Editors:
Pamela Pippin Vaughan, Ph.D.
Director, Office of Undergraduate Research

Ryan Dockens
Designer

Event Organized By:
UWF Faculty ADVANCE Program
Office of Undergraduate Research
Office of Research and Sponsored Programs
The University of West Florida Graduate School
Women's Studies Program
We would like to thank the following sponsors for the event:

Office of the President, Office of the Provost, Honors Program, SGA, UWF Faculty ADVANCE Program, Office of Undergraduate Research, Office of Research and Sponsored Programs and the Graduate School.

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Hui-Min Chung
John Coffey
Trudi Gaines
Wade Jeffrey
Barbara Larson
Karen Molek
Matthew Schwartz
Kim Tatum
Greg Tomso
Florentina Tone
Xuan Tran
Pam Vaughan
Aaron Wade
June Wei
Julie Ann Williams

Special thanks to our volunteer judges and all who contributed to the organization of UWF’s Scholars Celebration: Christina Boddiford, Susan Feathers, Eman El-Sheikh, Valentina Fontaine, Kelly Bennett, Robin Jones, Jennifer Vallin, Johan Liebens, Jane Caffrey, Gian-Nguyen Nguyen, Xuan Tran and Pam Vaughan.

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I am happy to welcome you to the University of West Florida for Scholars Week and congratulate the students and faculty on their academic achievements. Your diligence and hard work are to be commended. This year, we are delighted to have the opportunity to celebrate these accomplishments with the UWF ADVANCE keynote and Annual Showcase, Women’s Studies Conference, and Student Scholars Symposium.

Best wishes to you in your future academic endeavors.

Please enjoy your time on campus with us.

Sincerely,
Judith A. Bense, Ph.D.
University of West Florida President

I am pleased to welcome everyone to the University of West Florida’s Scholars Celebration. This unique event provides an opportunity for both graduate and Undergraduate students from the College of Arts and Sciences, the College of Business, and the College of Professional Studies to be recognized for their scholarly and creative work by fellow students, the faculty and others.

Please accept my best wishes for your life and work in the weeks, months and years ahead.

Sincerely,
Martha D. Saunders, Ph.D.
Provost and Vice President for Academic Affairs

The Graduate School and the Office of Research and Sponsored Programs are delighted to welcome you to 2014 University of West Florida Scholars Celebration. Research is vital to UWF’s mission. Our faculty and students are actively engaged in helping solve research questions that are important to our region. The events that form this celebration illustrate the inspiring scholarship in which our faculty and students engage.

This year, we are proud to introduce the inaugural UWF Faculty Showcase. This event highlights the many research and creative activities of our faculty and provides an opportunity to share faculty scholarship with students, community representatives, and other faculty members. This new event is a natural complement to the annual Student Scholar Symposium which continues to showcase the magnificent research work of our Undergraduate and graduate students.

We would like to extend special acknowledgements to the faculty taking part in this celebration including those presenting their works and those who, by mentoring students, introduce them to the exciting world of academic research. We also thank the UWF Faculty ADVANCE team for their leadership in supporting keynote speakers for 2014 Scholars Celebration.

Richard Podemski, Ph.D.
Associate Vice President for Research and Dean of the Graduate School

The faculty, staff and students of the College of Arts and Sciences (CAS) are happy to welcome you to the annual Scholars Celebration. The event offers a wonderful opportunity to showcase the scholarly and creative activities underway in the College of Arts and Sciences where our faculty and students work together on collaborative projects.

We hope you enjoy interacting with our Undergraduate and graduate students as well as our outstanding faculty during the Scholars Celebration events.

Michael T. Huggins,
Professor and Interim Dean of the College of Arts and Sciences
To all faculty and students participating in the University of West Florida’s Scholars Celebration, I extend my congratulations. As a Dean, I feel very fortunate to be a part of an institution that fosters collaboration between faculty and students in educational pursuits. This week showcases the exceptional educational experience offered at UWF.

Sincerely,
Tim O’Keefe, D.B.A.
Interim Dean of the College of Business

On behalf of the College of Professional Studies, I extend my congratulations to the faculty and students who are presenting their research at UWF’s Scholars Celebration. A priority goal for the College of Professional Studies is to support student participation in high-impact learning opportunities including conducting research with faculty mentors. This week highlights the very best of faculty-student collaboration on creative and scholarly pursuits and showcases the wonderful opportunities that UWF provides for students who seek to distinguish themselves beyond the classroom.

We encourage you to continue striving for excellence in your future academic endeavors and your careers. You should be proud of your hard work and achievements.

Stacie Whinnery, Ed.D.
Interim Dean of the College of Professional Studies
ARTIST'S CORNER

1. Feminism
   Heather Evans
   Department of Cultural Anthropology
   With as many definitions for feminism as there are people who have heard the term, the word is an integral part of our 21st century culture. Yet we each experience feminism in our own way, defining it by our personal experiences. A simple poem came to me as a way to make sense of the many aspects of feminism through the course of my life experiences. Returning to school in my early thirties, I have earned an Associates of Art, a Bachelor's Degree in Cultural Anthropology and am working on the thesis stage of a Master's in Cultural Anthropology. As a thirty-something mother of 2 teenage boys, I've come to understand feminism through a personal lens. I am paradoxically unique in the world, and one in millions just like me.

2. Linguistic Isolation, Overweight, and Physical Inactivity among Florida Adolescents
   Claire A. Caillouet
   Department of Physical Education & Health
   Social and economic conditions can affect health status in different ways. Depending on the quantity and quality of these conditions, improvement or deterioration in health status can occur. Linguistic isolation is one such social condition. Twenty-five percent of obese adults were overweight as children. Researchers reported that an individual is overweight before 8 years of age, obesity in adulthood is likely to be more severe. Another study reported a higher prevalence of obesity in homes where English was not the primary language. In these homes this study reported an inverse association with physical activity participation. The present study explored the relationship between 3 measures of linguistic isolation and adolescent reports of being overweight and being without sufficient vigorous physical activity for 2006 to 2010 across 67 Florida counties. Statistical techniques included partial r correlational analysis. Among high school students, but not middle school ones, being linguistically isolated was associated with being overweight across Florida counties; however, this association disappeared when controlling for median household income. None of the 3 measures of linguistic isolation were associated with being overweight among middle school students. Only middle school students reported all 3 measures of linguistic isolation remained positively associated with reports of insufficient physical activity even after controlling for county median household incomes. Despite some differences in reports from middle and high school students regarding reports of being overweight and receiving insufficient physical activity, as measures of adolescent health status, both stand to benefit from improvements in the social, economic, and school district systems. Implications for future research included reducing the prevalence of linguistic isolation, especially among middle school students in Florida counties.

WOMEN AND GENDER

3. The Evolution of Obstetrics
   Catie Sales
   Department of Interdisciplinary Humanities
   The topic I chose for my capstone course is Pregnancy and Childbirth Through the Ages. I chose this topic because my degree has been focused mainly on the domestic roles of women becoming more liberal and the biological aspect of the differences between the sexes. My paper and presentation for my capstone course will look at pregnancy and childbirth beginning during biblical times thru modern times. I will identify how spiritual beliefs and traditions have changed throughout history, medical treatments and practices have progressed, the interventions now available to during childbirth. In addition I will also, provide statistics at how home births compare to hospital births and which is better for both mother and baby. I will also like to point out the medical failures that have impacted pregnancy and childbirth throughout history.

4. Destination Objectification
   Brooke Martin
   Department of English
   Rape culture is stronger than ever and realistic media representations of media seem to be fewer and farther between. Not only is media visibility of women low, but women in positions of power and leadership also seems to be quite low for where we ought to be in the year 2014, especially when compared to many countries around the world. My focus for my paper is advertising and the ways in which its objectification and degradation of women impacts young men and women. While I concentrate
most often on print advertising. I do examine a few television and Republican women.

6. Viking Women: What was their position in society?
Jane Plummer
Department of History

Vikings are commonly thought to be a group that raided and pillaged other communities with a large degree of brutality. Though Viking women did not actually participate in the physical actions of raiding and plundering other communities, woman still had an essential role in Viking society. Viking women’s role within Viking society additionally was unique, for the time period, due to their husband’s extended time spent traveling. Viking woman were used in roles such as wife, mother, and mistress. Viking women were especially valued in Viking society for their ability to produce offspring, especially male heirs. Women were also valued for their role as being responsible for the household duties; however they were primarily valued for their abilities to produce children.

Viking woman held a unique position within their society because their spouses were away for lengthy periods of time. Viking woman therefore were given special privileges under the law while their husbands absent, this was very unique for the time period as woman were not generally recognized as independent parties under the law. In addition, as the second Viking Age before, in the primary goal of Vikings, many Viking groups began to settle in harsh climates and woman participated in vital roles to maintain Viking society. Women were used in many different roles within society including roles such as wife, mother, and mistress. Each role proved well. I have read and cultural and educational opportunities and responsibilities. Additionally, widow woman played an essential role in society which was also untraditional because widow woman no longer possessed the most valued feminine quality of fertility. Viking woman played a vital role in the success of Viking society within their different positions.

TESTIMONIAL
7. Choose the Change: Ashley Donahoo
Ashley Donahoo
UWF Alumni

At the 13th Annual Women’s Conference at UWF, I would like to present my story of overcoming adversity as a woman raised in North West Florida, and a UWF Alumni. At the age of 16, with two scholarships awaiting my graduation and my whole life planned out, I discovered I was pregnant. All my plans stopped. I graduated high school early, had my baby at 17, and married shortly after. I was adamant that I would complete college, though, and returned to school a few months after my marriage, at only 18 years old, with a baby and a full time job. I refused to be a statistic, and knew that I would not just complete college, I would complete it with high honors. My husband and I were very poor, living in small cheap apartments, sometimes working two jobs to make ends meet; but we never received public assistance. We worked hard, sacrificed, and loved our family, and that is what sustained us for many years. Two years after starting school, I earned my AA Degree. Through many years of poverty, many health issues, and moving across country part-time parenting, I eventually realized my health was out of control, and I was tired of being sick. At almost 300 lbs, I decided to turn my life around. I began learning about nutrition, tracking my food, and exercising. During this time, my husband and I moved our family back to Pace, Fl., where we grew up to raise our children, and I transferred back to UWF to finally finish my BA Degree. I had always wanted to help teens struggling the way I did, and I was excited about getting my teaching degree from UWF. I continued my health journey through this time, and just before graduating with my BA Degree with a major in History and minor in Professional Education from UWF, I had lost 137 lbs, over 100”, and 11 sizes through my own hard work and perseverance. In 2012, shortly after my graduation, I was featured on the Dr. Oz show for graduating with my Degree from UWF and my personal weight loss story. I have changed the lives of many people and in 2012, Extra, Good Morning America, and countless local, regional, and national media outlets for my weight loss story. I also became a Spokesperson for Livestrong.com, an international health and wellness site, which I truly enjoy. I learn that I can change hundreds of thousands of people with daily guidance, blogs, and my story. I also have over 3,000 Facebook followers on my page where I share inspiration, tips, recipes, etc. I have shared my story in presentations many times, and I hope I can change your life in the same way that I have changed mine.

8. Prostitution & Penitence in Moll Flanders
Shannon Holt
Department of English

Most critics perfunctorily term the character Moll Flanders as a “prostitute,” a term that Moll never once uses to identify herself in the entire novel. Moll does, however, use the term “whore” a total of 30 times in the text. The term “whore” is imbued with more power, intellect, resolution, and ability than we often give ourselves credit for, and I hope to spread this belief.

WOMEN IN BETWEEN THE PAGES
9. “A Trap Not Only of Dublin, But of Gender!” Social Paralysis of Women in Dubliners
Rebecca Steward
Department of English

This paper focuses on James Joyce’s short story “A Mother” from Dubliners. Several interpretations of this story summarize it as a humorous satire about the Irish Revival. However, this paper looks beyond that widely accepted interpretation of the role of the central character, Mrs. Kearney, as a resistance to the patriarchal society in which the story is set. While the audience may be less sensitive to Mrs. Kearney than other characters throughout Dubliners, Mrs. Kearney is representative of the mistreatment and double-standard which applies to Irish women in this era and culture. This insensitivity to Mrs. Kearney only further magnifies the gender injustice present in Irish society as a whole because Mrs. Kearney is symbolic of Irish women during this time period. Specifically, Mrs. Kearney occupies the role of the traditional Irish woman, restricted to the domestic sphere. While Mrs. Kearney represents the patriarchy’s strategic use of language to portray Mrs. Kearney, the other characters, and the buildings, I assert that these elements represent Ireland’s societal resistance to women. This paper addresses how Joyce uses physical structures such as the concert hall and satirizes characters’ names and actions to gain a deeper insight into Dublin’s resistance to women outside of the domestic sphere. Therefore, I propose that the text uses language and narrative voice in “A Mother” to display male privilege and social paralysis of women in Irish history.
Welcome to the UWF Faculty ADVANCE Keynote Talk and Annual Showcase! The UWF Faculty ADVANCE Program is a university-wide, systemic program supported by the National Science Foundation that focuses on enhancing a supportive and inclusive culture for recruiting, retaining, and advancing women faculty in STEM fields.

The ADVANCE team is delighted to help coordinate the 2014 UWF Scholars Celebration. The ADVANCE Annual Showcase is an exciting opportunity to celebrate the contributions and accomplishments of the program and scholars. This year’s theme is Celebrating Diversity and Scholarship. Congratulations to everyone who helped make the ADVANCE Program and Scholars Celebration a success!

Eman El-Sheikh, Ph.D.
Principal Investigator and Director, UWF ADVANCE Program

2014 ADVANCE Showcase Schedule:
Celebrating Diversity and Scholarship

APRIL 17

10:00 – 10:20 AM
Dr. Lisa Blalock (Psychology): Encoding in visual working memory

10:20 – 10:40 AM
Dr. Sara Evans (Criminal Justice): The Development of Delinquency: Family and Contextual Influences

10:40 – 11:00 AM
Dr. Jennifer Emery (Government): Political Partisanship in America to Recovering from Tragedy: School Shootings in America

11:00 – 11:20 AM
Dr. Toby Daly-Engel (Biology): Global phylogeography of a deep-water predator, the bluntnose sixgill shark (Hexanchus griseus)

11:30 AM – 12:00 PM
Lunch

12:00 – 1:00 PM
Keynote Talk: Listening to Difference

Dr. David Asai, Senior Director of Science Education Programs, Howard Hughes Medical Institute. At HHMI, Dr. Asai’s oversees science education grants to colleges, universities, and HHMI Professors, fellowship programs for undergraduates, graduate and medical students, and science courses including the Science Education Alliance.

*This event is co-sponsored by the UWF Faculty ADVANCE Program and the UWF Office of Equity, Diversity and International Affairs.
Welcome to UWF’s Student Scholars Symposium! I want to congratulate those students participating in this year’s program which highlights the best in scholarly and creative works produced through collaboration between students and faculty.

Highlighted in the program are those students whose projects received support from the Office of Undergraduate Research, including many who were able to present their research at regional and national conferences this year. Join me in celebrating the wonderful achievements of our students!

Pam Vaughan, Ph.D  
Director, Office of Undergraduate Research

On behalf of the University Honors Program, I’d like to welcome each and everyone of you to the UWF Student Scholars Symposium! The Honors Program has a long and deep history of supporting Undergraduate, research at The University of West Florida, and this Symposium is just one way we have of celebrating the great work of our wonderful students!

I can’t tell you how proud I am of the cutting edge thought and ability that an exhibition like this shows; we are definitely living up to our promise to bring out the very, very best in our students. I hope you have an enjoyable and stimulating time!

Greg Lanier, Ph.D  
Director of Honors
Field House Map of Abstracts

Podium

Registration Tables

Free Food in Registration Area

DEPARTMENT ABBREVIATION GUIDE

ANT Department of Anthropology
ART Department of Art
BY Department of Biology
CHM Department of Chemistry
CJS Department of Criminal Justice/Legal Studies
COM Department of Communication Arts
CS Department of Computer Science
ECP Department of Electrical & Computer Engineering
EWL Department of English and World Languages
EVR Department of Environmental Science
GOV Department of Government
HLP Department of Health Leisure & Exercise
HIS Department of History
IDS Department of Interdisciplinary Studies
MAT Department of Mathematics
ME Department of Marketing & Economics
MM Department of Management/MIS
PHY Department of Physics
PSY Department of Psychology
RAS Department of Research and Advanced Studies
TED Department of Teacher Education
WS Women's Studies
Faculty Abstracts

1. Mobile Learning Solutions at UWF
   Janusz Chudzynski, Academic Technology Center

2. In Search of the Founders of Berlin
   Dr. Kristina Killgrove, Department of Anthropology

   Dr. Karen S. Molek, Christopher J. Van Leeuwen, Joseph T. Brice, Jacob R. Stepherson, Georgia C. Boles and Brandon A. Burnette, Department of Chemistry – Funding provided by SCAC award, other internal award, and American Chemical Society Petroleum Research Fund

4. Semantic Traversing Documents by Using Semantic Relationships
   Dr. Bilal Gonen, Xingang Fang, Dr. Eman El-Sheikh, Dr. Sikha Bagui, Dr. Norman Wilde, Department of Computer Science

5. Semantic Data Modeling for System & Data Comprehension
   Dr. Thomas Reichherzer, Dr. John Coffey, Dr. Bilal Gonen, and Dr. Norman Wilde, Department of Computer Science

6. Data Mining for Network Performance Assessment
   Dr. Dallas Snider, Dr. Thomas Reichherzer, and Dr. Norman Wilde, Department of Computer Science

7. A Knowledge Engineering, Team-Based Approach to Introducing Security Assurance Cases
   Dr. Norman Wilde, Dr. John Coffey, Dr. Laura White, Dr. Dallas Snider, Dr. Thomas Reichherzer, Dr. Eman El-Sheikh, and Dr. Bilal Gonen, Department of Computer Science—Funding provided by Northrop Grumman Aerospace Systems through the NSF Security and Software Engineering Research Center

8. Investigation of Feasibility of Installing Campus Microgrid at the University of West Florida
   Michael Vasek and Dr. Bhuvana Ramachandran, Department of Electrical and Computer Engineering

9. The Rate of Suicide by Drowning and the Presence of Coastal Waters
   Dr. F. Stephen Bridges and Lesley Keck, Department of Health, Leisure, and Exercise Science

10. Temporal Distribution of Homicide-Suicide across FL Medical Examiner Districts, 1990-2010
    Karla A. Caillouet and Dr. F. Stephen Bridges, Department of Health, Leisure, and Exercise Science

11. Effects of Exercise on Cardioprotection
    Dr. L.M. Cosio-Lima and Dr. Youngh Lee, Department of Health, Leisure, and Exercise Science

    Dr. Eric Greska1, Dr. Nelson Cortes, Courteney Mincy, Dr. Jatin Ambegaonkar, Dr. Shane Caswell, Dr. James Onate

13. Impact of a Community Health Assessment on Community-Based Obesity Prevention Efforts
    Dr. Debra M. Vinci and Dr. Susan Turner

14. Correlates of Pancreatic Cancer by Gender in Florida Counties, 2001 to 2011
    Lesley S. Keck and Dr. F. Stephen Bridges, Department of Health, Leisure, and Exercise Science

15. Influence of Culture on Tourist Destinations
    Dr. Xuan Tran, Department of Health, Leisure, and Exercise Science

16. Three Studies on Consociationalism in Central Europe
    Dr. Daniel E. Miller, Dr. Philip J. Howe, and Thomas A. Lorman; Edited by Daniel E. Miller

17. Effects of Country of Origin Image, Brand Concept and Vertical Line Extension Type on Brand Image Perceptions
    Dr. Helena F. Allman, Anton P. Fenik, and Dr. Felicia Morgan

18. Psychological Measurement and Methodological Realism
    Dr. S. Brian Hood, Department of Philosophy

19. Conservation vs Preservation: The Value of Wilderness
    Dr. Lawrence Howe, Department of Philosophy

20. Does PyrGAP Predict Student Persistence in the Face of Adversity?
    John D. Hale, Dr. Sherry K. Schneider, and Dr. Stephen J. Vodanovich, Department of Psychology

21/22. Homeless Aging Veterans in Transition: A Life-Span Perspective
    Dr. Laura White, Dr. Eman El-Sheikh, and Dr. Rosemary Hays-Thomas, Funding provided by U.S. Environmental Protection Agency

23. Do Ask, Do Tell: Life after repeal of Don’t Ask Don’t Tell for LGBT military personnel
    Dr. Chris Corotton, Dr. Diane Scott, Dr. Robert Philen, Whitney Wessels, and Erin Haslag, Department of Social Work

24. Physical Activity, Sleep, and C-Reactive Protein as Markers of Health in Resilient Elderly Men
    Dr. Lawrence Howe, Department of Philosophy

25. Soil geography applied: Anthropogenic and lithogenic influences on the distribution of trace metals.
    Hoyt R, Linnville S, Fields A, and Moore J

26. Differences in Virtual Team Interpersonal Behaviors and Performance Across Technologies
    Kelly J. Manning, Dr. Sherry K. Schneider, Dr. Steven J. Kass, Dr. Laura White, and Dr. Steven V. Case

27. Development of a Reliable and Valid Faculty Culture Survey for ADVANCE Grant Institutions
    Dr. Sherry K. Schneider, Dr. Laura Bryan, Dr. Eman El-Sheikh, Dr. Rosemary Hays-Thomas, Dr. Pam Vaughan, Dr. Susan E. Wach

Student Abstracts

1. ANT
   The Indiana Jones Effect
   Andrew McKinley; Undergraduate, Dr. Robert Philen: Faculty Mentor

2. ART
   Living in Infinity
   Marina Quirk; Undergraduate, Jim Jipson: Faculty Mentor

3. ART
   My Expression of Gender Dysphoria Through Painting
   Jessie Blackey; Undergraduate, Valerie George: Faculty Mentor

4. ART
   Meghan Bang; Undergraduate, Nicholas Crouhan: Faculty Mentor

5. ART
   Interactions
   Monterssa Mena, Undergraduate; Faculty Mentor Valerie George

6. BY
   Bacterioplankton Community Response to Solar Radiation in the Northeastern Gulf of Mexico
   Josette M. Hutcheson; Graduate, Katelyn Houghton: Graduate, Christian Riesenfeld: Faculty Mentor, Joseph Moss: Faculty Mentor, Richard A. Snyder; Faculty Mentor, Wade H. Jeffery: Faculty Mentor
Undergraduate, Erica Moffitt: Undergraduate, Samuel Bynum: Undergraduate, Wes Gambrell: Undergraduate, Alan Schroed: Faculty Mentor, Michael F. Summers: Faculty Mentor, Michael T. Huggins: Faculty Mentor

38. CHM
Synthesis of Organic Light Emitting Diodes
Chelsea Carter: Undergraduate, Andrew Place-Burnett: Undergraduate, Andrew Ephron: Undergraduate, Gregory Kosteja: Undergraduate, Daniel Speed: Undergraduate, Alan Schroed: Faculty Mentor

39. CHM
Synthesis, characterization, and surface assisted laser desorption/ionization of Manganese Oxide nanopowder
Tia Boucher: Undergraduate, Chris Van Leeuwen: Undergraduate, Karen Molek: Faculty Mentor

40. CHM
The Effect of Emulsifiers on the Cationic Ring-Opening Polymerization of Glycidal
Carla M. Staton: Undergraduate, Elisey A. Scherbinina: Undergraduate, A. Timothy Royappa: Faculty Mentor

41. CHM
Transketalization Kinetics of a Solketal Derivative and Acetophenone
Ken Ulrich: Undergraduate, Baylen Thompson: Undergraduate, Dr. Alan Schrock: Faculty Mentor

42. CS
Race to the Finish: A Comparison of AI Search, Navigation, and Pathfinding Algorithms
Brett Rowberry: Graduate, AI Research Group: Undergraduate, Eman El-Shelkh: Faculty Mentor

43. ECP
Design of a Home Control System
John Spitznagel: Undergraduate, Laura Vunkannon: Undergraduate, Alexander Scanlon: Undergraduate, Gevorson Dossantos: Undergraduate, Mohamed Khabs: Faculty Mentor

44. ECP
Energy Management System for a Micro-Grid Community
Joseph McPlamer: Undergraduate, Joseph Flaws: Undergraduate, Lindsey Cambray: Undergraduate, Chris Quesada: Undergraduate, Dr. Bhuvana Ramachandran: Faculty Mentor

45. ECP
Design of a Solar Tracking System
Andreas Fuchs: Faculty, Michael Barrett: Undergraduate, David Snyder: Undergraduate, Bradley Whitfield: Undergraduate, Travis Wilson: Undergraduate, Andreas Fuchs: Faculty Mentor

46. ECP
IEEE Southeast Con Hardware Competition 2018
Jorge Rojas: Undergraduate, Carlos Sierra: Undergraduate, Derek Lake: Undergraduate, Nathan Riddle: Undergraduate, Timothy Stewart: Undergraduate, Dwight Patterson: Undergraduate, Eric Jones: Undergraduate, William Mantell: Undergraduate, Andreas Fuchs: Faculty Mentor

47. CJS
Legitimacy Granted: Placing the Police Gang Suppression Unit Within the Context of Moral Panic
Wells Anthony Bibo: Graduate Matthew S. Crow: Faculty Mentor

48. CJS
Winning a Trial Before It Even Begins: The Art and Science of Jury Selection
Kyle Harwell: Undergraduate, Zachary Farrington: Undergraduate, Kimberly Tanum: Faculty Mentor

49. ANT
The Decision Behind Privacy: An Anthropological Approach to Determine the Factors that have Influenced Life into Privacy through a Historic Comparison
Brenna Iland: Graduate, Greg Cook: Faculty Mentor

50. CS
High Speed 3D Flight Path Tracking and Reconstruction
Robert Fortenberry: Undergraduate, Jimmy Touma: Faculty Mentor

51. EWL
Human Warmth
Rebecca Raley: Undergraduate, Regina Sakkarios-Rogers: Faculty Mentor

52. EWL
Things Fall Apart, Arrow of God, and No Longer at Ease: A Critical Analysis of Chinua Achebe's

53. EVR
African Trilogy as an Expositor of the Effects of Colonialism
Candace Lewis: Undergraduate, Gregory Tomse: Faculty Mentor

54. EVR
An Analysis of Mid-West Drought Variability
Zackary Lefley: Undergraduate, Bethany Walkinshaw: Undergraduate, Dr. Jason Ortega: Faculty Mentor

55. EVR
Atlantic Basin Climate Indices and Their Relation to Category 5 Hurricane Frequency
Jeremy Mullins: Undergraduate, Jason Ortega: Faculty Mentor

56. EVR
Mob Grazing Effects on Soil Health: Aggregate Stability, Hydraulic Conductivity, and Bulk Density
Traci Goodhart: Undergraduate, Zachary Lefley: Undergraduate, Christopher Head: Undergraduate, Johan Liebens: Faculty Mentor

57. EVR
Modeling Disturbance and Succession in the Tall Timbers Research Station, Florida
Jeremy Snyder: Graduate, David Cambray: Graduate, Taylor Seamon: Graduate, Connor Wagner: Undergraduate, Dr. John Waldron: Faculty Mentor

58. EWL
Sediment Variation within the Suwanee Zone, Northwest Florida
Peter Teserziewicz: Undergraduate, Klaus Meyer-Arendt: Faculty Mentor

59. GOV
An investigation into the correlation between inequality and the recent GReat Recession
Esayas Mural: Undergraduate, Dr. Williams: Faculty Mentor

60. GOV
Does Western European’s progressive economy attract immigrants from less developed countries?
Dominique Biela: Undergraduate, Dr. Williams: Faculty Mentor

61. GOV
Exploring the male versus female ratio inconsistencies due to the “One Child Policy” in China:
Nicole Quinn Clyatt: Undergraduate, Dr. Jenna Emery: Faculty Mentor

62. GOV
Global Financial Crisis
Kara Brown: Undergraduate, Dr. Michelle Williams: Faculty Mentor

63. GOV
How much do you know about your local government?
Cody Childress: Undergraduate, Dr. Williams: Faculty Mentor

64. GOV
Immigration Rates in European Union vs Non-European Union States
Alexis Cauese: Undergraduate, Michelle Williams: Faculty Mentor

65. GOV
The Effects of High Stakes Testing on Political Awareness
Terry Knowles: Undergraduate, Kara Brown: Undergraduate, Dr. Jennifer Emery: Faculty Mentor

66. GOV
What Caused the Global Financial Crisis?
Previn Coleman: Undergraduate, Dr. Michelle Williams: Faculty Mentor

67. GOV
What Makes an Effective Congress?
Andrew Riffle: Undergraduate, Dr. Emery: Faculty Mentor

68. GOV
Who is Speaking for Women?; The Difference in Rhetoric Between Democratic and Republican Congresswomen
Alexis Cauese: Undergraduate, Jenna Emery: Faculty Mentor, Jocelyn Evans: Faculty Mentor

69. GOV
Do Democracy and Immigration Go Hand-in-Hand?
Raquel Fors: Undergraduate, Dr. Michelle Williams: Faculty Mentor
70. HLP
Assessing the effects of program design on hip angles while performing the clean and jerk exercise.
Mariel Crawford: Undergraduate, Charles McNally: Undergraduate, Eric Greska: Faculty Mentor, Dr. Eric Greska: Faculty Mentor

71. HLP
Effects of Moderate-Intensity Endurance Exercise on Mitochondrial Biogenesis in Neutrophils
Rick Perry: Graduate, Dr. Ludmila Cosio Lima: Faculty Mentor

72. HLP
Mean Body Weight Percentages to Weight Lifted by Gender and Age for Community-Dwelling Senior Adults
Karla A. Caillouet: Graduate, Nikolai Hoskins: Graduate, Ludmila Cosio-Lima: Faculty Mentor

73. HLP
Mindfulness Intervention in a Workplace Setting
Shelby Vaughn: Graduate, Dr. Debra Vinci: Faculty Mentor

74. HLP
Quantitative Analysis of Biomechanical Movement Patterns and Skill Development of the Fingernail and T-Scale Push-up Protocols
Jeremy Provence: Graduate, Eric Greska: Faculty Mentor

75. HLP
The Effect of Prophylactic Ankle Taping, Lace-up Brace and Kinesio Tape on the Ankle During Walking, Agility and Vertical Jump
Christina Moya: Graduate, Eric Greska: Faculty Mentor

76. HLP
The effects of an Acute Bout of Intense Cycling on HSP72 and Inflammatory Cytokine Production in Neutrophils
James Lewis: Graduate, Eric Greska: Faculty Mentor, Youngil Lee: Faculty Mentor

77. HLP
Linguistic Isolation, Overweight, and Physical Inactivity among Florida Adolescents
Claire A. Caillouet: Undergraduate, F. Stephen Bridges: Faculty Mentor, Karla A. Caillouet: Faculty Mentor

78. HIS
Opportunist Nazis: Or but Albert Speer, Joachim von Ribbentrop, and Balder von Schirach joined the Nazi Party for Personal Gain rather than Ideology
Caroline V Rohe: Undergraduate, Derek Zumbro: Faculty Mentor

79. MM
Zymology: A study of the General Public's Typical Misunderstandings of the Undead
Rafael Isaac Reyes: Undergraduate, Dr. Eric Greska: Faculty Mentor

80. IDS
Motivating Fifth Grade Students in Mathematics
Megan McClintock: Undergraduate, Giang Nguyen-Nguyen: Faculty Mentor

81. IDS
The Effect of Traditional Greek Myths and Religious Practices on the Peloponnesian War
Elizabeth Lirette: Undergraduate, Marie Therese Champagne: Faculty Mentor

82. ME
Medical Tourism in the United States: What Do We Know?
Hannah Bowling: Graduate, Dr. Helena Allman: Faculty Mentor

83. ME
Creative Analysis: Comparative Study of Brooks Brothers Past, Present, and Future Marketing
Sabrina Trice: Undergraduate

84. MAT
A Root Finding Method
Camila Cabral: Undergraduate, Kuiyuan Li: Faculty Mentor

85. MAT
Comparison of the Zero-Inflated Poisson Distribution, Poisson Distribution, And Conway-Maxwell Distribution in Modeling of Natural Disaster Data set in the United States
Thapelo Ncube: Undergraduate, Anthony Okafor: Faculty Mentor

86. MAT
Subclinical Hypothyroidism and the Risk of Cardiovascular Disease
Elizabeth Allgood: Undergraduate, Dr. Anthony Okafor: Faculty Mentor

87. MAT
The Language of Mathematics for Autism Spectrum Students
Rachel Annette Henry: Undergraduate, Amber Sufnan: Undergraduate, Dr. Giang-Nguyen Nguyen: Faculty Mentor

88. PHY
Characterization and Calibration of a Combined Laser Raman, Fluorescence and Coherent Raman Spectrometer
Carlos Lawhead: Undergraduate, Nathan Cooper: Undergraduate, Josiah Anderson: Undergraduate, Dr. Laszlo Ujj: Faculty Mentor

89. PHY
Development of a Technique to Measure the AC Magnetic Susceptibility of Liquid Crystals
Brett-Michael Green: Undergraduate, Christopher Messiana: Undergraduate, Thomas Gunn: Undergraduate, Aaron Wade: Faculty Mentor, Chandra Prayaga: Faculty Mentor

90. PHY
Development of Laser Induced Grating Method for Condensed Matter Studies
Arielle Adams: Undergraduate, Kenneth DaVico: Undergraduate, Aaron Wade: Faculty Mentor

91. PHY
Polarization Sensitive Coherent Raman Measurements of DCVJ
Josiah Anderson: Undergraduate, Carlos Lawhead: Undergraduate, Nathan Cooper: Undergraduate, Laszlo Ujj: Faculty Mentor

92. PHY
Quantum Simulation of Long-Range Magnetism
Omer Haq: Undergraduate, Thomas Gunn: Undergraduate, Shanna Muehe: Undergraduate, Brean Maynard: Undergraduate, Christopher Varney: Faculty Mentor

93. PSY
A Descriptive Study of Work, School, and Life Balance among UWF Students
Casilda Ruiz: Undergraduate, Ryan Bird: Graduate, Valerie Morganson: Faculty Mentor

94. PSY
Content Imagery in Survival Processing
Angelica Sullivan: Graduate, Lisa VanWormer: Faculty Mentor

95. PSY
Discrimination, Affective Reactions, and Forgiveness in LGB individuals
Shane T. W. Kuhlman: Graduate, Jesse M. Ruiz: Undergraduate, Kelly J. Manning: Graduate, Kyle W. Harwell: Undergraduate, Monika L. Hauck: Undergraduate, Natalie S. Bain: Graduate, Susan E. Walch: Faculty Mentor

96. PSY
Effects of High and Low Tempo Music on a Cognitive Task
Yasmine Nahmali: Undergraduate, Mandy Johnson: Undergraduate, Ernest Drinkwater: Undergraduate, Dr. Lisa Blalock: Faculty Mentor

97. PSY
Hemispheric Differences in Time Perception in Older & Younger Adults
Kimberly Chafrin: Graduate, Dr. Lisa Blalock: Faculty Mentor

98. PSY
Media and Body Image: The Role of Parent-Child Attachment
Stacey R. Bax: Graduate, Dr. Erica Jordan: Faculty Mentor

99. PSY
Mindful Awareness and Acceptance of Discrimination and Sexual Minority Distress
Dolph Todd: Graduate, Erin M. Scully: Graduate, Elizabeth M. O'Connor: Graduate, Wendy Gonzalez-Canal: Graduate, Kyle W. Harwell: Undergraduate, Susan E. Walch: Faculty Mentor

100. PSY
Service with a Smile, NOT!: Effects of Emotional Labor and Burnout on Turnover Intention
Ashley Ruth Christie: Undergraduate, Dr. Valerie Morganson: Faculty Mentor

101. PSY
Sexual awareness, religiosity, and well-being among GLB-identified individuals.
Tamara Powell: Graduate, Dolph Todd: Graduate, Dr. Susan Walch: Faculty Mentor

102. PSY
The Gender Issue: The Impact of Gender and Gender Role Ideology on Work, School, and Life Balance
Ty S. Bennett: Undergraduate, Sadie O'Neill: Graduate, Valerie J. Morganson: Faculty Mentor
103. PSY  The Role of Teacher Supportive Behaviors in Contributing to Work-School Balance
Kayla Dupreurreault: Graduate, Valerie J. Morganson: Faculty Mentor

104. PSY  Workaholism and Work-School Conflict
Leigh Phillips: Undergraduate, Kayla Dupreurreault: Graduate, Valerie Morganson: Faculty Mentor

105. RAS  American History and Disney
John Woods: Graduate, Susie Jans-Thomas: Faculty Mentor

106. RAS  Cuba: Life on the Island through the Eyes of an Active Witness
Daniel S. Correa: Graduate, Sarah Z. Jonas: Graduate, Susan J. Jans-Thomas: Faculty Mentor

107. RAS  Desegregation of Pensacola's Lunch Counters 1960 to 1962
Sarah Z. Jonas: Graduate, Dr. Susan J. Jans-Thomas: Faculty Mentor

108. RAS  Historiography: A Qualitative Research Strategy
Daniel S. Correa: Graduate, Kym Arwood: Graduate, Devin blackmarr: Graduate, Joe Calloway: Graduate, Charletha Decloute: Graduate, Wesley Delware: Graduate, Douglas Doidge: Graduate, Maria C. Leite: Graduate, Kelly McGaughey: Graduate, Dynitz Padgett: Graduate, Virkeisha Palmer: Graduate, Roger Rose: Graduate, Timothy Sowers: Graduate, Robyn Strickland: Graduate, John Woods: Graduate, Susie Jans-Thomas: Faculty Mentor

109. RAS  Vietnamese Refugee Camp Eglin Air Force Base, Florida 1975
Maureen W. Howard: Graduate, Sarah Z. Jonas: Graduate, Daniel S. Correa: Graduate, Robert J. Barkley: Graduate, Kym Y. Arwood: Graduate, Dr. F. Stephen Bridges: Faculty Mentor, Dr. Susan J. Jans-Thomas: Faculty Mentor

110. TED  Internationalizing Teacher Education: Preservice Teachers' Perceptions of Intercultural Sensitivity and Global Competency
Kaori I. Burkart: Graduate, Carla J. Thompson: Faculty Mentor

111. TED  Reaching Beyond A Degree
Michelle Williams: Undergraduate, Giang Nguyen Nguyen: Faculty Mentor

112. TED  Unlocking Math Strategies for Educational Standards
Sharee Rosado: Undergraduate, Giang Nguyen Nguyen: Faculty Mentor

113. WS  Destination Objectification
Brooke Martin: Undergraduate, Roz Fisher: Faculty Mentor

114. ES  Spatial and Temporal Variability of Karenia brevis within the Choctawhatchee Bay System
Claire Lacey: Graduate, Matthew Schwartz: Faculty Mentor

Oral Presentations:

COM  A Smoking Gun: A study of the ethics of The New York Times in the Judith Miller case
Haley Chouinard: Undergraduate, Bruce Swain: Faculty Mentor

EWL  God's Special Embalming Skill: Preservation, Permanence, and the Memento Mori Tradition in John Donne
Rebecca Steward: Undergraduate, Angela Calcatera: Faculty Mentor Kathy Romack: Faculty Mentor

EWL  Aristotelian Influence in Milton's Theology—Presentation
Erica K. Miller: Undergraduate, Dr. Romack: Faculty Mentor

EWL  Barred and Bawdy: The Under- and Misrepresentation of Shakespearean Women
Brooke Martin: Undergraduate, Kathy Romack: Faculty Mentor
1. Mobile Learning Solutions at UWF
Janusz Chudzynski
Academic Technology Center
The UWF Academic Technology Center is known for providing support and training programs for faculty members across campus. Less known, however, is the work of the Research and Development (R&D) section of the ATC. ATC's R&D section is continually engaged in the research and development of innovative technological applications that facilitate the teaching and learning process. This presentation will highlight practical use-cases of mobile technologies developed by Janusz Chudzynski at ATC and will show examples of how these mobile solutions are used across different disciplines and audiences. From apps for soldiers deployed to Afghanistan to dining apps to controlling homes using mobile devices, a variety of projects and concepts will be explored.

2. In Search of the Founders of Berlin
Dr. Kristinna Kiffmeyer
Department of Anthropology
SCAC Funded
Berlin, Germany, was founded in the 12th century, but almost no physical documentation survives from that time. Historians have long wondered who the founders were and where they came from. In order to help answer this question, I obtained two dozen teeth from individuals buried in Petritz, the location of the earliest modern cemetery in the outskirts of Berlin. Strontium isotope analysis of their dental enamel has revealed several people who arrived there from points west and south. These findings, although preliminary, fit with the general eastward movement of people who settled Germany in the Middle Ages.

Dr. Karen S. Molek, Christopher J. Van Lieswou, Joseph T. Brice, Jacob R. Stephenson, Georgia C. Bolee and Brandon A. Burnett
Department of Chemistry – Funding provided by SCAC, other internal award, and American Chemical Society Petroleum Research Fund
A matrix-assisted laser desorption/ionization reflectron time-of-flight mass spectrometer (MALDI RTOF-MS) was rebuilt and calibrated. Optimized voltage potentials were computed using Simion Ion and Electron Optics Simulator and the computed potentials were used to optimize the experimental voltage potentials. The standards used were samples of C60 fullerene, Bradykinin Fragment 1-7, ACTH Fragment 18-39, Angiotensin II, P14R, and Insulin chain B oxidized which provided a mass range between 720-3494 Da. A tracked microchannel plate (MCP) detector was used to detect ions. The data was collected using Tektronix DPO 3504 oscilloscope in combination with National Instruments LabView software and was analyzed using Igor. The experiments were reproduced and mass spectra collected were compared to literature spectra to ensure accuracy.

4. Semantic Traversing Documents by Using Semantic Relationships
Dr. Bilal Gonen, Xingang Fang, Dr. Eman El-Sheikh, Dr. Sikha Bagui, Dr. Norman Wilde
Department of Computer Science
This project applies semantic annotation to textual artifacts to support discovery and search of information in large volumes of documents. Instead of hyperlinks, semantic links are introduced into the documents that allow users to navigate among documents by named relations between the concepts in the documents. The named relations may include causal relations, classifications, co-occurrence, and more. We developed a tool “Semantic Browser” which uses ontologies for annotating documents with semantic information. It allows users to search for related information based on knowledge captured by the ontology. Let’s say as a software engineer, you are looking for documents containing “GetUSPSRate” and what interfaces it has. You do an initial query “GetUSPSRate” and are offered several files containing the term “GetUSPSRate” in them. Assume the “OrderProcessing.bpel” file contains “GetUSPSRate”, and the user selects this file. The content of the file appears in the Semantic Browser. The named entities, which we have in our ontology, appear highlighted and underlined. You click on the “GetUSPSRate” in the text, and are offered some relationships, such as; “is a”, “has interface”. You select “has interface” relationship from the list, and are offered a list of interfaces, which come from the ontology. You select “USPS. GetUSPSPRate. Interface” from the list, and are offered all of the files which contain the term “USPS.GetUSPSPRate. Interface”. After clicking one of the file names from the list, the content of the file appears in the browswer.

5. Semantic Data Modeling for System & Data Comprehension
Dr. Thomas Reichherzer, Dr. John Coffey, Dr. Bilal Gonen, and Dr. Norman Wilde
Department of Computer Science
Funding provided by Software2 Engineering Research Center
Healthcare information systems collect and provide vast amounts of information for the purpose of delivering a variety of different services to constituents of the healthcare market. Modern systems have become huge, complex, and difficult-to-understand with no real consistency in the use or meanings of the vocabularies that describe the collected data, the services, or service providers. Every organization that builds and manages its own healthcare information system must address issues of software evolution and interactivity among different systems to be able to meet new demands in the market. As is well known, changes and reuse of software requires deep understanding of code and data representations, which becomes progressively more difficult as the systems grow in size and complexity. An additional challenge for engineers working with healthcare information systems is the interpretation of electronic health data whose content and structure is based on a vast and complex vocabulary with little standardization. This research project aims to develop a knowledge model that can provide semantic information to existing data models and services in the healthcare provider domain. The goal of developing these models is to describe the vocabulary of healthcare providers as known by domain experts, to capture nuanced, subtle differences among concepts introduced in the vocabulary, that are critical for understanding abstract data models and data structures used by information systems. The knowledge models provide contextual information needed by software engineers to build and maintain software systems. For building the models, we will use concept mapping, a proven technology that helps people express and visualize their knowledge.

6. Data Mining for Network Performance Assessment
Dr. Dallas Snider, Dr. Thomas Reichherzer, and Dr. Norman Wilde
Department of Computer Science
Funding provided by Northrop Grumman Aerospace Systems through the NSF Security and Software Engineering Research Center
Today’s warfighter is increasingly dependent on networked systems and information from unmanned aerial vehicles to provide up-to-the-minute conditions on the battlefield; therefore the network must continually perform at optimum levels. The goal of this emerging government/industry project is to apply data mining and analytics to provide a method for identifying potential bottlenecks in these heterogeneous air-to-ground networks and their causes before they become critical. In this paper, we describe how we will apply the knowledge discovery process to assist in the mitigation of network problems to reduce the risks to personnel and assets. We will present our methodology to integrate data from sources such as avionics systems, ground stations and the networks themselves. Also to be presented are our proposed methods to select features, classify, cluster and discover associations in frequent patterns found in the data. Finally, we will describe our planned feedback mechanism for mitigating the network bottlenecks.

7. A Knowledge Engineering, Team-Based Approach to Introducing Security Assurance Cases
Dr. Norman Wilde, Dr. John Coffey, Dr. Lauren White, Dr. Dallas Snider, Dr. Thomas Reichherzer, Dr. Eman El-Sheikh, and Dr. Bilal Gonen
Department of Computer Science
Funding provided by Northrop Grumman Aerospace Systems through the NSF Security and Software Engineering Research Center
To improve the security of software systems we need to improve the software development processes used to produce them. Security assurance cases have been proposed as a way of establishing security properties of software at different phases of the software development lifecycle. However, security assurance cases are difficult to write, require expertise in documenting and introducing into an already burdened software development process. We evaluated a team-based, knowledge engineering approach to introduce software security assurance cases in the form of concept maps to neophytes. This approach allowed the study’s participants to engage in conversations with security experts about security requirements for their software and with knowledge engineers to construct concept maps demonstrating how their software met the requirements. Our survey results and feedback show great promise for our method to be effective and efficient for disseminating knowledge about software security to new hires and students.

8. Investigation of Feasibility of Installing Microgrid at the University of West Florida
Michael Veale and Dr. Bhavana Ramachandran
Department of Electrical and Computer Engineering
Micro-grids (MG) are small power systems that are composed of several Distributed Generators (DGs) that are interconnected by distribution networks. DGs in a MG include photovoltaics, small wind turbines, energy storage devices (batteries, fuel cells, super capacitors and flywheels), combined heat and power, and controllable loads. MG can be used either (i) in parallel with the main grid (grid connected mode) or (ii) can be made to operate independently (islanded mode). Grid connected mode is preferred when the load
9. The Rate of Suicide by Drowning and the Presence of Coastal Waters

Dr. Stephen Bridges and Lesley Keck
Department of Health, Leisure, and Exercise Science

Some researchers have reported that the availability of lethal mechanisms for suicide, like the use of toxic domestic gas, cars exhaust, and firearms, increases their use for suicide. Other studies in the extant literature have not supported such a view. The present study explored whether Florida counties which border the Atlantic Ocean and the Gulf of Mexico have higher rates of suicide by drowning than inland counties. Data are from 2007 to 2012 for 42 of 66 counties for which data is available. No data are available for the sixty-seventh county, i.e., Union County. The presence of Atlantic Ocean or the Gulf of Mexico was associated with both the average age-adjusted rate of suicide by drowning and the average percentage of deaths resulting from drowning (point-biserial r = -0.30, one-tailed; r = -.045); however, the negative coefficients were not in the direction predicted. Interestingly, for these same counties the presence of Atlantic Ocean or the Gulf of Mexico was not associated with the average age-adjusted rate of drowning that border the Atlantic Ocean and the Gulf of Mexico may contribute to the risk of occurrence. The present study explored the correlates of pancreatic cancer among white residents of Florida, replicating the methods of a previous study. Patients were not available for examination in the current study. Methods: Pearson correlation coefficients were obtained for pancreatic cancer incidence and percent smokers and yard footprints. A significant association between pancreatic cancer incidence and your footprints was observed (p=0.015). Pre-to-post-IPP training significantly increased GRF posteriorly (p=0.001). Previous researchers have suggested increased LE injury risk due to inter-limb differences. Our results demonstrated inter-limb equivalence in SLH force-production and displacement post-IPP with KA shifting toward a more neutral frontal-plane alignment. Thus, the inter-limb differences in frontal plane neutrality between legs may be an influencing factor in how the IPP can reduce LE injury risk.

13. Impact of a Community Health Assessment on Community-Based Obesity Prevention Efforts

Dr. Debra M. Vinci and Dr. Susan Turner
Department of Health, Leisure, and Exercise Science, University of West Florida
Florida Department of Health Escambia County

In 2009, a health assessment was implemented in NW Florida to define the vision for the future health of the region. This resulted in the formation of a community collaborative under the direction of a Leadership Team and five Solution Teams charged to set goals and advocate for changes to improve the health of the community. The purpose of this study was to assess activities of the Health Solutions Team (HST) in its “mission to educate and motivate children and families to practice healthy lifestyles including physical activity and healthy nutrition thereby reducing childhood obesity and improving future generations. Using a timeline approach, a content analysis of HST minutes/documents from 2007-2012 were utilized to gain insight into the activities of the HST related to its mission. Phase 1 analysis indicated that HST initially implemented nutrition and physical activity interventions targeting after-school programs. While 85 children attended these classes, HST determined that future efforts needed to have a wider reach fostering a lifestyle approach. Efforts shifted to supporting school gardens. HST fostered community partnerships to raise funds and provide infrastructure to support the gardening movement. These efforts resulted in the growth of school gardens from one in 2007 to 2012 impacting participating schools’ culture related to nutrition and physical activity. Community health assessment provided the vision that brought into reality this community effort to address childhood obesity. Phase 2 analysis will focus on a methods approach to gain insight into schools’ culture/policies as a result of the inclusion of gardens within schools’ infrastructure.

14. Correlates of Pancreatic Cancer by Gender in Florida Counties, 2001 to 2011

Lesley S. Keck and Dr. F. Stephen Bridges
Department of Health, Leisure, and Exercise Science

There is a limited understanding of the etiology of pancreatic cancer. Cigarette smoking has been identified as the only modifiable risk factor; however, other factors may contribute to the risk of occurrence. The present study explored the correlates of pancreatic cancer among white residents of Florida, replicating the methods of a previous study. Methods: Pearson correlation coefficients were explored between pancreatic cancer incidence rates by county and independent variables by sex. The results of the correlations were utilized to identify the variables to be considered in a stepwise linear regression, entered in order of highest to lowest Pearson’s correlation coefficient. Results: Pancreatic cancer incidence was significantly correlated with paper, construction and demolition debris, food waste, and yard footprints for males and only increased LE injury risk due to inter-limb differences. Our results demonstrated inter-limb equivalence in SLH force-production and displacement post-IPP with KA shifting toward a more neutral frontal-plane alignment. Thus, the inter-limb differences in frontal plane neutrality between legs may be an influencing factor in how the IPP can reduce LE injury risk.

Injury prevention programs (IPP) have demonstrated positive results in reducing the incidence of traumatic lower extremity (LE) injuries. However, it is not well documented how biomechanical alterations caused by IPP’s contribute to improved physical performance. The objective of this study was to evaluate the effects of IPP on bilateral LE biomechanics during a single-leg hop task (SLH). Sixteen female collegiate soccer athletes (19.3±1.0 years; 1.67±0.05 m; 71.4±9.5 kg) participated in the study. A motion-capture system at 120 Hz captured LE biomechanics at pre and post-IPP while participants performed three SLH bilaterally (dominant [DOM], non-dominant [NON]) from a force-plate. A 10-week IPP was integrated into normal team practice and included agility and plyometric drills emphasizing proper body positioning. Mean peak knee flexion (KF) and abduction (KA) were appraised during propulsion phase (PP), takeoff, touchdown, and landing phase (LP). Normalized peak ground reaction forces (GRF), were measured during PP. Repeated measures ANOVAs assessed the effects of training and leg dominance. At pre-IPP, SLH displacement significantly differed between legs (p=0.013), and post-IPP, training significantly improved both legs (p=0.026). LF significantly decreased pre-to-post-IPP at PP for training (p=0.017) and LP for training (p=0.001; p=0.002; respectively). Pre-to-post-IPP training significantly increased GRF anteriorly (p=0.001). Previous researchers have suggested increased LE injury risk due to inter-limb differences. Our results demonstrated inter-limb equivalence in SLH force-production and displacement post-IPP with KA shifting toward a more neutral frontal-plane alignment. Thus, the inter-limb differences in frontal plane neutrality between legs may be an influencing factor in how the IPP can reduce LE injury risk.
16. Three Studies on Consociationalism in Central Europe

Dr. Daniel E. Miller, Jr., Dr. Philip J. Hove, and Thomas A. Loraman
Edited by Daniel E. Miller
Partially funded by SCAC award and grant from University of Wyoming at Laramie, American Heritage Center
1. Department of History, University of West Florida
2. Adrian College
3. University College London

The authors will apply the theory of consociational democracy to the Habsburg Monarchy before 1914 and one of its successor states, the First Republic (1918-1938). A brief chapter on consociationalism will introduce the theory, which guarantees minorities a say in governments and helps preserve democracy where ethnicity, religion, or other factors fragment societies. In another chapter, Hove will account for the development of democratic, consociational mechanisms, during the latter part of the nineteenth century until the beginning of the First World War, in the Austrian portion of the Habsburg Monarchy. Miller will argue that the consociational theory best accounts for the unusual facts and, what some have termed the undemocratic features, of the interwar Czechoslovak system, such as frequent government changes and extraparliamentary bodies that planned and executed undemocratic features, of the interwar Czechoslovak system, particularly well suited for this research project because it is known as the Crucible of Naval Aviation in addition to being home to a multinational imposed on the entire system of military service. The study has used a combination of purposive and snowball sampling to recruit participants. Flyers have been posted around the University of West Florida campus and in local bars, clubs, and other settings frequented by LGBT individuals; social media has also been utilized. In spite of intrepid marketing efforts, participants have been slow to volunteer themselves, leading the researchers to speculate that there is still a lack of fear and stigma, even among veterans. Preliminary findings from participant interviews will be presented with a discussion of the themes that emerged.

21/22. Homeless Aging Veterans in Transition: A Life-Span Perspective

Dr. Carla J. Thompson and Nancy Bridier
Department of Research and Advanced Studies – Internal Funding

The need for counseling and career/educational services for homeless veterans has captured political and economic venues for more than 25 years. Veterans are three times more likely to become homeless than the general population if veterans live in poverty or are minority veterans. This mixed methods study emphasized a life-span perspective for exploring factors influencing normative aging and life-quality of 39 homeless veterans in Alabama and Florida. Seven descriptive quantitative and qualitative research questions framed the investigation. Study participants completed a quantitative survey reflecting their preferences and needs with a subset of the sample (N=12) also participating in individual qualitative interview sessions. Thirty-two service providers and stakeholders completed quantitative surveys. Empirical and qualitative data with appropriate triangulation procedures provided interpretive information relative to a life-span development perspective. Study findings provide evidence of the need for future research efforts to address strategies that focus on the health and economic challenges of veterans before they are threatened with the possibility of homelessness. Implications of the study findings provide important information associated with the premise that health development occurs throughout the life-course. This study has particular relevance for the individual’s passage. Implications for aging/homelessness research are grounded in late-life transitioning and human development intervention considerations.

17. Effects of Country of Origin Image, Brand Concept and Vertical Line Extension Type on Brand Image Perceptions

Dr. Helena F. Allman, Anton P. Fenik, and Dr. Felicia Morgan
Department of Marketing and Economics, University of West Florida
2. University of Tennessee

This research examines how the interplay among micro level country of origin image (product-country and product-brand), and the horizontal origin image (state image versus unattractive), and vertical line extension type (consumer-prestige versus functional) and vertical line extension strategy (upward versus downward) affects brand image perceptions when brands introduce new products in their existing product categories. Furthermore, this study examines how the interactive effects of the three factors (country (country of origin image, brand concept and vertical line extension type) on brand image evaluations vary among culturally different groups of global consumers. Both U.S. and foreign brands in two product categories (automobiles and wrist watches) are examined in this research. Consumers from two countries (United States and India) are surveyed in order to test the hypothesized cross-cultural effects.

18. Psychological Measurement and Methodological Issues

Dr. S. Brian Hood
Department of Philosophy

Within the context of psychological measurement, realist commitments pervade methodology. Further, there are instances where particular scientific practices and decisions are explicable more plausibly against a background assumption of epistemological realism. This psychometrics is a realist enterprise provides a possible toehold for Stephen Jay Gould's objections to psychometrics in 'The Mismeasure of Man' at the very heart of 'a pathological science.' These objections do not withstand scrutiny. There are fewer than three activities in ongoing psychometric research which presuppose a commitment to a minimal epistemological realism. Those activities include selecting between different models for representing data, estimating ability in the context of item response theory, and the move to make the individual the fundamental unit of analysis in psychometrics thereby calling for a shift in what sorts of data are evidentially relevant. In none of these activities are the commitments and disregarded for evidence that Gould and Michell find objectionable or 'pathological.'

19. Conservation vs Preservation: The Value of Wilderness

Dr. Lawrence Howe
Department of Philosophy

This essay explores the early roots of the debate over conservation vs preservation of wilderness in America at the beginning of the 20th century. Two key figures, Pinchot and Muir, are addressed. The author argues that until a preservationist view of wilderness is established, as against the conservationist approach, there are anthropocentric, i.e. human-centered, reasons for the protection of wilderness areas that sharply contrast with the conservationist position of sequestering wild lands for future anthropogenic practices. Finally, the author argues for an eco-centric – system sensitive – position regarding land use.

20. Does PsyCap Predict Student Persistence in the Face of Adversity?

John D. Hale, Dr. Sherry K. Schneider, and Dr. Stephen J. Vodanovich
Department of Psychology

In Study 1, PsyCap and its academic correlates were examined in a large sample (N= 218). PsyCap was positively related to happiness and positive affect, and negatively related to depression, anxiety, and stress among students. A new negative relationship was found between PsyCap, procrastination, and GPA. In Study 2 the presence and persistence of the hypothesized intermediate, and high in PsyCap were compared across three levels of manipulated Task 1 Probability of Success (i.e., Low Probability of Success: LPS; Intermediate Probability of Success: IPS; and High Probability of Success: HPS). As predicted, there was a main effect of PsyCap on persistence on a subsequent anagram task. Although the hypothesized interaction with initial task success was not significant, the trend was in the expected direction such that high PsyCap participants demonstrated higher levels of adaptive persistence and performance, particularly after being assigned to the LPS.

21. Does Ask, Do Tell: Life after repeal of Don’t Ask Don’t Tell for LGBT military personnel

Dr. Chris Cotton, Dr. Diane Scott, Dr. Robert Phiblen, Whitney Wessel, and Erin Halag
Department of Social Work

The study explores life after Don’t Ask, Don’t Tell policy repeal as it affects current military and veterans to determine what, if anything, has changed for LGBT military since the ban has been lifted. Northwest Florida is particularly well suited for this research project because it is known as the Crucible of Naval Aviation in addition to being home to a multinational imposed on the entire system of military service. The study has used a combination of purposive and snowball sampling to recruit participants. Flyers have been posted around the University of West Florida campus and in local bars, clubs, and other settings frequented by LGBT individuals; social media has also been utilized. In spite of intrepid marketing efforts, participants have been slow to volunteer themselves, leading the researchers to speculate that there is still a lack of fear and stigma, even among veterans. Preliminary findings from participant interviews will be presented with a discussion of the themes that emerged.
These results suggest CRP levels can index state of health in the elderly and future research is warranted for actigraphy and FSOP. As expected, these scales were significantly correlated with satisfaction with work-family balance, burnout, engagement, job satisfaction, and identity with and commitment to the university.

25. Soil Geography Applied: Anthropogenic And Lithogenic Influences on the Distribution Of Trace Metals, Dr. Johan Liebens1, Dr. Carl Mohrherr2, and Dr. Ranga Rao3 Funding provided by U.S. Environmental Protection Agency
1. Department of Environmental Studies
2. Center for Environmental Diagnostics and Biodiversity

The present study evaluated the concentrations, spatial distribution and potential origin of trace metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) in surface soils in an area with contrasting land uses (urban vs. rural) and contrasting soilscapes (low, young sandy soils vs. higher and older clayey soils). A sample was collected from the top 5 cm of apparently undisturbed soil at 126 sites in NW Florida. To evaluate if the trace metals originate from anthropogenic activities or lithogenic ones, two indexes, the index of geoaccumulation and the enrichment factor, were applied. Results show that As, Pb, Zn, Cd and Cu concentrations are above natural background levels in at least some parts of the study area. Statistically significant differences between urban and rural areas were not observed. The two indexes yield consistent results and show that Pb and Zn have the largest anthropogenic component of the metals studied. Factor analysis of the trace metal concentrations together with concentrations for lithogenic metals show that in the present study area, As and Al are predominantly of lithogenic origin. Hotspot analysis in a GIS demonstrates if the present study area. As and Al are predominantly of lithogenic origin. Hotspot analysis in a GIS demonstrates

27. Development of a Reliable and Valid Faculty Culture Survey for ADVANCE Grant Institutions Dr. Sherry K. Schneider, Dr. Laura Bryant, Dr. Eman El-Shelbi, Dr. Rosemary Hays-Thomas, Dr. Pam Vaughan, Dr. Susan E. Walter
Funding provided by National Science Foundation
1. Department of Psychology, University of West Florida
2. University of Baltimore
3. Department of Computer Science, University of West Florida
4. Department of Chemistry, University of West Florida

Researchers engaged in a comprehensive process to develop a faculty culture survey appropriate for a Masters-level regional comprehensive university. The survey was to serve as a baseline to measure progress towards a culture supportive of women faculty in the STEM disciplines over the course of the ADVANCE grant. Previous surveys from other ADVANCE institutions were reviewed, as well as literature on work-life support. Focus groups of female STEM faculty, an internal steering committee of stakeholders, and an external steering committee from other ADVANCE institutions and ADVANCE institutions and STEM organizations gave feedback on the survey draft. The empirically derived scales and subscales developed were: University Culture (Governance, Faculty Togetherness), Department Culture (Fairness, Respect, Supervisor Support), Diversity Culture (Strategic Priority, Women, Faculty of Color), Faculty Searches, Work-Life Climate, Workload, Flexible Work Policies, Tenure/Promotion, Dual Career, and Childcare. After a pilot test, the anonymous survey was administered online by an external consultant to 587 faculty and adjuncts (56.2% response rate). Of 278 tenure-line faculty, 142 (51%) completed the survey. All scales were reliable (Chronbach’s Alpha > .70) except two (Dual Careers and FSOP). As expected, these scales were significantly correlated with satisfaction with work-family balance, burnout, engagement, job satisfaction, and identity with and commitment to the university.

1. The Indiana Jones Effect Andrew McKinley: Undergraduate, Robert Phlen: Faculty Mentor, Department of Anthropology

1. The Indiana Jones Effect is to further explain this phenomena of how the fictional character of Indiana Jones has influenced archaeology. This is not a defense of Indiana Jones or his archaeological field work in the Indiana Jones movies, rather this study addresses how popular culture has affected the field of archaeology, how the media has romanticized archaeology, and how Indiana Jones has, in fact, had a positive influence on archaeology.

2. Living in Infinity Marina Quirk: Undergraduate, Jim Jipson: Faculty Mentor

2. Living in Infinity is a personal journey. I will bring like-minded people together, to communicate and share ideas and experiences of their personal journeys. My artwork investigates ideas of the self, longevity of Earth, and environmental and spiritual awareness. As a human being, my objective is to improve myself and improve communities around the globe. This will be achieved through exploration and public gatherings as we celebrate culture and life. This is the foundation to my future of creating these fleeting moments of vast expansion and evolution.

3. My Expression of Gender Dysphoria Through Painting Jessie Blakely: Undergraduate, Valerie George: Faculty Mentor, Department of Art
OUR Funded

This series of acrylic paintings demonstrate my own personal struggle with gender dysphoria. The paintings are non-representational and rely heavily on the expression of emotions that I have experienced through my own transitioning. This is accomplished by the color, movement, and forms that are present within the composition. These pieces of art bring to light the emotional, psychological, physiological, and sociological issues that transsexuals and gender queer individuals face daily.

OUR Funded

Ethical practices in both historic and contemporary museums are being questioned, sometimes even disregarded, and rewritten. These challenges stem from a shift in museum practices and policies in relation to criminal acts such as forgery, theft, acquisition fraud, and ultimately, negligence in museum practice. These crimes, like contemporary art, are challenging these institutions and how they function in...
the twenty-first century. The primary goal of this research is the exploration of how different organizations employ different sets of ethical codes and practices. Through the examination of case studies, including crimes at the J. Paul Getty and other established institutions, this research provides a clear connection between the ethical practices of these institutions and their vulnerability when it comes to criminal and questional acts. Without thoroughly investigating and implementing proper ethical practices, poor management leads to a diminished public perception and a decrease in support, attendance, and trust.

5. Interactions

The goal of this project is to expand my knowledge of ceramics. Working with local ceramics and potters will allow me to learn about the history of ceramics and gather more experience in this field. I intend to work side by side with the potters; it is a basic component to success considering that any body motion will affect the results, being side by side will permit observation and concentration required to learn specific techniques.

As I am exploring functional items, I see these pieces as a chance for a long lasting connection with the keeper. I take into consideration all aspects of the item, specifically, how the form complements the function, how the handle fits the hand, and how the shape helps the keeper have a comfortable interaction with the item.

6. Bacterioplankton Community Response to Solar Radiation in the Northeastern Gulf of Mexico

Sharks of the genus Squalus are slow-growing, long-lived, and have long gestation periods, as is typical of most deep-water sharks. In addition, low genetic diversity is frequently observed, making this group slow to rebound from depletion due to overfishing. The shortspine spurdog (Squalus mitsukurii) is a putative circumpolar deep-water shark that was originally described from Japanese waters. These sharks are easily misidentified due to the high degree of similarity with their congeners, and recent taxonomic research has indicated that S. mitsukurii may in actuality comprise a species complex, a group of separate but closely related species. In an effort to understand the global taxonomy of the S. mitsukurii complex, we are using a combination of morphological evidence and genetic techniques to identify separate dogfish stocks throughout the Pacific and elsewhere. Thus far, preliminary data have indicated that Squalus mitsukurii from Hawaii is likely an isolated, distinct species. Using meristics as well as approximately 700 base pairs of mitochondrial DNA (Barcoding region), we will investigate this question in dogfishes from the Gulf of Mexico and West Atlantic. We hypothesize that due to geographic distance, Squalus mitsukurii in the Gulf of Mexico may also have become isolated from the type population in the West Pacific.

11. Effects of Oil And Dispersants on Bacterioplankton Community Structure and Function Using 16S rRNA and AlkB Genes in the Northeastern Gulf Of Mexico

Several authors have hypothesized that exposure to oil and or dispersants may change microbial community structure by selecting for those strains capable of utilizing oil carbon while selecting against others by toxic effects of oil and or dispersants. To view spatial and temporal variability in bacterioplankton community response, surface and near bottom water samples were collected at two offshore sites in winter (December 2012) and summer (June 2013). Bioassays were performed on 1L water samples amended with oil, oil and Corexit, and Corexit alone had the smallest effect. All samples, regardless of treatment, were dominated by Alteromonas sp. and one moderately downstream H51 signaling mechanisms such as Ark2/3 and Vav1 interactions. We also demonstrate that Hax1 mediates Erk1/2 activation because Hax1-deficient cells do not show a significant response to ERK1/2 in the absence of Corexit. Although we investigated the direct interaction of Hax1 with the Rho-GEF Vav1 in HEK293 cells, which may provide additional mechanistic insight into how Hax1 is regulating Rho-mediated neuphrib adhesion. Taken together, our results indicate that Hax1 is a mediator of several IMLF-signaling mechanisms that could provide new insights into the disease pathogenesis of Hax1 mutations.

9. Characterizing the role of Presenilin Enhancer Protein 2 (Pen-2) in regulating gamma secretase activity

Pen-2 is one protein subunit of the four-part protease complex gamma secretase, which is a key component in regulating development across the animal kingdom; malfunction of gamma secretase is involved in pathological causes of Alzheimer’s disease in humans. Pen-2 is thought to be involved in stabilizing the complex and allowing gamma secretase to mature by activating Presenilin, the catalytic subunit, through an endoproteolysis event. Presenilin and the two other protein subunits (Aph-1 and Nicastrin) have been studied through genetic analysis using Drosophila melanogaster (fruit flies) with mutations of their respective genes, but mutants of pen-2 were not available. Mutants of pen-2 were created by excision of the transposable element Mi(MIC) from the pen-2 null genome. Genetic crosses of the resulting fly lines suggest out of about 130 lines more than half a hundred have a potential loss-of-function mutation in pen-2. Molecular characterization of these lines using polymerase chain reaction (PCR), DNA sequencing, RT-PCR, and RNA sequencing has narrowed the group to a handful of strains and mutations in pen-2 resulting in null, hypermorphic, and hypomorphic alleles. The significance of Pen-2 in the gamma secretase complex will be observed via Western blot hybridization. The pen-2 mutants and the pen-2 null genome will be observed via Western blot hybridization. The pen-2 mutants and the pen-2 null genome will be observed via Western blot hybridization. The pen-2 mutants and the pen-2 null genome will be observed via Western blot hybridization. The pen-2 mutants and the pen-2 null genome will be observed via Western blot hybridization. The pen-2 mutants and the pen-2 null genome will be observed via Western blot hybridization.
12. Identification of Phytoplankton From Three Gulf of Mexico Estuaries using FlowCam Image Particle Analysis
Rachel Dragon: Undergraduate, Jane Coffey: Faculty Mentor
Department of Biology
Phytoplankton research is important because phytoplankton are not only primary producers but they are also the base of oceanic food web. This is a continuation of a study done by Kendra Straub Amacker as part of her Master’s thesis. In 2011, samples of water were taken every other month from Grand Bay Mississippi; Weeks Bay, Alabama; and Apalachicola Bay, Florida. The study was to compare three different estuaries along the Gulf of Mexico. The dominant species were identified using a FlowCam.

The FlowCam is an image particle analysis system that takes pictures of particles as they pass through a flow cell. Once the photos are taken they can be sorted and put into classes or libraries. Two samples from each location were analyzed. The phytoplankton pictures that had clear resolution were categorized. The dominant organisms were then identified. Some of the dominant organisms include Peridinium sp., Ceratium sp., and various diatoms.

13. Investigating the Role of Pen-2 on Mitochondrial Health
Kendra Buur: Undergraduate, Patricia Izbicki: Undergraduate, Matthias Nalley: Undergraduate, Dr. Hui-Min Chung: Faculty Mentor
Department of Biology
Our Funded

The γ-secretase complex is a multi-subunit involving in regulating cell differentiation during animal development. The γ-secretase complex is located in the cell membrane and mitochondria (Hansson, 2004). It consists of four proteins: Presenilin, Nicastrin, Aph-1, and Pen-2 (Ogura, 2006). Previous research on the γ-secretase complex showed mutations of the Presenilin and Pen-2 genes are linked to one neurodegenerative disease in humans, the Alzheimer’s disease (Sala, 2005). Kendra Buur has observed the pen-2 mutant phenotype in the Drosophila melanogaster strains FT114 and FT119. We intend to test our hypothesis that the mating ATP production, the energy source produced in mitochondria, in the FT114 and FT119 strains.

14. Investigation of Hax1 and Rap1 Signaling Mechanisms in Neutrophils
Maizana Gils: Undergraduate, Dr. Peter Cavnar: Faculty Mentor
Department of Biology
Our Funded

Hypothesis

Autonomous receassive loss of function mutations in the HAX1 gene results in Kostmann syndrome, a form of severe congenital neutropenia characterized by low blood neutrophil counts and life threatening bacterial infections. RNA interference knockdown of HAX1-associated protein X-1 (Hax1) in the neutrophil model cell line, PCB-985 cells, reveals increased cell adhesion because of decreased activation of the GTPase RhoA in response to the chemoattractant fMLF. Inhibition of RhoA signaling is important in regulating integrin-dependent cell adhesion, but it is unclear how Hax1 regulates RhoA in neutrophils. We aim to examine the possibility that the decreased RhoA activation in Hax1-deficient cells is the result of Hax1 inhibiting RhoA inactivating proteins. On such RhoA inactivating protein is the Rho GTase Rap1. To test this hypothesis, Rap1 activity will be observed in differentiated PLB-985 cells expressing either control or a Hax1-targeted shRNA in response to fMLF stimulation. A Rap1 activation assay kit will be used to detect the active GTP bound form of Rap1 by immunoprecipitation and Western blot analysis. Relative levels of Rap1-GTP that are activated will be compared between the two cell lines.

Results of the immunoprecipitation and Western blot analysis will be presented.

15. Multiple Paternity and Cryptic Female Choice in Chained Catsharks, Scyliorhinus Retifi
Stacy L. Cecil: Graduate, Toby S. Daly-Engel: Faculty Mentor
Department of Biology

Many elasmobranchs (sharks, skates, and rays) are considered to be indeterminate sex and capable of hermaphroditism because of their long-term growth to reproductive age, understanding shark mating behavior is important for many commercial species in terms of maintaining populations. The aim of this study is to shed light on the mechanism of polyandrous mating behavior in elasmobranchs. Injuries inflicted during mating can cause the female to become more susceptible to disease, hinder foraging abilities, or result in death. The use of polyandry as a female mating strategy is still poorly understood. In this study, we have a captive population of catsharks, Sphyrniformis retifi, from which to sample genetic and morphological information that may add new functionality or replace current methods.

16. Plasmid Loss inSaccharomycesCerevisiae
Jasmine Jordan: Undergraduate, Paul Nash: Faculty Mentor
Department of Biology
Our Funded

Hypothesis

A plasmid is extra chromosomal DNA containing information that can be inserted into a cell. Plasmids carry information that may add new functionality or replace essential components of a cell that are missing. A plasmid in a cell can be passed on through the successive daughter cells. However, some daughter cells that are formed may not contain the plasmid. The rate at which a plasmid can be lost from a population of Saccharomyces cerevisiae has not yet been established. Using four successive experiments monitoring growth rates and plasmid loss within two auxotrophic populations, the length of time that the cell populations retain the plasmid within a significant amount of cells will be quantitated. An overall understanding of the effect of the plasmids on the growth rates of uracil and tryptophan auxotrophs will be determined and the impact of manipulating the extrachromosomal gene products on growth rates of the yeast will be established.

17. Spatial and Temporal Variations in the Community Structure of Marine Archaea in the Northeastern Gulf of Mexico
Sarah Tominack: Graduate, Christian Riesenfeld: Faculty Mentor
Department of Biology

Since the Deepwater Horizon oil spill in 2010, much emphasis has been place on understanding the processes, both physical and biological, that occur in the Gulf of Mexico. On the micro-scale, bacterioplankton and archaeoplankton play major roles in the cycling of nutrients in the microbial loop, and then the macro-scale geochemical cycles. Understanding the changes that occur in the community structure of archaea in the Gulf of Mexico over space and time has the potential to shed new light on the transfer of energy into and out of the system as well as through higher trophic levels. Using clone libraries constructed with the archaelca 16S RNA sequence, samples collected across three transects will be compared seasonally and spatially. The libraries will also be compared by physical water column parameters during time of collection and overall current movement.

18. Staphylococcus aureus and Methicillin-Resistant Staphylococcus aureus Prevalence and Cleaning
Caitlin McCaffrey: Undergraduate, Kristen Coffey: Faculty Mentor
Department of Biology
OUR Funded

Staphylococcus aureus is a part of normal human flora. It is present on the skin and in the nose of approximately one-third of the population. The most notable and dangerous strain of Staphylococcus aureus is methicillin-resistant Staphylococcus aureus, which can cause rashes, skin infections, and sometimes death if left untreated. While less than 1% of Staphylococcus aureus is MRSA, gym locker and athletic facilities are notorious for hosting and spreading S. aureus and MRSA from person to person. The aim of this research was to determine the prevalence of S. aureus and when found, determine if it was a MRSA strain, at the University of West Florida Fitness Center. The effectiveness of the routinely-used gym cleaner on reducing the prevalence of S. aureus was also investigated. Specialty media detecting both S. aureus and MRSA was used in this detection. Overall, it was found that out of 72 samples taken, 47 samples came back positive for S. aureus, and 38 of those samples came back positive for the pathogen. There was a moderately significant correlation between the overall numbers of positive results for S. aureus and MRSA. A significant correlation was found between the number of positive results of S. aureus and MRSA before cleaning and after cleaning. The efficacy of the Fitness Center’s cleaning solution could not be determined. A follow-up study could be done using only clean rats to determine the efficacy of the cleaning solution.

19. The Elucidation of a New Species within the Species Complex Squalus through Morphology and Molecular Analysis.
Amber Koch: Undergraduate, Toby Daly-Engel: Faculty Mentor
Department of Biology
OUR Funded

Dogfish sharks (genus Squalus) are highly susceptible to overexploitation due to their low reproductive rate. Because Squalus species are often cryptic and difficult to correctly identify, strategies to protect and preserve the genus are difficult to develop and implement. This study concentrates on Squalus suckleyi, the dogfish shark originally described from Misaki, Japan. S. mitsukurii was presumed to be the same species with a global range, but is now believed to be a species complex: separate species which are morphologically similar but distinct at the molecular level. Further, though
20. The Role of Hax1 in Vav1 Activation

John Thompson: Undergraduate, Peter Guttmann: Faculty Mentor

Department of Biology

Horns Thesis

Loss of function mutations in the HAX1 gene causes a form of severe recessive neutropenia, which is a primary immunodeficiency syndrome associated with increased apoptosis in myeloid cells characterized by low blood neutrophil counts and life-threatening bacterial infections. HAX1 associates with proapoptotic Bcl-2 family proteins and regulates their activity, possibly by modulating their localization or activity. In this study, we examined the role of HAX1 in regulating the activity of the proapoptotic Bcl-2 family proteins and their potential role in modulating the activity of the proapoptotic Bcl-2 family proteins.

22. Attempts at Growing Single Crystals of Copper(II) Oxalate

Rebecca Brady Kamentsan: Undergraduate, Anna M. Royappa: Faculty Mentor

Department of Chemistry

22. Attempts at Growing Single Crystals of Copper(II) Oxalate

Copper(II) oxalate, CuC₂O₄, has interesting magnetic properties due to its antiferromagnetic properties. While it is widely used in the field of physics, its applications in biology and medicine have not been fully explored. In this study, we attempted to grow single crystals of copper(II) oxalate to study its magnetic properties and possible applications in nanotechnology.

24. Conformational Analysis of Aplyronine C

Tessa Haidushkin: Undergraduate, Christopher Nicholson: Faculty Mentor

Department of Chemistry

Aplyronine C is a member of a family of actin-binding marine macrolides that mimics the actin-binding properties of the human body. The flexibility of Aply C was analyzed by subjecting the molecule to different force fields. Each force field analysis produced a unique set of conformations. The dihedral angles were then analyzed to determine the energy of each conformer, which was used to optimize the voltage potentials by equipment compatible with our LC-MS system: a larger column (2.1 mm) that requires a higher flow rate (200 L/min), which results in reduced detector sensitivity. Around these restrictions, a method was developed to maximize the system’s sensitivity to LSEAL. Samples of blood plasma and cerebrospinal fluid from Sprague Dawley rats treated with LSEAL by intraperitoneal or intracerebral injection were desalted and concentrated prior to LC-MS injection. Tandem mass spectrometry is used for identification of LSEAL among the other peptides and compounds present in CSF and plasma.

27. Effects of Salinity and Photo-degradation on the Adsorbance of PAHs by Plastic Resin Pellets

Aysha W. Wisse: Undergraduate, Kyoto Marukawa: Undergraduate, Pamela Vaughan: Faculty Mentor

Department of Chemistry

Our Funded

The sorption of specific polycyclic aromatic hydrocarbons (PAHs) (naphthalene, phenanthrene, chrysene) by polystyrene resin pellets was examined with light and dark conditions to determine the effect of light on the sorption of PAHs. The results showed that the sorption of PAHs by polystyrene resin pellets was significantly reduced in the presence of light.

28. Examining the Effects of Environmental Conditions on the Adsorbance of PAHs by Plastic Resin Pellets

Inti Carrey: Undergraduate, Dane Brinklow: Undergraduate, Pamela Vaughan: Faculty Mentor

Department of Chemistry

Our Funded

Polyaromatic hydrocarbons (PAHs) photodegradation rates were examined under variated light exposure and environmental conditions (salinity, organic material content). Preliminary results indicate when comparing the sorption of PAHs by polystyrene resin pellets, the decline in sorption rate is more pronounced in the presence of light.
30. Identification and Quantification of Common Classes of Flavonoids by Liquid Chromatography-Mass Spectrometry

Robert Lynch: Undergraduate, Rajarsi Ghosh: Graduate, Frederick Hileman: Faculty Mentor

The hydration of a decorative bead is an exercise for General Chemistry students where the students learn how to properly record and manipulate numerical data. The students will learn how to properly use different digital and analog instruments to properly record data. The initial measurements will be used to properly convert, calculate, and compare data to understand quantitative observation. The experiment emphasizes different measurement techniques, the importance of accuracy, calculating average value, and calculating uncertainty of measurement. A revised version of the experiment is shorter and allows the students to use their own data to learn about Excel and linear regression. The revision of the experiment also allows the students to measure mass change versus time for graphical analysis. The graphical analysis aids the students in familiarizing them with Excel and learns how to process the data calculated.

31. Seasonal changes of epiphyte populations and overlying water nutrients in bodies of water in Pensacola, FL

Natalie Hunt: Undergraduate, Jane Coffey: Faculty Mentor, Department of Biology

Seasonal changes in epiphyte biomass, water column chlorophyll a, and overlying water nutrients were measured in seagrass beds in Pensacola Bay. Seven different locations were included in this study: Big Lagoon, Bruce’s Beach, Escambia Point, Naval Live Oaks, Project Greenshores, and Wards Island Park. Data were collected between March 2010 to September 2012, covering from early spring to late fall by Florida Department of Environment Protection’s Northwest District (FDEP NWED) and UWF personnel. Previous research has suggested that pore water, nutrients, and hydrogen sulfide influence the success of transplanted seagrass beds. In this study, we examine seasonal patterns in chlorophyll a extracted from epiphytes and the overlying water. The presence of epiphytes and chlorophyll a in the water poses a problem to the seagrass beds due to increases in light attenuation, increased turbidity, and competition for light and nutrients. With values of 1.47 μg chl a/cm² and 1.34 μg chl a/cm² respectively, Wards Island Park and Bruce’s Beach had the highest levels of epiphyte biomass and overlying water nutrients. Both Big Lagoon and spring summer have much higher epiphyte levels than fall, but data does not support either season as the highest supporter of epiphyte loads. Water column chlorophyll a values fluctuate with overlying water chlorophyll a only at Big Lagoon. However, chlorophyll a values of the water column fluctuate just as the epiphyte levels do in the fall at all the sites. The data suggests that there are no significant species differences for the epiphyte levels.

32. Synthesis and Characterization of Novel Fluorescent Organic Materials

Se Jung Gregory: Undergraduate, Jamie Trindell: Undergraduate, Alex Vega: Undergraduate, Alan Schrock: Faculty Mentor, Karen Sinclair: Faculty Mentor, Michael Huggins: Faculty Mentor, Pamela Vaughan: Faculty Mentor, Department of Chemistry

Titanium oxide nanoparticles were synthesized using Titanium Tetratosiloxide and varied pH values. The nanoparticles were left in solution from times varying between one week and 8 months. The synthesized nanoparticles were then filtered with 0.2 μm Millipore membranes and dried at 75°C, C. 5% C changing between one and two hour time increments at each temperature. Differential Scanning Calorimetry (DSC) was used to further refine the heating ranges to get a more accurate range at which the nanopowders changed phase. After being synthesized, each of the nanopowders were characterized according to their size, composition and phase, and absorbance properties using Scanning Electron Microscopy (SEM), X-ray Diffraction (XRD), and UV-Vis Spectroscopy, respectively. The spectra and diffraction patterns were used to determine the temperature required to induce a phase change from the amorphous to anatase structure and anatase to rutile structures. The resulting spectra were compared to literature spectra to ensure that pure samples of each species of nanopowder were obtained.

33. Synthesis and Characterization of Surface Modified Zinc Oxide Quantum Dots

Sanam Bhuyan: Undergraduate, Lena Ibrahim: Undergraduate, Hailey Eggle-Betancourt: Undergraduate, Karen Malek: Faculty Mentor, Department of Chemistry

Our funded

Quantum dots are unique nanoparticles that are gaining interest for their desirable chemical and physical properties. In this study, ZnO quantum dots were synthesized using two different methods. Method one involves heating zinc acetate solutions to create Zn+ precursors, and method two involves growing the ZnO quantum dots from a seeded dispersion of highly modified precursor ZnO particles. LiOH was used in both methods to regulate particle growth. Low and high molecular weight siloxanes modified physical stabilizers were used to decrease aggregation and improve ZnO aqueous dispersion fluorescence stability. The effects on quantum dot growth and stability in these methods were studied as a function of surface modifier structure and attachment efficiency. Scanning Electron Microscopy, Transmission Electron Microscopy, and Confocal Microscopy were used to measure particle quality and aggregation. The stabilized ZnO quantum dot dispersions were characterized by Dynamic Light Scattering and with Infrared, UV-Visible, and fluorescence spectroscopy.

34. Synthesis and Characterization of Titanium Oxide Nanopowders

Christen K. Butterfield: Undergraduate, Tia K. Boucher: Undergraduate, Gregory S. Kostelac: Undergraduate, Karen S. Malek: Faculty Mentor, Department of Chemistry

Our Funded

Titanium oxide nanopowders were synthesized using Titanium Tetratosiloxide and varied pH values. The nanoparticles were left in solution from times varying between one week and 8 months. The synthesized nanoparticles were then filtered with 0.2 μm Millipore membranes and dried at 75°C, C. 5% C changing between one and two hour time increments at each temperature. Differential Scanning Calorimetry (DSC) was used to further refine the heating ranges to get a more accurate range at which the nanopowders changed phase. After being synthesized, each of the nanopowders were characterized according to their size, composition and phase, and absorbance properties using Scanning Electron Microscopy (SEM), X-ray Diffraction (XRD), and UV-Vis Spectroscopy, respectively. The spectra and diffraction patterns were used to determine the temperature required to induce a phase change from the amorphous to anatase structure and anatase to rutile structures. The resulting spectra were compared to literature spectra to ensure that pure samples of each species of nanopowder were obtained.
complex was successfully synthesized and recrystallized. The nitrogenous ligands bpy, phen, and dpmm yielded ionic complexes. We will report our progress towards the synthesis and structural characterization of novel copper (I) oxalate complexes with pyridine and disopropyl sulfide ligands.

37. Synthesis of HIV-1 Capsid Protein Inhibitors
Tia Jarvis: Undergraduate, Alya Chaudhry: Undergraduate, Zachary Whitesauer: Undergraduate, Erica Mejffe: Undergraduate, Samuel Byun: Undergraduate, We Gambrill: Undergraduate, Alan Schroff: Faculty Mentor, Michael F. Sumners: Faculty Mentor, Michael T. Huggins: Faculty Mentor

The in human immunodeficiency virus (HIV) replication life cycle, the capsid protein has been identified as an attractive inhibition site. Due to its role in the formation of the capsid core, the capsid protein is crucial for viral infectivity. A library of small molecules has been screened for their binding affinity to the capsid protein, and several synthetic new targets were identified using a structure activity relationship (SAR) analysis. The synthetic targets have a substituted aromatic head connected via an amide moiety to tail group. SAR analysis identified two substituted benzenes that repeatedly showed high binding affinities for the capsid protein, and a wide variety of tail groups.

38. Synthesis of Organic Light Emitting Diodes
Cheleo Carter: Undergraduate, Andrew Platz-Burston: Undergraduate, Andrew Ephron: Undergraduate, Gregory Kostela: Undergraduate, Daniel Speed: Undergraduate, Alan Schroff: Faculty Mentor

Organic light emitting diodes (OLEDs) can be used in a large number of ways including environmentally friendly and efficient lighting. Currently, OLEDs exist, but are limited in efficiency and usage. The OLED luminous layer is made of a film of organic compound and a polymer that acts as a semiconductor which emits light when introduced to an electric current. Potential candidates must act as semiconductors within the allotted 2-2.5 volts, fall within the blue range, and must have efficient light emission relative to other OLED materials. Based on literature precedent, we expect the candidates will have the proper 3-dimensional structure and rigidity needed for efficient, high performance OLEDs. Once performance is proved, candidates will be tested in full multicomponent OLEDs.

Tia Boucher: Undergraduate, Chris Van Leeuwen: Undergraduate, Karen Mole: Faculty Mentor

Manganese oxide nanopowder species MnO, MnO2, Mn3O4 and Mn3O5 were synthesized as utilized as surfaces in a large number of ways including environmentally friendly and efficient lighting. The results of the synthesis, characterization, and ionization efficiency testing will be presented.

40. The Effect of Emulsifiers on the Cationic Ring Opening Polymerization of Glycidol
Carla M. Staton: Undergraduate, Elory A. Schehera: Undergraduate, A. Timothy Royappa: Faculty Mentor

Cationic ring-opening polymerizations of glycidol in dichloromethane were systematically carried out in the presence of one of the following ethers: tetrahydrofuran (THF), diglyme (diethylene glycol dimerethyl ether), diethyl ether and methyl tert-buty ether (MTBE). The polymerizations were conducted in the presence of increasing concentrations of each ether at room temperature. Glycidol was also polymerized without emulsifier in dichloromethane, as a control. After workup, the resulting polymers were characterized by infrared spectroscopy, nuclear magnetic resonance spectroscopy, differential scanning calorimetry, and gel permeation chromatography (for the measurement of molecular weight). The results of the foregoing investigations will be presented.

41. Transketolization Kinetics of a Solketal Derivative and Acetophenone
Ken Ulrich: Undergraduate, Baylen Thompson: Undergraduate, Dr. Alan Schroff: Faculty Mentor

Solketals are a class of renewable chemical intermediates for the synthesis of bio-based plasticizers and detergents. Transketolization of solketal is a well-known reaction with many patents and journal articles devoted to it. However, the reaction kinetics of transketolization is not well documented. Here a kinetic model of one such reaction between a solketal derivative and acetophenone is presented showing that water and acid are necessary catalysts. This requires a coupling solvent to allow water to mix with the solketal derivative and acetophenone. Additionally, acetone must be removed while leaving water behind to drive the reaction to completion.

42. Race to the Finish: A Comparison of AI Search, Navigation, and Pathfinding Algorithms
Brett Showalter: Graduate, AI Research Group: Undergraduate, Eman El-Shiek: Faculty Mentor

Artificial intelligence (AI) enables the development of autonomous systems with the ability to make rational decisions and find solutions. Through simulation, autonomous agents, or robots, are being utilized more in manufacturing, medicine, transportation, service, and even domestic applications, such as vacuum cleaners. These robots are required to become more general purpose and flexible and must also function in human-centric, complex environments. Such environments involve stairs and drop off. The ability to search for objects and avoid falls are essential requirements for even the most basic of such robots. The UW Al Research Group focused on the development and evaluation of AI search and navigation algorithms. The goal of a robot's goal is to locate a beacon on a raised surface while avoiding falling off of the sides. This project makes use of the iRobot Create platform, a simple 2-wheel drive disc-shaped robot with ultrasonic cliff sensors and an IR light sensor. The robot is able to sense the vertical distance between itself and the floor using its cliff sensors and therefore, avoid falls. An IR beacon will be used as the robot's goal object. Several AI search and navigation algorithms will be used and compared to evaluate algorithm performance and usefulness in support of the project goals.

43. Design of a Home Control System
Michael Barrett: Undergraduate, David Snyder: Undergraduate, Brandon Mesch: Undergraduate, Travis Wilson: Undergraduate, Andreas Fuchs: Faculty Mentor

In today’s fast-paced world, many homeowners find themselves questioning the safety, security and efficiency of their home. One way to avoid these hassles would be to have a system that would automatically perform functions to increase the safety, security and efficiency, as well as give the homeowner remote control of their home. This design incorporates lighting control and automation, appliance control with automatic disconnect, garage door control with security system integration, a programmable thermostat with energy management, and a full-featured security system. In addition to being a complete system, each module will also be able to operate independent of the system. This allows the homeowner to choose only specific features to implement.

The homeowner is able to control the system through a web interface accessible from any web browser. This means the user interface is seamless across different operating systems. Being web-based, the user is able to access the controls from any mobile device. The system is designed to allow for future expansion, meaning new modules can be easily developed and integrated.

44. Energy Management System for a Micro-Grid Community
Joseph McPherer: Undergraduate, Joseph Flaus: Undergraduate, Lindeley McCamby: Undergraduate, Chris Quesada: Undergraduate, Dr. Bhuvana Ramachandran: Faculty Mentor

A lot has changed since the original idea for power distribution. Different types of energy sources are now being fed into this distribution system at varying power ratings and costs. This system entails different energy sources, which this project will refer to as Agents (represented through virtual appliances). An Agent is an object that collects data from each energy source. Through networking, all Agents will communicate to an auctioneer called Jake, who will then determine, for a community, which power source or sources to use for that period based on cost efficiency and the desired power requirements. The left over power has the potential to be fed back to the power company’s for redistribution.

45. Design of a Solar Tracking System
Michael Barrett: Undergraduate, David Snyder: Undergraduate, Brandon Mesch: Undergraduate, Travis Wilson: Undergraduate, Andreas Fuchs: Faculty Mentor

The purpose of this design project was to create a solar tracker to maximize the total power output of a solar panel. The shadow on a rear mirror is utilized by the system microprocessor to orient the photovoltaic cells in such a manner as to maximize efficiency. Additionally, maximum power point tracking (MPPT) was implemented through a microprocessor controlled DC-DC buck-boost converter. Tests showed an increase in both solar panel voltage and power.

46. IEEE Southeast Con Hardware Competition 2014
Jose Rojas: Undergraduate, Carlos Serra: Undergraduate, Derek Loke: Undergraduate, Nathan Riddill: Undergraduate, Timothy Stewart: Undergraduate, Dwight Patterson: Undergraduate, Eric Jones: Undergraduate, William Mantell: Undergraduate, Andreas Fuchs: Faculty Mentor

The IEEE Southeast conference is a regional engineering conference, which hosts many different competitions, discourses, and events for professional and
47. Legitimacy Granted: Placing the Police Gang Suppression Unit Within the Context of Moral Panic

This poster presents preliminary findings from a content analysis of gang-related news coverage in circulation between years 2005 and 2006. The analysis was conducted within the context of shifts in state and local law enforcement policy on gang-related issues. Previous research on the novelty of gang suppression units (GSUs) indicates that the formation and operation of these units reached unprecedented heights in 2007. Additionally, much of the moral panic literature highlights the process by which ordinary phenomena are raised to public consciousness via media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation. A sample of the OJJDP National Gang Center’s Gang Media Index was analyzed to identify tone and common themes. We argue that the recent salience of the police GSU is better understood as the result of media overrepresentation.

48. Winning a Trial Before It Even Begins: The Art

49. The Decision Behind Piracy: An Anthropological Approach to Determine the Factors that Have Influenced Life into Piracy through a Historical Characterisation

50. High Speed 3D Flight Path Tracking and Reconstruction

51. Human Warmth

52. Things Fall Apart, Arrow of God, and No Longer at Ease: A Critical Analysis of Chinua Achebe’s African Trilogy as an Expositor of the Effects of Colonialism

53. An Analysis of Midwest Drought Variability

54. Atlantic Basin Climate Indices and Their Relation to Category 5 Hurricane Frequency
5 storms (1932/33, 1960-61, and 2005/2007) were clustered within 2- or 3-year periods. These clusters were separated by continuous 30-40 year periods in which zero years contained multiple Category 5 storms. This distinct interdecadal variability in Category 5 storm development raises important questions about whether large-scale, low-frequency ocean-atmosphere oscillations provide any probabilistic insight on the frequency of Category 5 storm development. Well-known drivers of Atlantic tropical cyclogenesis variability include the North Atlantic Oscillation, Bermuda High, El Nino Southern Oscillation, Atlantic Multidecadal Oscillation, and West African Monsoon variability. Here, we review the literature related to low-frequency climate index variability as it relates to tropical cyclone variability, and we attempt to identify climate index conditions that were associated with previous "clusters" of Category 5 storm development with the goal of highlighting historical analogs that may help improve severe hurricane forecast diagnostics.

55. Mob Grazing Effects on Soil Health: Aggregate Stability, Hydraulic Conductivity, and Bulk Density

Traci Goodhart: Undergraduate, Zachary Leady: Undergraduate, Christopher Head: Undergraduate, Johan Lieben: Faculty Mentor

Department of Environmental Studies
OUR Funded

The raising of livestock and the use of fertilizers has been linked to soil pollution and a decrease in soil health. A new, presumably sustainable method of livestock farming, known as mob grazing, sections the farm into small pastures and livestock is moved frequently, or even more frequently. By confining the cattle, the livestock's food choice is limited; in return grazing is more efficient. Research has shown that mob grazing promotes plant biodiversity. However, little research has been conducted on its effects on soil health. This study is part of a multi-year project that determines the benefits or issues this technique has on soil health. Triplicate samples were taken from two mob grazed pastures and from two nearby fallow farmland sites that served as controls. Earthworm density was determined by counting the number of earthworms within one cubic foot. An increase of earthworms, compared to observations during previous years, would point to an improvement in soil health. Soil pH was measured in both water and CaCl2. Soil respiration was measured via the use of respiration chambers and draeger tubes. High soil respiration implies a greater presence of bacteria in the soil, and increased soil health. Organic matter content was analyzed via the Walkley-Black automatic titration method. If the previously observed trend of increasing organic matter content continues this year it would also point to increased soil health. In conclusion, this study will help demonstrate if soil health increases under mob grazing.

57. Modelling Disturbance and Succession in the Tall Timbers Research Station, Florida

Jeremy Snyder: Graduate, David Cambron: Graduate, Taylor Seamon: Graduate, Connor Wagner: Undergraduate, Dr. John Waldron: Faculty Mentor

Department of Environmental Studies

Forest managers face challenges when it comes to the effects of multiple interacting disturbances, such as insects, fire, and wind on forest management areas. These complex interactions are not well understood, and assessing ecological disturbances over broad spatial and temporal scales is challenging. A commonly accepted ecological modeling tool is LANDIS-II, which is used to model forest landscapes with many species, their realistic attributes, and disturbance variables, over broad spatial and temporal scales. In this study, LANDIS-II is used to model Tall Timbers Research Station, a mixed pine and saw palmetto ecosystem in Tallahassee, Florida. This study models actual tree cohort data with realistic disturbance variables to produce simulated succession and disturbance scenarios. Results of modeling scenarios will contribute to our understanding of disturbance and succession in these forests, and will thereby aid in forest restoration efforts throughout the southeastern United States.

58. Sediment Variation within the Swash Zone, Northwest Florida

Peter Trezieniewicz: Undergraduate, Klaus Meyer-Arend: Faculty Mentor

Department of Environmental Studies
OUR Funded

Wave energy plays an active role in influencing sediment grain-size variation within the swash zone. This variation was studied along 20 miles of coastline in Northwest Florida over a period of 8 months in 2013-14. During this time, 16 sample collections were made from 8 permanent sites to analyze temporal changes in response to wave energy. Samples of 600g were collected, air dried, sieved, and logged in MS Excel. Histograms and cumulative frequency plots were generated from the Excel data to show changes temporal and spatially. Within the study area there was little variation of mean grain size, but statistical analysis revealed variation above and below the mean. Sites appeared to be more similar and better sorted during higher wave energy events; this was most likely due to an interaction with the backshore causing an erodingly effect. In many cases a fining shift was also observed during periods of higher wave energies.

59. An investigation into the correlation between inequality and the recent Great Recession

Eunas Mulah: Undergraduate, Dr. Williams: Faculty Mentor

Department of Government

Inequality is one of the most controversial issue among many facing our generation. It has divided political parties on its economic effects. The question at hand is: what caused the recent data available from the UN Census shows females and males have equal ratio. In the UN census reports the male ratio in China is greater at birth versus females. The most recent data available from the UN Census shows females at childbearing age, 18, the citizens of China male/female ratio is 1.10, which can be explained by this ratio. However, the main question at hand is, what caused the crises? This is an important argument that should be built upon, to determine the cause of the ratio imbalance.

60. Does Western European’s progressive economy attract immigrants from less developed countries?

Michelle Williams: Faculty Mentor

Department of Government

The increasing trend of migration in Western Europe has brought much debate among West European governments. The rising levels of immigration have induced policy debates among government officials, rise of bitterness toward the immigrants from European residents, and pressure on European welfare states. This paper will investigate the migration trend in Western Europe. Precisely, it will examine whether economic reasons attract immigrants to Western Europe, in contrast to their high levels of Gross Domestic Product (GDP) compared to countries in close proximity. It will investigate the country of origin that immigrants come from; to determine if they move from less economically developed countries to more economically developed countries.

The countries in Western Europe that will be examined include: Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands, and Switzerland. In addition, from the nine Western European countries, a comparison of Europe’s University and Non-European union members will be examined to determine if European Union membership affects immigration patterns.
global financial crises? I will explore this question through the use of data sets and use trend analysis to determine at what point the world's financial standings began to fall. I will use causal analysis to include knowledge and interest. We plan to compare these differences between groups by having participants take a political knowledge survey and a political interest questionnaire. The "knowledge" test and "interest" questionnaire will consist of questions from the National Election Survey (NES). Prior to the survey, the participants will complete a demographic questionnaire. We will be comparing two groups: a group receiving a political prompt (quotes from our Founding Fathers, the Preamble, The Bill of Rights, etc.) and a group receiving a no prompt. The participants will be given either their prompt or no prompt to read prior to taking the "knowledge" test and the "interest" questionnaire.

66. What Caused the Global Financial Crisis?

Petros Calogeras: Undergraduate, 
Michelle Williams: Faculty Mentor 
Department of Government

The global financial crisis has been a main political issue impacting the world for multiple years now. Many different factors have been said to attribute to the global financial crisis and throughout this study, these factors will be researched and tested to see which data best supports the cause of the global financial crisis. If immigration rose upon the world over the past fifty years and a few of people brought money from their countries, then we must be looking about the balance of multiple countries’ economies, in turn making them unstable, it could then be expected that this would be a viable cause as a stimulant for the global financial crisis. This study will either confirm or deny the validity of this hypothesis and determine, with other possible impacts, what could make money on the economies in different regions of the world.

67. What Makes an Effective Congress?

Andrew Riffie: Undergraduate, 
De. Emery: Faculty Mentor 
Department of Government

This paper presents a method of analyzing the variables that positively and negatively effect the productivity of the US House of Representatives. Using data from the "Vital Statistics" database created by the Brookings Institute, the productivity of the House is measured and analyzed using correlation with several different factors. Results show that factors including hours spent in session and Representatives’ yearly expenses budget have statistically significant effects on Congressional productivity. The work presented here helps voters evaluate their Congressmen and determine if they are doing their duties well, and suggests ways for Congressmen to improve.

68. Who is Speaking for Women? The Difference in Rhetoric Between Democratic and Republican Congresswomen

Alexis Cauvy: Undergraduate, Jenna Emery: Faculty Mentor, 
Jocelyn Evans: Faculty Mentor 
Department of Government

Earlier investigations into descriptive representation in congressional politics have noted the significant difference in the representation provided by men and women. However, they largely neglect the role of partisanship in shaping the descriptive representation women in Congress provide. Additionally, they focus on bill sponsorship, committee activity, and voting behavior. In this study, we examine the rhetoric of women in Congress, asking how often women in Congress reference their gender in press releases and whether their partisanship affects this form of political speech. We intend to explore the impact of party affiliation on identity politics. We expect that Democratic women will rhetorically represent women more than Republican women. We are currently conducting this research by looking at press releases issued to Congresswomen, and using content analysis software to gather specific data on the terms women are using. This data analysis will provide the evidence to draw significant conclusions about the role of partisanship in women's political rhetoric. To supplement the content analysis we plan to travel to Washington D.C. and interview congresswomen and their communications directors to better understand rhetoric differences between Democratic and Republican women.

69. Do Democracy and Immigration Go Hand-in-Hand?

Baquill Foro: Undergraduate, 
Michelle Williams: Faculty Mentor 
Department of Government

I will be analyzing whether nations with more democratic policies in the East Asia region have more immigration than less democratic nations in that region. The data I will focus on will be those reflected in the net migration trend data display, which are Mongolia, the Democratic People's Republic of Korea (North Korea), Macao, Republic of Korea (South Korea), China, Japan, Taiwan, and Hong Kong. I will be comparing data on democratic status and immigration rates from Freedom House and the United Nations, among other sources. If the states determined to be democratic by Freedom House’s measurements have a higher occurrence of immigration than states that are not considered democratic by Freedom House, then democracy is a contributing factor to people's desire to relocate there.

70. Assessing the Effects of Program Design on Hip Angles

While Performing the Clean and Jerk Exercise.

Marcell Crawford: Undergraduate, Charles McCony: 
Undergraduate, Dr. Eric Gregga: Faculty Mentor 
Department of Health, Leisure & Exercise

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CrossFit is a current exercise fad that focuses on high intensity exercises and was originally designed to train military, athletes, and law enforcement. For the general population, such a program may increase the risk of incurring an injury due to technique degradation brought about by fatigue. To date, a paucity of research has been performed on the program design of CrossFit. Therefore, it is the objective of this research to investigate the program design of a CrossFit exercise program to that of a standard periodized program using a biomechanical analysis of hip angles while performing a clean and jerk exercise (CJ). A 16-camera 3-D motion tracking system will be used to capture and quantify the movement of the CJ. Participants will have previous CrossFit experience, as well as proficient experience in the CJ. A questionnaire will be used to qualify the participants for participation in the study. Participants will be counterbalanced for their starting program, performing the CJ with either the program design of a CrossFit exercise program and the periodized program standards another week. Participants will be asked to cease from any physical activity 48-hours before testing. The main goal of this study is to determine if performing the clean and jerk exercise in great quantity and frequency will be detrimental to technique, and, in turn, increase the potential injury risk factor for the athlete.

71. Effects of Moderate-Intensity Endurance Exercise on Mitochondrial Biogenesis in Neutrophils

Rick Coleman: Undergraduate, 
Du. Ludmila Cosio Lima: Faculty Mentor 
Department of Health, Leisure & Exercise

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Growing evidence shows that endurance exercise confers a variety of health benefits against heart diseases, diabetes, certain types of cancer, and neurodegenerative diseases. Recent studies suggest that exercise-induced activation of neutrophil provides cellular protection. However, exactly how exercise-induced activation of neutrophil improves immune system remains largely unknown. One possible mechanism is the mitochondrial biogenesis via exercise endurance since mitochondrial replication (biogenesis) can extend life span of neutrophils. The function of the mitochondria in neutrophils is not completely understood, but the main role of mitochondrial biogenesis is now known as apoptosis. Therefore, maintaining intact mitochondria of neutrophils via regular exercise will be an important requirement to prevent unwanted neutrophil cell death and provide a strong innate defense immune system against pathogens invasion. This study utilized a moderate-intensity endurance exercise protocol to test humans. Subjects completed an exercise protocol consisting of cycling for 30 minutes at 50% of their VO2 max on three consecutive days. Blood draws were taken before exercise (pre), immediately after exercise had concluded (post), and one hour after the
72. Mean Body Weight Percentages to Weight Lifted by Gender and Age for Community-Dwelling Senior Adults

Kath A. Caissie / Graduate, Nikolai Hofius / Graduate, Ludmila Cosio-Lima / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

PURPOSE: Determining safe initial weight lifting loads for adults over 60 years old can be challenging. Recommendations exist in the literature but not all apply to this specific population. The purpose of this study is to provide a guide of initial weight loads lifted relative to mean body weight percentage by gender and age group for older adults. This guide may be used to establish weight loads for this population. METHODS: Community-dwelling older adults (n = 165) were divided by gender and into 3 age categories: 60-69, 70-79, and ≥80 years. Estimates of initial weights or mean pounds lifted were calculated for each group and exercise. Results: Mean body weight percentage was divided by mean weight to determine percentage for initial load calculation. RESULTS: Initial loads were determined for 15 exercises. Exercises performed included incline bench press, leg curl, lower back extension, hip abduction, hip adduction, compound row, latissimus dorsi pull-down, abdominals, calf raises, triceps pushdown, vertical chest press, bicep curls, lateral and front raises. STATISTICAL ANALYSIS: Mean body weights and mean pounds lifted were calculated for each group and exercise. Mean body weight percentage was divided by mean weight to determine percentage for initial load calculation. RESULTS: Initial loads were determined for 15 exercises for each age and gender category to provide estimation for baseline weight loads. These references will be provided in a table form under acceptance of this abstract. CONCLUSION: Providing percentages of mean weights lifted to mean body weight for age and gender groups in older adults may provide fitness specialists an efficient method to determine initial loads for strength-training programs for this population.

73. Mindfulness Intervention in a Worksite Setting

Shelley Varghese / Graduate, Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

Employment within the public safety career field is inherently dangerous and it should come as no surprise that these employees experience significant levels of stress that can adversely affect their personal lives. In this study, employees of a local public safety agency will be provided with a brief online mindfulness-based stress reduction program. This activity will employ a quasi-experimental prettest/posttest design to determine the changes in employee perceived stress levels. Studies have shown mindfulness-based interventions have the ability to rewire thought processes by providing participants with the ability to change experiences from negative to positive, including negative events, thoughts, sensations, emotions, and behaviors. Other mindfulness-based interventions have revealed significant improvements in participant mood and positive affect, vigor, and life quality (Wolvaer et al., 2012). In addition to these benefits, these studies found decreases in participant perceived stress levels, fatigue, depression, anxiety, and anger issues. These results were found in survey measures, which identified positive correlations between mindfulness and documented psychological benefits.

74. Quantitative Analysis of Biomechanical Movement Patterns and Skill Development of the Fitnessgram and T-Scale Push-up Protocols

Jeremy Provence / Graduate, Eric Greka / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

The purpose of this study is to quantitatively analyze biomechanical movement patterns and skill development between the Fitnessgram (FG) and T-Scale (TS) push-up protocols in middle-school aged adolescents. Physical education classes utilize the Fitnessgram assessment protocols developed by the Cooper Institute to test students in three general areas of health-related fitness. To determine muscle strength and endurance of the student, the 90° push-up assessment is used by physical educators. Due to the subjectivity and opportunity for form and biomechanical variations among the different protocols, the TS push-up assessment was created. The TS assessment provides explicit cues for learning that control technique and biomechanics which will conceptually improve movement patterns and skill development in students. The study will recruit a sample of twenty college aged participants (18-24 years of age), including both males and females. Two groups will be randomly formed from the participants and testing order will be counterbalanced; a group of 10 that begins with the TS protocols and another group of 10 that begins with the FG protocols. Participants will complete a total of four assessments: the first two assessments will look for variations in biomechanical movement patterns within each test, the third assessment will test for transfer effects, and the last assessment will seek for ideas and variations in biomechanical movement patterns. It is hypothesized that explicit cues provided during the TS protocol will decrease variance in biomechanical movement patterns when compared to the FG protocol.

75. The Effect of Propylphycal Ankle Tapeing, Lace up Brace and Kinesio Tape on the Ankle During Walking, Agility and Vertical Jump

Cheryl Ayer / Graduate, Dr. Eric Greka / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

From the young, to the weekend warrior, an ankle sprain are the most common injury in athletic activities. It is estimated that within the United States an estimated 28,800 ankle injuries occur daily. More importantly, it has been reported that in the United States an approximate 3.65 billion dollars was spent on treating ankle sprains. There are numerous amounts of research on the efficacy of different types of braces and ankle tape, but not little to no research on what effect training to the body (muscles and joints) when a brace or tape has been applied. The objective of this study is to quantitatively analyze the physiological and biomechanical effects of different bracing techniques (athletic tape, lace up brace, and Kinesio tape) in order to prescribe the best care for treating and preventing ankle injuries. Participants will complete tasks that include normal walking, a maximal vertical jump test, and a agility test. To analyze the participant’s movement patterns during the tasks, a three-dimensional (3-d) motion capture system and electromyography (EMG) will be used to quantify the data. A 4 (ankle conditions) x 3 (performance measures) repeated measures ANOVA will be performed. An a priori alpha level for significance will be set at p<0.05. It is the hope that such findings may help to lower ankle injury reoccurrence of injury, time lost and medical expenses.

76. The Effects of an Acute Bout of Intense Cycling on HSP72 and Inflammatory Cytokine Production in Neutrophils

James Lewis / Graduate, Dr. Eric Greka / Faculty Mentor, Young Lee / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

Exercise in cool environments has been shown to increase exercise performance comparatively to performing in neutral and hot environments. The human body has many ways of regulating its temperature and an ability to maintain control of these temperatures close to normal is a main contributor to fatigue during exercise. Exercising in cooler environments allows the body to maintain normal core temperature values with less effort leading to increased exercise performances. One of the ways to monitor muscular fatigue is through electromyography (EMG). Understanding how the neural-muscular system responds to exercise in different environments can be very novel information for biomechanists, exercise physiologists, and researchers interested in related topics. Moderate exercise has been shown to increase the body’s immune cells and their activity. Circulating neutrophils play an important role in being the first responders of the innate immune system. Heat Shock Proteins are protective chaperone proteins located within cells and have many different functions in all different types of cells, including the human body. This study aimed at shedding these proteins to interact with neutrophils during heat stress activating them and initiating the alarm response. Understanding their response to different body temperatures during exercise and how they interact with neutrophils may reveal more information as to how the human body adapts to stressful environments, continues normal cellular function and initiates the immune system response. We hope to learn how the human body alters neural and biochemical components during cycling to exhaustion in thermo-neutral and cool temperate environments.

77. Linguistic Isolation, Overweight, and Physical Inactivity among Florida Adolescents

Claire A. Caissie / Undergraduate, F. Stephen Bridges / Faculty Mentor, Karla A. Caissie / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

Social and economic conditions can affect health status in different ways. Depending on the quantity and quality of these conditions improvement or deterioration in health status can occur. Linguistic isolation is one such social condition. Twenty-five percent of obese adults were overweight as children and researchers reported that if overweight begins before 8 years of age, obesity in adulthood is likely to be more severe. Another study reported a higher prevalence of obesity in homes where English was not the primary language. In this case this study reported an inverse association with physical activity participation. The present study explored the relationship between 3 measures of linguistic isolation and adolescent reports of being overweight and being without sufficient vigorous physical activity for 2006 to 2010 across 67 Florida counties. Implications for future research included reducing the prevalence of linguistic isolation, especially among middle school students in Florida counties.

78. Opportunist Nazi: Or how Albert Speer, Joachim von Ribbentrop, and Baldur von Schirach Joined the Nazi Party for Personal Gain Rather than Ideology

Caroline V Robe / Undergraduate, Derek Zumbro / Faculty Mentor

Department of Health, Leisure & Exercise
SCAC Funded

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80. Motivating Fifth Grade Students in Mathematics

Megan McClinus: Undergraduate, Giang Nguyen-Nguyen: Honors Thesis
Rafael Isaac Reyes: Undergraduate, Randall Reid: Faculty Mentor

This research explores the effect of using incentives as motivational strategies for fifth graders to learn mathematics. Currently, United States mathematics and reading are the content areas that students struggle most in academically. According to the Florida Department of Education, (Bureau of k-12 assessment, 2013) only fifty-five percent of fifth graders passed the mathematics portion of the Florida Comprehensive Assessment Test (FCAT). Statewide FCAT percentages drop ten percent in all grades levels leaving the total of thirty five percent passing. In 2011-2012 the percentages were a little higher (average 1.5%) though research indicates the performance is dropping (Bureau of k-12 assessment, 2013). The goal of this project is to help students improve their mathematics knowledge.

81. The Effect of Traditional Greek Myths and Religious Practices on the Peloponnesian War

Elizabeth Loretto: Undergraduate, Marie Theres Champagne: Faculty Mentor

After attending an Honors seminar abroad in Greece, I decided to write my research paper on how the beliefs of the people of Ancient Greece affected their actions in war. There is a significant amount of evidence through both primary and secondary resources, that shows how the practice of common rituals, such as sacrifices in order to honor or gain the favor of the gods, as well as the individual explanations of interactions between the gods themselves, and the gods in human affairs, were integral parts of life in Ancient Greece. Based on my research I concluded that the powerful beliefs of the people of Ancient Greece that the gods could directly reward or punish humans influenced their reasoning, decision-making, and eventual actions throughout the Peloponnesian War.

82. Medical Tourism in the United States: What Do We Know?

Hannah Bouling: Graduate, Dr. Helena Allman: Faculty Mentor

Medical tourism, or traveling abroad for medical treatment, is a rapidly rising phenomenon in the United States. According to a publication by Deloitte Center for Health Solutions, more than 6 million Americans travelled abroad in 2010 for medical treatment and the numbers of the medical tourists from the United States have been growing and are expected to grow in the future. Many state legislators already began to consider the financial benefits of medical tourism with state health insurance plans covering treatments abroad. Despite the medical industry’s rapid growth, academic research on the phenomenon from the medical services consumer’s point of view is scarce. The objective of my research is to systematically examine the existing literature on the subject. My presentation will cover the medical tourism literature review with special focus on the consumer behavior theories utilized in the models explaining the medical tourist’s selection of the destination country to which they travel for treatment.

83. Creative Analysis: Comparative Study of Brooks Brothers’ Past, Present, and Future Marketing

Sabrina Trice: Undergraduate, Faculty Mentor: Department of Marketing and Economics

My thesis research is focused on the sustainability of a 19-year-old company. What marketing and advertising strategies and tactics have been successful and which strategies have strayed from the company’s culture and mission? I will strive to answer questions pertaining to the company’s adaptability over almost 200 years in business. How does a company survive and maintain an iconic status for almost 200 years? How does a brand maintain its positioning in consumers’ mind while adapting to a changing environment? What methods of consumer research do Brooks Brothers use to establish its marketing and advertising plans? What has and has not been successful for Brooks Brothers during the last 19 years? Will they move forward into the future: the next 50, 100, and 150 years? After answering the research questions, I will compile a complete marketing strategy and campaigns plan for the company set 50 years in the future.

84. A Root Finding Method

Camila Cabral: Undergraduate, Kaiyuan Li: Faculty Mentor, Department of Mathematics

In this paper, we present a method, parallel in nature, for finding roots of equations. It is shown that the method converges monotonically and quadratically, and is reliable, efficient, and easy to implement in practice.

85. Comparison of the Zero-Inflated Poisson Distribution, Poisson Distribution, And Conway-Maxwell Distribution in Modeling of Natural Disaster Data sets in the United States

Thapel Su: Undergraduate, Anthony Okafor: Faculty Mentor, Department of Mathematics

Background: A major area in the field of statistics is statistical modeling. There are dozens of distributions used in statistics that can be used to calculate the likelihood of an event occurring and can also be used to help better understand data. The Poisson, Zero-Inflated Poisson, and Conway-Maxwell distributions are all used for modeling discrete data. The purpose of this study is to determine whether the ZIP, Poisson, and Conway-Maxwell can be used to fit natural disaster data sets, 2) compare the three distributions to determine which is the better choice for modeling natural disaster data sets, and 3) evaluate the predictive abilities of the models. Methods: For this research project, we will develop the Poisson, Zero-Inflated Poisson, and the Conway Maxwell models and use them to analyze 3 data sets of the following natural disasters that occurred in the United States: Atlantic hurricanes (“Atlantic Tropical Storm Tracking by Year”), wildfires in the continental US that covered 400,000 or more acres (“1997-2012 Large Fire Area Statistics”), and earthquakes magnitude 7.0 or above (“Historic earthquakes in the United States and its Territories”). We will also examine 2 more data sets that occurred in the state of Louisiana: tornado occurrences in Lafayette, Louisiana Parish (“Storm Prediction Center Warning Coordination Meteorologist Page”), and lightning fatalities in Louisiana (“Natural hazard statistics: Lightning”). The models will be compared and tested for their predictive abilities.

86. Subclinical Hypothyroidism and the Risk of Cardiovascular Disease

Elizabeth Allgood: Undergraduate, Anthony Okafor: Faculty Mentor, Department of Mathematics

Hypothyroidism is a disease where the thyroid fails to produce enough hormones to adequately supply the body’s needs. Since these hormones are essential to proper bodily function, any fluctuation in hormone levels can have serious medical effects, including adverse cardiac events, dysfunctions and increase risk for cardiovascular disease (CVD). Subclinical hypothyroidism (SCH) is a lesser form of hypothyroidism, and according to the National Institute of Health (NIH), approximately 4-8.5% of the United States adult population suffers from this disease. In recent years, many health research studies have examined the relationship between subclinical hypothyroidism and cardiovascular disease. Due to the prevalence of CVD in human deaths, it is important to research this association in patients with SCH. Unfortunately, there have been conflicting results between these different studies, providing inconclusive evidence if the connection exists between these diseases. Therefore, this study analyzes the association between CVD and SCH. Using the National Health and Nutrition Examination Survey (NHANES) data, a national survey published by the CDC, we conducted statistical analysis that included descriptive statistics and Chi-square test of independence. We further conducted multivariate analysis that include logistic regression models to determine the likelihood of an event occurring and can also be used to help better understand data. The Poisson, Zero-Inflated Poisson, and Conway-Maxwell distributions are all used for modeling discrete data. The purpose of this study is to determine whether the ZIP, Poisson, and Conway-Maxwell can be used to fit natural disaster data sets, 2) compare the
quality measurement of Raman standards where analyzed to were investigated to find standards suitable for our table-top before any spectra are recorded, because of the table-top measured with MS260i imaging spectrograph occupied with radiation are used to generate Raman and fluorescence spectra important tools used in material characterization; therefore intended to be found to further the research.

manipulatives, patterns, sequencing, and visual aids and test participant’s language abilities using mathematical approaches one student between the ages of 5-10 diagnosed with ASD. Disorder? How that that information be used to promote mathematics learning in students with Autism Spectrum apply mathematical instructional strategies and resources The goal of “The Language of Mathematics in Autism Spectrum Students” (LMASS) is to investigate how to apply mathematical instructional strategies and resources to promote language learning in students K-2 that have been diagnosed with Autism Spectrum Disorder (ASD). This research proposal focuses on those main questions: What is the relationship between language learning and mathematics learning in students with Autism Spectrum Disorder? How that information be used to promote language learning? LMASS will be a case study focusing on one student between the ages of 5-10 diagnosed with ASD. We will be researching various methods to improve the participant’s language abilities using mathematical approaches and strategies. We will use mathematical strategies such as manipulatives, patterns, sequencing, and visual aids and test their effectiveness with reading and language development. The case study of the participant will take place over the course of two months, after which a new participant is intended to be found to further the research.

characterization and calibration of a combined Laser Raman, Fluorescence and Coherent Raman Spectrometer Carlos Lawhead: Undergraduate, Nathan Cooper: Undergraduate, Josiah Anderson: Undergraduate, Dr. Laszlo Ujj: Faculty Mentor Department of Physics Electronic and vibrational spectroscopy are extremely important tools used in material characterization; therefore a table-top laser spectrometer system was built in the spectroscopy lab at the UWF physics department. The system is based upon an injection seeded nanosecond Nd:YAG Laser. The second and third harmonics of the fundamental 1064 nm radiation are used to generate Raman and fluorescence spectra measured with MS260i imaging spectrograph occupied with a CCD detector and cooled to −85°C, in order to minimize the dark background noise. The wavelength calibration was performed with the emission spectra of standard gas-discharge lamps. Spectral sensitivity calibration is needed before any spectra are recorded, because of the table-top nature of the instrument. A variety of the intensity standards were investigated to find standards suitable for our table-top setup that do not change the geometry of the system. High quality measurement of Raman standards where analyzed to test corrections. Background fluorescence removal methods were used to improve Raman signal intensity reading on highly fluorescent molecules. This instrument was used to measure vibrational and electronic spectra of biological molecules.

Development of a Technique to Measure the AC Magnetic Susceptibility of Liquid Crystals Brett-Michael Green: Undergraduate, Christopher Messiana: Undergraduate, Thomas Guinn: Undergraduate, Aaron Wade: Faculty Mentor, Chandra Prayaga: Faculty Mentor Department of Physics OUR Funded A technique based on the measurement of inductance using ac circuits has been developed to measure the ac magnetic susceptibility of doped liquid crystal samples. Two methods have been tested to release the measured parameters. An RLC bridge is used in conjunction with a series LR time decay measurement to acquire inductance in an ac circuit. A proof of concept has been established with these methods by testing a series of known inductances. Measuring the inductance of a coil wound around a vial filled with the sample and then comparing it with the inductance of the empty vial allows the calculation of the ac susceptibility of the sample. We present the calibration measurements to assess the sensitivity of the system as well as our investigation of the susceptibility of paramagnetic salts and doped liquid crystals with ferromagnetic nanoparticles.

Development of Laser Induced Grating Method for Condensed Matter Studies Arielle Adams: Undergraduate, Kenneth DaVico: Undergraduate, Aaron Wade: Faculty Mentor Department of Physics Development of Laser Induced Grating Method for Condensed Matter Studies Arielle Adams, Kenneth DaVico Department of Physics We present our research on the method laser-induced grating to measure optical, thermal, and molecular properties (the thermal diffusivity, rotational relaxation, and excitation times) of condensed matter systems. This method is an important addition to our tested temperature-dependent transmission and fluorescence experiments, which we use to investigate optical properties of materials. In the experiment, a single beam from a pulsed YAG laser is split into two beams using a 50- to produce label free imaging of thin layers of material and find the spatial distributions of certain chemicals within samples, e.g. cancer cells. (1) Not all aspects of coherent scattering have been used for imaging. Among those reported so far are special polarization sensitive measurements. Therefore we have investigated the properties of polarization sensitive CARS spectra of a highly fluorescent molecule, DCVJ. (2) Special polarization arrangement was developed to suppress the non-resonant background scattering from the sample. These results can be used to improve the imaging properties of acerulent Raman microscope in the future. This is the first time coherent Raman polarization sensitive measurement has been used to characterize the vibrational modes of DCVJ.

Quantum Simulation of Long-Range Magnetism Qingzhao Song: Undergraduate, Thomas Guinn: Undergraduate, Shenna Muehe: Undergraduate, Brian Maynard: Undergraduate, Christopher Varney: Faculty Mentor Department of Physics OUR Funded Recent experiments with ultra-cold atomic gases in an optical lattice have been able to demonstrate short-range magnetic interactions. This realization of the Ising model allows for these systems to be used as quantum simulators to describe magnetic systems that where quantum calculations are difficult as the complexity of the system grows exponentially. As extensions to long-range interactions are presently underway, we investigate the dipolar Ising model with exact diagonalization and provide a baseline for comparison with future experiments.

Descriptive Study of Work, School, and Life Balance among UWF Students W. T. Kuhlmann: Graduate/Postgraduate, Kelly J. Manning: Graduate, Kyle W. Hartwell: Undergraduate, Monika L. Hausk: Undergraduate, Natalie S. Batu: Graduate, Susan A. White: Faculty Mentor Department of Psychology It has been theorized that health disparities observed within minority communities can partly be explained by stressors related to discrimination (Meyer, 2003). It is not known how well this hypothesis applies to health disparities observed within minority communities. In the present study, we investigated the effects of perceived discrimination as moderators of the relationship between work, school, and life balance among UWF students. Results demonstrate an equal amount of interference between work and school to work and school to life to life and school. The present study provides a first step to understanding students’ experience of multiple role involvement. Future directions for research and practical implications will be discussed.

Context Imagery in Survival Processing Angela Sullivan: Graduate, Lisa VanWormer: Faculty Mentor Department of Psychology Research has given evidence to suggest that the brain is predisposed to encode and retrieve information that was presented with a survival scenario (readaptation memory). However, it is unknown as to what context participants are imagining when given the scenarios. In this study, context was controlled with imagery presented with each word in the encoding phase, and during the recall phase. The main three hypotheses: the grasslands-encoding/grasslands-retrieval condition would have the best recall overall, the grasslands-encoding/landscapes-retrieval condition would have greater correct recall than grasslands-encoding/landscapes-retrieval condition context; and that the survival scenario would have greater correct recall than the non-survival scenario. However, there were no main effects found in the results, and the hypotheses were not supported. The results gave rise to questions of the strength of the adaptive memory paradigm as well as its limitations.

Discrimination, Affective Reactions, and Forgiveness in LGB individuals Shane T. W. Kuhlmann: Graduate/Postgraduate, Joseph R. Ruiz: Undergraduate, Kelly J. Manning: Graduate, Kyle W. Hartwell: Undergraduate, Monika L. Hausk: Undergraduate, Natalie S. Batu: Graduate., Susan A. White: Faculty Mentor Department of Psychology It has been theorized that health disparities observed within minority communities can partly be explained by stressors related to discrimination (Meyer, 2003). It is not known how well this hypothesis applies to health disparities observed within minority communities. In the present study, we investigated the effects of perceived discrimination as moderators of the relationship between work, school, and life balance among UWF students. Results demonstrate an equal amount of interference between work and school to work and school to life to life and school. The present study provides a first step to understanding students’ experience of multiple role involvement. Future directions for research and practical implications will be discussed.

Department of Psychology

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453 LGB participants were recruited in person through non-probability sampling at a large-scale LGB event. As part of a larger IRB-approved LGB health and well-being study, participants completed anonymous, self-report questionnaires for personal experiences with interpersonal and institutional discrimination (Huebner & Davis, 2007), affective reactions to discrimination (internalizing and externalizing), and two forms of forgiveness (presence of positive/absence of negative; Rye et al., 2001). Results indicate that institutional and interpersonal discrimination moderately, positively correlate to discrimination (internalizing and externalizing), and two interpersonal discrimination moderately, positively correlate with internalizing and externalizing affective reactions in a sample of LGB men and women. The absence of negative forgiveness was moderately, negatively correlated with effective reactions. These results suggest that discrimination and forgiveness are associated with negative affective reactions.

96. Effects of High and Low Tempo Music on a Cognitive Task

Yasmine Nabutki: Undergraduate, Mandy Johnson: Undergraduate, Ernest Drinkwater: Undergraduate, Dr. Lisa Blalock: Faculty Mentor Department of Psychology

Thesis Title

The purpose of our study was to examine how high and low tempo music affec performance on a mental rotations task in a sample of psychology undergraduate, students. Based on the arousal and mood hypothesis proposed by Unbrock (1961), we expect music to impact arousal and in turn impact performance on a cognitive task. Participants performed a letter rotation task in silence as a control condition. Participants’ level of arousal was measured by completing a perceived rotation task in silence as a control condition. Participants’ level of arousal was measured by completing a perceived rotation task in silence as a control condition. The results are discussed in terms of the arousal and mood hypothesis as well as theories surrounding the influence of music on cognition.

97. Hemispheric Differences in Time Perception in Older & Younger Adults

Kimberly Chafin: Graduate, Lisa Blalock: Faculty Mentor Department of Psychology

Time perception is defined as our subjective experience of time. Time perception is involved in many aspects of our lives such as goal setting, driving, risk taking, interpersonal relations, and organizational behavior. This current study investigated hemispheric differences in time perception and how emotion and age affect this process. Undergraduate, students (N=108) and adults over the age of 55 years (N=61) participated in a bisection task. Data collected was analyzed using t-tests. The results revealed that older participants overestimated the duration of the high emotionality faces compared to neutral more so than the left hemisphere would. A difference between young and old adults was expected to emerge. While the ANOVA for the angry and neutral expressions condition yielded no significant findings, there was a trend towards an age difference with old participants exhibiting a tendency to underestimate the shorter durations. The ANOVA for the happy and neutral expressions condition yielded a significant interaction between duration and age. The regression models revealed that old participants overestimated the shortest duration and underestimated longer durations.

98. Media and Body Image: The Role of Parent-Child Attachment

Stacey R. Bass: Graduate, Erica Jordan: Faculty Mentor Department of Psychology

Media and Body Image: The Role of Parent-Child AttachmentStacey R. Bass, Department of Psychology

This correlational study investigated whether young adults’ parents’ attachment to their same-sex parent served as a potential protective factor against the negative effects of media consumption on body image. Undergraduate, students (N=116) completed a survey containing items that assessed self-reported Body Mass Index (BMI), body shape, attachment to their same-sex parent, and body image preoccupation. There was a moderate positive correlation between body fat composition and body image preoccupation, with high levels of body fat composition associated with higher levels of body image preoccupation. There was a moderate negative correlation for males between media internalization and same-sex parent attachment, with high levels of media internalization associated with lower levels of same-sex parent attachment. In other words, the weaker the same-sex parental attachment, the higher the levels of media internalization. There was a moderate negative correlation between body image preoccupation and attachment to same-sex parent, with high levels of body image preoccupation associated with lower levels of same-sex parent attachment. Results and suggestions for future research studies will be presented.

99. Mindful Awareness and Acceptance of Discrimination and Sexual Minority Distress

Daphne drafts us, Alana Tercel, Elizabeth M. O’Connor: Graduate, Wendy Gonzalez-Canal: Graduate, Kyle W. Harwell: Undergraduate, Susan E. Walsh: Faculty Mentor Department of Psychology

Although discrimination has been shown to consistently cause psychological distress (Borders & Liang, 2011), recent research on mindfulness has shown positive implications for its ability to mediate those negative effects (Garland, 2012). Examining the mediating potential of mindfulness could be particularly beneficial for gay, lesbian, and bisexual (GLB) populations, as these individuals are at high risk for experiencing discrimination on the basis of their sexual minority status. The measures utilized in the investigation isolated awareness and acceptance as two key domains of mindfulness. The researchers examined the possible effects of mindfulness on the psychological responses of GLB populations to discrimination events. It was predicted that higher levels of reported mindfulness would be negatively correlated with reported levels of stress, anxiety, and depression, implying a mediating effect on the psychological distress associated with discrimination. A non-probability sample of 453 self-identified adult LGB participants was recruited by trained volunteers, at an annual public LGB gathering. Participants completed self-report measures of mindfulness (Enrold, 2012), depression/anxiety/stress (Henry & Crawford, 2005) and discrimination (Huebner & Davis, 2007) as part of a larger IRB approved study. Our findings suggest that greater awareness is positively correlated with reported experiences of anxiety and stress. Conversely, greater acceptance is negatively correlated with reported psychological distress. Acceptance, awareness, and experience of discrimination account for significant variance in the reports of depression, anxiety, and stress, implying a predictive role for mindfulness. These findings suggest that mindfulness could be an important factor for reducing the deleterious effects of discrimination.

100. Service with a Smile, NOT!: Effects of Emotional Labor and Burnout on Turnover Intention

Ashley Beth Clark: Undergraduate, Valerie Morganson: Faculty Mentor Department of Psychology

In certain jobs, emotion regulation is a role requirement. This study tests a model in which emotional labor is linked to employee reports of job-related turnover and intention to quit one’s organization. Specifically, this study uses regression to test the mediating effects of emotional labor on turnover intention and burnout. Emotional labor is the visible, physical display of emotions that employees are required to exhibit as a work-role requirement is taxing for employees. The partial effects of mindfulness on emotional labor and burnout were found to be significant, which indicates that delivering emotions as a work-role requirement is taxing for employees. The partial correlation suggests a need to conceptually distinguish types of emotional labor. In particular, deep acting may be viewed as a coping strategy rather than a work demand.

101. The Gender Issue: The Impact of Gender and Gender Role Ideology on Work, School, and Life Balance

J. Morganson: Faculty Mentor Department of Psychology

The purpose of this study was to determine the impact of gender on students’ ability to balance work, life, and school. We examined both gender (male/female) and gender role ideology (a variety of social norms that is distributed to a certain gender) in relation to student work, school, and life conflict. We hypothesize subscribing to egalitarian gender role identity would be associated with more work-school-life conflict and this relationship was hypothesized to be moderated by gender. Specifically, traditional gender
105. The Role of Teacher Supportive Behaviors in Contributing to Work-School Balance

Kayla DuPerrault; Undergraduate, Valerie J. Morganson: Faculty Mentor

Department of Psychology

While there has been a considerable amount of research on the work-life interface among professionals, very little has addressed the work-school balance needs of students (i.e., being effective and satisfied in managing the responsibilities required of work, life, and school). Research has uncovered that family-supportive supervisor behaviors play a critical role in contributing to work-family balance needs of employees. Paralleling such research, in this study, we explore the role of teacher supportive behaviors in teacher-student work-school balance. Using a qualitative approach, this research explores both student and teacher perceptions of teacher supportive behaviors, and the extent to which they contribute to students' abilities to balance multiple roles (i.e., work, life, school). Separate focus groups were conducted with three samples at the University of West Florida: Undergraduate, graduate, and professors. While data analysis is currently underway, we expect results to define the conceptual domain of teacher supportive behaviors; findings will highlight areas of overlap and distinctions between student and teacher expectations and perceptions of the teacher's role as a source of support for balance. Additionally, practices for supporting students who are facing family/personal life and work role obligations will be presented.

106. Cuba: Life on the Island through the Eyes of an Active Witness

Daniel S. Correa: Graduate, Sarah Z. Jonas: Graduate, Dr. Susan J. Jans-Thomas: Faculty Mentor

Department of Research and Advanced Studies

The project represents a doctoral student's course work in Historiography. The project focuses on the incorporation of American History into Disney's themes parks. Moreover, the research question will specifically focus on the Cuban work in the Disney's world. Romantizing American History in the Magic Kingdom. Through the utilization of the qualitative research process, the project will assess how the use of the railroad, Main Street USA, Frontierland, and Liberty Square highlight various aspects of America's past. The students' ability to conduct qualitative research, interpret both primary and secondary sources, record data, and adequately report findings.

107. Desegregation of Pensacola's Lunch Counters 1960 to 1961

Sarah Z. Jonas: Graduate, Dr. Susan J. Jans-Thomas: Faculty Mentor

Department of Research and Advanced Studies

SCAC Funded

Approximately fifty years ago, Blacks were refused the right to sit down and receive service at lunch counters in most variety stores, drug stores, department stores, and restaurants in the South (NAACP, 1962). On February 1, 1960, four young Black men of North Carolina A&T defied this prohibited system by sitting down at an all-white Woolworth lunch counter and demanding to be served (Dykeman & Stokely, 1960). Their courage and bravery hit the press and immediately empowered other young students across the country to take a stand by sitting-down (Dienstfrey, 1960). Within just two months, sit-ins spread to over 60 Southern cities (Dixie Negroes, 1960). Although Pensacola became involved in the national sit-in movement just months after the Greensboro Four's demonstration (Klansmen Want, 1960), little of this history is known today since many first-hand accounts have yet been told. This study addressed the NAACP Youth Council's civil rights protests on the history of desegregating the lunch counters of Pensacola, Florida. By implementing Busha and Harper's (1980) methods of historical inquiry, data were collected through archival research, site-based research, and interviews. Data were then analyzed and triangulated. The results of this study are a detailed account of how protests were organized, sustained, and successful. While archival sources were organized to provide a chronological framework for the study, site-based data provided a geographical framework for the study. Interviews then provided personal first-hand emotions and experiences of individuals in the social and political setting.

108. Historiography: A Qualitative Research Strategy

Daniel S. Correa: Graduate, Kym Atwood: Graduate, Devin Blackwood: Graduate, Joe Callaway: Graduate, Charletha Declower: Graduate, Wesley Delaware: Graduate, Douglas Dodige: Graduate, Mariza C. Leite: Graduate, Kelly McGaughy: Graduate, Dynita Padtgli: Graduate, Verkiea Pulmon: Graduate, Roger Rose: Graduate, Timothy Sowers: Graduate, Robin Strickland: Graduate, John Woods: Graduate, Susan Jans-Thomas: Faculty Mentor

Department of Research and Advanced Studies

This project represents the work of doctoral students in the EDF 8990: Historiography class. Historiography is a qualitative research strategy that allows the researcher to learn about a place, its people, events and changes occurring over time (Jans-Thomas, 2012, p. 91). Historiography is the history of history writing (Lorenz, 1999, p. 29). Through the process of historiography the researcher collects, interprets and synthesizes historical information, synthesizes primary and secondary sources to answer historical questions, and analyze ethical issues in historical research. This project reflects students' ability to utilize systematic qualitative strategies to study the past based upon interpretation of facts.


Maureen W. Howard: Graduate, Sarah Z. Jonas: Graduate, Daniel S. Correa: Graduate, Robin J. Barkley: Graduate, Kym Y. Atwood: Graduate, Dr. F. Stephen Bridges: Faculty Mentor, Dr. Susan J. Jans-Thomas: Faculty Mentor

Department of Research and Advanced Studies

SCAC Funded

With the fall of Saigon, April 30, 1975, citizens of South Vietnam became displaced persons. In response to people's needs, the United States Government took in the refugees by establishing relocation camps at Fort Chaffee, Arkansas; Camp Pendleton, California; Fort Indiantown Gap, Pennsylvania; and Eglin Air Force Base, Florida. This is an historical research study about the Resettlement Camp at Eglin AFB, from April 27, 1975 (prior to the official fall of Saigon) to September 19, 1975. From setting up the camp to finding sponsors, the U.S. Government's Operation New Arrivals assisted in assimilating South Vietnamese refugees into American society. This study documents daily life within the camp, sponsorship, conflict within the civilian community, and the physical closing of the camp.

110. Internationalising Teacher Education: Preservice Teachers' Perceptions of Intercultural Sensitivity and Global Competency

Korri I. Burkart: Graduate, Carla J. Thompson: Faculty Mentor

Department of Teacher Education

The United States teacher education programs stand at an important transitional period of internationalization within an already rapidly globalizing society. Although effectively preparing preservice teachers for multicultural learning environments is crucial, traditional and local orientations like the pressures of high-stakes accountability and standardization mean that these efforts still trail rapidly changing educational environments. Despite the urgency of teacher education program reform in a complex and fluid school environment in the twenty first century, the priority of cultivating globally educated and globally competent practitioners varies significantly depending on individual institutions. A combined theoretical framework based on cognitive development theory and human holistic development theory has posited possible relationships among the factors of global competency and intercultural sensitivity.
Preservice teacher perceptions were sampled through survey data retrieved from seven institutions in the State University System of Florida. Multiple regression analysis was performed to examine the contributions of the components of global competency on intercultural sensitivity. Study findings suggest that each of the three global competency factors contributes to intercultural sensitivity. Intercultural communication skills have almost twice the weight of substantive knowledge, and perceptual understanding. Further analysis extended the model using demographic variables to enrich the regression model. Implications for further study and recommendations for policy implementation are included.

111. Reaching Beyond A Degree
Michelle Williams: Undergraduate, Giang-Nguyen Nguyen: Faculty Mentor
Department of Teacher Education
OUR Funded

This research project will explore the impact of an intervention on education students’ career goals. Students majoring in education are often advised that career options with an educational degree are limited. My goal is to develop a directory of individuals who have earned a career in education that chose a career outside of the classroom setting. Students majoring in education are often advised that they will be classroom teachers. However, they have other career options with an educational degree. My goal is to develop a directory of individuals who have earned a career in education that chose a career outside of the classroom setting. The participants will be questioned before and after the intervention to see if and how their careers goals have changed.

114. Spatial and Temporal Variability of Karenia brevis within the Chocotawhatchee Bay System
Claire Lacy: Undergraduate, Matthew Schwartz: Faculty Mentor
Department of Environmental Studies
OUR Funded

The Chocotawhatchee Bay has been host to numerous red tide events caused by the toxic dinoflagellate Karenia brevis. These events affect the overall health of the water body which can result in mass mortality events of fish, shrimp, and manatees, have the potential to impact the human respiratory system, as well as cause the closure of shellfish harvesting. Water samples were collected at monthly intervals for the past five years, at six shore stations located in two bayous in western Chocotawhatchee Bay. Polymerase chain reaction (PCR) is being employed to determine K. brevis concentrations at the time of sample collection. Surface water nutrient and chlorophyll a levels were measured in all samples, along with physical water characteristics (DO, temperature and salinity) to provide a relevant biogeochemical framework to assess the observed spatial and temporal variability of K. brevis. The results will be evaluated for spatial and temporal correlation in order to expose potential causes for the periodic blooms, including nutrient loading from surface and subsurface fluaxes.

Oral Presentations:

A Smoking Gun: A Study of The Ethics of The New York Times in the Timeliness and significance of this research is that it provides support for their bodies in particular, are often discussed in bawdy, and references in the work of John Donne. Donne was born a Catholic but died a Protestant. At times, Donne’s struggles with this transition reflect in his works. This paper argues that the smoke and fire that dominate the Donnian tradition to act as a physical representation of his spiritual being. In many ways, Donne was unable to let go of his Catholic upbringing because it offered him a tangible representation of life after death. The memento morti, whether a skull or a work of art, acts as a viceroy for the spirit after death.

Aristotelian Influence in Milton’s Theology—Presentation
Erica K. Miller: Undergraduate, Dr. Romack: Faculty Mentor
Department of English and World Languages

John Milton’s Christian theology is apparent throughout his work. While his theology is inherently Christian and somewhat derivative of his time, his detailed conceptions of Christology are undeniably analogous to Aristotelian philosophy. The hylomorphic theology that Milton constructs is closely justified in the Christian Doctrine. The relationship of potentiality equating to God as matter and entelechya equating to the Son’s ability to create is explicit in the Christine Doctrine, among other prose works, and illustrated in Paradise Lost. Milton’s discussions of God, the Son, Chaos, Heaven, and Hell are such a framework of cosmology, ontology, and teleology, all of which are connected. As Kent Lehnof, author of ‘Paradise Lost’ and The Concept of Creation, states ‘this de geneos enables each and every existent, for it provides a material line between creation, and the Creator. Since everything is to some degree a part of the Father, everything is to some degree divine (30). Milton’s notions of theology seem to be heavily drawn from Aristotle’s works, most notably, the Physics, Metaphysics, and De Anima (On the Soul). The application of Aristotelian philosophy to Milton’s theological works changes the interpretation of these texts, perhaps significance, of such texts, formulating an Aristotelian Christian theology, rather than a theological narrative.

Barred and Bawdy: The Under- and Misrepresentation of Shakespearean Women
Brooke Moore: Undergraduate, Kathy Romack: Faculty Mentor
Department of English and World Languages

As an active participant in the theatre, I’ve taken an interest in the female characters of Shakespeare and chose to take a course to further my knowledge through research and investigation. In my paper, I take a close look at the female characters from the Shakespearean play ‘Twelfth Night,’ and examine how they take action and appear to be strong female characters, but how despite their willingness to act qualitatively and decisively may embody some of the positive representations of women. I draw from multiple sources, including an article by Dympna Callaghan in which she examines body politics in Twelfth Night. Women and their bodies in particular, are often discussed in bawdy, and
 unlawful sexually explicit terms. Whatever authority they
cling fiercely to the scholarly, text-based tradition. In this
The place of digital writing in postsecondary academics
been an especially controversial topic in recent years. Some
argue that digital writing represents the collaborative and
multimodal future of higher education while others cling
tightly to the scholarly, text-based tradition. In this
Honors thesis, I use my experiences as a Guest Instructor in
ENC2990 an online digital writing course titled Writing
In the Digital Age: Participating in Global Conversations, designed and taught by Dr. Judith Steele of the University of West Florida to enter the conversation. Applying Bloom’s Revised Taxonomy of the cognitive domain as a rubric, I probe the strengths and weaknesses of the various course assignments, thereby developing suggestions for the future of ENC2990 in particular and postsecondary English studies in general, a future in which emerging forms of digital writing are neither idealized nor shunned, but instead, used to support traditional higher order thinking skills.

Portia’s Power Plays in The Merchant of Venice

Carole Toler: Undergraduate, Katherine Romack: Faculty Mentor
Department of English and World Languages

In the early modern period, England moved from a feudal economy system of patronage to a capitalist economy that, for the first time, separated business from pleasure and personal relations. The early modern English public was anxious about capitalism’s dehumanizing tendencies. The nature of the relationship between economics and human relations, as well as the tension between pragmatism and traditional values are examined in The Merchant of Venice. The figures of Shylock and Antonio provide many complex socio-economic implications, and much scholarship has examined them. I am particularly interested in the figure of Portia in the text. Portia has been viewed in a negative light, as a manipulative female or even as a symbol of the problems in the early modern legal, economic, and political systems. However, I argue that Portia’s active and skillful manipulation of her suitors, the trial, and her ring token reveals her comprehensive understanding of the nuances of both economic and human interests. Striking a balance between pragmatism and idealism, Portia navigates between the two worlds with ease and efficiency, getting exactly what she wants in every situation. Portia is the most successful character in The Merchant of Venice. In “Portia’s Power Plays in The Merchant of Venice” I examine Portia’s active and successful agency. I also examine the implications of Shakespeare’s fascinating decision to create a female character who so closely embodies the Western ideal of hero unconventionally associated with masculinity. Portia represents the new man who is able to thrive in emerging modernity.

Real Enough? Characters Acting Outside Their Best Interests, How the Story Is Affected, and How It Is True to Life

Christian Pacchione: Undergraduate, Jonathan Fink: Faculty Mentor
Department of English and World Languages

Honors Thesis

Well-rounded characters in fiction often challenge, directly or indirectly, the usual patterns of the society and overall universe in which they reside. In parallel, their actions and the author’s unique style and viewpoints challenge some mainstream conventions of the craft of writing. This is not to say the author always radically campaigns against story structure, devices, patterns, etc. but when the author is able to guide the writing can challenge reader expectations distinctive character development and fluid, recognizable storytelling. I aim to present a short fiction piece that highlights certain personal or societal issues present in today’s world by exploring how characters act outside of their comfort zones and not necessarily in their own best interests, exploring extremes before a final, clear resolution is reached. I will be prefacing my story with an analytical theme focused on how these literary values are evident and reflective of a larger societal event in Joyce’s A Portrait of the Artist as a Young Man.

The Validity of Multiple Perspectives in Franz Kafka’s The Metamorphosis (Presentation)

Terry Grieser: Undergraduate, Katherine Romack: Faculty Mentor
Department of English and World Languages

Even though The Metamorphosis is almost one hundred years old, critics still cannot determine what the ultimate theme is in Franz Kafka’s most famous story. Howard Fast argues that Kafka’s sole purpose for writing The Metamorphosis was to prove that “man androach are the same.” Nina Strauss concludes in “Transforming Franz Kafka: The Metamorphosis is about invalidation.” Most critics, like Fast and Strauss, base their interpretations on one of four theoretical approaches: psychoanalytic theory, Marxism, feminism, or Jewish studies. Yet the common declaration throughout the majority of criticisms is that only one of these approaches contains the key for fully understanding The Metamorphosis. On the contrary, Kafka includes overlapping ideas from psychoanalysis, Marxist theory, feminism, and Jewish culture simultaneously in The Metamorphosis. Therefore, the reader is left to interpret the story by acknowledging only one of these perspectives: The Metamorphosis does not lend itself to one absolute theme; thus, the reader must consider each of these viewpoints because these perspectives are equally valid.

Using Spoken Word Poetry to Understand Shakespeare

John David Brown: Undergraduate, Sydney Robinson: Undergraduate, Kathryn Romack: Faculty Mentor
Department of English and World Languages

Many students face difficulty the first time they attempt to read Shakespeare. The elevated language, rhythm, and rhyme scheme can confuse students unfamiliar with this type of literature. However, many of the same elements are fearful of in the Bard’s writing are the same elements they enjoy in spoken word poetry. Shakespeare’s poetic devices such as puns, allusions, metaphor, and imagery are all familiar to audiences used to feel extreme emotion. We believe that by using spoken word poetry, students will be able to better understand Shakespeare. We propose to perform two original spoken word pieces based on themes present in two of Shakespeare’s most famous plays. After the performance, we will discuss how these spoken word pieces can aid students in understand Shakespeare’s performance of the transformative nature of Shakespeare’s plays by studying rhythm, rhyme, and word choice.

Eve, Obedience, and Authority in Paradise Lost

Dylan Mathews: Undergraduate, Katherine Romack: Faculty mentor
Department of English and World Languages

Eve is subordinate to Adam in John Milton’s Paradise Lost. This does not mean that Eve has no authority since Adam’s admonition of Adam as the latter appears to be straying in the direction of lustful admiration of Eve, but we are thereafter left with the question of the nature of Eve’s apparent subjugation to Adam. What does it say of Eve that she can passively invoke in Adam an almost idolatrous reverence? Adam’s attitude towards Eve suggests that he needs her in a manner that is not necessarily reciprocated, but this suggests a completeness to Eve that does not appear to exist in Adam. Eve also exhibits an intuitive intelligence that is more closely aligned with the angelic and divine beings of the epic than Adam’s brand of discursive inquiry as a means of acquiring knowledge. To this end, Eve appears almost more aware than Adam that she inhabits Paradise her concerns cannot carry the overtones of a passive and profound appreciation of Eden that has little regard for the semantics of its technical workings. Adam, in contrast, questions Raphael’s word about such matters, to the point that the angel suggests Adam not concern himself with such affairs too deeply a statement strikingly resonant with Eve’s disposition. It might almost be said that Eve is better suited to Eden than Adam. The question with which we are left, then, and the one I will explore, is why Eve is subject to Adam even before the Fall, and what does this subjection mean before and after the Fall? God’s pronunciation for Eve to be subordinate to Adam. If she is already his seat in Paradise, how is it any different to be forced into this subordination? Answering these questions will entail an analysis of what differentiates Eve from Adam in prelapsarian Eden, and Michèle Le Doeuff’s article How Intrimation Came to Women presents a comprehensive overview of the sort of mentality comprised in Eve. Inshold be noted that the gendering of intuition suggested in this article is well after Milton’s time, but the discourse on intuition and its historical contextualization is invaluable in the context of my argument.

Mary Nuyts’s Genesis of Gendered Subjectivity in the Disturc Trate and Paradise Lost, while dated in terms of both chronology and criticism, provides the foundation for most existing criticism on Milton and issues of gender, and it will be worthwhile for her article sit passively in the backdrop of my argument. The fundamental difference between Eve’s rationality before and after the Fall, and by extension what will differentiate her subjugation to Adam at both times, appears to lie in her willingness to obey. Obedience was for Milton the key to real liberty, and the prelapsarian Eve exhibits this quality repeatedly. She obeys Adam’s wishes, but not for the same reason Adam obeys God’s wishes. Rather, it pleases Eve to please Adam, and that edifies both of their states of living in Paradise. It is not until immediately after the Fall that Eve begins to consider her status as inferior to Adam, and with that comes a momentary temptation to usurp his perceived superior status followed by the first instance of codependency, both of which denote a loss of the completeness personified in prelapsarian Eve.