piacenza, HMCSE-Mechanical Engineering
 Funding or other research support: OUR
 Student College: HMCSE-Mechanical Engineering

Matt Carlson #2 Virtual
Quantitative Finance applied to stock options
 Faculty Mentor(s): Dr. Chris Varney, HMCSE-Physics
 Funding or other research support: OUR
 Student College: HMCSE-Physics Engineering

Lavender Allen #55
Solvatochromism Involving 4-[2-[2-(dimethylamino)-3-pyridyl]ethynyl]anisole
 Faculty Mentor(s): Dr. Aaron Wade, HMCSE-Physics
 Funding or other research support: OUR
 Student College: HMCSE-Physics

Lavender Allen proud and excited about her first successful energy calculation using Gaussian6 computational software.



An animated map that shows the movement of Bufflehead species throughout the Florida panhandle during their migration season. To see the migration pattern of the Redhead and Scaup species visit: <https://nickjet45.github.io/Waterfowl/>

Nicholas Brown-Duncan #62
Data Visualization of Longitudinal Waterfowl Abundance in Escambia, Santa Rosa, and Baldwin Counties
 Co-Author(s): **Cody Nash**, Dr. Phil Darby, Dr. Samantha Seals
 Faculty Mentor(s): Dr. Samantha Seals, HMCSE-Math & Statistics
 Funding or other research support: OUR
 Student College: HMCSE-Computer Science

Giancy Ortiz #61
Employee Wellbeing in NFCU's Call Center
 Co-Author(s): **Lisa Diep**
 Faculty Mentor(s): Dr. Anthony Okafor, HMCSE-Mathematics & Statistics and Dr. Subhash Bagui, HMCSE-Mathematics & Statistics
 Funding or other research support: OUR
 Student College: HMCSE-Mathematics & Statistics

Alireza Taghi #60
Short-Term Euro Dollar Exchange Rate Forecasting using Regression Models
 Faculty Mentor(s): Dr. Achraf Cohen, HMCSE-Mathematics & Statistics
 Funding or other research support: Mullet Family
 Student College: HMCSE-Mathematics & Statistics

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Working with Dr. Seals has been a great experience. She has tremendously helped me to focus on personal growth and helped me to begin planning future endeavors. The skills I've learned from our research project, primarily linear modeling and R analysis, will help me well into the future.

- Nicholas Brown-Duncan, Fall 2023

Morgan Kelley #7
An Adaptive Mastery Approach to Flashcard-Based Learning
 Co-Author(s): Dr. Lisa Blalock
 Faculty Mentor(s): Dr. Lisa Blalock, UKCOH-Psychology
 Funding or other research support: OUR
 Student College: UKCOH-Psychology

Ashley Panko #59
Covid and the Effects on Students' Mental Health
 Faculty Mentor(s): Dr. Jenae Burkart, UKCOH-Psychology
 Funding or other research support: OUR
 Student College: UKCOH-Psychology

Olivia Cutshaw #58
The Associations between Job-Related Burnout, Parenting, and Child Behavior
 Faculty Mentor(s): Dr. Kimberly Day, UKCOH-Psychology
 Funding or other research support: OUR
 Student College: UKCOH-Psychology

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I am so happy to be able to participate in the SURP program. It is truly amazing to be able to further my education, prepare myself for higher studies, and make a contribution to my field while also supporting myself financially. I am so excited to share my project about working mothers and their children at the symposium!

- Olivia Cutshaw, Spring 2023

Ty Faist #6
Analysis of the Global Quantum Competitive Space (QCS): A University-Industry Applied Research Project
 Faculty Mentor(s): Dr. Donovan Chau, RAE
 Funding or other research support: OUR
 Student College: CASSH-International Studies

Leesa Marie Price #12
Technology Development for Quantum (TDQ): A University-Industry Applied Research Project
 Faculty Mentor(s): Dr. Donovan Chau, RAE
 Funding or other research support: OUR
 Student College: HMCSE-Software Design & Development

