Fiat Lux

A Celebration of Florida Southern College
Student Scholarship and Research

April 15, 2026

11:00am–6:30pm

Thrift Alumni Room
Becker Business Building
Weinstein Computer Science Center

Sponsored by the Florida Southern College Chapter of the Honor Society of Phi Kappa Phi,
the Florida Southern College Honors Program, and the Office of the Provost

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Welcome!

Florida Southern College fosters an environment where students actively transition from being consumers of knowledge to becoming scholars who create new knowledge, insights, connections, and understanding. For over 20 years, our students have gathered at the end of each semester to present and discuss the scholarly work they have been doing in and beyond their courses.

The goal of Fiat Lux is twofold: to provide students a platform for their ideas, and to provide the wider community a window into the creative and intellectual energy that pervades our campus. Today's event provides a singular opportunity to publicly share the meaning and joy of scholarly inquiry.

We encourage you to take part in as many sessions as you can! Enjoy the conversation.

Schedule

Opening Ceremony – Thrift Alumni Center

10:50	Lunch Buffet Opens	Thrift Alumni Room
11:00-11:30	Welcome	Dr. Jason Macrander
	Preliminary Remarks	Provost Tracey Tedder
	Introduction of Emerge Scholars	Dr. Elizabeth Gennari
	Ann and Grant Hansen Awards	Dr. Jason Macrander
11:30-12:20	Keynote Address	President Jeremy Martin
	Closing Remarks	Associate Provost Roxanne Back

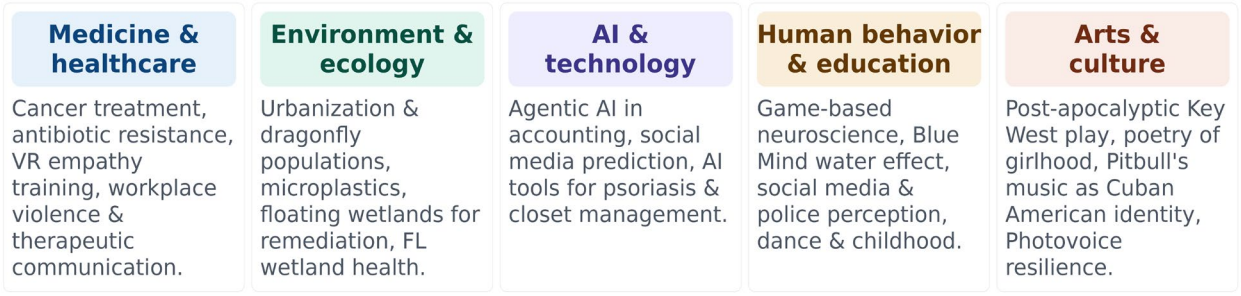
Fiat Lux Presentations – Becker & Weinstein

12:40-6:00	Presentations & Performances	Becker Business Building & Weinstein Computer Science Center
4:00-6:00	Poster Presentations	Becker Business Building Lobby
6:00	Closing Ceremony & Awards	Becker Business Building Lobby Dr. Jason Macrander

Fiat Lux at Florida Southern College

Key Research Themes

The presentations span five overarching thematic areas, reflecting the breadth of student inquiry across science, technology, the humanities, and the arts.



Medicine & Healthcare Innovation

Students are investigating treatments for cancers such as squamous and basal cell carcinoma and exploring antibiotic resistance through chalcone derivatives. Nursing research focuses on improving patient empathy through VR simulations, managing workplace violence, and enhancing therapeutic communication.

Environmental Conservation & Ecology

Projects examine the impact of urbanization on dragonfly populations, the effects of microplastics on marine life, and the role of floating treatment wetlands in water remediation. Other studies investigate the coevolution of snake venom and the health of Central Florida wetlands.

Artificial Intelligence & Technology

Research explores the use of Agentic AI in the accounting industry, using AI to predict social media engagement for animal rescues, and developing AI-powered tools for psoriasis severity assessment and closet management.

Human Behavior & Education

Psychology projects utilize modified board games to teach neuroscience and study the “Blue Mind” effect of water visuals on student well-being. Other research addresses the impact of social media on perceptions of police and the role of dance in early childhood development.

Artistic Expression & Cultural Analysis

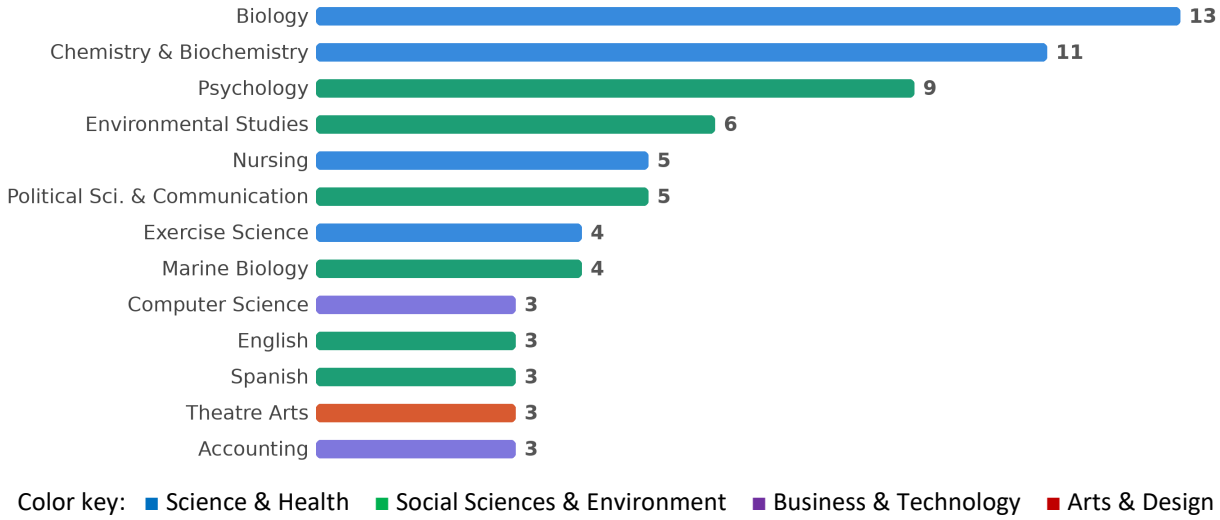
Presentations include a one-act play about a post-apocalyptic Key West, a poetry exploration of girlhood, and an analysis of Pitbull’s music as a bridge for Cuban American identity. A group of students also utilized Photovoice to document community resilience, access and exclusion, and everyday justice.

Presentations by Category

The 2026 Fiat Lux program showcases over 90 student research and creative projects across a wide range of academic disciplines including Honors Thesis Proposals and Projects, Oral and Poster Presentations, and Honors Performances.

40+	25+	~10	~10	~6
Science & Health	Social Sciences & Humanities	Environment & Marine	Arts & Design	Business & Technology

The chart below shows individual major representation across the program:



Special thanks to The Office of Career Services, Associate Provost of Strategic Business Partnerships Dr. Silvia Falcon, and our volunteer judges:

Hillary Arieux – Resource Sharing Librarian, Florida Southern College Library
Don Bailey – Instructor, Deep Six Diver
Roberto Batista – Head of Artificial Intelligence, Every Peer
Ward Hively – Civil Engineering Project Manager, TECO Peoples Gas
Julie Hornick – Head of Library Instruction, Florida Southern College Library
Randall M. MacDonald – Dean of Library Services, Florida Southern College Library
Marina Morgan – Head of Technical Services, Florida Southern College Library
Linda Munday – Nurse Practitioner
Emilio Perez – Director of Sales and Engineering, Inland Fiber
LaTosha Phillips – Director of Professional Development and Clinical Excellence, AdventHealth Riverview
Christina Rivera – Instructor, Deep Six Diver
Douglas Tavares – Business Mentor and Adjunct Professor, Florida Southern College
Brian Varner – CEO, Every Peer
Micah Walsleben – Instructional Services Librarian, Florida Southern College Library
Jeffrey Zines – College Archivist, Florida Southern College Archives

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2026 Fiat Lux Presenters – By Last Name

Room	Time	First Name	Last Name	Major	Title
BBB 112	4:40-5:00	Millie	**Alba-Sommers**	English	One Man's Trash is Another Woman's Treasure: The Relationship Between Romance Novels and Feminism in a Patriarchal World
BBB 111	5:20-5:40	Maya	**Amir**	Environmental Studies	Diversity and Abundance of Dragonfly Larvae (Odanata: Anisoptera) Along an Urban-Rural Gradient
BBB 112	5:00-5:20	T 'Keyah	**Anderson**	Psychology	Cross Race Effect's Impact on Change Blindness in a Crime Scenario
Becker Lobby	5:00-6:00	Alannah	**Atibel**	Biology	Patterns of Affiliation and Agonism in Pair-Living Captive Night Monkeys (Aotus nancymaae)
BBB 111	4:20-4:40	Zara Husein	**Bahrainwala**	Nursing	How Perceived Stress Correlates with Resilence Among BSN Students
CSC 108	2:40-3:00	Savannah	**Barnhart**	Environmental Studies	Beyond Water Treatment: Evaluating the Multifunctional Role of Floating Treatment Wetlands in a Constructed Wastewater Treatment System
CSC 135	1:30-2:00	Caitlin	**Beery**	Biochemistry and Molecular Biology	5-Fluorouracil Delivery via a Cross-Linked Gelatin Matrix to Reduce Recurrence Rates of Squamous and Basal Cell Carcinoma
CSC 109	2:20-2:40	Isabella	**Campos**	Marine Biology	The Ecology of Whale Falls
Becker Lobby	4:00-5:00	Kira	**Casane**	Accounting	Photovoice Portfolio: Community Resilience and Perseverance Through Ingenuity
CSC 108	1:40-2:00	Trinity	**Cavaliere**	Integrative Biology	But were they Shellmates? Examining the Impacts of Chaetogaster Predation on Trematode Infections
Becker Lobby	5:00-6:00	Maryam	**Cazalas**	Elementary Education	Effective Instructional Strategies for Supporting Students with Down Syndrome in the Elementary Classroom
Becker Lobby	5:00-6:00	Jordan	**Chadwick**	Psychology	The Impact of Prior Record Knowledge on Eyewitness Confidence
CSC 108	2:00-2:20	Genevieve	**Chaon**	Biotechnology	Why so Stressed? The Impact of Environmental Stressors on Aquatic Microorganisms
Becker Lobby	6:00	Olivia	**Cicco**	Dance	An Embodied Study of Dream Derived Movement
BBB 116	4:00-4:20	Caroline	**Croft**	Computer Science	Should I Sell This? Building a Smart Closet Decision App
CSC 109	1:20-1:40	Dariana Priscila	**Cruz Rivas**	Spanish	Childhood, Power, and the Loss of Innocence in "El catecismo" and "El árbol de oro"
Becker Lobby	4:00-5:00	Hailey	**DeBrunner**	Biology	Comparative Effects of Toothpaste on the Oral Microbiome

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BBB 112	4:00-4:20	Alana	**Evans**	English	Flora, Fauna, Formaldehyde: The Untold Stories of Florida's Environment
CSC 135	2:00-2:30	Tanner	**Ford**	Chemistry	Development of Structured, Biogenic Solvent Systems for the Synthesis of Core-Shell Nanomaterials
BBB 112	5:20-6:00	Eleora	**Funk**	Southern Studies	Magnispiralis: A One Act Play
CSC 109	1:00-1:20	Amarra	**Fusco**	Spanish	"Dale": Music, Identity, and Transnational Cubanidad in the Work of Pitbull
CSC 135	1:00-1:20	Henry	**Germroth**	Chemistry	Safe and Sustainable Synthesis of Chalcones: Modification and Evaluation of Green Methods
CSC 109	4:00-4:20	Ryan	**Gibbs**	Environmental Studies	Contextualizing the Biotic and Anthropogenic Factors of Lakeland, Florida's Urban Forest and Drafting a Holistic Management Plan
CSC 109	4:20-4:40	Malin	**Gines**	Biology	Molecular Warfare: The Coevolution of Snake Venom Metalloproteinases and Defensive Inhibitors
BBB 111	5:40-6:00	Gabriella	**Gray**	Environmental Studies	Lakeland Water Quality
BBB 116	12:40-1:00	Lorien	**Greenlee**	Art History and Museum Studies	Designing Gender: Queering Lace and Exploring Traditional Lacemaking Techniques
CSC 109	2:40-3:00	Madi	**Hahn**	Marine Biology	Bioaccumulation of Microplastics in the Marine Environment and Its Potential Impacts
Becker Lobby	4:00-5:00	Jacob	**Hall**	Exercise Science	A Literary Review and Timeline for Return to Play from Achilles Tendon Ruptures in NFL Players
CSC 135	4:30-5:00	Peyton	**Hanser**	Chemistry	DFT Modeling of Molecularly Imprinted Polymer Films for Electrochemical Sensing Applications
BBB 116	3:00-3:20	Kaliyah	**Henderson**	Environmental Studies	Investigating Microplastic Presence in Coral Sediments of the Mesoamerican Reef in Roatan, Honduras
CSC 135	3:00-3:30	Alyssa	**Hicks**	Chemistry	Evaluating Lead Attenuation and Phytoremediation Potential of Native and Non-Native Scleria Species Using Matrix-Corrected APDC Chelation and Flame Atomic Absorption Spectrometry
BBB 112	1:00-1:20	Nathan	**Holmes**	Exercise Science	Exploring Heart Rate Variability Biofeedback in Male Collegiate Cross-Country Athletes
Becker Lobby	5:00-6:00	Tim	**Holmes**	Business Administration	Mental Revitalization
BBB 111	2:20-2:40	Grace	**Howard**	Nursing	Experiences of Psychiatric Nurses Who Have Been Assaulted by a Patient

2026 Fiat Lux Presenters – By Last Name

CSC 135	4:00-4:30	Halle	**Humbaugh**	Chemistry	Using a Quantitative UV-Vis Spectrophotometer Analysis to Determine Significant Differences Between the Antioxidant Capabilities of Synthetic and Natural Flavonoids
Becker Lobby	5:00-6:00	Alexis	**Ivan**	Biology	Everyday Justice
Becker Lobby	5:00-6:00	Mikalah	**James**	Biochemistry and Molecular Biology	Health Across a Lifespan
BBB 112	1:20-1:40	Audrey	**Jones**	Exercise Science	Exploring Heart Rate Variability Biofeedback in Orchestral Musicians
BBB 112	4:20-4:40	Maggie Shay	**Jordan**	English	Writing Feminomenon: Exploring the Theme of Girlhood in My Poems & Their Sisters
Becker Lobby	4:00-5:00	Sriya	**Jupalli**	Biology	Broccoli For Fly Brains?
Becker Lobby	5:00-6:00	Sriya	**Jupalli**	Biology	The Impact of Blue-Mind Audio-Visuals on Well-Being in College Students
Becker Lobby	4:00-5:00	Emma	**Kaiser**	Psychology	Battleship and Brains I: Spatial Learning and Confidence Effects with Modified Board Games
Becker Lobby	4:00-5:00	Payten	**Karastury**	Psychology	Get Well Cards: A Pedagogical Tool in Understanding Mental Health Therapies
CSC 109	3:40-4:00	Riley	**Karau**	Graphic Design	Set Type Foundry: Revitalizing Physical Process In Contemporary Typography
BBB 116	4:20-4:40	June	**Kelly**	Biology	Substrate and Light Color Preferences in Camponotus Ants
BBB 116	1:00-1:20	Mary	**Kissane**	Art History and Museum Studies	Lover Boys: The Relationship Between Sexuality, Power, and Citizenship as Seen in Pederastic Portrayals on Attic Pottery
CSC 108	2:20-2:40	Elisabeth	**Kranek**	Biology	Social Dynamics and Resource Utilization in Managed African Elephants (Loxodonta africana)
BBB 111	4:00-4:20	Sofiia	**Kuklina**	Biotechnology	ShK Toxin Variability in Sea Anemones as a Platform for New Drug Discovery
CSC 108	3:20-3:40	Reese	**Laird**	Biology	The Role of Visual and Acoustic Sensory Cues in the Shell Selection Process of the Caribbean Hermit Crab
CSC 108	4:00-4:20	Lexi	**Lapore-Paternostro**	Communication	A Dire Situation: Proposing a Virtual Voir Dire
CSC 135	5:00-5:30	Geanne	**Malcolm**	Chemistry	Assessing the Efficacy of NSAID-Releasing Hemostatic Agents for Postoperative Pain Management
Becker Lobby	5:00-6:00	Diamond	**Martinez**	Nursing	Environments that Shape Health

2026 Fiat Lux Presenters – By Last Name

Becker Lobby	5:00-6:00	Keira	**McCarrick**	Psychology	Battleship and Brains II: Effects of Prompted Cues on Spatial Learning Competency
CSC 135	2:30-3:00	Jenna	**McHardy**	Chemistry	Greener Modification to the Wittig Reaction to Produce Stilbene Molecules for Anticancer Evaluation
BBB 111	3:00-3:20	Madison	**Mulvihill**	Computer Science	Using Artificial Intelligence to Predict Engagement with Animal Rescue Content on Social Media
CSC 109	4:40-5:00	Abigail	**Murray**	Theatre Arts	The Stories We Told: Reflections on Creating a Florida Southern Fringe Festival
BBB 116	1:20-1:40	Jistien	**Muzyl**	Humanities	Reflecting Grief/Death: Poetry's Role in My Process
Becker Lobby	4:00-5:00	Larissa	**Nascimento**	Medical Laboratory Sciences	Spaces of Access and Exclusion
CSC 108	3:00-3:20	Kala	**Nelson**	Music Performance	Reading Between the Neumes
CSC 135	3:30-4:00	Sarah	**Nguyen**	Biochemistry and Molecular Biology	Restoring Antibiotic Efficacy: An In-Silico Study of Chalcone Derivatives as NorA Efflux Pump Inhibitors Against S. Aureus
BBB 116	3:40-4:00	Anika	**Petam**	Nursing	More Than Machines: Hemodialysis Patients' Perception of Therapeutic Communication
CSC 108	12:40-1:00	Emma Mae-Anne	**Pfeiffer**	Criminology	The Impact of Social Media on College Student's Perception of Police Conduct
CSC 108	4:20-4:40	Sophia Grace	**Posick**	Political Communication	G.R.I.T.S.: A Statistical Analysis of the South Tracing Cultural Differences Within the United States Through National Congressional Representation
CSC 109	12:40-1:00	Angel	**Potter**	History	The Effect of the Prohibition Era on Politics, Society, and Economics in the Florida Keys
BBB 111	4:40-5:00	Daniel Andrew	**Ramirez**	Biology	Prevalence of Mosquito-Borne Parasites Around Lake Hollingsworth
Becker Lobby	4:00-5:00	Rachelle	**Ramos**	Psychology	The Effect of Eyewitness Compensation on Juror's Perceptions
BBB 112	12:40-1:00	Grace	**Reed**	Exercise Science	Heart Rate Variability Biofeedback and Cross-Country Runners
CSC 108	5:00-5:45	Luke	**Reeves**	Political Science	Advancing Medicine Efficiently: An Analysis of U.S. Drug Approval Mechanisms
CSC 109	3:20-3:40	Sofia	**Restom Gaskill**	Theatre Arts	"Orestes in the Mirror": Adapting an Ancient Greek Tragedy
CSC 135	5:30-6:00	Jason	**Rowe**	Biochemistry and Molecular Biology	Synthesis and Comparative Analysis of Cationic and Neutral Chalcone Derivatives as Antibacterial Agents

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BBB 111	1:20-1:40	Ben	**Ruby**	Communication	Music and the Classroom: An Evaluation of Music's Effect on College Students
CSC 109	2:00-2:20	Grace	**Ryan**	Theatre Arts	Beyond the Script: The Laramie Project a Catalyst for Change
BBB 111	1:00-1:20	Emma	**Sammons**	Business Administration	Considerations of the Civil Jury
Becker Lobby	4:00-5:00	Em	**Sarjeant**	Criminology	Digital Platforms and how they Shape Identify, Self-Presentation, and Belonging
BBB 116	4:40-5:00	Catherine	**Sarte**	Computer Science	AI-Powered Psoriasis Severity Assessment: Integrating PGA and BSA for Scalable Clinical and At-Home Use
CSC 108	1:00-1:20	Kendall	**Schafer**	Biology	Skin Microbiota and Acne Vulgaris: Examining the Prevalence and Antibiotic Susceptibilities of Microbial Species among Facial Lesions
Becker Lobby	5:00-6:00	Asher David	**Schapira**	Psychology	Ant Social Learning Social Transmission and Maintenance of Food Preferences in Ants: A Three-Phase Pilot Study
CSC 108	1:20-1:40	Jacob	**Sells**	Environmental Studies	A Clash in the Wetlands: Native vs. Non-Natives in the Battle for Phosphorus
BBB 111	12:40-1:00	Tanner	**Simpson**	Accounting	Endangered or Empowered: An Honest Assessment of the Current and Future Impact of Agentic AI on Accounting
CSC 109	3:00-3:20	Kelsey	**Slone**	Biology	Heavy Metals and Nutrient Pollution in Florida: An Assessment of the Lead-Phosphorus Relationship
CSC 108	4:40-5:00	Nathaniel	**Smart**	Political Science	Municipal Elections Across the United States: A Comparative Analysis
BBB 116	5:40-6:00	Joshua	**Smith**	Marine Biology	Health Assessment of Eight Wetlands in Central Florida Based on Surrounding Land-Use Categories.
Becker Lobby	4:00-5:00	Lilliana	**St. Aubin**	Elementary Education	Understanding the Autism Spectrum: Legal Rights and Advocacy for Collaborative Support
Becker Lobby	4:00-5:00	Julia	**Stefanowicz**	Dance	The Role of Dance in Early Childhood Development: Movement as a Foundation for Growth and Learning
BBB 116	1:40-2:00	Emma	**Summer**	Religion and Youth Ministry	Youth Ministry as a Response to the Adolescent Loneliness Epidemic
BBB 111	3:40-4:00	Coral	**Tolman**	Marine Biology	Diving into Sedimentation: How Intermittent Sedimentation Indicative of SCUBA Diving Affects Coral Growth and Physiology
BBB 116	2:00-2:20	Lorna	**Truett**	Philosophy	The Ethics of Pet Euthanasia
BBB 111	3:20-3:40	Karla	**Van Loon**	Music	Tunes Across The Globe, A Comparison of Western European,

2026 Fiat Lux Presenters – By Last Name

					South Indian & West African Musical Traditions
CSC 109	1:40-2:00	Lauren	**Vargas**	Spanish	The Pride behind DtMF
BBB 111	2:00-2:20	Kevin	**Vondruska**	Nursing	Experiencing Language Barriers: Effects of a Role-Reversal Virtual Reality Simulation on Nursing Students' Empathy and Cultural Competence
BBB 116	3:20-3:40	Michael	**Yuska**	Psychology	Rising Burnout, Stable Emotional Intelligence: Cohort Trends in Higher Education
CSC 135	12:40-1:00	Andrew	**Zivkovic**	Chemistry	The Development of Inorganic Chemistry Labs to Incorporate Green Chemistry Principles
CSC 108	3:40-4:00	Santiago	**Zuniga**	Accounting	Voter Demand for Exclusionary and Low-Density Land-Use Zoning Using Regression Analysis According to Tiebout's Model

2026 Fiat Lux Presentations – By Room

BBB 111

12:40-1:00	Tanner	Simpson	Accounting	Endangered or Empowered: An Honest Assessment of the Current and Future Impact of Agentic AI on Accounting
1:00-1:20	Emma	Sammons	Business Administration	Considerations of the Civil Jury
1:20-1:40	Ben	Ruby	Communication	Music and the Classroom: An Evaluation of Music's Effect on College Students
2:00-2:20	Kevin	Vondruska	Nursing	Experiencing Language Barriers: Effects of a Role-Reversal Virtual Reality Simulation on Nursing Students' Empathy and Cultural Competence
2:20-2:40	Grace	Howard	Nursing	Experiences of Psychiatric Nurses Who Have Been Assaulted by a Patient
3:00-3:20	Madison	Mulvihill	Computer Science	Using Artificial Intelligence to Predict Engagement with Animal Rescue Content on Social Media
3:20-3:40	Karla	Van Loon	Music	Tunes Across the Globe, A Comparison of Western European, South Indian & West African Musical Traditions
3:40-4:00	Coral	Tolman	Marine Biology	Diving into Sedimentation: How Intermittent Sedimentation Indicative of SCUBA Diving Affects Coral Growth and Physiology
4:00-4:20	Sofiia	Kuklina	Biotechnology	ShK Toxin Variability in Sea Anemones as a Platform for New Drug Discovery
4:20-4:40	Zara Husein	Bahrainwala	Nursing	How Perceived Stress Correlates with Resilence Among BSN Students
4:40-5:00	Daniel Andrew	Ramirez	Biology	Prevalence of Mosquito-Borne Parasites Around Lake Hollingsworth
5:20-5:40	Maya	Amir	Environmental Studies	Diversity and Abundance of Dragonfly Larvae (Odanata: Anisoptera) Along an Urban-Rural Gradient
5:40-6:00	Gabriella	Gray	Environmental Studies	Lakeland Water Quality

BBB 112

12:40-1:00	Grace	Reed	Exercise Science	Heart Rate Variability Biofeedback and Cross-Country Runners
1:00-1:20	Nathan	Holmes	Exercise Science	Exploring Heart Rate Variability Biofeedback in Male Collegiate Cross-Country Athletes

1:20-1:40	Audrey	Jones	Exercise Science	Exploring Heart Rate Variability Biofeedback in Orchestral Musicians
4:00-4:20	Alana	Evans	English	Flora, Fauna, Formaldehyde: The Untold Stories of Florida's Environment
4:20-4:40	Maggie Shay	Jordan	English	Writing Feminomenon: Exploring the Theme of Girlhood in My Poems & Their Sisters
4:40-5:00	Millie	Alba-Sommers	English	One Man's Trash is Another Woman's Treasure: The Relationship Between Romance Novels and Feminism in a Patriarchal World
5:00-5:20	T 'Keyah	Anderson	Psychology	Cross Race Effect's Impact on Change Blindness in a Crime Scenario
5:20-6:00	Eleora	Funk	Southern Studies	Magnispiralis: A One Act Play

BBB 116

12:40-1:00	Lorien	Greenlee	Art History and Museum Studies	Designing Gender: Queering Lace and Exploring Traditional Lacemaking Techniques
1:00-1:20	Mary	Kissane	Art History and Museum Studies	Lover Boys: The Relationship Between Sexuality, Power, and Citizenship as Seen in Pederastic Portrayals on Attic Pottery
1:20-1:40	Jistien	Muzyl	Humanities	Reflecting Grief/Death: Poetry's Role in My Process
1:40-2:00	Emma	Summer	Religion and Youth Ministry	Youth Ministry as a Response to the Adolescent Loneliness Epidemic
2:00-2:20	Lorna	Truett	Philosophy	The Ethics of Pet Euthanasia
3:00-3:20	Kaliyah	Henderson	Environmental Studies	Investigating Microplastic Presence in Coral Sediments of the Mesoamerican Reef in Roatan, Honduras
3:20-3:40	Michael	Yuska	Psychology	Rising Burnout, Stable Emotional Intelligence: Cohort Trends in Higher Education
3:40-4:00	Anika	Petam	Nursing	More Than Machines: Hemodialysis Patients' Perception of Therapeutic Communication
4:00-4:20	Caroline	Croft	Computer Science	Should I Sell This? Building a Smart Closet Decision App
4:20-4:40	June	Kelly	Biology	Substrate and Light Color Preferences in Camponotus Ants
4:40-5:00	Catherine	Sarte	Computer Science	AI-Powered Psoriasis Severity Assessment: Integrating PGA and BSA for Scalable Clinical and At-Home Use

5:40-6:00	Joshua	Smith	Marine Biology	Health Assessment of Eight Wetlands in Central Florida Based on Surrounding Land-Use Categories.

Becker Lobby

4:00-5:00	Kira	Casane	Accounting	Photovoice Portfolio: Community Resilience and Perseverance Through Ingenuity
4:00-5:00	Hailey	DeBrunner	Biology	Comparative Effects of Toothpaste on the Oral Microbiome
4:00-5:00	Jacob	Hall	Exercise Science	A Literary Review and Timeline for Return to Play from Achilles Tendon Ruptures in NFL Players
4:00-5:00	Sriya	Jupalli	Biology	Broccoli For Fly Brains?
4:00-5:00	Emma	Kaiser	Psychology	Battleship and Brains I: Spatial Learning and Confidence Effects with Modified Board Games
4:00-5:00	Payten	Karastury	Psychology	Get Well Cards: A Pedagogical Tool in Understanding Mental Health Therapies
4:00-5:00	Larissa	Nascimento	Medical Laboratory Sciences	Spaces of Access and Exclusion
4:00-5:00	Rachelle	Ramos	Psychology	The Effect of Eyewitness Compensation on Juror's Perceptions
4:00-5:00	Em	Sarjeant	Criminology	Digital Platforms and how they Shape Identify, Self-Presentation, and Belonging
4:00-5:00	Lilliana	St. Aubin	Elementary Education	Understanding the Autism Spectrum: Legal Rights and Advocacy for Collaborative Support
4:00-5:00	Julia	Stefanowicz	Dance	The Role of Dance in Early Childhood Development: Movement as a Foundation for Growth and Learning
5:00-6:00	Alannah	Atibel	Biology	Patterns of Affiliation and Agonism in Pair-Living Captive Night Monkeys (Aotus nancymaae)
5:00-6:00	Maryam	Cazalas	Elementary Education	Effective Instructional Strategies for Supporting Students with Down Syndrome in the Elementary Classroom
5:00-6:00	Jordan	Chadwick	Psychology	The Impact of Prior Record Knowledge on Eyewitness Confidence
5:00-6:00	Tim	Holmes	Business Administration	Mental Revitalization
5:00-6:00	Alexis	Ivan	Biology	Everyday Justice

5:00-6:00	Mikalah	James	Biochemistry and Molecular Biology	Health Across a Lifespan
5:00-6:00	Sriya	Jupalli	Biology	The Impact of Blue-Mind Audio-Visuals on Well-Being in College Students
5:00-6:00	Diamond	Martinez	Nursing	Environments that Shape Health
5:00-6:00	Keira	McCarrick	Psychology	Battleship and Brains II: Effects of Prompted Cues on Spatial Learning Competency
5:00-6:00	Asher David	Schapira	Psychology	Ant Social Learning Social Transmission and Maintenance of Food Preferences in Ants: A Three-Phase Pilot Study
6:00	Olivia	Cicco	Dance	An Embodied Study of Dream Derived Movement

CSC 108

12:40-1:00	Emma Mae-Anne	Pfeiffer	Criminology	The Impact of Social Media on College Student's Perception of Police Conduct
1:00-1:20	Kendall	Schafer	Biology	Skin Microbiota and Acne Vulgaris: Examining the Prevalence and Antibiotic Susceptibilities of Microbial Species among Facial Lesions
1:20-1:40	Jacob	Sells	Environmental Studies	A Clash in the Wetlands: Native vs. Non-Natives in the Battle for Phosphorus
1:40-2:00	Trinity	Cavaliere	Integrative Biology	But were they Shellmates? Examining the Impacts of Chaetogaster Predation on Trematode Infections
2:00-2:20	Genevieve	Chaon	Biotechnology	Why so Stressed? The Impact of Environmental Stressors on Aquatic Microorganisms
2:20-2:40	Elisabeth	Kranek	Biology	Social Dynamics and Resource Utilization in Managed African Elephants (Loxodonta africana)
2:40-3:00	Savannah	Barnhart	Environmental Studies	Beyond Water Treatment: Evaluating the Multifunctional Role of Floating Treatment Wetlands in a Constructed Wastewater Treatment System
3:00-3:20	Kala	Nelson	Music Performance	Reading Between the Neumes
3:20-3:40	Reese	Laird	Biology	The Role of Visual and Acoustic Sensory Cues in the Shell Selection Process of the Caribbean Hermit Crab
3:40-4:00	Santiago	Zuniga	Accounting	Voter Demand for Exclusionary and Low-Density Land-Use Zoning Using Regression Analysis According to Tiebout's Model

4:00-4:20	Lexi	Lapore-Paternostro	Communication	A Dire Situation: Proposing a Virtual Voir Dire
4:20-4:40	Sophia Grace	Posick	Political Communication	G.R.I.T.S.: A Statistical Analysis of the South Tracing Cultural Differences Within the United States Through National Congressional Representation
4:40-5:00	Nathaniel	Smart	Political Science	Municipal Elections Across the United States: A Comparative Analysis
5:00-5:45	Luke	Reeves	Political Science	Advancing Medicine Efficiently: An Analysis of U.S. Drug Approval Mechanisms

CSC 109

12:40-1:00	Angel	Potter	History	The Effect of the Prohibition Era on Politics, Society, and Economics in the Florida Keys
1:00-1:20	Amarra	Fusco	Spanish	“Dale”: Music, Identity, and Transnational Cubanidad in the Work of Pitbull
1:20-1:40	Dariana Priscila	Cruz Rivas	Spanish	Childhood, Power, and the Loss of Innocence in “El catecismo” and “El árbol de oro”
1:40-2:00	Lauren	Vargas	Spanish	The Pride behind DtMF
2:00-2:20	Grace	Ryan	Theatre Arts	Beyond the Script: The Laramie Project, A Catalyst for Change
2:20-2:40	Isabella	Campos	Marine Biology	The Ecology of Whale Falls
2:40-3:00	Madi	Hahn	Marine Biology	Bioaccumulation of Microplastics in the Marine Environment and Its Potential Impacts
3:00-3:20	Kelsey	Slone	Biology	Heavy Metals and Nutrient Pollution in Florida: An Assessment of the Lead-Phosphorus Relationship
3:20-3:40	Sofia	Restom Gaskill	Theatre Arts	“Orestes in the Mirror”: Adapting an Ancient Greek Tragedy
3:40-4:00	Riley	Karau	Graphic Design	Set Type Foundry: Revitalizing Physical Process in Contemporary Typography
4:00-4:20	Ryan	Gibbs	Environmental Studies	Contextualizing the Biotic and Anthropogenic Factors of Lakeland, Florida’s Urban Forest and Drafting a Holistic Management Plan
4:20-4:40	Malin	Gines	Biology	Molecular Warfare: The Coevolution of Snake Venom Metalloproteinases and Defensive Inhibitors

4:40-5:00	Abigail	Murray	Theatre Arts	The Stories We Told: Reflections on Creating a Florida Southern Fringe Festival

CSC 135

12:40-1:00	Andrew	Zivkovic	Chemistry	The Development of Inorganic Chemistry Labs to Incorporate Green Chemistry Principles
1:00-1:20	Henry	Germroth	Chemistry	Safe and Sustainable Synthesis of Chalcones: Modification and Evaluation of Green Methods
1:30-2:00	Caitlin	Beery	Biochemistry and Molecular Biology	5-Fluorouracil Delivery via a Cross-Linked Gelatin Matrix to Reduce Recurrence Rates of Squamous and Basal Cell Carcinoma
2:00-2:30	Tanner	Ford	Chemistry	Development of Structured, Biogenic Solvent Systems for the Synthesis of Core-Shell Nanomaterials
2:30-3:00	Jenna	McHardy	Chemistry	Greener Modification to the Wittig Reaction to Produce Stilbene Molecules for Anticancer Evaluation
3:00-3:30	Alyssa	Hicks	Chemistry	Evaluating Lead Attenuation and Phytoremediation Potential of Native and Non-Native Scleria Species Using Matrix-Corrected APDC Chelation and Flame Atomic Absorption Spectrometry
3:30-4:00	Sarah	Nguyen	Biochemistry and Molecular Biology	Restoring Antibiotic Efficacy: An In-Silico Study of Chalcone Derivatives as NorA Efflux Pump Inhibitors Against S. Aureus
4:00-4:30	Halle	Humbaugh	Chemistry	Using a Quantitative UV-Vis Spectrophotometer Analysis to Determine Significant Differences Between the Antioxidant Capabilities of Synthetic and Natural Flavonoids
4:30-5:00	Peyton	Hanser	Chemistry	DFT Modeling of Molecularly Imprinted Polymer Films for Electrochemical Sensing Applications
5:00-5:30	Geanne	Malcolm	Chemistry	Assessing the Efficacy of NSAID-Releasing Hemostatic Agents for Postoperative Pain Management
5:30-6:00	Jason	Rowe	Biochemistry and Molecular Biology	Synthesis and Comparative Analysis of Cationic and Neutral Chalcone Derivatives as Antibacterial Agents

Presentations

In alphabetical order by presenter's last name.

Student: Millie Alba-Sommers
Major: English
Faculty Mentor: Erica Bernheim
Time: 4:40-5:00
Type: Honors Thesis Proposal Presentation
Room: BBB 112

Title: One Man's Trash is Another Woman's Treasure: The Relationship Between Romance Novels and Feminism in a Patriarchal World

Abstract: Although oftentimes disregarded as unrealistic or even pornographic, the romance novel has proven to be a genre of feminist literature that inspires women to strive for independence and romance instead of accepting the limited views of the patriarchy. These novels allow women to imagine a life stretched beyond the confines of reality in which they can have a career, a great love, and, if they so desire, a family. Despite this, society often accuses these novels of being overly-sexual and, oftentimes, useless reading. This project will seek to prove that the romance novel can allow women to explore their desires in a space free from the judgement and objectification of men.

Student: Maya Amir
Major: Environmental Studies
Faculty Mentor: Lauren Griffiths
Time: 5:20-5:40
Type: Oral Presentation
Room: BBB 111

Title: Diversity and Abundance of Dragonfly Larvae (Odanata: Anisoptera) Along an Urban-Rural Gradient

Abstract: With the poorly restricted expansion of Florida's urban development, there comes a shift from natural habitats to paved, denser landscapes, which negatively impacts aquatic invertebrate populations. As a result, these invertebrates—such as beetles, caddisflies, and damselflies—are faced with issues hunting and reproducing due to the subsequent habitat loss, and experience a sharp increase in mortality due to pollution. Dragonflies, in comparison to other invertebrates, are uniquely impacted. Previous literature suggests that habitat loss does not indiscriminately decrease diversity and abundance across species; the consequences that dragonflies experience are more nuanced. I seek to understand how the urbanization of lake habitats affects the species diversity and abundance of dragonfly larvae, on a local scale. For a consecutive year, I will sample 9 lakes across central Florida on a landscape gradient that shifts from rural to urban, collect dragonfly larvae samples from each, then comparatively analyze the biological data. This study will illustrate how urban drivers and land-use changes impact dragonfly populations, and in turn, deepen our understanding of how Floridian ecosystems respond to mass-urbanization.

Student: T 'Keyah Anderson
Major: Psychology
Faculty Mentors: Leilani Goodmon and Medhini Urs
Time: 5:00-5:20
Type: Oral Presentation
Room: BBB 112

Title: Cross Race Effect's Impact on Change Blindness in a Crime Scenario

Abstract: Change blindness refers to the process where people have difficulties identifying change within their visual field and surroundings (Simmons et al., 2002). The cross-race effect is the phenomenon in which eyewitnesses tend to be more effective in identifying members of their own race rather than members of a different race (Young et al., 2012). The current purpose was to identify

differences in change blindness rates as a function of the perpetrator's race or ethnicity in a person swap - change blindness paradigm involving a crime. The experiment formed a single factor between-subjects design with experimenter/perpetrator skin tone/race (dark-black, light-white) as the between-subjects factor, and rates of change blindness rates, correct line-up identification of the perpetrator, and confidence in the line-up identification served as the dependent measures. The witnesses/participants exhibited high change blindness rates regardless of the perpetrator's skin tone/race/ethnicity, however, witnesses in the dark skin condition were less likely to correctly select the perpetrator and were more confident in their selection of the perpetrator from a line-up. Thus, the results are partially consistent with support the cross-race effect.

Student: Zara Husein Bahrainwala
Major: Nursing
Faculty Mentor: Tim Burns
Time: 4:20-4:40
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: How Perceived Stress Correlates with Resilence Among BSN Students

Abstract: Nursing students often experience high levels of stress due to demanding coursework, clinical responsibilities, and the pressure to perform well in both academic and healthcare settings. Prolonged stress can negatively affect mental health, academic performance, and increase the risk of burnout. One factor that may help students cope with these challenges is resilience, which refers to a person's ability to adapt and recover when facing stress or adversity. Understanding how resilience relates to stress may help educators better support nursing students during their training. This presentation explores the relationship between perceived stress and resilience among Bachelor of Science in Nursing (BSN) students at Florida Southern College. The goal of the study is to determine whether students who report higher levels of resilience also experience lower levels of perceived stress. To examine this relationship, the study uses a cross-sectional quantitative research design. Data are collected through an anonymous online survey that includes the Perceived Stress Scale (PSS), the Connor-Davidson Resilience Scale (CD-RISC), and a short demographic questionnaire. The findings aim to improve understanding of how resilience may help nursing students manage stress. Ultimately, this research explores strategies that promote well-being, academic success, and long-term resilience among future nurses.

Student: Savannah Barnhart
Major: Environmental Studies
Faculty Mentor: Allison Durland
Time: 2:40-3:00
Type: Honors Thesis Proposal Presentation
Room: CSC 108

Title: Beyond Water Treatment: Evaluating the Multifunctional Role of Floating Treatment Wetlands in a Constructed Wastewater Treatment System

Abstract: Constructed wetlands are common sources of water remediation, offering a cost-effective and natural alternative to chemical treatments. Floating treatment wetlands (FTWs) are additional bioremediation sources within these systems. Compared to traditional chemical methods, FTWs rely on an enhanced plant- and microbe-based nutrient cycling system to improve water quality. These structures offer potential benefits beyond water treatment. FTWs may provide structural habitat or nutritional benefits that support wildlife; however, this ecological impact remains understudied. This research explores the benefits of FTWs within Se7en Wetlands, an operational wastewater treatment system located south of Lakeland, Florida. The primary objectives of this study include assessing the

following categories pre- and post-installation of five FTWs: (1) species richness, (2) species evenness, and (3) wildlife usage. Wildlife activity will be monitored using a multi-method approach consisting of daily camera trap footage and seasonal visual encounter surveys. This data will contribute to our efforts in documenting species presence, abundance, and behaviors associated with these structures. Addressing the lack of research around the ecological impacts of FTWs will fill the current knowledge gaps surrounding the multi-functionality of these structures. These findings will contribute to a better understanding of how water treatment infrastructure can support future efforts in water quality improvement, ecosystem functions, and the management of versatile wetland systems.

Student: Caitlin Beery
Major: Biochemistry and Molecular Biology
Faculty Mentor: Shameka Shelby
Time: 1:30-2:00
Type: Oral Presentation
Room: CSC 135

Title: 5-Fluorouracil Delivery via a Cross-Linked Gelatin Matrix to Reduce Recurrence Rates of Squamous and Basal Cell Carcinoma

Abstract: Squamous cell carcinoma (SCC) arises from uncontrolled cell growth in the flat, outermost layer of the epidermis. Basal cell carcinoma (BCC), the most common form of skin cancer, originates from the lower layer of the epidermis. Surgery is the standard treatment for both carcinomas, but incomplete removal can result in recurrence or metastasis, with five-year recurrence rates of up to 5.9% for SCC and 15.4% for BCC. Crosslinked gelatin can serve as a biocompatible drug delivery system that, when combined with chemotherapeutics, may be applied postoperatively to inhibit recurrence. 5-fluorouracil (5-FU), a chemotherapeutic that inhibits nucleic acid synthesis, is widely used to treat SCC and BCC. In this study, crosslinked gelatin matrices loaded with 5-FU were synthesized for potential application following surgical excision. Gelatin was crosslinked with 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide in the presence of 5-FU, entrapping the drug within the matrix. High-performance liquid chromatography confirmed sustained release of 5-FU for over one week. Functional testing in A431 epidermoid carcinoma cells and HEK293 embryonic kidney cells demonstrated a decrease in viability in both loaded and unloaded samples. These results indicate that crosslinked gelatin matrices represent a promising localized delivery platform for 5-FU with the potential to reduce recurrence of SCC and BCC following surgical excision with modifications to the synthesis to improve loading efficiency and reduce solvent contamination.

Student: Isabella Campos
Major: Marine Biology
Faculty Mentor: Ashley Bowers-Macrander
Time: 2:20-2:40
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: The Ecology of Whale Falls

Abstract: Whale falls occur when a whale carcass sinks to the ocean floor, forming a deep-sea ecosystem capable of persisting for upwards of 100 years. These ecosystems are crucial for nutrient input and species dispersal in the deep sea, yet factors influencing their community structure remain poorly understood on a global scale. This study will quantify the effects of abiotic and biotic factors, such as water temperature and depth, on the community composition of whale falls worldwide. Data were compiled from published studies, including information on whale species, depth, and species diversity at each site. A Shannon Diversity Index will be calculated for each whale fall, and statistical

analyses, including ANOVA, will be used to assess differences in diversity across variables. Based on preliminary data, whale fall depth and size are expected to be key factors influencing species diversity. These findings will contribute to a broader understanding of the ecological drivers shaping biodiversity patterns in deep-sea ecosystems.

Student: Trinity Cavaliere
Major: Integrative Biology
Faculty Mentor: Kaitlin Gallagher
Time: 1:40-2:00
Type: Oral Presentation
Room: CSC 108

Title: But were they Shellmates? Examining the Impacts of Chaetogaster Predation on Trematode Infections

Abstract: But were they really shellmates? - Examining the impacts of Chaetogaster predation on trematode infections.
Trinity A. Cavaliere, Kaitlin A. Gallagher
Trematodes are an abundant parasite of vertebrates that can have severe ecological, economic, and human health impacts. Our primary control method is the use of molluscicides to kill the intermediate hosts, however it can harm unintended species, so less damaging methods need to be found. A natural control method might be predation on an early stage of the trematode, specifically from the oligochaete Chaetogaster limnaei. A few studies have documented this relationship within a few snail species, but given the lack of geographic variety, it is unknown how common the phenomenon is. My study focused on determining whether this predatory relationship is seen in planorbid snails in Lakeland, Florida. I collected and necropsied 234 snails, representing 5 different species, across summer, winter, and spring months in 2025-2026. In summer, 28.7% of snails hosted C. limnaei, and 19.8% hosted redia, with one coinfection. In winter, 37.5% hosted C. limnaei, and 12.5% hosted redia. In the spring, 51.1% had C. limnaei and 8.5% had redia, with one coinfection. From there, I ran Fisher's exact tests to determine whether either the trematodes or oligochaetes demonstrate seasonality, and I found a significant difference in C. limnaei presence between the summer and spring. I also ran a t-test to determine if C. limnaei had a significant impact on trematode prevalence, however, the difference was insignificant. With the only significant result being about seasonality, more work is needed to determine whether these oligochaetes are influencing trematode populations.

Student: Genevieve Chaon
Major: Biotechnology
Faculty Mentor: Brittany Gasper
Time: 2:00-2:20
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: Why so Stressed? The Impact of Environmental Stressors on Aquatic Microorganisms

Abstract: Bodies of freshwater in coastal regions are at a high risk for salinization, which is the process by which saltwater contaminates freshwater. To understand the mechanisms that organisms may use to combat the increasing salinity in the environment, I collected water samples from Lake Hollingsworth and plated them onto marine agar to determine which microbes tolerated the salinity. Two chromatic organisms were isolated, a bright orange, Gram-positive rod and a vibrant pink, Gram-negative cocci. 16S ribosomal sequencing revealed these to be an Exiguobacterium and a Serratia, respectively. These two bacteria were subjected to multiple stressors to test the limitations of each species. Each bacterium was inoculated in broth containing tryptone, yeast extract, and varying concentrations of salt, ranging

between 0% to 12.5%, increasing in 0.5% intervals, to help approximate growth rate. Antibiotic sensitivity testing was also performed using eight antibiotics. Additionally, the bacteria were inoculated into LB Broth with pH ranging from 5 to 8.5, increasing in half intervals and both bacteria were able to grow at each pH. Next steps will look at how the changes in salinity have impacted gene regulation. This research will help us gain a better understanding of how bacteria respond to stressors and what mechanisms permit survival in extreme environments.

Student: Caroline Croft
Major: Computer Science
Faculty Mentor: Matthew Eicholtz
Time: 4:00-4:20
Type: Honors Thesis Proposal Presentation
Room: BBB 116

Title: Should I Sell This? Building a Smart Closet Decision App

Abstract: Many people want to clean out their closets but are unsure whether an item is worth selling, better to donate, or worth keeping. This honors project develops a data-driven decision-support app that helps users make that choice using market analytics and machine learning. The app combines user-provided item information (brand, category, condition, size, and product details) with structured resale marketplace comparables to produce personalized recommendations: Sell the item (with a suggested price range and recommended platform), Donate the item (with local women's shelter donation options), Keep the item. To support this, I am building and curating a normalized fashion resale dataset and standardizing key fields across noisy real-world listings. The project includes data-cleaning rules to ensure category and condition consistency, exploratory analysis of price behavior across brand/category/condition segments, and calibration-ready model inputs for platform-specific pricing predictions. The goal is to make closet cleanout decisions more practical, transparent, and impactful by combining personal utility (earning from resale) with community impact (directing low-resale items to local donation channels). This project demonstrates how applied analytics can translate raw marketplace data into clear, user-friendly recommendations for everyday decision-making.

Student: Dariana Priscila Cruz Rivas
Major: Spanish
Faculty Mentor: Melissa Garr
Time: 1:20-1:40
Type: Oral Presentation
Room: CSC 109

Title: Childhood, Power, and the Loss of Innocence in "El catecismo" and "El árbol de oro"

Abstract: This project examines how childhood is represented in two Spanish short stories: "El catecismo" by Emilia Pardo Bazán and "El árbol de oro" by Ana María Matute. Although written in different historical periods, both stories portray childhood not as a time of protection or innocence, but as a formative stage shaped and often limited, by the adult world. Through child protagonists, the authors explore how children come to understand themselves within social systems they do not control. In "El catecismo," Pardo Bazán presents a child whose education is governed by religious and moral discipline. The story reveals how obedience, guilt, and conformity are instilled from an early age through rigid instruction, reflecting a society that prioritizes control over understanding. In contrast, Matute's "El árbol de oro," set in a postwar context, depicts a child confronting an emotionally distant and morally opaque adult world. Here, the loss of innocence occurs not through formal discipline, but through neglect, cruelty, and the collapse of imagination as a refuge.

By comparing these two texts, this study shows how Spanish literature uses childhood to expose broader social structures of power. The analysis demonstrates that childhood functions as a space of conflict between the inner world of the child and the external forces that shape identity. Ultimately, this project highlights how literary portrayals of children reveal the emotional and moral costs of social systems imposed by adults.

Student: Alana Evans
Major: English
Faculty Mentor: Jennifer Moffitt
Time: 4:00-4:20
Type: Honors Thesis Project Presentation
Room: BBB 112

Title: Flora, Fauna, Formaldehyde: The Untold Stories of Florida's Environment

Abstract: In the face of rising climate crises, it is important to consider what role literature plays in conservation. Writers carry the unique ability to raise awareness, foster change, and answer the humanitarian questions that science cannot. Utilizing the genre of eco-fabulism (environmental fiction combined with fabulism), I have written a collection of short stories related to the destruction of Florida wildlife. By examining the themes found within my stories, I aim to demonstrate how eco-fabulism uses imagination and empathy to view real world environmental crises from a new perspective, therefore bringing greater awareness to the destruction of Florida and the resulting consequences for both humans and nonhumans.

Student: Tanner Ford
Major: Chemistry
Faculty Mentor: Scott Wallen
Time: 2:00-2:30
Type: Oral Presentation
Room: CSC 135

Title: Development of Structured, Biogenic Solvent Systems for the Synthesis of Core-Shell Nanomaterials

Abstract: This project investigates the efficacy of using 100% biodiesel (BD-100) as a solvent in a specific reaction for the synthesis of silver and/or gold core-shell nanoparticles. The reaction was designed to maximize the use of biogenic components while maintaining the precision of size control on the nanoparticle products. In this approach, petrochemical-based solvents like isooctane, dodecane, and hexanes are commonly used. Solvent waste in synthetic chemistry accounts for roughly 70% of total waste and the solvents currently used have extensive disposals. When disposed of correctly, petrochemicals release greenhouse gasses into the atmosphere. The objective of this investigation is to expand the applicability of biodiesel as a solvent in synthetic chemistry. The results of experimentation were analyzed quantitatively using UV-Vis spectroscopy, Transmission Electron Microscopy, and Dynamic Light Scattering. These give insight to the particle size and shape distribution. Qualitatively the biodiesel will be examined for its efficacy at every step ensuring its validity in the reaction. The reaction contains operating parameters that allow for size control with little adjustment to the method. The parameters include temperature, the water to surfactant molar ratio, and reagents used. With success in the areas listed above, BD-100 may serve as a viable alternative to commonly used solvents lessening the impact of solvent waste in synthesis. Core-shell nanoparticles were the target product due to their potential relevance in future remediation applications; when paired with catalytic shell materials such as TiO_2, the plasmonic resonance of the metallic core can enhance catalytic performance for processes including water remediation.

Student: Amarra Fusco
Major: Spanish
Faculty Mentor: Melissa Garr
Time: 1:00-1:20
Type: Oral Presentation
Room: CSC 109

Title: "Dale": Music, Identity, and Transnational Cubanidad in the Work of Pitbull

Abstract: Music often serves as a powerful space for expressing and maintaining cultural identity, especially within immigrant and diaspora communities. This presentation examines how Pitbull's 2015 album Dale reflects and promotes Cuban American identity within the largely English-dominated U.S. music industry. As a Cuban American artist raised in Miami, Pitbull has built a global career while continuing to reference his cultural heritage through language, rhythm, and collaboration. The album Dale is particularly significant because it prominently features collaborations with Cuban artists such as Gente de Zona, Osmani García, and El Micha. Through songs like "Piensas (Dile la Verdad)," "El Taxi," and "El Party," Pitbull incorporates musical styles and rhythms connected to Cuban and Caribbean traditions, including reggaeton and son-influenced sounds. These collaborations help connect audiences in the United States with artists and musical trends emerging from Cuba while also reinforcing Pitbull's own cultural roots. This presentation argues that Dale functions as a cultural bridge between Cuba, the Cuban diaspora in Miami, and the broader global music industry. By incorporating Spanish-language lyrics and Cuban musical influences while maintaining mainstream commercial success, Pitbull demonstrates how artists can balance cultural authenticity with global appeal. Ultimately, the album illustrates how popular music can strengthen transnational cultural connections and help redefine what it means to be Cuban American in contemporary global culture.

Student: Henry Germroth
Major: Chemistry
Faculty Mentor: Deborah Bromfield Lee
Time: 1:00-1:20
Type: Honors Thesis Proposal Presentation
Room: CSC 135

Title: Safe and Sustainable Synthesis of Chalcones: Modification and Evaluation of Green Methods

Abstract: The existence of numerous complex medical issues ranging from cancers to infections present a perpetual need to uncover more effective treatment options and make finding new compounds with such properties a priority, but equally, there is a need to ensure that the syntheses of these compounds do not present undue risk or harm, counter to the principles of Green Chemistry. Chalcones are considered to be medically privileged structures which serve as a baseline scaffold for many promising medically potent organic compounds. The green synthesis of chalcone derivatives is an area of study in which improvement can be done such that greener methods of synthesis can be refined. Several methods such as the use of Deep-Eutectic solvents, mechanochemistry, and microwave assisted synthesis are known to function as green synthesis methods, but finding refinements to these processes is beneficial such that it will allow for these syntheses to better adhere to Green Chemistry principles while maintaining sufficient yields. To illustrate the need for improvement in this area, a study of the lifetime of several reagents used in conventional and green syntheses will be performed to ascertain the nature of the problems these reagents can pose from sourcing to disposal. Further, modifications will be made to these green synthesis procedures in an effort to better articulate the yields and relative adherence to Green Chemistry principles that these methods provide.

Student: Ryan Gibbs
Major: Environmental Studies
Faculty Mentor: Eric Kjellmark
Time: 4:00-4:20
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: Contextualizing the Biotic and Anthropogenic Factors of Lakeland, Florida's Urban Forest and Drafting a Holistic Management Plan

Abstract: Climate change threatens Florida with a variety of issues, including but not limited to an increasing amount of extreme temperature events, more frequent and intense hurricanes, and longer droughts. Urban forests give protection from Florida's extreme summer heat that is only more palpable in highly developed areas, while providing other needed ecosystem and anthropogenic services. Therefore, it is of particular importance to make smart decisions for managing and planting urban trees that take into account the changes our state and planet at large are experiencing. Through a comprehensive set of research, including soil testing, visual assessments, and measurements of temperature and tree heights; the specific issues facing Lakeland's urban forest will be elucidated, and a management plan that provides insulation from climate change and all other determined issues will be drafted. The nucleus of this plan will be a street-by-street planting legend that takes the varying microclimatic realities of the urban context into account. This legend will be furnished with a broad-scale species recommendation table for future diversification and expansion of the urban forest. Upon adoption, this plan will allow Lakeland to lead as an example of strong, conscious, science-based urban forestry that prioritizes longevity and recognition of how our climate is being altered.

Student: Malin Gines
Major: Biology
Faculty Mentor: Jason Macrander
Time: 4:20-4:40
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: Molecular Warfare: The Coevolution of Snake Venom Metalloproteinases and Defensive Inhibitors

Abstract: Pit vipers are responsible for thousands of deaths across the world as well as major disabilities. Snake Venom Metalloproteinases (SVMPs) are a group of multi-domain enzymes in pit vipers that are responsible for many symptoms of pit viper venom, such as hemorrhaging and necrosis. This research will focus on the coevolution between the non-venomous snakes and pit vipers with SVMPs and Snake Venom Metalloproteinase Inhibitors (SVMPIs). The project will compare RNA of pit vipers and non-venomous snakes that interact with the pit vipers. SVMPs and SVMPIs in different species will be compared to see how SVMPIs have evolved in different species of snakes to defend against SVMPs. The goal will be to identify SVMPI candidates with either conserved or accelerated rates of evolution to identify potential targets of coevolution and further biomedical exploration. By comparing sequences across different groups of snakes and individual species, inhibitor sequence candidates can be identified quickly; making proteins from those sequences could provide an alternative from antivenom derived from milking venomous snakes and long-term animal immunization.

Student: Gabriella Gray
Major: Environmental Studies
Faculty Mentor: Jennifer Mitchell
Time: 5:40-6:00
Type: Oral Presentation
Room: BBB 111

Title: Lakeland Water Quality

Abstract: Hypereutrophic is a condition that a body of water is considered when it has an excess of nutrients. These nutrients can come from a variety of sources, one of which being trash. Unfortunately, our very own Lake Hollingsworth suffers from eutrophication, and this can have some negative consequences on the environment. In this presentation we will take a look at the possible causes, impacts, and a possible approach.

Student: Lorien Greenlee
Major: Art History and Museum Studies
Faculty Mentor: Kristen Carter
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: BBB 116

Title: Designing Gender: Queering Lace and Exploring Traditional Lacemaking Techniques

Abstract: Lace in contemporary fashion and society is often associated with notions of femininity, decoration, and concealment. These notions are each half of traditional dichotomies: female versus male, decorative versus useful, and concealing versus revealing. I am proposing creating a garment whose form disrupts these ideas and plays with their associated binaries by combining and avoiding typical associations. Building off Judith Butler's argument that gender is a performance and exploring the history of lace and fashion, this creative project aims to create a garment featuring handmade lace that subverts traditional binaries associated with lace and situates that garment within the aforementioned histories. My proposed project will consist of an artist statement and a physical garment. The artist statement will expand upon the traditional research paper by doing three main things: contextualizing the development of my garment, placing it in conversation with key texts like Judith Butler's Gender Trouble, and describing the process of creating my work. The other half of this project, the garment itself, I will design and construct based on the theory explored within my artist statement. While much of the research focuses on the relationships between gender and textile art or lace, my project will highlight a junction between the act of handmaking textiles, ideas of gender, and a queering of the history of lace. Beyond merely filling a gap in research, I hope to propose a way to expand upon ideas that are often confined to theory and history by turning research into a physical product.

Student: Madi Hahn
Major: Marine Biology
Faculty Mentor: Ashley Bowers-Macrander
Time: 2:40-3:00
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: Bioaccumulation of Microplastics in the Marine Environment and Its Potential Impacts

Abstract: With a growing amount of plastic pollution ending up in waterways, it has become a main topic of interest to environmental scientists. One particular aspect of plastic pollution that is of great concern is microplastics. Microplastics are microscopic pieces of plastic resulting from the degradation of plastic. As they become more abundant in the marine environment, they can have severe negative impacts on the organisms that inhabit it. Organisms ingest microplastics and studies have found that this

can impact important internal processes such as digestion. Furthermore, they can become potentially dangerous as they accumulate within organisms due to their trophic interactions. Organisms at the bottom of the trophic pyramid, often the primary producers, are the first to ingest the microplastics. Then the organisms higher on the pyramid consume large amounts of these organisms, thus ingesting the microplastics, leading to them accumulating in higher amounts in the consumers, the further up they are in the food web. Additionally, the organisms that are at higher trophic levels tend to be the species that humans consume, leading to people ingesting microplastics through the process of trophic transfer. This study aims to compare various sites around Florida to test for the presence of microplastics and determine possible environmental and human health impacts. Starting at the bottom of the food web with a primary producer, seagrass samples will be collected and analyzed to determine the amount of microplastics contained in their tissues that could be transferred to their consumers.

Student: Peyton Hanser **Major:** Chemistry
Faculty Mentor: Jason Montgomery and Micah Brown
Time: 4:30-5:00 **Type:** Oral Presentation
Room: CSC 135

Title: DFT Modeling of Molecularly Imprinted Polymer Films for Electrochemical Sensing Applications

Abstract: Carbamazepine (CBZ) is an anticonvulsant agent and a persistent contaminant in the environment. It is among a collection of active pharmaceutical ingredients (APIs) that are not specifically treated by wastewater reclamation facilities and whose cumulative ecological impacts are largely unknown. In order to interrogate its effects, quick and accurate detection of CBZ in the field is essential, which is greatly facilitated by electrochemical sensors. Accurate detection of CBZ is possible with utilization of a molecularly imprinted polymer film deposited onto an electrochemical sensor, however development of these sensors is experimentally and waste intensive. To model the interaction which mediates MIP-based sensing, DFT calculations were utilized to model the interaction between the analyte, CBZ, and three different polymers (poly-2-aminophenol, poly-phenol, and poly-o-phenylenediamine) to determine the stability of the polymer-analyte complex formed. Quantitative and qualitative markers were utilized to rank the complexes according to sensitivity towards CBZ. These results were compared to collected experimental data to determine the accuracy of the DFT model and guide adjustments. Successful replication of the experimental ranking of the sensitivity of polymers towards CBZ validated the use of this model as a predictive tool to determine the selectivity of the polymers towards two common interferants, Caffeine and Nicotine.

Student: Kaliyah Henderson **Major:** Environmental Studies
Faculty Mentor: Ashley Bowers-Macrander
Time: 3:00-3:20 **Type:** Honors Thesis Project Presentation
Room: BBB 116

Title: Investigating Microplastic Presence in Coral Sediments of the Mesoamerican Reef in Roatan, Honduras

Abstract: I took sediment samples from the Mesoamerican Reef in Roatan, Honduras. I took these samples to a lab and used a density separation technique to make the microplastics float. I let the samples sit over night and extracted the plastic 24 hours later. I brought these samples back to FSC, used a stain to make the plastics glow, and analyzed them under a microscope. I took photos of the plastics

and uploaded them to a software called ImageJ in order to accurately count the plastics and measure their size. I used this data to see if there is any correlation between microplastics and the Healthy Reef Report Card for the Mesoamerican Reef.

Student: Alyssa Hicks **Major:** Chemistry
Faculty Mentor: Micah Brown and Lauren Griffiths
Time: 3:00-3:30 **Type:** Oral Presentation
Room: CSC 135

Title: Evaluating Lead Attenuation and Phytoremediation Potential of Native and Non-Native Scleria Species Using Matrix-Corrected APDC Chelation and Flame Atomic Absorption Spectrometry

Abstract: Lead is a toxic metal that accumulates in wetlands through industrial runoff, mining waste, and other human activities. Even tiny amounts are harmful, especially to children, affecting brain development, kidney function, and the cardiovascular system. This study was motivated by concerns over potential contamination in the Seven Wetlands System in Lakeland, Florida, an area where aging infrastructure and legacy lead pipes may contribute to heavy metal inputs in surrounding waterways. Accurately measuring lead in wetland water is challenging because the water contains complex mixtures of organic material, plant compounds, and competing minerals that can interfere with detection. This study explores whether native and non-native North American wetland plants (Scleria triglomerata and Scleria lacustris), both found in the Seven Wetlands System, can naturally reduce dissolved lead concentrations through phytoremediation. A chemical extraction technique using APDC isolates lead from water samples before measurement by flame atomic absorption spectrometry. A key challenge is that the biological complexity of wetland water can cause typical measurement methods to report inaccurate results. To address this, the standard addition method is used to account for matrix interferences and produce more reliable measurements. Dried plant biomass is also analyzed to determine where lead accumulates within the plant: roots, stems, or leaves, thus helping identify which specific type of phytoremediation is occurring. Ultimately, this work focuses on developing trustworthy analytical techniques to measure lead accurately in real-world environmental conditions, laying the groundwork for future wetland-based cleanup strategies.

Student: Nathan Holmes **Major:** Exercise Science
Faculty Mentors: Sara Terrell and Erica Marshall
Time: 1:00-1:20 **Type:** Honors Thesis Proposal Presentation
Room: BBB 112

Title: Exploring Heart Rate Variability Biofeedback in Male Collegiate Cross-Country Athletes

Abstract: Background: Collegiate male cross-country athletes experience high physiological stress, which can impair the autonomic nervous system. Pre-sleep heart rate variability biofeedback (HRVB) may improve vagal measures of heart rate variability (HRV) and athletic performance. Purpose: This study will examine if a pre-sleep HRVB intervention will improve vagally mediated HRV measures and 8km race performance in male collegiate cross-county runners. Proposed Methods: Participants will be randomly assigned to the HRVB or control (CON) group based on an 8km time trial performance. During lab visit 1, participants will be familiarized with the chest strap (Polar H10) and mobile phone application (Elite HRV). Heart rate (HR) data will be collected every morning for 7 days to gather the following HRV measures: RMSSD, HF Power, pNN50. At lab visit 2, the HRVB group will determine individualized resonance frequency breathing. For the next 7 days, the HRVB group will conduct 10-

minute HRVB breathing sessions within 45 minutes of bedtime. Both groups will continue with morning HR data collection. Athletic performance will be assessed with an 8km race. Two-way analysis of variance (ANOVA) tests will be used to determine differences in vagal HRV measures and 8km race performance between HRVB and CON. Anticipated Significance: Findings may elucidate HRVB as a practical tool to improve autonomic function and enhance performance in male collegiate cross-country runners.

Student: Grace Howard
Major: Nursing
Faculty Mentor: Brittany Behrens
Time: 2:20-2:40
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Experiences of Psychiatric Nurses Who Have Been Assaulted by a Patient

Abstract: Workplace violence (WPV) against nurses is an ever-increasing issue. A recent study found that as many as 65% of nurses reported being physically assaulted while at work (O'Brien et al., 2024). Nurses who experience WPV often report negative psychological effects after the event. They state feeling increased sadness, fear, anxiety, and stress (Lim et al., 2023). Nurses also report feeling a decrease in self-confidence and job satisfaction after a WPV event (Lim et al., 2023). Although there is a considerable amount of research done on psychiatric nursing there is a lack of research done on the qualitative experiences of psychiatric nurses in the United States The purpose of this study is to explore the psychological and physical experiences of psychiatric nurses after they have been physically assaulted by a patient. Participants were expected to fill out an eligibility survey and then participate in one semi structured video interview via Zoom. Eligibility criteria included nurses working in the psychiatric field who have been physically assaulted by a patient. The nurses needed to have been registered nurses for at least one year and the physical assault needed to have occurred within the past five years. Exclusion criteria included the physical assault taking place outside of the United States of America. This research will add important information to the body of knowledge surrounding both the physical and psychological experiences of psychiatric nurses following physical assault by a patient. A better understanding of these experiences may guide future workplace safety standards.

Student: Halle Humbaugh
Major: Chemistry
Faculty Mentor: Deborah Bromfield Lee
Time: 4:00-4:30
Type: Honors Thesis Project Presentation
Room: CSC 135

Title: Using a Quantitative UV-Vis Spectrophotometer Analysis to Determine Significant Differences Between the Antioxidant Capabilities of Synthetic and Natural Flavonoids

Abstract: Flavonoids are an important category of molecules that have been found in all kinds of vascular plants. They have a generalized structure of C6-C3-C6 with two aromatic rings and a heterocyclic ring containing one oxygen atom.1 Flavonoids have been shown to exhibit anti-inflammatory, anti-cancer, anti-microbial, and antioxidant properties.2 Their ability to suppress free radicals is also the mechanism through which they exhibit antioxidant properties and can be quantitatively measured through the use of a DPPH• (2,2-diphenyl-1-picrylhydrazyl radical) assay.3 Both synthetic and natural flavonoids have been the focus of antimicrobial and antioxidant studies, and while both produce promising results for potential drug use, there have not been any studies directly comparing the antioxidant capabilities of synthetic and natural flavonoids.3,4 The goal of this project

was to optimize a DPPH free-radical scavenging assay and use it to generate preliminary antioxidant data for several synthetic chalcones and selected natural molecules. A Trolox calibration curve was constructed to quantify antioxidant activity in Trolox equivalents, and two trials were completed to evaluate the assay's reproducibility. The first trial showed a linear response up to approximately 300 μM Trolox, whereas the second plateaued near 150 μM, indicating sensitivity of the assay to variations in DPPH stability and initial absorbance. Preliminary testing revealed that curcumin exhibited measurable antioxidant activity, while the synthetic chalcones and citric acid showed little to no response under the conditions used. These findings highlight the need for further optimization before meaningful comparisons between natural and synthetic molecules can be made, but they also establish a framework for future studies of flavonoid-based antioxidants.

Student: Audrey Jones
Major: Exercise Science
Faculty Mentor: Sara Terrell
Time: 1:20-1:40
Type: Honors Thesis Proposal Presentation
Room: BBB 112

Title: Exploring Heart Rate Variability Biofeedback in Orchestral Musicians

Abstract: Introduction: Orchestral musicians face repetitive movements, long rehearsals and sustained postures, leading to emotional and physical stress. This can alter autonomic nervous system (ANS) function and cause musculoskeletal injuries and chronic pain. Heart rate variability biofeedback (HRVB) has been reported to improve vagal measures of heart rate variability (HRV) and reduce pain in multiple populations. Purpose: This study aims to determine whether HRVB improves vagally mediated measures of HRV and perceived pain in collegiate orchestral musicians. Proposed Methods: This study will employ a case-series design and convenience sample of collegiate orchestral musicians. At laboratory visit one, anthropometric data and pain assessment will be collected. Pain will be assessed using a modified Brief Pain Inventory (BPI). Participants will be familiarized with a chest strap (Polar H10) and phone application (Elite HRV). For a 7-day baseline period, participants will collect daily heart rate (HR) and daily pain levels via a visual analog scale (VAS). HR data will be used to generate HRV indices: RMSSD, HF power, and pNN50. At lab visit two, participants will complete HRVB techniques to determine individual resonance breathing (RB) measures. During a 7-day intervention, participants will continue morning HR and daily VAS collection while also performing 10 minutes of HRVB 30-60 minutes before bedtime. A second BPI will be conducted at the end of the intervention. Differences in HRV indices, BPI, and VAS pain assessments will be compared between baseline and intervention. Anticipated Significance: The results of this study may support HRVB as a non-invasive strategy to improve ANS function and reduce chronic pain in musicians.

Student: Maggie Shay Jordan
Major: English
Faculty Mentor: Erica Bernheim
Time: 4:20-4:40
Type: Oral Presentation
Room: BBB 112

Title: Writing Feminomenon: Exploring the Theme of Girlhood in My Poems & Their Sisters

Abstract: "Writing Feminomenon: Exploring the Themes of Girlhood in My Poems & Their Sisters" explores girlhood through some of the lenses which I encounter most often: performance, surveillance, and rebellion. Through close readings of three of my original works, this presentation examines how young feminine identities are shaped by the forces we aren't yet old enough to fight. Incorporating Anne

Sexton's "Her Kind," Margaret Atwood's "Marrying the Hangman," and Audre Lorde's "Hanging Fire" allows me to acknowledge the powerful feminist lineage upon which my poems stand on, while also placing my work into conversation with those voices. In positioning them together, this project aims to interrogate the active negotiations of girlhood.

Student: Riley Karau
Faculty Mentor: Samuel Romero
Time: 3:40-4:00
Room: CSC 109

Major: Graphic Design

Type: Honors Thesis Project Presentation

Title: Set Type Foundry: Revitalizing Physical Process In Contemporary Typography

Abstract: The art of typography is often subtle and seldom explicitly noticed. This distinction only magnifies its significance. Graphic design is everywhere. It is optical, physical, and psychological. It can be emotional, political, or discreet. It is all-encompassing and yet undervalued. Type is a critical and fundamental tenet of visual communication. It serves as a channel through which the language of design is expressed. Throughout the duration of this project, I have developed a type foundry called Set Type and designed three typefaces from start to finish. Named as a nod to the original hot lead typesetters of the past, and taking inspiration from the Bauhaus ideals of innovation and functionality, Set Type's mission is to fuse traditional process with contemporary practice. In addition, through social and web output, it is meant to be a design hub, with an emphasis on community and creative inspiration. The goal is not just to create and sell fonts; it is to build a place where the type and design processes shed any barriers to access. I have applied my research on type and design in theory as a conclusive study in practice. In an increasingly noisy, cluttered, and tech-filled world, the modern graphic designer grows more and more distant from the physical making process with each passing day. This project serves as an act of design rebellion and a living example of the importance of the human hand in and throughout the design process.

Student: June Kelly
Faculty Mentor: Elizabeth Gennari
Time: 4:20-4:40
Room: BBB 116

Major: Biology

Type: Honors Thesis Project Presentation

Title: Substrate and Light Color Preferences in Camponotus Ants

Abstract: Many studies cover how insects utilize chemoreception to navigate or find food (Zjacic & Scholz, 2022). Insects receive the odor of a food source through taste or olfaction and respond accordingly. However, more senses than chemoreception influence insect behavior. Visual reception among insects is well studied; the results generally indicate a preference for UV and green light (Aksoy & Camlitepe, 2018). The honeybee (Hymenoptera, Family Apidae, genus Apis) has operated as the model for insect vision studies since the work of Karl von Frisch more than a century ago (Aksoy & Camlitepe, 2018). However, the vision of the honeybee focuses on flower identification and navigation through flight, rather than the walking movement of their terrestrial cohorts, the ants (Order Hymenoptera, Family Formicidae). What little research exists about sight or texture in the Formicidae often focuses on morphological adaptations or conditioned associations; though ants are eusocial, virtually no research investigates their vision and tactility on a spontaneous level. Inquiry into initial reactions and preferences towards colors (vision) and texture (tactility) may lay the groundwork for more complex studies on isolated or wandering ants. As such, we developed a series of experiments to

test if Camponotus ants–either C. castaneus, C. sayi, or C. pennsylvanicus–prefer walking over certain substrate types with regards to light cues, as well as if substrate texture or environmental lighting impacts their behavior more often. Possible utility for the findings of this study include in pest control, analysis of invasive ant species, or hobby ant farming.

Student: Mary Kissane
Faculty Mentor: Kristen Carter
Time: 1:00-1:20
Room: BBB 116

Major: Art History and Museum Studies

Type: Honors Thesis Proposal Presentation

Title: Lover Boys: The Relationship Between Sexuality, Power, and Citizenship as Seen in Pederastic Portrayals on Attic Pottery

Abstract: Ancient Athenian Pottery has been known to depict scenes of pederasty, relationships between an older man (erastês) and a younger man (erômenos). Such examples can be used to understand and analyze the connection between sexuality, power, and citizenship. Michel Foucault's History of Sexuality Vol. 2: The Use of Pleasure, discusses the way in which homosexuality was interwoven into Athenian High Society. Foucault's discussion of the relationship between sexuality and power, as well as sexuality and citizenship, lends itself to similar discussion surrounding such representations in attic pottery. Additionally, using Giorgio Agamben's Homo Sacer, one can look at the relationship between power and citizenship. One can discuss the 'submissive' partner in attic pottery in relation to both the erômenos and also as the 'sacred man,' as is discussed in Agamben's book. This relationship will be discussed more thoroughly in the full paper.

Student: Elisabeth Kranek
Faculty Mentor: Christy Wolovich
Time: 2:20-2:40
Room: CSC 108

Major: Biology

Type: Honors Thesis Proposal Presentation

Title: Social Dynamics and Resource Utilization in Managed African Elephants (Loxodonta africana)

Abstract: Social complexity in long-lived mammals like the African elephant (Loxodonta africana) is a vital survival strategy governed by dominance hierarchies and enhanced cognitive abilities. In the wild, these dynamics are mitigated through fission-fusion sociality, whereby individuals or subgroups can leave and then rejoin their herd at a later time. However, in managed environments, restricted space and fixed resources limit their mobility and could alter these interactions. I aim to study the herd of African elephants at ZooTampa to investigate the relationship between their use of resources within their habitat and their social dynamics. Specifically, I will examine how established dominance patterns influence the use of critical thermoregulatory resources, such as shade structures, mud wallows, and pools, and whether these sites act as catalysts for agonistic or affiliative behaviors. I will observe video recordings of the elephants remotely and use ZooMonitor to score data and make comparisons between social interactions occurring at high-value resources and those occurring in open-space areas. I hypothesize that dominant individuals will maintain priority access to thermoregulatory resources, while subordinate individuals will display affiliative behaviors to gain access to these areas of their habitat. Understanding potential agonistic triggers is critical for optimizing enclosure design to improve animal welfare and mitigate social frustration in captive elephants. This research may uncover new information regarding affiliative behaviors associated with shared resource use, offering a more holistic view of elephant

sociality. Furthermore, this study serves as a model for how remote research could inform management decisions regarding socially complex and cognitively advanced animals.

Student: Sofiia Kuklina
Major: Biotechnology
Faculty Mentor: Jason Macrander
Time: 4:00-4:20
Type: Oral Presentation
Room: BBB 111

Title: ShK Toxin Variability in Sea Anemones as a Platform for New Drug Discovery

Abstract: ShK neurotoxin, initially identified in Stichodactyla helianthus, is a potent blocker of voltage-gated potassium channels (Kv1.3). Although synthetic derivatives of ShK have shown promising results in clinical trials, current derivatives face limitations in pharmacokinetics, selectivity, and stability, prompting the need for novel analogs with improved therapeutic profiles. Building on the clinically relevant ShK scaffold, we identified and structurally characterized 216 novel ShK-like protein candidates from transcriptomic datasets of diverse sea anemone species. Each analog contains conserved cysteine frameworks consistent with Kv1.3 channel inhibition. We performed structural modeling and conducted rigid-body docking using HDOCK to predict interactions between ShK analogs and human Kv1.3 channels. This structure screening approach enables rapid prioritization of ShK variants with optimized docking properties for selective Kv1.3 inhibition. Our results provide insight into identifying structurally diverse ShK-like peptides that may overcome previous challenges experienced with drug development efforts targeting Kv1.3. By expanding the pool of toxin-based immunotherapeutics these candidates may support future development of venom derived peptide drugs that target autoimmune diseases.

Student: Reese Laird
Major: Biology
Faculty Mentor: Ashley Bowers-Macrander
Time: 3:20-3:40
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: The Role of Visual and Acoustic Sensory Cues in the Shell Selection Process of the Caribbean Hermit Crab

Abstract: Hermit crabs exhibit complex decision making skills when choosing which shell to inhabit. Throughout this process, many sensory systems are utilized including the visual, olfactory, and acoustic systems. While the role of sensory systems in shell selection for marine hermit crabs has been widely studied, little has been done on land hermit crabs. This study investigated shell selection in land hermit crabs and potential impacts of visual and acoustic stimuli. Because land crabs have less developed visual systems, greater reliance on acoustic cues was expected. It was hypothesized that the presence of predator noise would increase shell choice latency and correlate with poor shell choice when compared to white noise or silence and that this effect would disappear in the dark due to reduced visual capabilities. Caribbean hermit crabs (Coenobita clypeatus) were tested by offering black or white shells, with the expectation of environmental color matching for camouflage. Shell choice was tested in the presence and absence of light and with the addition of white noise and predator noise. Results partially accepted the hypothesis. Under silent conditions, black shells were preferred (dark: $p = 0.0114$, light: $p = 0.0348$), exhibiting camouflage behavior but this preference disappeared in trials with white noise (dark: $p = 0.3657$ light: $p= 0.5637$) or predator noise (dark: $p = 0.2059$, light: $p=0.1655$) , indicating a disruption of the decision making process. There was no difference between choice in light vs dark

conditions (p=0.5926). These findings have implications for sensory and behavioral ecology and enhance the understanding of hermit crab's shell selection process, highlighting the need to reduce noise pollution to protect them and their important ecological contributions.

Student: Lexi Lapore-Paternostro
Major: Communication
Faculty Mentor: Bruce Anderson
Time: 4:00-4:20
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: A Dire Situation: Proposing a Virtual Voir Dire

Abstract: Current U.S. jury selection—or "Voir Dire"—is a protected right for our citizens, but is inefficient and unproductive. This has caused delayed trials and uninterested jurors, especially after the COVID-19 pandemic. With the help of published scholarship and interviews with practicing attorneys, I have conducted a simulative virtual jury selection to support my proposal of online jury selection as an alternative in courtrooms across the nation. This presentation is an analysis of my research and of the simulation, based on participant feedback and personal observation.

Student: Geanne Malcolm
Major: Chemistry
Faculty Mentor: Shameka Shelby
Time: 5:00-5:30
Type: Oral Presentation
Room: CSC 135

Title: Assessing the Efficacy of NSAID-Releasing Hemostatic Agents for Postoperative Pain Management

Abstract: Pain management remains one of the primary challenges patients face during postoperative wound care. Non-steroidal anti-inflammatory drugs (NSAIDs) such as diclofenac and ketorolac reduce inflammation and pain through the inhibition of the cyclooxygenase (COX) enzymes. While effective and cost-efficient, high systemic doses are associated with cardiovascular and gastric adverse effects. To address this challenge, this study evaluated NSAID-releasing hemostatic agents designed for localized postoperative pain management. To generate the NSAID-releasing hemostatic agents, gelatin was crosslinked with 1-ethyl-3-(3 dimenthylaminopropyl)carbodiimide in the presence of ketorolac. HPLC analysis confirmed controlled drug release over a two-week period and quantified the cumulative concentration released over time. LoVo cells, an immortalized colorectal cancer cell line that robustly expresses COX-1 and COX-2, were used as a model to assess drug efficacy. Western blot analysis revealed that ketorolac-containing hemostats reduced the expression of both COX-1 and 2. These results suggest that these NSAID-releasing hemostatic agents provide sustained release of NSAIDs with preserved bioactivity and may represent a promising approach to improving postoperative pain management while minimizing systemic side effects.

Student: Jenna McHardy
Major: Chemistry
Faculty Mentor: Deborah Bromfield Lee
Time: 2:30-3:00
Type: Honors Thesis Proposal Presentation
Room: CSC 135

Title: Greener Modification to the Wittig Reaction to Produce Stilbene Molecules for Anticancer Evaluation

Abstract: Stilbenes, small organic molecules, are naturally occurring and have been found to possess significant anticancer and antioxidant properties. These molecules can be synthesized through an organic chemistry reaction known as the Wittig reaction, which was first used by George Wittig in 1954. Since then, many variations of the reaction have been developed using green chemistry principles, such as safer solvents and solid support methods with resins. The Wittig reaction can be utilized to synthesize a library of stilbenes utilizing solid support synthesis using polystyrene resin beads loaded with triphenylphosphine. This method allows for great variations in structures. The method was studied for its ability to be a one-pot reaction. The research group will explore the impact of substituent effects of the stilbenes against pancreatic cancer. The cell possesses DNA sequences that can form G-quadruplexes. G-quadruplexes are four-stranded nucleic acid motifs that are stabilized by hydrogen bonding between guanine bases and metal ions bound to guanine C6=O6 groups. The binding of the stilbene molecules to the DNA strand will be investigated using infrared spectroscopy instrumentation and the formation of a G-quadruplex can be monitored.

Student: Madison Mulvihill
Major: Computer Science
Faculty Mentor: Matthew Eicholtz
Time: 3:00-3:20
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Using Artificial Intelligence to Predict Engagement with Animal Rescue Content on Social Media

Abstract: This project will use artificial intelligence (AI) to study how animal rescue content performs on social media, with a focus on Instagram. Animal welfare organizations rely heavily on these platforms such as Instagram to promote adoptions, raise awareness, and secure donations, yet little is known about what makes certain posts more successful than others. Using data from Instagram, this research will analyze publicly available posts and videos related to animal rescue and adoption. The dataset includes information such as view counts, captions, hashtags, post type (video, photo, etc.), and engagement metrics (shares, likes, comments). By applying AI based machine learning models, the project will aim to identify which factors from the dataset are most effective in increasing engagement rates. This research will demonstrate the power of AI to enhance the visibility of animal rescue efforts and make a measurable difference in the lives of rescue animals.

Student: Abigail Murray
Major: Theatre Arts
Faculty Mentor: Christopher Arthur
Time: 4:40-5:00
Type: Honors Thesis Project Presentation
Room: CSC 109

Title: The Stories We Told: Reflections on Creating a Florida Southern Fringe Festival

Abstract: Originally proposed as “The Stories We Need to Tell,” this presentation will discuss the process, results, and reactions of the first Florida Southern Fringe Festival that was held on March 22nd

at the Frank Lloyd Wright Theatre-In-The-Round. The goal of the project was to create an all-access arts festival, known as Fringe, to showcase original student-made works in theatre, dance, music, visual and literary art. The presentation will compare the original proposal to the reality of the event, reflect on key decisions in festival development, analyze the functionality of the event itself, and examine the viability of the festival for the future.

Student: Jistien Muzyl
Faculty Mentor: Erica Bernheim
Time: 1:20-1:40
Room: BBB 116

Major: Humanities

Type: Oral Presentation

Title: Reflecting Grief/Death: Poetry's Role in My Process

Abstract: This presentation explores Grief/Death and poetry's role in my process. We will be looking at my work, "The Questions A Kid Might Have About Death", "A Letter To Death", and excerpts from works in progress. Then we will look at "Do Not Go Gentle Into That Goodnight" by Dylan Thomas and "One Art" by Elizabeth Bishop. Exploring aspects of the grieving process as they relate to my work.

Student: Kala Nelson
Faculty Mentor: Benjamin Montgomery
Time: 3:00-3:20
Room: CSC 108

Major: Music Performance

Type: Honors Thesis Project Presentation

Title: Reading Between the Neumes

Abstract: This project explores the intersection of music theory, natural philosophy, and theology in the European Medieval Period, with a special focus on the work of 13th-century Franciscan polymath Juan Gil de Zamora. The research traces the philosophy of modal affect from its Pythagorean roots in Ancient Greece, through early Christian philosophers such as Boethius and St. Augustine. From its Pythagorean origins onwards, these mathematical principles, thought to be the same as those that govern the cosmos, were also seen as a means of affecting human physical and spiritual equilibrium. Using the analytical framework provided by Willi Apel, this project examines the structural foundations of the church modes. An emphasis of this research includes a focused analysis of Juan Gil de Zamora's Ars Musica, which bridges the gap between the mathematical theory of Boethius, encultured modal affect, and Franciscan devotion by assigning distinct "personalities" to each mode. Finally, this study examines the practical application of modal ethos through an analysis of text-setting in Gregorian chant. By correlating specific thematic keywords, such as lament or praise, with their corresponding modal classifications, this research demonstrates that modal choice was deliberately used to reinforce the emotional affect of the liturgy. Ultimately, this thesis investigates the philosophical development that for the medieval church, music, especially Gregorian Chant, functioned not only as an extension of the practice of psalmody, but as a tool for aiding the human soul's reach for the divine through the intentional alignment of technical architecture and textual intent.

Student: Sarah Nguyen
Major: Biochemistry and Molecular Biology
Faculty Mentor: Deborah Bromfield Lee
Time: 3:30-4:00
Type: Honors Thesis Project Presentation
Room: CSC 135

Title: Restoring Antibiotic Efficacy: An In-Silico Study of Chalcone Derivatives as NorA Efflux Pump Inhibitors Against S. Aureus

Abstract: Antimicrobial resistance is a crisis stemming from the lack of effective antibiotics. Lower investment and engagement from pharmaceutical companies are allowing resistant microbes to outpace development. Therefore, the use of therapeutic agents for drug repurposing can aid in combating this. Chalcone derivatives demonstrate potential as efflux pump inhibitors against the NorA efflux pump in Staphylococcus aureus by synergistically enhancing the effect of fluoroquinolones. Computational studies were utilized to assess structural mechanisms using SWISS-MODEL, MolProbity, Spartan, AutoDock, SwissADME, and ChimeraX. Various models, such as Lipinski's Rule of Five and Veber's rule, predict drug pharmacokinetics and oral bioavailability. It was found that (2E)-1-(2-hydroxy-3-methylquinolin-7-yl)-3-(3-methoxyphenyl)but-2-en-1-one (DBLSN1), which is a quinoline-chalcone hybrid, had a ΔGbinding = -9.06 kcal/mol and showed a high binding affinity compared to literature molecules due to hydrophobic interactions. The drug interaction between DBLSN1 and ciprofloxacin was further examined via cytochrome P450 isoforms for synergism analysis. From this study, a student activity was developed to evaluate additional chalcone derivatives. The aim was to train future students in drug design by providing an introduction to computational tools and accelerating the drug discovery pipeline with a metabolic system of their interest. While there are limitations, such as the insufficient knowledge on structural-activity relationships, resistance mechanisms in NorA, and variations and exceptions in predictive models, this is a step forward toward revitalizing antibiotic research and development while restoring the efficacy of existing treatments.

Student: Anika Petam
Major: Nursing
Faculty Mentor: Tim Burns
Time: 3:40-4:00
Type: Honors Thesis Project Presentation
Room: BBB 116

Title: More Than Machines: Hemodialysis Patients' Perception of Therapeutic Communication

Abstract: Hemodialysis is life-sustaining treatment used when the kidneys can no longer effectively remove waste and excess fluid from the blood. During hemodialysis, blood is circulated through a machine that acts as an artificial kidney, filtering toxins and extra fluid before returning the cleaned blood to the body. Patients with renal issues may receive hemodialysis several times per week, with each session lasting multiple hours. Due to the frequency and duration of treatment, patients often spend significant time interacting with healthcare providers in dialysis settings. These repeated interactions make communication an important part of the patient experience. Therapeutic communication refers to intentional communication techniques used by healthcare professionals to build trust, provide emotional support, and help patients better understand their care. This study examines how adult hemodialysis patients perceive therapeutic communication with their healthcare team.The purpose of this research is to better understand how communication influences patients' feelings of support, trust, and overall satisfaction with care. By identifying patterns in patient perceptions, this study aims to emphasize the role of effective communication in dialysis care and highlight opportunities to improve patient-centered interactions between healthcare providers and individuals undergoing long-term dialysis treatment.

Student: Emma Mae-Anne Pfeiffer
Major: Criminology
Faculty Mentor: Jennifer Freeman-Walker
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: CSC 108

Title: The Impact of Social Media on College Student's Perception of Police Conduct

Abstract: My honors proposal focuses on the impact of social media on college students' perceptions of policing, focusing specifically on how the content consumed by this group influences trust in law enforcement. My presentation will explore how social media has evolved to include news stories that can go 'viral' yet don't always tell the whole story. I focus on how these social media platforms are used as a vice for police conduct related content and how this may cause increasing distrust of law enforcement by college students. This is a relevant issue because overall satisfaction and trust in the police is declining, we need to find a cause of this and potentially a solution.

Student: Sophia Grace Posick
Major: Political Communication
Faculty Mentor: Bruce Anderson
Time: 4:20-4:40
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: G.R.I.T.S.: A Statistical Analysis of the South Tracing Cultural Differences Within the United States Through National Congressional Representation

Abstract: The cultural uniqueness of the American South has long intrigued scholars across disciplines, yet quantifying this distinctiveness remains challenging. This research applies a statistical lens to a traditionally qualitative field, using biographical data on members of the U.S. Congress as a proxy to analyze cultural differences of the America south. Drawing from the Inter-University Consortium for Political and Social Research (ICPSR) dataset, which includes detailed characteristics of over 11,000 congressional officeholders from 1789 to 1996, this research will construct a South versus non-South variable and perform regression analysis. While much of the existing literature relies on ecological or global comparisons, this project emphasizes within-country cultural differences. It argues that elected officials, shaped by and reflective of their constituencies, offer valuable insights into regional cultures. Through this interdisciplinary approach, this research will contribute a new method for estimating cultural variation within the United States, grounded in political representation and historical data.

Student: Angel Potter
Major: History
Faculty Mentor: James Denham
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: The Effect of the Prohibition Era on Politics, Society, and Economics in the Florida Keys

Abstract: For my Honors thesis, I seek to explore the topic of prohibition in the Florida Keys and how it subsequently impacted the political, social, and economic culture of the islands. My project aims to highlight the individual players who contributed to the highly complex community that evolved before, during, and after the Prohibition Era. Given its geographical position to the United States, Cuba, and the Bahamas, the Florida Keys became a hot spot for illegal activities. After the 18th Amendment was established and the Volstead Act was passed, new challenges in enforcement arose, developing questions about how federal laws would be implemented, especially when intersecting with international

laws and regulations. Additionally, as enforcement grew, underground societies of select communities and criminal organizations flourished, creating another set of social issues needing to be addressed. Developments such as these created an economic culture as smuggling opened the door for economic opportunity. Enforcers and criminals alike influenced the overall political, social, and economic culture within the Keys, which I seek to observe and discover through a variety of primary sources, such as photographs, oral histories, and local newspapers.

Student: Daniel Andrew Ramirez
Major: Biology
Faculty Mentor: Kaitlin Gallagher
Time: 4:40-5:00
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Prevalence of Mosquito-Borne Parasites Around Lake Hollingsworth

Abstract: Vector borne illnesses are known to infect both humans and wildlife, yet very little research currently exists on the prevalence of wildlife parasites. My research aims to fill this gap in knowledge by determining whether 4 parasitic genera, Dirofilaria, Plasmodium, Haemoproteus, and Leucocytozoon, are being transmitted to wildlife by mosquitoes in Lakeland, Florida. Based on previous research, I expect Plasmodium will be the most prevalent parasitic genera. Mosquitoes were collected from two sites at Florida Southern College. Their blood meals underwent DNA extraction using the DNeasy Blood and Tissue Kit, with parasitic DNA being amplified through PCR with general Haemosporidia, Plasmodium and Leucocytozoon primers as well as species-specific D. immitis and D. repens primers. So far 455 mosquitoes have been collected from 4 different genera; 280 Culex, 119 Anopheles, 54 Aedes, and 2 Culiseta. 31 of these mosquitoes contained blood meals; 2 Aedes and 29 Culex. DNA was successfully extracted from all 31 mosquitoes. PCR and gel electrophoresis is currently underway.

Student: Grace Reed
Major: Exercise Science
Faculty Mentor: Erica Marshall
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: BBB 112

Title: Heart Rate Variability Biofeedback and Cross-Country Runners

Abstract: Female collegiate cross-country runners experience high physiological and psychological demands that may impair autonomic regulation and recovery. Heart rate variability biofeedback (HRVB) has been demonstrated to improve vagal measures of heart rate variability (HRV) and performance. Therefore, the purpose of this study is to determine if pre-sleep HRVB improves vagally mediated measures of HRV and athletic performance in female collegiate cross-country runners. Division II cross country female athletes will be invited to participate. Participants will be randomly assigned to HRVB and control (CON) groups based upon a baseline time trial performance. Heart rate (HR) data will be collected daily for 7 consecutive days using a chest strap (Polar H10) and a mobile phone application (Elite HRV) to establish baseline HRV indices: root mean square of successive differences (RMSSD), high-frequency (HF) power, and percentage of normal-to-normal intervals differing more than 50 milliseconds (pNN50). Following this baseline period, participants in the HRVB group will complete 10-minute nightly HRVB sessions for 7 days. Both groups will continue daily HR data collection for an additional 7 days. Performance will be assessed using a 6k cross-country race. Two-way analysis of variance (ANOVA) tests will be used to examine differences in vagal HRV indices: RMSSD, HF power, and pNN50 and 6k race performance between HRVB and CON. The

results of this study may provide practical insight into HRVB as a non-invasive strategy to enhance autonomic recovery and performance in female collegiate endurance athletes.

Student: Luke Reeves **Major:** Political Science
Collaborators: Dani Perli, Colton Bernaldo, Alisia Francisco, Madeleine Meadows, Chris Metzler, Brandi Oliver, Marco Sanchez, LaLa Titow, Reagan Rosenthal, and D'Andre Kerr
Faculty Mentors: Bruce Anderson and Shameka Shelby
Time: 5:00-5:45 **Type:** Oral Presentation
Room: CSC 108

Title: Advancing Medicine Efficiently: An Analysis of U.S. Drug Approval Mechanisms

Abstract: This comprehensive analysis examines the multiple pathways available for navigating the United States drug approval process, working through the regulations in place that balance the need for rapid access to treatments with the need to ensure safety and effectiveness. As medical innovation increasingly intersects with emergency preparedness, understanding how a medical product moves from early concept to patient use has become more important than ever. The study first outlines the traditional approval pathway administered by the U.S. Food and Drug Administration, including preclinical research, Investigational New Drug applications, phase 1 clinical trials, and New Drug Application submissions. While this process is rigorous and designed to protect public health, it is often lengthy, expensive, and difficult for smaller research teams or institutions to navigate. For this reason, the research also examines alternative regulatory mechanisms that provide more efficient routes during urgent situations, such as Emergency Use Authorizations, Fast Track designation, Breakthrough Therapy designation, and Accelerated Approval. Finally, relevant policy considerations are explored, particularly Public Law 115-92, which encourages collaboration between the FDA and the Department of Defense to accelerate the development and approval of medical products needed for national security and emergency response. This analysis does not assert what option is best, but simply what is available and the components of that respective process.

Student: Sofia Restom Gaskill **Major:** Theatre Arts
Faculty Mentor: Erica Bernheim
Time: 3:20-3:40 **Type:** Honors Thesis Project Presentation
Room: CSC 109

Title: "Orestes in the Mirror": Adapting an Ancient Greek Tragedy

Abstract: This Honors Senior Project Presentation details my strategies, thought processes, and struggles as I wrote my own play, a reinterpretation of the Ancient Greek myth of Orestes and Electra. My retelling, entitled Orestes in the Mirror, brings the myth to the modern day and tackles themes of identity, grief, and the guilt of moving on. The myth of Orestes and Electra is the only myth that was adapted into plays by all three extant Ancient Greek dramatists: Sophocles, Euripides, and Aeschylus. It is also one of the most widely adapted Ancient Greek myths. In my research, I observed and analyzed the three Ancient Greek plays, along with three more modern adaptations, using a New Historicist lens, observing how the cultural, political, and social climates surrounding the playwrights impacted how they interpreted the myth. Through my research and the creation of my own adaptation, I have explored what exactly makes this myth so intriguing to so many people, and how different playwrights apply the core basis of the myth to different time periods and cultural situations. I then used all my research to create my own retelling, Orestes in the Mirror, which reflects the current social and cultural climate we see in the world today.

Student: Jason Rowe
Major: Biochemistry and Molecular Biology
Faculty Mentor: Deborah Bromfield Lee
Time: 5:30-6:00
Type: Oral Presentation
Room: CSC 135

Title: Synthesis and Comparative Analysis of Cationic and Neutral Chalcone Derivatives as Antibacterial Agents

Abstract: Antibiotic resistance is emerging as a critical global health concern, causing commonplace infections to be increasingly difficult to manage. Because of this research into novel types of molecules that can act as effective antibacterial agents are being looked at. Chalcones are a group of compounds with a simple and adjustable structure that have shown promise as they can attack bacteria in several different ways such as damaging cell membranes or interfering with important biological processes. This project focuses on comparing typical neutral chalcones with a positively charged ammonium moiety. The synthesis of these quarernary amine chalcones are being synthesized, with a focus on green chemistry to help reduce the use of harmful chemicals and energy. The intermediates and final structures are confirmed using standard spectroscopy techniques (NMR and IR). The results of the project are hypothesized that positively with ammonium salt ions charged chalcones will be more effective than the neutral chalcones as they should interact with the bacteria's cell membranes more favorably. The compounds can later be evaluate against two common strands of bacteria Staphylococcus aureus and Escherichia coli, to measure how effectively they stop bacterial growth or kill the bacteria.

Student: Ben Ruby
Major: Communication
Faculty Mentors: Alex Ortiz and Leilani Goodmon
Time: 1:20-1:40
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Music and the Classroom: An Evaluation of Music's Effect on College Students

Abstract: Music is widely recognized for its therapeutic and stress-reducing benefits. The purpose of this quasi-experimental study was to determine how Concert Choir participation at Florida Southern College was related to students' well-being, academic performance, and musical engagement. The study was driven by four key questions: (1) What is the relationship between choir participation and students' overall academic performance and the perceptions of the impact of their participation on their academic performance? (2) What is the relationship between choir participation and the mental well-being of college students? (3) What is the relationship between choir participation and students' eagerness to continue musical activities after their enrollment? (4) How does previous performative music experience (high vs. low) relate to college students' ability to enjoy choir? Drawing on existing literature of music therapy and cognitive benefits, this study aimed to identify patterns in students' perceptions of choir as a form of emotional and academic support. Thirty-one students completed three surveys across the Fall 2025 semester that measured GPA, well-being, musical interest, and additional qualitative questions. Paired-sample t-tests showed a significant GPA decrease and reduced interest in future Concert Choir enrollment at FSC, but an increased interest in post-graduation ensemble participation, with no significant change in overall well-being. While students described Concert Choir as supportive and community-oriented, rehearsal demands and time pressures may have limited academic benefits despite fostering long-term musical identity. These findings suggest that while choir participation fosters emotional well-being and sustained musical interest, structural and contextual factors may limit its academic benefits and sustainability as a voluntary activity.

Student: Grace Ryan
Major: Theatre Arts
Faculty Mentor: Sarah Tice
Time: 2:00-2:20
Type: Honors Thesis Proposal Presentation
Room: CSC 109

Title: Beyond the Script: The Laramie Project, A Catalyst for Change

Abstract: This presentation brings together my two fields of study BFA Theatre Performance and Communications by exploring how storytelling through theatre can inspire social change. It focuses on The Laramie Project, a play developed from real interviews conducted after the 1998 murder of college student Matthew Shepard. This project examines how one story extended beyond the stage to influence public awareness and national legislation. The Laramie Project uses the authentic voices of a community to create a powerful emotional experience for audiences. By presenting diverse perspectives, the play encourages viewers to confront issues of hate crimes and discrimination against the LGBTQ+ community. Its impact reached far beyond theatrical spaces, contributing to increased national attention and dialogue. This heightened awareness ultimately played a role in the passage of the Matthew Shepard and James Byrd Jr. Hate Crimes Prevention Act in 2009. As a Communications major with a focus in multimedia, I am particularly interested in how stories are shared across platforms through written, digital, and oral forms to expand their reach and influence. These platforms are the way I would like to present my project. In addition to analyzing the play, I will attend a live performance at a local theatre and conduct interviews to gain further insight into audience and performer perspectives. By combining theatrical analysis with multimedia communication strategies, this presentation demonstrates how storytelling can foster empathy, spark meaningful dialogue, and contribute to social change.

Student: Emma Sammons
Major: Business Administration
Faculty Mentor: Cindy Hardin
Time: 1:00-1:20
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Considerations of the Civil Jury

Abstract: When considering the jury system- what role do our youngest jury members play? As the newest population of adults, what do they bring to the table in jury deliberations? This project focuses on people aged 18-24 and their interactions with civil jury system- particularly in relation to high dollar civil cases where juries are asked to award amounts in the multi-millions. Participants were asked to read a trial transcript and give their input on award amounts- allowing insight into how some of our potential young jurors think- and what it means in the context of our jury system!

Student: Catherine Sarte
Major: Computer Science
Faculty Mentor: Matthew Eicholtz
Time: 4:40-5:00
Type: Honors Thesis Project Presentation
Room: BBB 116

Title: AI-Powered Psoriasis Severity Assessment: Integrating PGA and BSA for Scalable Clinical and At-Home Use

Abstract: Psoriasis affects nearly 2–3% of the Western population, yet accurately tracking its severity remains a persistent challenge for both patients and clinicians. Current gold-standard measures such as the Psoriasis Area and Severity Index (PASI) are comprehensive but often too time-intensive for routine

clinical use or patient self-monitoring. This project introduces an AI-powered mobile application designed to simplify and automate psoriasis severity assessment by combining Physician Global Assessment (PGA) and Body Surface Area (BSA) scoring into a fast, accessible tool. Using advanced image segmentation and classification techniques, the model evaluates psoriasis lesions from user-captured images to generate clinically meaningful severity scores in real time. Beyond scoring, the platform aims to enhance patient engagement through personalized insights and enable seamless communication with dermatologists by tracking and sharing disease progression. Trained on a diverse dataset to ensure robustness across orientation types and severity, this system seeks to reduce clinical burden while empowering patients with actionable information. By reimagining how psoriasis is monitored, this work highlights the potential of AI to bridge gaps between clinical precision and everyday usability, offering a scalable, patient-centered solution for dermatological care.

Student: Kendall Schafer
Major: Biology
Faculty Mentor: Brittany Gasper
Time: 1:00-1:20
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: Skin Microbiota and Acne Vulgaris: Examining the Prevalence and Antibiotic Susceptibilities of Microbial Species among Facial Lesions

Abstract: Acne vulgaris, otherwise known as acne, is a common inflammatory skin disease of the pilosebaceous units along the skin. Previous literature on the relationship between acne vulgaris and the skin microbiome suggests that the species C. acnes and S. epidermidis play a key role in acne development due to variations in their abundances and the interactions between them. Likewise, the fungal species Malassezia has also been implicated in acne development given its increased colonization in both inflammatory and noninflammatory lesions. With that being said, research into the microbial composition of inflammatory and non-inflammatory acne lesions of collegiate young adults has yet to be established in the field. Thus, this study aimed to examine the prevalence of targeted species on various facial regions of college students afflicted with different acne severities. In addition to this, the degree of antibiotic resistance of the microbial species cultured from student samples was also examined here to gain more insight into the effectiveness of antibiotic use as a form of acne treatment. A total of 15 students were sampled from Florida Southern College via use of the SONA system for participant recruitment. These samples were then cultured on three different selective media for the aforementioned species and analyzed for prevalence via CFU calculations. Of the 15 sets of samples cultured, four were further examined for antibiotic resistance against a number of antibiotics and topical ointments. Findings gathered from these tests were recorded, analyzed and will be discussed in depth at the time of thesis presentation.

Student: Jacob Sells
Major: Environmental Studies
Faculty Mentor: Lauren Griffiths
Time: 1:20-1:40
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: A Clash in the Wetlands: Native vs. Non-Natives in the Battle for Phosphorus

Abstract: Constructed wetland systems are widely used for nutrient removal in wastewater treatment, but their efficacy can vary depending on plant species composition. To evaluate phosphorus uptake by native and non-native sedge species, we constructed mesocosms planted with two Scleria species (one

native and one non-native). Mesocosms received controlled phosphorus inputs through irrigation from July - November 2025, and water samples were collected twice weekly from the mesocosm outflows to measure phosphorus concentrations. At the end of the experiment, plant biomass was collected to standardize phosphorus uptake measurements. Preliminary results suggest that the non-native species was more efficient in reducing water column phosphorus. The average removal for native and non-native mesocosms was 2.30 ± 0.44 and 2.35 ± 0.83 mg-P/L, respectively, which was not significantly different from one another. These findings suggest that Scleria species are generally efficient at phosphorus removal, with there being no substantial difference between native and non-native species. As such, native species are suitable for use in constructed wetland systems and non-native populations should be thoroughly managed.

Student: Tanner Simpson
Major: Accounting
Faculty Mentor: Chandler Miller
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: BBB 111

Title: Endangered or Empowered: An Honest Assessment of the Current and Future Impact of Agentic AI on Accounting

Abstract: We are living in the era of a massive social and technological shift towards the use of Artificial Intelligence. AI is rapidly flowing into every industry and sector in the world, from art and music, to marketing and social media, to our own military. More recently, the onset of Agentic AI, as opposed to Generative AI, has thrown the world into a frenzy trying to channel its power for a competitive advantage. Agentic AI is an AI agent that acts in a cyclical, constant nature instead of a question-and-answer pattern. Agentic AI is given a goal, often a long-term, complex one that involves multi-step processes with layers of factors. The AI agent first reasons how it might complete this goal, forms a plan to accomplish it, executes its plan, analyzes the results, and then continues trying in this cycle. Agentic AI has the power to transform the world in almost every industry, but this paper will focus on the current and future impact that it will have on the accounting industry. It will examine the applications in auditing, taxation, compliance, bookkeeping, and other fields, and will consider the legal and cybersecurity implications of its use. After reading this assessment, the reader will have a comprehensive understanding of exactly what Agentic AI does in every sector of accounting, the ways in which it is transformative and the ways in which it is not. This assessment will answer the question of whether Agentic AI will remove the accounting industry altogether or empower it to be better.

Student: Kelsey Slone
Major: Biology
Faculty Mentor: Lauren Griffiths
Time: 3:00-3:20
Type: Honors Thesis Project Presentation
Room: CSC 109

Title: Heavy Metals and Nutrient Pollution in Florida: An Assessment of the Lead-Phosphorus Relationship

Abstract: An increase in human population has resulted in a greater rate of pollution including heavy metals which can accumulate in waterways. The presence of heavy metals, such as lead, in waterways has implications for human health and the environment, affecting biological processes in both systems. Nutrients, such as phosphorus, have also been found to be present in waterways and serve as a threat due to rapid algal growth. Through analysis of phosphorus and lead concentrations in Duval County, Florida

from 2020-2025, this study aims to explore the relationship between these compounds over time. I hypothesized that lead and phosphorus concentrations would be negatively correlated since previous studies have shown that phosphorus causes the immobilization of lead. To test this prediction, water quality data was collected from the National Water Quality Monitoring Council database and monthly averages of lead and phosphorus were assessed. Average lead concentration throughout the study period was 0.71 ug/L and average phosphorus concentration was 0.61 mg/L. Spearman's rank correlation analysis showed a weak negative correlation between monthly phosphorus and lead concentrations, however, this relationship was not statistically significant, indicating no evidence for a significant relationship between lead and phosphorus concentrations. This suggests that phosphorus pollution does not cause the immobilization of lead when concentrations are relatively low, however further studies should determine if this trend holds in waters with higher lead concentrations. This study provides the framework for future studies of high-population densities in Florida to help determine the parameters of the correlation between lead and phosphorus.

Student: Nathaniel Smart
Major: Political Science
Faculty Mentor: Bruce Anderson
Time: 4:40-5:00
Type: Honors Thesis Proposal Presentation
Room: CSC 108

Title: Municipal Elections Across the United States: A Comparative Analysis

Abstract: My honor's thesis will seek to examine voter turnout in municipal elections across the United States. I plan to examine voter turnout in different cities and compare them with state and federal elections. Cities will further be examined based on demographics and geographics to see if any trends emerge. The paper will also include an examination of voting laws and election timing to determine what impact they have on voter turnout.

Student: Joshua Smith
Major: Marine Biology
Faculty Mentor: Lauren Griffiths
Time: 5:40-6:00
Type: Honors Thesis Proposal Presentation
Room: BBB 116

Title: Health Assessment of Eight Wetlands in Central Florida Based on Surrounding Land-Use Categories.

Abstract: The wetlands of Central Florida provide many ecosystem services such as flood control, aquifer recharge, and water treatment. However, with these services comes a price tag on how a wetland is valued. As the population increases in Florida, urbanization is likely to continue requiring new expansions of land and more construction. When these expansions take place, wetlands are the first to be removed or altered. In an effort to provide information to slow the process of wetland degradation and alteration, our goal is to determine how specific land use categories (urban, agricultural, and natural) will impact overall wetland health and community structure. We will conduct field sampling on 8 freshwater marsh wetlands within Central Florida to conduct assessments, soil sampling, and vegetation and water analysis to assess health. I hypothesize that wetlands surrounded by urban areas will have the poorest health, whereas natural areas will be the healthiest due to their distance from anthropogenic activity. This data will provide insights to help determine pathways to shield them from further exploitation and degradation.

Student: Emma Summer
Major: Religion and Youth Ministry
Faculty Mentor: Kyle Fedler
Time: 1:40-2:00
Type: Oral Presentation
Room: BBB 116

Title: Youth Ministry as a Response to the Adolescent Loneliness Epidemic

Abstract: Today's adolescents are struggling through a loneliness epidemic caused not by technology, but rather the lack of meaningful connections with others. While living in a digital world that connects everyone to anyone, teens report feeling isolated as online communities amplify the problem of loneliness rather than remedy it. The effects of loneliness on mental health are significant as rates of depression and anxiety are increasing among Gen Z and Gen Alpha, creating an issue that demands for immediate attention. This paper serves to argue that youth ministry within the Christian church is in position to help fight this epidemic. Looking at the history of youth ministry shows the shift from discipleship to entertainment-driven programming, leading to the lack of authenticity and spiritual underdevelopment of adolescents, creating a barrier between teens and the body of the church. Drawing from research primarily by the Barna Group, Fuller Institute, and theologian Dietrich Bonhoeffer's "Life Together," this paper pinpoints four areas of connection that youth ministry needs to strengthen: a youth minister's relation with individual students through discipleship, integrating youth into the church congregation, encouraging youth in their faith outside the church, and equipping parents to be active participants in their teens' lives. Overall, effective youth ministry needs to be qualitative, not quantitative to ensure the development of the church's younger generations. The ultimate goal is cultivating lifelong faith to help the youth through this loneliness epidemic. The church has the calling and capacity to utilize youth ministry for such a purpose.

Student: Coral Tolman
Major: Marine Biology
Faculty Mentor: Jason Macrander
Time: 3:40-4:00
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Diving into Sedimentation: How Intermittent Sedimentation Indicative of SCUBA Diving Affects Coral Growth and Physiology

Abstract: SCUBA diving is one of the most sought-after forms of ecotourism today. Some of the highest demanded dives focus on coral reefs due to their beauty and diversity. Recent research has focused on the relationship between divers and reefs, especially the unfavorable impacts of high diving concentration. These studies show a strong diving presence can have negative effects on coral health, abundance, and resilience. One of the ways in which divers impact the reefs is increased sedimentation, yet little is known about how sedimentation affects coral polyps individually. In order to better comprehend this relationship, I exposed coral fragments to intermittent sedimentation over 9 weeks. I collected clippings and images at weeks 0, 4 and 9. Images were analyzed using ImageJ to calculate growth over time, and RNA extractions were performed to analyze gene expression. (Still working on results). This study can help to inform management practices in areas with high diver presence or areas with other causes of periodic sedimentation.

Student: Lorna Truett
Major: Philosophy
Faculty Mentor: Kyle Fedler
Time: 2:00-2:20
Type: Oral Presentation
Room: BBB 116

Title: The Ethics of Pet Euthanasia

Abstract: Euthanasia of companion animals is a common practice in modern veterinary medicine. Although it's intended to alleviate suffering, it raises ethical questions concerning the morality of humans ending a pet's life. This paper examines if euthanizing pets is morally justifiable by analyzing the practice through multiple ethical lenses. Following a historical overview of the development and the methods of animal euthanasia, the paper explores the moral status of companion animals and why their suffering deserves ethical consideration. The utilitarian perspective states that euthanasia may be morally permissible when it reduces overall suffering. However, it is never justifiable when performed for human convenience rather than the animal's welfare. Deontological ethics highlights duties toward animals and argues that while cruelty is morally wrong, euthanasia may be permissible when it serves the animal's well-being. The animal should not be treated as a mere means to an end. Additionally, it delves into the rights of animals and provides a framework for the moral status of pets. Care ethics emphasizes the relational responsibilities of caretakers toward dependent animals, framing compassionate euthanasia as an act of responsibility when suffering becomes unavoidable. This paper argues that euthanasia can be morally justified when performed as a last resort to relieve unavoidable suffering, but it becomes unethical when motivated by convenience or neglect of the animal's interests.

Student: Karla Van Loon
Major: Music
Faculty Mentor: Benjamin Montgomery
Time: 3:20-3:40
Type: Honors Thesis Project Presentation
Room: BBB 111

Title: Tunes Across The Globe, A Comparison of Western European, South Indian & West African Musical Traditions

Abstract: Analytical research regarding musical works and compositions is a subject of crucial importance to better understand the workings of this main factor of cultural identity. For the past century, scholars have developed many theories to analyze the inner workings of music as we know it; however, this research has been limited, holding only one practice of music as a standard of research. When involving musical praxis of cultures other than those developed from European tradition, we see a lack of accepted procedures when studying the compositional approaches to these genres. With many authors creating their own theories, but few of them expanding on their colleagues' work, the ethnomusicological community faces a crossroads in the standardization of multicultural musical analysis. In this study, the set theory approach of James Burns in his article Rhythmic Archetypes in Instrumental Music from Africa and the Diaspora is implemented to transcribe musical patterns of 3 culturally different pieces. Using Burns' approach to analyze musical pattern behavior and inclinations has resulted in multiple characteristics that can be compared cross-culturally, lacking the historical and cultural baggage of traditional Western analysis. This process has delivered promising results for comparison purposes, introducing a viable analysis method that gives insight into melodic, rhythmic, and harmonic differences and similarities. Further research involving a bigger data set could provide even further comprehension on culturally significant practices and promote cross-cultural musical composition and research. Broadening the scope of repertoire studied will enhance our understanding of musical techniques and elevate future musical traditions.

Student: Lauren Vargas
Major: Spanish
Faculty Mentor: Melissa Garr
Time: 1:40-2:00
Type: Oral Presentation
Room: CSC 109

Title: The Pride behind DtMF

Abstract: It's about the pride and meaning behind Bad Bunny's newest album, DtMF. It will also connect to the political climate of what is going on and the political impact that his album has made.

Student: Kevin Vondruska
Major: Nursing
Faculty Mentor: Jennie Lynn Florkey
Time: 2:00-2:20
Type: Honors Thesis Proposal Presentation
Room: BBB 111

Title: Experiencing Language Barriers: Effects of a Role-Reversal Virtual Reality Simulation on Nursing Students' Empathy and Cultural Competence

Abstract: Although patients in the United States are increasingly more lingustically diverse than nursing staff, English-speaking nurses use interpretation services in fewer than half of all encounters involving clients with limited English proficiency (LEP), contributing to poorer outcomes and increased safety risks from communication errors. Developing empathy and cultural competence in future nurses may encourage more consistent use of interpreters to improve the quality of care for linguistically diverse patients. This project examines explores whether a role-reversal virtual reality (VR) simulation can improve nursing students' empathy and cultural competence when caring for patients with LEP. The study aims to determine baseline cultural competence, implement a realistic role-reversal simulation, and evaluate whether the intervention increases empathy toward LEP Hispanic patients. This study will measure empathy before and after a 10-minute immersive VR simulation in which English-speaking nursing students experience seeking care in a Spanish-speaking emergency department while unable to communicate with providers in their native language. The simulation is designed to replicate the confusion, anxiety, and vulnerability patients with LEP may experience in healthcare settings. Participants will complete two validated instruments before and after the simulation: the Scale of Ethnocultural Empathy and the Kiersma-Chen Empathy Scale. Data collection and analysis will occur in Fall 2026. Results will be reported at Fiat Lux in Spring 2027. By improving students' understanding of the challenges faced by LEP patients, this project aims to promote safer nursing practice and support the use of VR-based empathy training to strengthen equitable care for linguistically diverse populations.

Student: Michael Yuska
Major: Psychology
Faculty Mentor: Victoria Lew
Time: 3:20-3:40
Type: Honors Thesis Project Presentation
Room: BBB 116

Title: Rising Burnout, Stable Emotional Intelligence: Cohort Trends in Higher Education

Abstract: Emotional intelligence (EI) is defined as the ability to perceive, understand, and regulate emotions. Scholars have identified EI as a foundational component of well-being, performance, and resilience against burnout across both educational and workplace contexts. Individuals with higher EI tend to exhibit stronger problem-solving skills, more effective coping strategies, and healthier interpersonal relationships. Burnout, characterized by emotional exhaustion, cynicism, and diminished

professional efficacy, is increasingly prevalent among college students and is linked to decreased academic performance and engagement. Although prior research has examined EI and burnout independently, fewer studies have explored their combined relationship within post-secondary education, particularly across cohort and gender. The present study examined the relationship between academic cohort, gender, emotional intelligence, and burnout in a sample of undergraduate students. Using a cross-sectional survey design, participants completed self-report measures of EI and burnout. Multivariate analyses indicated no significant interaction between cohort and gender and no significant main effects of cohort on emotional intelligence or burnout. Additionally, gender was not significantly related to emotional intelligence. However, a significant main effect of gender was observed for burnout, specifically across cynicism scores, with males reporting higher levels than females. Together, these findings suggest that while students progress academically, they may not be developing the skills required to cope with the increasing demands of upper-level coursework. The absence of growth in EI, paired with rising cynicism and exhaustion, underscores the need to embed EI training, resilience-building initiatives, and stress management programs into the curricula to better prepare students for the future.

Student: Andrew Zivkovic
Major: Chemistry
Faculty Mentor: Deborah Bromfield Lee
Time: 12:40-1:00
Type: Honors Thesis Proposal Presentation
Room: CSC 135

Title: The Development of Inorganic Chemistry Labs to Incorporate Green Chemistry Principles

Abstract: Inorganic chemistry is a small but important field within chemistry that is concerned with the properties, behaviours, and synthesis of inorganic compounds, which are compounds that are not mainly composed of carbon, mostly including metal compounds and salts. Green chemistry is a concept that attempts to drive chemistry to be safer and more sustainable around the world. Due to the lack of attention towards inorganic chemistry, the relatively new concept of green chemistry has only been marginally incorporated into the curriculum when inorganic chemistry is taught at an undergraduate level, meaning that many of the laboratory experiments are relatively inconsiderate of modern chemical safety guidelines and use potentially hazardous materials and/or techniques. The goals of this project are to research the literature that has been submitted to academic journals and to redesign several of the labs taught at Florida Southern College. These will incorporate green chemistry principles while still demonstrating the desired inorganic chemistry concepts that students have learned in the classroom. This will be done by one of two methods. The first method is to find recent literature about teaching experiments that fit the curriculum and incorporate green chemistry. If there is no literature available, modifications to current lab experiments can be made, either by replacing materials with similar but safer materials, or by changing the techniques to improve safety and energy efficiency. The labs that have been changed from the previous schedule will be tested to ensure proper results are obtainable and interpretable by an undergraduate student.

Student: Santiago Zuniga
Major: Accounting
Faculty Mentor: Vincent Miozzi
Time: 3:40-4:00
Type: Honors Thesis Project Presentation
Room: CSC 108

Title: Voter Demand for Exclusionary and Low-Density Land-Use Zoning Using Regression Analysis According to Tiebout's Model

Abstract: Zoning policies in the United States have defined American cities and shaped their citizens' quality of life. This research examines whether zoning policies in the United States reflect the actual preferences of the voters they intend to serve. Although some authors justify zoning as a tool for managing externalities or protecting property values, a growing body of literature suggests that these regulations tend to inflate housing costs and restrict the development of walkable, mixed-use communities. Homeowners, developers, and automotive interests often have strong incentives to lobby for restrictive zoning, while the broader public faces the high costs of political participation. This results in zoning outcomes that tend to reflect the preferences of concentrated interest groups rather than the majority of voters. Motivated by Charles Tiebout's model of local public goods provision, I treat housing prices as a revealed-preference signal of voter demand for denser zoning. Walkability and zoning policies are intrinsically linked, so I use Walk Score data to indicate stricter, car-dependent zoning versus walkable zoning. To conduct the study, I used U.S. Census Bureau data to create a dataset of all 170 American cities with populations between 100,000 and 150,000. I used Walk Score's city-level walkability index as my independent variable and Zillow's Home Value Index as my dependent variable. Under Tiebout's framework, I hypothesize that higher home values would correlate with increased walkability, indicating that voters are willing to pay a premium for the public good of walkability and, by extension, for less restrictive zoning.

Performances

In alphabetical order by performer's last name.

Student: Olivia Cicco
Major: Dance
Faculty Mentor: Erin LaSala Phillips
Time: 6:00
Type: Dance Performance
Room: Becker Lobby

Title: An Embodied Study of Dream Derived Movement

Abstract: This project explores how dreams move and are viewed through the body. Rather than telling the story of the dream, the choreography focuses on the sensations and patterns that appear in them; like repetition, distortion, and redirection. Movement grows from these experiences, creating movement where dancers shift and restart in different directions. This piece invites the audience to experience the logic of dreaming through the movement rather than a narrative explanation.

Student: Eleora Funk
Major: Southern Studies
Faculty Mentor: Sara Tice
Time: 5:20-6:00
Type: Honors Performance
Room: BBB 112

Title: Magnispiralis: A One Act Play

Abstract: Iridogorgia Magnispiralis is a species of bioluminescent deep sea coral made up of winding tentacles. Funk's play, Magnispiralis, observes how even strange beginnings can turn to familiar endings, and asks whether being an observer is being a participant in such cycles. The setting is a somewhat post-apocalyptic Key West: protagonist Lillian is finalizing her interviews of the last inhabitants of the island, and what may be the final disaster for this small experiment of remaining community lurks amongst her interviewees' life stories. Funk has informed her writing of Magnispiralis, and its production as part of the 2026 FSC Fringe Festival, with a Writing-concentrated English Major, a self-designed major in Southern Studies, and her Honors Program coursework. What forms has Southern community taken, and where is Florida culturally placed through true and legendary Southern history? What might a Southern legacy, on an island thought of as southern-but-not-Southern, look like in the near future?

Poster Presentations

In alphabetical order by presenter's last name.

Poster presentations take place in the Becker Lobby from 4:00-5:00 and 5:00-6:00.

Student: Alannah Atibel **Major:** Biology
Collaborators: Amanda Charana and Sarah Schoppman
Faculty Mentor: Christy Wolovich
Time: 5:00-6:00
Location: Becker Lobby

Title: Patterns of Affiliation and Agonism in Pair-Living Captive Night Monkeys (Aotus nancymaae)

Abstract: Pair-living primates rely upon social bonds and coordination to maintain group harmony, rear offspring, and avoid predation. Aotus nancymaae are nocturnal, pair-living primates with extensive paternal care of young. Males and females share food, mutually groom, and sniff at their partner, whereas males also lick their partner's urine. Social interactions are highly variable across pairs, but the cause of this variation is unknown. We examined cooperative and aggressive interactions of ten captive A. nancymaae during nightly observations (mean=7.8 hrs/pair). We used generalized linear models to determine if age, pair duration, or contraceptive status predicted rates of cooperation, mating, and aggressive behavior. Pairs that had been together longer and spent more time in close proximity had higher rates of urine drinking. Male partners of potentially cycling females urine drank (mean=3.29 bouts/hr) and mated more frequently (mean=0.36 mounts/hr) than males whose partners were on contraceptives or pregnant (mean=1.83 bouts/hr; 0.12 mounts/hr). Food transfers from females to males varied with pair duration and female age; more food transfers and mating occurred in newer pairs and those with older females. Aggressive interactions (mean = 1.08/hr) were unrelated to age, pair duration, or contraceptive status. A. nancymaae may adjust their social interactions based upon nutritional needs, reproductive status, and familiarity with their partners.

Student: Kira Casane **Major:** Accounting
Collaborators: Hannah Blake, Hope Schoenwetter, and Stella Shanks
Faculty Mentor: Sue Mahoney
Time: 4:00-5:00
Location: Becker Lobby

Title: Photovoice Portfolio: Community Resilience and Perseverance Through Ingenuity

Abstract: Photovoice is a unique art form that showcases and amplifies perspectives of different communities, usually to advocate for change that supports marginalized peoples. For this presentation, students gathered photographs to bring awareness to communities and individuals who have persevered through an inequity, and worked together in various forms to benefit both themselves and the people around them. After the photo collection, four students analyzed the images, and three specific themes emerged: Perseverance, Community through Art, and Community through Organization.

Student: Maryam Cazalas **Major:** Elementary Education
Collaborator: Sophia Taneja
Faculty Mentor: Sarah Zeinemann
Time: 5:00-6:00
Location: Becker Lobby

Title: Effective Instructional Strategies for Supporting Students with Down Syndrome in the Elementary Classroom

Abstract: The purpose of this review is to identify the most effective ways to support elementary students with Down syndrome. Historically, educational expectations for these students were low, often limited to basic memorization. However, recent research indicates a specific "learning profile" that educators can leverage for success. While these students may struggle with short-term auditory memory, they often possess very strong visual learning skills. This synthesis analyzes studies from early intervention programs to specialized tutoring to provide a professional framework for academic and social independence.

Student: Jordan Chadwick **Major:** Psychology
Collaborators: Rachelle Ramos and Chloe Conley
Faculty Mentor: Deah Quinlivan
Time: 5:00-6:00
Location: Becker Lobby

Title: The Impact of Prior Record Knowledge on Eyewitness Confidence

Abstract: Mistaken eyewitness identifications are the number one cause for wrongful convictions. Over 70% of cases overturned due to advances in DNA technology are due to inaccurate eyewitness testimonies (Wixted & Wells, 2017). This fact contributes to the common belief that eyewitnesses' memories are unreliable. Most people think eyewitnesses' certainty and confidence directly correlate to the accuracy of their identifications. However, many other variables impact eyewitness confidence. There are procedures for composing and presenting lineups to help eliminate some factors that might affect accuracy (Wixted & Wells, 2017). However, many variables can influence an eyewitness's confidence (Greenspan & Loftus, 2020). The current study aims to see how an eyewitness's confidence levels are affected after learning that a potential perpetrator has a prior criminal record.

Student: Hailey DeBrunner **Major:** Biology
Faculty Mentor: Jason Macrander
Time: 4:00-5:00
Location: Becker Lobby

Title: Comparative Effects of Toothpaste on the Oral Microbiome

Abstract: The oral microbiome is defined as the microorganisms that make up the surface of the mouth. This area is highly diverse and can be influenced by many factors. The diversity and bacteria in your oral microbiome can come from genetic factors, the foods you eat, the acids you consume, and how well you brush your teeth. For this experiment, I am going to select a group of 7-10 particiapants that all practice normal brushing habits and have good oral health. Four different types of toothpastes will be used: probiotic toothpaste, whitening toothpaste, fluoride toothpaste, and vegan/plant-based toothpaste to see if these have an impact on the oral microbiome of the participants before and after brushing. I

would then have the participants take a swab before brushing and after brushing (after waiting 15 minutes for the enamel to go back to its original state) to see if there was one toothpaste that was able to kill off more of the bacteria. From the results that I have so far, it has been concluded that due to the multiple confounding variables in this experiment, we were not able to see that one toothpaste was better at killing off more oral bacteria.

Student: Jacob Hall **Major:** Exercise Science
Collaborator: Nate Mcconnell
Faculty Mentor: Trevor Hall
Time: 4:00-5:00
Location: Becker Lobby

Title: A Literary Review and Timeline for Return to Play from Achilles Tendon Ruptures in NFL Players

Abstract: This presentation is a literary review of relevant research related to Achilles tendon ruptures in NFL players. This is an incredibly relevant topic due to a recent increase in Achilles tendon ruptures in the NFL, which is a major career roadblock for many players and poses as a significant financial burden to the team. The presentation specifically explores risk factors associated with Achilles tendon ruptures and then goes into rehabilitation methods and timelines if there is an Achilles tendon rupture. The goal of this review is to see how to first and foremost prevent this injury from occurring, but if it does, then what are the fastest methods to safely and effectively rehab players and get them back onto the field.

Student: Tim Holmes **Major:** Business Administration
Collaborators: Tucker Claremont, Sienna Ferry, Tim Holmes, Avery Nestor, and Roma Philip
Faculty Mentors: Carrie Ann Hall and Sue Mahoney
Time: 5:00-6:00
Location: Becker Lobby

Title: Mental Revitalization

Abstract: Presented with the opportunity to research Mental Health and Well-Being seen through the lens of Photovoice, each member of our group took time to take photos that have a meaningful connection to mental health. Compiling images, we saw a large overarching theme of mental revitalization, a combination of strategies and methods that foster mental clarity. Talking about our own ideals of what mental health looks like in a physical sense, we as a group focused heavily on the capturing methods to improve mental health rather than capturing actions that impeded personal well-being. We chose the revitalization aspect of the mental health topic, because we want to outline a method that others can use to deal with the mental battles of college life. Within the idea of mental revitalization, separating images into two subgroups of resilience strategies and connections allows for greater comprehension of the images we found. Starting first with resilience strategies, we wanted to highlight images that illustrate the coping mechanisms that students use consciously or subconsciously on a daily basis as a college student. Additionally, we spent some time figuring out what niches of connections we wanted to focus on in the realm of our project. Combining family, animal, and creative connections, we were able to get a good grasp of the aspects that impact us in our daily lives. As you peruse the rest of our project today, we hope you feel the power that connection and resilience strategies have in boosting our mental health.

Student: Alexis Ivan **Major:** Biology
Collaborators: Aislin Noonam, Elizabeth Shoup, Marie Jolie Mayr, and Katherine Cassidy
Faculty Mentors: Sue Mahoney and Carrie Ann Hall
Time: 5:00-6:00
Location: Becker Lobby

Title: Everyday Justice

Abstract: In this presentation, photovoice was employed to explore everyday justice, defined as small yet meaningful acts that promote fairness and equality in daily life. To give some background, photovoice is a method of expressing others' viewpoints or messages through the use of purposeful images. The participants discovered the following themes: inclusion, community, advocacy, and accessibility. Inclusion would encompass embracing diversity and creating a safe space for others' perspectives. Community incorporates the concept of bringing people together and sharing personal experiences, whether that be with family or friends. The project's explanation of advocacy comprises speaking out and recognizing one's voice respectfully. Accessibility covers enhancing the quality of life of those within a local community by utilizing the use of public resources. While compiling these themes, the researchers met multiple times throughout the semester to delegate, collect archival research, and connect ideas. In total, the team collected 50 photos, narrowing the analysis down to the four main themes discussed. The photos and emergent themes revealed the variety of ways in which justice is achieved in the world around these participants, providing a better understanding of insight into the significance of the systems and relationships that cultivate the holistic well-being of a community.

Student: Mikalah James **Major:** Biochemistry and Molecular Biology
Collaborators: Amelia Lewis, Sarah Johnson, Jonah Pohlman, and Paige Hoy
Faculty Mentor: Carrie Ann Hall
Time: 5:00-6:00
Location: Becker Lobby

Title: Health Across a Lifespan

Abstract: This project uses Photovoice to examine health and well-being across different stages of life as well as how social expectations, access, and support evolve over time. Through photography, this project explores four core themes: Active Balance, the constant and personal maintenance of health; Genesis, transitions and foundations of well-being; Turning Points, moments in which health can rapidly redefine the course of life; and Wear & Tear, the cumulative impact of aging. Following three weeks of author-directed photography centered on Health Across the Lifespan, these recurring themes emerged. Through group discussion, subtopics were combined to form these broader themes; for instance, Active Balance is composed of supplements, diet, and intentions, all of which were common tropes across the collective photographs. By examining the topic through visual testimony, this project provides insight into the relationship between individual and social well-being. The authors' photographs capture personal health experiences while also reflecting their connections to the health of others. Across the images, health is not presented as static but as an ongoing and dynamic condition where moments of stability exist alongside periods of disruption and vulnerability. Through the four common themes, this research highlights the continuous upkeep, the inevitability of change, and the varying degrees of societal support for health in every stage of life. Ultimately, the project reveals that health is both deeply personal and inherently collective, shaped not only by individual choices but also by social environments, relationships, and structural conditions that influence the capacity to achieve and sustain well-being.

Student: Sriya Jupalli **Major:** Biology
Faculty Mentor: Jason Macrander
Time: 4:00-5:00
Location: Becker Lobby

Title: Broccoli For Fly Brains?

Abstract: Neurodegenerative disorders are sometimes characterized by the accumulation of misfolding in alpha-synuclein protein and loss of dopaminergic neurons. Research suggests that oxidative stress plays a key role in this process, highlighting the need for interventions that can reduce neuronal damage. Sulforaphane (SFN), a naturally occurring compound found in cruciferous vegetables like broccoli, has been shown to activate antioxidant pathways and offer neuroprotective effects. This study aims to determine whether SFN can mitigate alpha synuclein induced neurodegeneration using Drosophila models. To do this, flies expressing human alpha synuclein (GAL4-UAS system) were divided into treatment and control groups, with the treatment group receiving an SFN supplemented diet. Behavioral assays, including climbing ability, grooming, and social spacing were used to assess motor function. Preliminary findings show that SFN treated flies showed improved motor performance and a slower decline in climbing ability compared to untreated alpha synuclein flies. These activities indicate that SFN may reduce the impact of alpha synuclein toxicity, potentially through its role in enhancing antioxidant gene expression and reducing oxidative stress. Overall, these results highlight sulforaphane as a neuroprotective agent in neurodegenerative disease models, supporting the idea that dietary compounds may help reduce neurodegeneration, while further studies are needed to better understand how it works and its long term effects.

Student: Sriya Jupalli **Major:** Biology
Faculty Mentor: Leilani Goodmon
Time: 5:00-6:00
Location: Becker Lobby

Title: The Impact of Blue-Mind Audio-Visuals on Well-Being in College Students

Abstract: College students continue to experience high levels of stress and mental fatigue (Xiao et al., 2017), highlighting the need for simple and accessible ways to support well-being. An area that has gained attention is the psychological benefit of water environments. The “Blue Mind” concept describes calm, reflective mental state that occurs when individuals are exposed to water (Nichols, 2014). Both visual and auditory elements of water may contribute to this effect, as natural water sounds have been linked to relaxation (Febrindirza et al., 2017), and music with similar patterns can enhance positive emotional states (Ji et al., 2021). Our previous study suggested that brief exposure to water-based audiovisuals improve well-being, it was limited by smaller samples and less immersive stimuli. The current study aimed to build on this by using a more diverse group of participants. Participants were randomly assigned to one of three conditions: control condition, water scenes with natural sounds, or water scenes with water-inspired instrumental music. All participants completed baseline measures assessing multiple aspects of well-being. After a three-minute intervention, participants completed the same measures again to assess any changes. Although we expected the water-based conditions to show greater improvements, the results did not reveal significant differences between groups. Instead, changes in well-being appeared relatively consistent across all conditions, with only minor trends observed. These findings suggest that a single, short exposure is not sufficient to produce measurable effects, and that future research should explore longer or repeated interventions to understand the potential impact of Blue Mind.

Student: Emma Kaiser **Major:** Psychology
Collaborators: Keira McCarrick, Kaitlyn Flack, and Camryn Nolte
Faculty Mentor: Patrick Smith
Time: 4:00-5:00
Location: Becker Lobby

Title: Battleship and Brains I: Spatial Learning and Confidence Effects with Modified Board Games

Abstract: Battleship is a game where one spatially predicts locations of an opponent's targets that are hidden from view. Players are given feedback from their opponent in the form of "hits" and "misses," from which mental strategies are aided in subsequent gameplay. The game was previously adopted across academic disciplines, as students reported a positive form of engagement and a source of increased confidence (e.g., Kurushkin & Mikhaylenko, 2016; Montejo & Fernández, 2021). The current study explored how a modification of Battleship was applied in a neuroscience classroom, where spatial learning of the brain is essential (Nokovitch et al., 2025). Forty-six undergraduate participants were given multiple-choice pretests to assess prior spatial knowledge of the sheep brain as well as confidence for their answers (ranging from 0 to 100%). They were given a reference guide of the brain and were randomly assigned to one of three groups: a control group, who received the guide without gameplay; a standard gameplay group, who played the game with the guide and provided standard directional feedback (e.g., "forward"); and an anatomical group, who played the game with the guide and provided anatomically-oriented directions (e.g., "rostral"). Participants engaged in their group activities for four weeks, after which they were given short-term and long-term assessments like the pretests. Results showed that gameplay improved spatial learning across testing intervals, but only the anatomical gameplay increased in confidence ($p < .05$). The results indicate the benefits of board games to improve a three-dimensional understanding of the brain.

Student: Payten Karastury **Major:** Psychology
Collaborators: Reyna Muck and Jason Rowe
Faculty Mentor: Patrick Smith
Time: 4:00-5:00
Location: Becker Lobby

Title: Get Well Cards: A Pedagogical Tool in Understanding Mental Health Therapies

Abstract: Psychology undergraduates have reported drug treatments as "quick fixes" for mental illness without considering alternative treatment methods (e.g., Huggard et al., 2023). While clinicians have questioned drugs as first-line therapies (Breggin & Cohen, 2007; Ivanov & Schwartz, 2021), undergraduates have been susceptible to myths about psychological disorders and their treatments (Curtis & Kelley, 2023). Debunking these myths can be challenging with traditional educational materials, so more engaging techniques like game-based learning have been considered (Lichtenberg et al., 2020). The current study created a card game based on Uno® to explore how the game influenced understanding about pharmacological and psychological treatments and their relative levels of effectiveness. Fifty participants were given pretests that assessed prior knowledge and perceptions about common drugs and psychological therapies in clinical therapy. They were randomly assigned to one of three groups: a control group (with no game play), a silent card play group, and a read-aloud group. All participants were then exposed to content from the cards (by viewing or game play), which consisted of therapy cards and therapy side effect cards. Gameplay participants matched these cards together (like an Uno® format) with the appropriate disorders for four weeks, after which they were given short-term and long-term assessments like the pretests. Results showed that game play, specifically when read aloud,

increased comprehension attitudinal perceptions for the different clinical therapies ($p < .05$). The results present a promising implementation for better educating undergraduates about the critical thought behind clinical therapies.

Student: Diamond Martinez **Major:** Nursing
Collaborators: Katie Benson, Amber Law, and Avery Anderson
Faculty Mentor: Carrie Ann Hall
Time: 5:00-6:00
Location: Becker Lobby

Title: Environments that Shape Health

Abstract: Environments of our campus and surroundings directly influence health and wellbeing of students. These can be characterized as natural spaces, spiritual or faith-based connections, and internal/external physical health. In this photovoice project, we selected and analyzed various photographs that we decided were the best representations of these environmental catalysts. Natural spaces, or the lack thereof, can promote or hinder the wellbeing of students on a campus (walkable spaces, landscaping, greenery etc.). The presence of green, walkable spaces also stimulates physical activity and students' willingness to exercise. (Zhang et al., 2024). The accessibility of environments students can connect in faith and spiritually also plays a prominent role in improving both mental and physical health (Village & Francis, 2023, research studying the benefits of spiritual wellbeing on health during COVID-19). Environments can also provide students with opportunities to make progress on physical health, which can manifest internally and externally. Physical activity is associated with positive mental health traits, and can even preserve mental wellness (Mahindru, 2023).

Student: Keira McCarrick **Major:** Psychology
Collaborators: Camryn Nolte, Kaitlyn Flack, and Emma Kaiser
Faculty Mentor: Patrick Smith
Time: 5:00-6:00
Location: Becker Lobby

Title: Battleship and Brains II: Effects of Prompted Cues on Spatial Learning Competency

Abstract: Students in neuroscience must acquire a three-dimensional conceptualization of the brain, where spatial learning is essential (Applebee et al., 2020; Shirazi & Bakhshalizadeh, 2023). Recent work from our laboratory explored how a modified version of Battleship bolstered spatial learning by using opponent feedback (i.e., "hits" and "misses") to mentally locate targeted brain structures (Fonseca et al., 2025). The current study further explored effectiveness of the game as a function of what students are asked to mentally locate after game play. 31 first-year psychology undergraduates were given multiple-choice pretests to measure prior spatial knowledge of the sheep brain. Questions assessed directional competency using anatomical terminology and mental location of brain structures after receiving two, three, or four directional cues. They were given brain reference guides and were randomly assigned to one of two gameplay groups: a standard group, who played the game with the guide and provided standard, directional feedback (e.g., "forward"); and an anatomical group, who played the game with the guide and provided anatomically-oriented, directional feedback (e.g., "rostral"). Participants played games for four weeks, after which they were given short-term and long-term assessments like the pretests. Results showed that both groups improved in their spatial reasoning, where the anatomical group outperformed the standard group on questions that assessed directional competency and correct

mental location of structures with two (but not more) directional cues ($p < .05$). These data indicate a pedagogical value for the modified Battleship game, whose design can engage students on different facets of spatial learning.

Student: Larissa Nascimento **Major:** Medical Laboratory Sciences
Collaborators: Rilyn Dick, Abigail Ihlefeld, Nicole Smiley, and Lily Zaenger
Faculty Mentor: Sue Mahoney
Time: 4:00-5:00
Location: Becker Lobby

Title: Spaces of Access and Exclusion

Abstract: The purpose of this Photovoice research project was to examine physical and social spaces to capture inequity and accessibility in the local community that either hindered or aided inclusivity. A group of five students took several weeks to immerse themselves into their environment and take notice of any elements of struggle that were present. The themes of aid from higher institutions, neglect from higher institutions, and collaboration of members in the community emerged as photos were taken of public spaces, academic settings, and transportation services. This project gave a voice to the students at Florida Southern College by allowing them to share their personal experiences with spaces of access and exclusion, both on and off campus, with the hope of encouraging change.

Student: Rachelle Ramos **Major:** Psychology
Collaborators: Jordan Chadwick and Chloe Conley
Faculty Mentor: Deah Quinlivan
Time: 4:00-5:00
Location: Becker Lobby

Title: The Effect of Eyewitness Compensation on Juror's Perceptions

Abstract: Legal systems rely heavily on eyewitness testimony (e.g., Garrett, 2011; Wells et al., 2006). However, various contextual factors surrounding the identification process can influence how this testimony is perceived (e.g., Cash & Lane, 2017, 2021; Dobolyi & Dodson, 2018; Dodson & Dobolyi, 2015, 2017). Whether eyewitnesses receive compensation for their testimony may influence perceptions of their reliability, but this notion has not been empirically investigated

Student: Em Sarjeant **Major:** Criminology
Collaborators: Skye Cole-Raper, Georgia Enriquez, and Ronin Donnelly
Faculty Mentors: Carrie Ann Hall and Sue Mahoney
Time: 4:00-5:00
Location: Becker Lobby

Title: Digital Platforms and how they Shape Identify, Self-Presentation, and Belonging

Abstract: Bringing awareness about the digital world through the use of photos using the concept of Photovoice. With three main themes, behind the scenes, unrealistic expectations, and habits all showing the effects of being chronically online.

Student: Asher David Schapira **Major:** Psychology
Collaborator: Carla Spina
Faculty Mentor: Elizabeth Gennari
Time: 5:00-6:00
Location: Becker Lobby

Title: Ant Social Learning Social Transmission and Maintenance of Food Preferences in Ants: A Three-Phase Pilot Study

Abstract: In their 2018 article, Cammaerts & Cammaerts (2018) demonstrated that ants are capable of being operantly conditioned to remember the location of a reward. Data from Piqueret et al. (2019) suggest that ants are also capable of forming long-term associative memories. Currently, it appears that little research has been conducted to establish a direct relationship between operant conditioning and information transfer in ants (Czaczkes, 2022). The purpose of the present research is to explore whether ants can distinguish between the source of a preferred stimulus and an aversive stimulus, and whether they can transfer that information to other members of the colony. We used a mixed-design 3 x 3 experiment that occurred within three distinct phases. The experiment tested the learning of an individual ant. Ants were tested two days after being introduced to the experienced ant, and random ants were tested two days after the experienced group had been reintegrated into the colony. All data has been collected, but has not yet been analyzed. During each trial, the ants had the opportunity to choose between a preferred substance (sugar water) and an aversive substance (quinine). Our data has been collected, but not analyzed as of yet. However, we expect that the ants will have favored the preferred substance over the aversive substance and that information about the maze and its contents will spread to the rest of the colony through information transfer between trials.

Student: Lilliana St. Aubin **Major:** Elementary Education
Faculty Mentor: Mijana Lockard
Time: 4:00-5:00
Location: Becker Lobby

Title: Understanding the Autism Spectrum: Legal Rights and Advocacy for Collaborative Support

Abstract: My research poster examines autism through the lens of collaboration between educators and families, emphasizing how coordinated efforts can improve access, inclusion, and equitable outcomes for individuals on the autism spectrum. The project highlights evidence-based strategies that support consistent communication, shared goal-setting, and culturally responsive practices across home and school environments. By centering both teacher expertise and family knowledge, the research underscores the importance of building partnerships that recognize the unique strengths and needs of each learner.

Student: Julia Stefanowicz **Major:** Dance
Faculty Mentor: Erin LaSala Phillips
Time: 4:00-5:00
Location: Becker Lobby

Title: The Role of Dance in Early Childhood Development: Movement as a Foundation for Growth and Learning

Abstract: For my senior capstone project, I will explore the role of dance education in early childhood as a foundation for holistic growth and creative development. Through this research, I aim to deepen my understanding of how early experiences in movement shape not only children's physical and emotional well-being but also my own evolving perspective as an artist and educator. Dance education for children under the age of five serves as more than creative play; it operates as an essential foundation for holistic development during a period when motor, social, and cognitive skills are rapidly taking shape. In terms of what I am actually doing for my project and what it will look like is creating lesson plans and teaching classes over one month. I plan to teach two classes per week, which will put me at a total of six classes. Having this many classes gives me enough time to notice patterns and make real conclusions, instead of limiting the project to only a handful of classes. These classes will be broken into specific categories, and with each category lasting about two classes, motor, social, and cognitive, for me to get real claims. Each set of lessons will focus on something different that I want to learn from the experience of teaching. From there, I'll be drawing conclusions based on what I discovered through teaching these classes and how my approach evolved over time.

Notes:

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