April 2014
Programs & Abstracts

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.

We gratefully acknowledge the Office of Undergraduate Research Advisory Board and the Scholarly and Creative Activities Committees for their dedicated service in support of UWF’s research mission.

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.
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.

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

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

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

WELCOME

SCHOLARS
Welcome Scholars

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

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SCHOLARS CELEBRATION EVENT SCHEDULE

**WEDNESDAY, APRIL 16**
13th Annual Women’s Studies Conference
8:00am - 5:00pm
UWF Conference Center

**THURSDAY, APRIL 17**
2014 ADVANCE Showcase: Celebrating Diversity and Scholarship
10:00am - 1:00pm
Argo Athletic Club

**THURSDAY, APRIL 24**
UWF Faculty Showcase
9:00am - 11:00am
UWF Field House

**CFPA EVENTS**

**THURSDAY, APRIL 17**
God’s Country Performance
8:00pm
Center for Fine and Performing Arts Mainstage Theatre

**TUESDAY, APRIL 22**
Jazz/Band Combo
7:30pm
Center for Fine and Performing Arts Mainstage Theatre

**THURSDAY, APRIL 24 - MAY 3**
BFA Student Exit Art Exhibition
5:00pm - 8:00pm
Center for Fine and Performing Arts Art Gallery

**FRIDAY AND SATURDAY, APRIL 25-26**
Film Music Concert
7:30pm
Center for Fine and Performing Arts Mainstage Theatre
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 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.

HEALTH AND WELL-BEING

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 dehumanization of women impacts young men and women. While I concentrate...
mostley on print advertising. I do examine a few television commercials as well. I especially focus on how the objectification and dehumanization of women leads to the perpetuation of rape culture in our society, as well as the devaluation of women in general. I have been interested in the idea that in the same way that soldiers are taught to dehumanize the “enemy” in order to be able to kill people in battle more easily, perhaps advertising that dehumanizes women may similarly provide a way to reinforce the culture that has produced Steubenville and Vanderbilt and so many other similar scenarios. I also look at how these devaluing images of women affect the imaginations of young women when it comes to seeing themselves in leadership roles or other positions of power, and how that may perhaps contribute to our lack of women in positions of power today.

WOMEN IN HISTORY AND GOVERNMENT

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

Alexis Causey
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 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, and whether their partisanship affects this form of political speech. We intend to explore the impact of party affiliation on women’s 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 by congresswomen and using content analysis software to gather specific data on the terms women are using. The press releases we are examining are from Legistorm, which collects them from each congresswoman’s website on the following three issues: (a) reproductive rights, (b) discrimination, and (c) access to affordable healthcare.

6. Viking Women: What was their position in society?

Jane Plummer
Department of History

Viking women are commonly thought to be a group that raised 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 spouse was away for such a large period of time. Viking women therefore were given special privileges under the law while their husbands away, this was very unique for the time period as women were not generally recognized as independent parties under the law. In addition, as the second Viking Age before, I know hundreds of thousands of people with daily guidance, blogs, and my story. I also have over 3,000,000 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 continue to inspire others.

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 the role of helping others, and being a mentor, was my calling. I 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, I persevered. Eventually I 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 1.5 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 story of overcoming adversity. I was contacted by several people in my story, including hundreds of thousands of people with daily guidance, blogs, and my story. I also have over 3,000,000 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 continue to inspire others.

8. Prostitution & Penitence in Moll Flanders

Shannon Holst
Department of English

Moll Flanders is the central character of the novel “Moll Flanders” by Daniel Defoe. Moll Flanders, born Mary Robinson, is a classic representation of the penitent prostitute. By suggesting that the character Moll does not fit the model of the prostitute as primarily an economic victim, I instead propose that Moll Flanders demonstrates the Marxist view of capitalist ideology and that penitence derives from Moll’s position amid the relations of production. We will focus on a few key passages in this light and re-examine the Marxist interpretation of the text from one of ironic moralizing into a model of economic individualism that seeks to own the means of production in order to achieve penitence.


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 summary to identify 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 Joyce uses language and the narrator’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

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**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
Faculty Abstracts

1. Mobile Learning Solutions at UWF
   Janusz Chudymski, 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. Youngil 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. Susan A. Walch

16. Three Studies on Conservationalism 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. Laurence Howe, Department of Philosophy

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

21. Homeless Aging Veterans in Transition: A Life-Span Perspective
    Dr. Carla J. Thompson and Nancy Bridier, Department of Research and Advanced Studies

22. Do 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 Philen, Whitney Wessels, and Erin Haslag, Department of Social Work

23. Physical Activity, Sleep, and C-Reactive Protein as Markers of Health in Resilient Elderly Men
    Hoyt R, Linnville S, Fields A, and Moore J

24. Soil geography applied: Anthropogenic and lithogenic influences on the distribution of trace metals.
    Kelly J. Manning, Dr. Sherry K. Schneider, Dr. Steven J. Kass, Dr. Laura White, and Dr. Steven V. Case

25. 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. Walch

Student Abstracts

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

2. ART
   Living in Infinity
   Marina Quirk: Undergraduate, Dr. Robert Philen: Faculty Mentor

3. ART
   My Expression of Gender Dysphoria Through Painting
   Jeremy Blackley: Undergraduate, Valerie George: Faculty Mentor

4. ART
   Meghan Bang: Undergraduate, Nicholas Coughlan: Faculty Mentor

5. ART
   Interactions
   Monetessa Mena, Undergraduate, Dr. Robert Philen: Faculty Mentor

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
7. BY  Benthic Foraminifera Community Diversity And Distribution In The Northern Gulf of Mexico Chelsea McCurry: Undergraduate, Richard Snyder: Faculty Mentor

8. BY  Characterization of Hac1 Signaling Mechanisms in βMLF Stimulated PLB-985 Cells John Steele: Undergraduate, Korey Koper: Undergraduate, Luke Babcock: Undergraduate, Peter Cavnar: Faculty Mentor

9. BY  Characterizing the role of Presensilin Enhancer Protein 2 (Pen-2) in Regulating gamma Secretase Activity Matthew Nalley: Undergraduate, Se Jung Gregory: Undergraduate, Dr. Hui-Min Chung: Faculty Mentor

10. BY  Dogfish Shark Speciation in the Gulf of Mexico Mariah Pfleger: Graduate, Dr. Toby Daly-Engel: Faculty Mentor


12. BY  Identification of Phytoplankton from Three Gulf of Mexico Estuaries Using FlowCam Image Particle Analysis Rachael Dragon: Undergraduate, Jane Caaffe: Faculty Mentor

13. BY  Investigating the Role of Pen-2 on Mitochondrial Health Kendra Beir: Undergraduate, Patricia Ibicki: Undergraduate, Matthew Nalley: Undergraduate, Dr. Hui-Min Chung: Faculty Mentor

14. BY  Investigation of Hac1 and Rap1 signaling mechanisms in neutrophils Alianna Gilmarin: Undergraduate, Dr. Peter Cavnar: Faculty Mentor

15. BY  Multiple paternity and cryptic female choice in chained catshark, Scyliorhinus retifte Stacy L. Cecil: Graduate, Toby S. Daly-Engel: Faculty Mentor

16. BY  Plasmid Loss in Saccharomyces cerevisiae Jasmine Jordan: Undergraduate, Paul Nash: Faculty Mentor

17. BY  Spatial and temporal variations in the community structure of marine archaea in the northeastern Gulf of Mexico Sarah Tominack: Graduate, Christian Riesenfeld: Faculty Mentor, Joseph Moss: Faculty Mentor, Richard Snyder: Faculty Mentor, Wade Jeffrey: Faculty Mentor

18. BY  Staphylococcus aureus and Methicillin-Resistant Staphylococcus aureus Prevalence and Cleaning Caitlin McCaffrey: Undergraduate, Kristen Coeffey: Faculty Mentor

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

20. BY  The Role of Hac1 in Vav1 Activation Jennifer Thompson: Undergraduate, Peter Cavnar: Faculty Mentor

21. CHM  Analysis of Energy Windows with Respect to Chemical Conformation Dennel McKenzie: Undergraduate, Dr. Christopher Nicholson: Faculty Mentor

22. CHM  Attempts at Growing Single Crystals of Copper(II) Oxalate Rebecca Brody Kamerman: Undergraduate, Aleksandra Golanka: Undergraduate, A. Timothy Royappa: Faculty Mentor


24. CHM  Conformational Analysis of Alysimine C. Tessa Hutchinson: Undergraduate, Christopher Nicholson: Faculty Mentor

25. CHM  Conformational Analysis of FD-895: Measuring Flexibility and Rigidity of Different Dibedral Angles in the Ring Sheneika Jackson: Undergraduate, Christopher P. Nicholson: Faculty Mentor

26. CHM  Determination of Pimicolar Levels of Synthetic Peptide LSEAL by Liquid Chromatography/Mass Spectrometry Matthew Nalley: Undergraduate, Huy Pham: Undergraduate, Dr. Fred Hileman: Faculty Mentor, Dr. Rodney Guittmann: Faculty Mentor, Dr. Fred Hileman: Faculty Mentor

27. CHM  Effects of Salinity and Photo-degradation on the Adsorbance of PAHs by Plastic Resin Pellets Alyssa West: Undergraduate, Kyra Murrell: Undergraduate, Pamela Vaughan: Faculty Mentor

28. CHM  Examining the Effects of Environmental Conditions on Photo-degradation Kinetics of PAH Mixtures Jini Curry: Undergraduate, Dane Blankle: Undergraduate, Dr. Pamela Vaughan: Faculty Mentor

29. CHM  Hydration of decorative beads: An exercise in data taking, calculations, and graphing the data. Rebecca Hill: Undergraduate, Christopher Nicholson: Faculty Mentor

30. CHM  Identification and Quantification of Common Classes of Flavonoids by Liquid Chromatography-Mass Spectrometry Robert Lynch: Undergraduate, Rajanish Ghosh: Graduate, Frederick Hileman: Faculty Mentor

31. BY  Seasonal changes of epiphyte populations and overlying water nutrients in bodies of water in Pensacola, FL Natalie Hutt: Undergraduate, Jane Caaffe: Faculty Mentor

32. CHM  Synthesis and Characterization of Novel Fluorescent Organic Materials Se Jung Gregory: Undergraduate, Jamie Trindell: Undergraduate, Alex Vega: Undergraduate, Alan Schnick: Faculty Mentor, Karen Sinclair: Faculty Mentor, Michael Huggins: Faculty Mentor, Pamela Vaughan: Faculty Mentor

33. CHM  Synthesis and characterization of surface modified zinc oxide quantum dots Samuel Byunum: Undergraduate, Lena Ibrahim: Undergraduate, Hailey Egido-Betancourt: Undergraduate, Dr. Karen Molek: Faculty Mentor

34. CHM  Synthesis and characterization of titanium oxide nanopowders Christen K. Butterfield: Undergraduate, Tia K. Boucher: Undergraduate, Gregory S. Kostelac: Undergraduate, Karen S. Molek: Faculty Mentor

35. CHM  Synthesis of biologically useful Benzof[b]thiophenes via iodocyclization/Escherification multicomponent reaction Cathlene Del Rosario: Undergraduate, Jason Craig: Undergraduate, Renee Shavnore: Undergraduate, Tanay Keshwarani: Faculty Mentor

36. CHM  Synthesis of Copper (I) Oxalate Complexes Deke Blum: Undergraduate, Tien Duong: Undergraduate, Jacob Stepherson: Undergraduate, Oliver Vu: Undergraduate, A. Timothy Royappa: Faculty Mentor

37. CHM  Synthesis of HIV-1 Capsid Protein Inhibitors Tia Jarvis: Undergraduate, Aliya Chaudhry: Undergraduate, Zachary Whitescarver:
Undergraduate, Erica Moffitt: Undergraduate, Samuel Bynum: Undergraduate, Wes Gambrill: Undergraduate, Alan Schroft: Faculty Mentor, Michael F. Summers: Faculty Mentor, Michael T. Huggins: Faculty Mentor

38. CHM
Synthesis of Organic Light Emitting Dyes
Chelsea Carrter: Undergraduate, Andrew Place-Burnet: Undergraduate, Andrew Ephron: Undergraduate, Gregory Kostelac: Undergraduate, Daniel Speed: Undergraduate, Alan Schroft: 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 Glycidol
Carla M. Staton: Undergraduate, Elisey A. Scherbina: 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-Sheikh: Faculty Mentor

43. ECP
Design of a Home Control System
John Spitznagel: Undergraduate, Laura Vankannon: Undergraduate, Alexander Sclaton: Undergraduate, Geverson Dossants: Undergraduate, Mohamed Hhabou: Faculty Mentor

44. ECP
Energy Management System for a Micro-Grid Community
Joseph McPlamer: Undergraduate, Joseph Flaws: Undergraduate, Lindsey McCambry: Undergraduate, Chris Quesada: Undergraduate, Dr. Bluvana 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 2014
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 Piracy: An Anthropological Approach to Determine the Factors that have Influenced Winning a Trial Before It Even Begins: The Art and Science of Jury Selection
Breanna Ilband: 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 Sakalars-Rogers: Faculty Mentor

52. EWL
Things Fall Apart, Arrow of God, and No Longer at Ease: A Critical Analysis of Chinua Achebe's African Trilogy as an Exposer of the Effects of Colonialism
Candace Lewis: Undergraduate, Gregory Tomase: Faculty Mentor

53. EVR
An Analysis of Midwest Drought Variability
Zackary Leadly: Undergraduate, Bethany Walkinshaw: Undergraduate, Dr. Jason Ortegren: Faculty Mentor

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

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

56. EVR
Mob Grazing Effects on Soil Health: Earthworms, pH, Soil respiration, and Organic Matter
Zachary Leadly: Undergraduate, Traci Goodhart: 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 Cambron: Graduate, Taylor Seamon: Graduate, Connor Wagner: Undergraduate, Dr. John Waldron: Faculty Mentor

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

59. GOV
An investigation into the correlation between inequality and the recent Great Recession
Esayas Mulat: 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. William: Faculty Mentor

64. GOV
Immigration Rates in European Union vs Non-European Union States
Alexis Causey: 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 Causey: 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 McCrorry: Undergraduate, Dr. 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 Worksite Setting  
Shelby Vaughn: Graduate, Dr. Debra Vinci: Faculty Mentor

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

75. HLP  
The Effect of Propylactic Ankle Taping, Lace Up Brace and Kinetic Tape on the Ankle During Walking, Agility and Vertical Jump  
Christina Moya: Graduate, Dr. 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, Dr. Eric Greska: Faculty Mentor, Dr. 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  
Opporunistic Nazi: Or bust Albert Speer, Joachim von Ribbenrump, and Baldur von Schirach Joined the Nazi Party for Personal Gain Rather than Ideology  
Caroline V Rohe: Undergraduate, Dr. Derek Zumbro: Faculty Mentor

79. MM  
Zombieology: A Study of the General Public's Typical Misunderstandings of the Undead  
Rafael Isaac Reyes: Undergraduate, Dr. Randall Reid: Faculty Mentor

80. IDS  
Motivating Fifth Grade Students in Mathematics  
Megan Mcclinns: 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 sets 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 Sufnar: 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 Messina: 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, Dr. Laszlo Ujj: Faculty Mentor

92. PHY  
Quantum Simulation of Long-Range Magnetism  
Omer Haq: Undergraduate, Thomas Gunn: Undergraduate, Shanna Muehe: Undergraduate, Brian 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  
Context Imagery in Survival Processing  
Angelica Sullivan: Graduate, Lisa VanWormer: Faculty Mentor

95. PSY  
Discrimination, Affective Reactions, and Forgiveness in LGBT 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 Nabulsi: Undergraduate, Mandy Johnson: Undergraduate, Ernest Drinkwater: Undergraduate, Dr. Laszlo Ujj: Faculty Mentor

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

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

99. PSY  
Mental 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
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

**EWL**  Digital Writing and Higher Order Thinking in Postsecondary English Studies: Applying Bloom's Revised Taxonomy to ENC2990
Hunter Brown: Undergraduate, Judith Steele: Faculty Mentor

**EWL**  Portia's Power Plays in The Merchant of Venice
Carole Toier: Undergraduate, Dr. Katherine Romack: Faculty Mentor

**EWL**  Real Enough? Characters Acting Outside Their Best Interests, How the Story Is Affected, and How Is It True to Life
Christian Pacheco: Undergraduate, Jonathan Pink: Faculty Mentor

**EWL**  The Validity of Multiple Perspectives in Franz Kafka's The Metamorphosis (Presentation)
Terry Griner: Undergraduate, Katherine Romack: Faculty Mentor, Robert Yeager: Faculty Mentor

**EWL**  Using Spoken Word Poetry to Understand Shakespeare
John David Brown: Undergraduate, Sydney Robinson: Undergraduate, Kathryn Romack: Faculty Mentor

**EWL**  Eve, Obedience, and Authority in Paradise Lost
Dylan Mathews: Undergraduate, Katherine 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. Kristina Killman
Department of Anthropology
SCAC Funded
Berlin, Germany, was founded in the 12th century, but almost no historical 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 Petrikirche, 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. With over 3,000 burials, the cemetery of Petrikirche is a treasure trove of information about the founding of Berlin that we have only begun to explore.

Dr. Karen S. Molok, Christopher J. Van Lierow, Joseph T. Brice, Jacob R. Stephenson, Georgia C. Bole and Brandon A. Burnette, Department of Chemistry – Funding provided by SCAC Award, 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 Electronic 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 3054 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, Xingfang Fang, Dr. Eman El-Shiekh, 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 which take the form of a knowledge base that can be used 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 you’re a software engineer, you are looking for documents containing “GetUSPSRate” and what interfaces it has. You do an initial query on “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.GetUSPSRate”.Interface” from the list, and are offered all of the files which contain the term “USPS.GetUSPSRate”.Interface”. After clicking one of the file names from the list, the content of the file appears in the browser.

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 it 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 by 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. Laura White, Dr. Dallas Snider, Dr. Thomas Reichherzer, Dr. Eman El-Shiekh, 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, revitalize and introduce into an already burdened software development process. We evaluated a team-based, knowledge engineering approach to introduce software assurance cases assurance cases in the form of concept maps to novices. 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 Campus Microgrid at the University of West Florida
Michael Veatch and Dr. Bhuvana 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 photovoltaic, 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 operated 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, can exacerbate suicide risk as well as increase 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 the average age-adjusted rate of suicide by drowning and the average percentage of deaths by poisoning (point-biserial r = -0.30, one-tailed; r = -0.045); 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 suicide by drowning and the average percentage of deaths by poisoning (point-biserial r = 0.03). Given that drowning rates were rounded up to one decimal place suggest the need for further study. In sum, the presence of an ocean or gulf was not associated with a greater rate of suicide specifically by drowning. This study has failed to support a previous research assertion that the availability of a lethal method for suicide may affect the use of that method for suicide.

10. Temporal Distribution of Homicide-Suicide across Florida

Medical Examiner Districts, 1990-2010
Keara A. Calliott and Dr. Stephen Bridges
Department of Health, Leisure, and Exercise Science

The temporal distribution of 577 homicide-suicides in Florida were available for 1990 to 2010 for 24 medical examiner districts comprising 67 counties. Results, based on only a small sample, suggest no seasonal, monthly, or daily peaks in homicide-suicide.

11. Effects of Exercise on Cardioprotection

Dr. L.M. Cooim-Hama and Dr. Youngil Lee
Department of Health, Leisure, and Exercise Science

Internal Funding

Heart disease is the leading cause of death in the United States. Growing evidence has shown that regular bouts of cardiovascular exercise can have a meaningful impact against cardiovascular diseases. Nonetheless, the mechanisms responsible for exercise-mediated cardioprotection remain in large unknown. Mitochondria are indispensable organelles that provide energy for cells to sustain incessant cardiac function, but when damaged, they critically contribute to myocardial cell death. Therefore, maintaining mitochondrial quality control is very important. Interestingly, endurance exercise promotes removal of dysfunctional mitochondria by autophagy and provides cardioprotection. Objectives and methods: A total of forty eight to sixty Sprague-Dawley rats were used (8 to 10 per each group) for the proposed experimental design. Systolic blood pressure will be compared for cardiac cell and mitochondrial function after inducing myocardial infarction. We will use ex vivo rat heart attack model of myocardial I/R surgery and isolation of cardiomyocytes from the adult mouse heart, and to visualize mitochondrial morphology and autophagy of a single cardiomyocyte, we will use confocal microscopy.

12. Single-leg Hop Biomechanical Adaptations Following an Injury Prevention Program

Department of Health, Leisure, and Exercise Science

The hypothesis is that economic incentives, including tourist earners as they correspond to nationality culture. 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 increasing physical activity on 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 24 in 2012 impacting participating schools’ culture related to nutrition and physical activity. Community health assessment provided the data to support the community effort to address childhood obesity. Phase 2 analysis will focus on a mixed 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

Dr. Lesly S. Keck and Dr. 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 correlation analyses were used 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 trash for males and both sexes for females. Correlations were obtained for pancreatic cancer incidence and paper, food waste, and lung cancer incidence for females. A significant association between pancreatic cancer incidence and construction and demolition debris was found, while the previous study found significant associations between pancreatic cancer incidence and percent smokers and yard trash. Conclusion: Potential differences in the results of the previous study and the current study include methodological considerations, data availability, and ecological factors. Interpersonal differences in the methods and study are not discussed in the previous study. Unlike the previous study, medical records of the pancreatic cancer patients were not available for examination in the current study. Finally, changes in the independent variables over time may have contributed to the differences in the results.

15. Influence of Culture on Tourist Destinations

Dr. Xuan Tran
Department of Health, Leisure, and Exercise Science

As the challenge of culture differences affects economic incentives, a culture model integrated with hospitality and tourism is becoming an effective strategy to study tourism. This study examined the Lewis model (2006) based on McClelland’s theory (1985) of the effects of national culture differences on economic incentives, e.g., the top tourist earners as they correspond to nationality culture. The hypothesis is that economic incentives, including tourism, employment, economic development, and military participation, are community efforts associated with the culture of the nation. Methods: Using Thematic Apperception Test modification (McClelland, 1961) on ten countries, the present study examined the Lewis model to find three significant associations between Linear Active and Achievement, Multi-linear Active and Power, and Reactive
This research examines how the interplay among the countries with a high need for achievement possess the Linear Active culture in Lewis model, (2) the countries with a high need for power possess the Multi-linear Active culture in the Lewis model, (3) the countries with a high need for affiliation possess the Reactive culture in the Lewis model, and (4) the countries with a high need for achievement appeal most to international tourists, and (5) the countries with a high need for power appeal more to tourist recipients. Conclusion: These findings suggest that culture may have a significant role in the economic development of a community. Implications will be discussed.

16. Three Studies on Consociationalism in Central Europe
Dr. Daniel E. Miller¹, Dr. Philip J. House², and Thomas A. Lorman³ 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, Howe 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 effects and, what some have termed the undemocratic features, of the interwar Czechoslovak system, such as frequent government changes and extraconstitutional and extraparliamentary bodies that planned and executed government policy. Lorman’s chapter will examine Slovak politics within Czechoslovakia between the world wars from the standpoint of consociationalism to show how various political parties cooperated to administer the province and to look after Slovak interests in Czechoslovakia.

17. Effects of Country of Origin Image, Brand Concept and Vertical Line Extension Type on Brand Image
Perceptions
Dr. Helena F. Allman¹, Anton P. Feniš², and Dr. Felicia Morgan³
Department of Marketing and Economics, University of West Florida
2. University of Tennessee

This research examines how the interplay among the micro level country of origin image (product-country and product-destination country), brand concept (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 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 most plausibly against a background assumption of epistemic realism. That psychometrics is a realist enterprise provides a possible toehold for Stephen Jay Gould’s objections to psychometrics in “The Mismeasure of Man” and Bobo’s counter-arguments. Both are “pathological sciences.” 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 disregard 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 conservationist 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 for a large sample of student non-completers (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 results were replicated and persisted in a sample of high 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 condition.

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 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 human development occurs throughout adulthood, and the characteristics influencing an individual’s passage. Implications for aging/homelessness research are grounded in late-life transitioning and human development intervention considerations.

23. Do 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 Philes, Whitney Wesels, and Erin Hatlak
Department of Social Work
The study explores life after Don’t Ask, Don’t Tell policy repeal for active-duty 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 Cradle of Naval Aviation in addition to being home to a military installation and has a rich history 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 lot of fear and stigma, even among veterans. Preliminary findings from participant interviews will be presented with a discussion of the themes that emerged.

24. Physical Activity, Sleep, and C-Reactive Protein as Markers of Health in Resilient Elderly Men
School of Allied Health and Life Sciences and Department of Psychology
There is ample evidence inadequate physical activity (PA) and sleep lead to a myriad of health problems, particularly in the elderly. Objective analysis of these risk factors may lead to more accurate diagnoses and treatment to prevent, reduce, or reverse adverse conditions. Two such methods for consideration are actigraphy and the biomarker C-reactive protein (CRP). Purpose: This research was conducted to determine the relationship between PA activity and sleep, measured by actigraphy, combined with CRP levels indexed health in elderly men; particularly veterans who were psychologically resilient to their combat and/or a prisoner of war experience. Methods: Physical activity and sleep were assessed in 120 veterans, aged 61-86 years, most (92%) of them nearly 7 consecutive days and nights with ActiGraph GT3X+ monitors. Self-reported measures and CRP data were collected at their annual medical evaluation between May 2012 and June 2013 and final analysis was completed by LGBT individuals; social media has also been utilized. The analysis was conducted between August and December 2013. Results: Resilient individuals were more physically active and had significantly lower CRP levels (p=.046) as compared to nonresilient individuals. Low cardiac risk participants (CRP <1 mg/dl) were significantly more physically active than high cardiac risk participants (CRP >3 mg/dl), and 53% of the resilient individuals (n=51) were in the low-risk category. Sleep quality and quantity were adequate (90%) for this elderly cohort and not significantly associated with CRP levels. Conclusions:
25. Soil Geography Applied: Anthropogenic And Lithogenic Influences on the Distribution Of Trace Metals, Dr. Johon Lienhe, Dr. Carl Mohrber, and Dr. Ranga Rao Funded provided by U.S. Environmental Protection Agency 1. Department of Environmental Studies 2. Center for Center for Environmental Diagnostics and Bioremediation

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 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 As, Cd, Cr, Cu, and Ni are predominantly of lithogenic origin. Hotspot analysis in a GIS demonstrates that the trace metal concentrations are significantly higher in the old industrial part of the city. The results of this study indicate that the influence of a medium size city on trace metal concentration of soils may be limited beyond the immediate vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad scale vicinity of industrial areas and major roads and that mainly lithogenic characteristics, possibly affected by broad 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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 a multitude of case studies, including crimes of conscience, we investigate how the shape helps the keeper have a comfortable interaction with the item.

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.

8. Characterization Of Hax1 Signaling Mechanisms in fMLf Stimulated Pbl-985 Cells
Kerry Koper: Undergraduate, Luke Babcock: Undergraduate, Pier Caraviti: Faculty Mentor, Valerie George: Faculty Mentor

Bacterioplankton serve a key role in the function of the microbial loop and are a crucial part of the planktonic community. Solar radiation causes a number of changes to marine plankton including damage to DNA and decreases in productivity. An indirect influence of climate change is the potential increase in the penetration of solar radiation through marine waters with the potential to affect depth distribution and thus ecological function of bacterioplankton. They are the base to the food web and modulate downstream H1 signaling mechanisms such as Arp2/3 and Vav1 interactions. We also demonstrate that Hax1 modulates Erk1/2 activation because Hax1-deficient cells show decreased Arp2/3 complex formation and a decrease in support, attendance, and trust.

5. Interactions
Mantessa Menya, Undergraduate, Valerie George: Faculty Mentor

The goal of this project is to expand my knowledge of ceramics. Working with local ceramists and potters will allow me to gain experience and gather more experience in this field. I intend to work side by side with the ceramists; 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.

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of two Pseudoalteromonas sp. The two treatments with oil flies and our pen-2 mutant FT114 and FT119 strains reflect diseases that share several pathologies, we wonder whether Since Parkinson’s and Alzheimer’s are neurodegenerative has been associated with Parkinson’s disease (Ibáñez, 2006). The dominant organisms were then identified. The phytoplankton pictures that had clear resolution were categorized. The dominant organisms include Peridinium spp., and archaeplankton play major roles in the cycling of/2 mutant fly strains FT114 and FT119. We intend to test our hypothesis of maintaining ATP production, the energy source produced in mitochondria, in the FT114 and FT119 strains. 14. Investigation Of Hax1 and Rap1 Signaling Mechanisms in Neutrophils Maizina Gils-Javadi, Undergraduate, Dr. Peter Cavnar: Faculty Mentor Department of Biology OUR Funded Honors Thesis Autonomic neural 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 HSF1-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 GTPase Rap1. To test this hypothesis, Rap1 activity will be observed in differentiated PB-B-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 detectable 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 Catshark, Scyliorhinus Retife Stacy L. Cecil: Graduate, Toby S. Daly-Engel: Faculty Mentor Department of Biology Many elasmobranchs (sharks, skates, and rays) are considered to be indicators of ecosystem health. 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 mechanisms 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 largely unknown. In this study, we have a captive population of catsharks, Scyliorhinus retife, from which to sample genetic tissue and to observe mating behavior directly. Ours will be the first to estimate multiple paternity from live animals. Due to ease of access to a captive population, we have a unique opportunity to observe and potentially use P. retife as a model for understanding and estimating the mating behavior in sharks that are under fishing pressure or ecosystem collapse.

16. Plasmid Loss in Saccharomyces Cerevisiae Jasmine Jordan: Undergraduate, Paul Nash: Faculty Mentor Department of Biology OUR Funded Honors Thesis 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 autonomic 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 markers affecting the extra 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 Tominick: Graduate, Christian Rienietsfeld: Faculty Mentor, Joseph Mao: Faculty Mentor, Richard Snyder: Faculty Mentor, Wade Jeffrey: Faculty Mentor Department of Biology Since the Deepwater Horizon oil spill in 2010, much emphasis has been placed 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 and 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 archaela 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 McCarthy: 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, infections, and sometimes death if left untreated. While less of a threat than the dangerous strain of Staphylococcus aureus, gyms and other 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 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 MRSA. 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 rags 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 dogfish that originally described from Misaki, Japan. S. suckleyi was presumed to be one 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

Jennifer Thompson: Undergraduate, Peter Guvaru: Faculty Mentor
Department of Biology
Honor Thesis

Hax1, a ubiquitously expressed protein, is essential for neutrophil survival and the regulation of apoptosis. Its role in the regulation of neutrophil apoptosis and its implications for myeloid cell signaling are still not well understood. We aimed to determine the role of Hax1 in Vav1 activation and how these interactions may affect neutrophil apoptosis.

Vav1 is a downstream signaling molecule that is activated in response to pro-inflammatory stimuli. It plays a critical role in the regulation of neutrophil activation and apoptosis. The mechanism of Vav1 activation is poorly understood, but recent studies have suggested that Hax1 may play a role in this process.

To test this hypothesis, we used a combination of computational and experimental approaches. We computationally analyzed the interactions between Hax1 and Vav1 using molecular modeling techniques. The results of this analysis suggested that Hax1 and Vav1 form a complex, which is believed to be important for Vav1 activation.

To confirm these computational predictions, we conducted experiments using PLB-985 cells, a myeloid leukemia cell line. We found that Hax1 and Vav1 interact in a dose-dependent manner and that this interaction is necessary for Vav1 activation.

In conclusion, our results suggest that Hax1 plays a critical role in Vav1 activation and neutrophil apoptosis. Further studies are needed to understand the mechanisms by which Hax1 regulates Vav1 signaling and how these interactions affect neutrophil survival.
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 dehydration 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 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 Westside Park. Data were collected between March 2010 to September 2012, covering from early spring to late fall by Florida Department of Environmental Protection’s Northwest District (FDEP NWD) and UWF personnel. Previous research has suggested that these 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 pose a problem to the seagrass beds due to increases in light attenuation, increased turbidity, and competition for light and nutrients. With values of 1.47μg chl a/cm² and 1.34 μg chl a/cm² respectively, Westside Park and Bruce’s Beach had the highest levels of epiphyte biomass. Both sites during the summer months had 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 epiphyte chlorophyll a only at Big Lagoon. However, chlorophyll a values of the water column show just 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

Department of Chemistry

OUR Funded

The use of plants as medicines dates back to ancient civilizations. A significant percentage of drugs these days are plant natural products and synthetic compounds inspired from these natural products. However, less than 20% of the 500,000 flowering plants have been chemically analyzed and the potential for new bioactive drug discovery makes the field fascinating. New technology, including liquid chromatography-mass spectrometry (LC-MS), has revolutionized the characterization of these potentially active compounds in plants. One such plant is the Southeast Asian Sesbania grandiflora also known as the Hummingbird Tree. The common classes of flavonoids (flavonols and flavones) in this plant organ were extracted in aqueous methanol and then acid hydrolyzed. The filtered extracts were then run on a reverse phase LC column with methanol/water (50:50) as mobile phase. Compounds were identified by their electrospray mass spectrometry and were quantified by their absorbance of UV light at specific wavelengths compared to known standards. This poster will describe the methodology used in this study and the levels of the flavonoids that were observed.

33. Synthesis and Characterization of Titanium Oxide Quantum Dots

Sanjiv Bhosle: Undergraduate, Lena Ibrahim: Undergraduate

Department of Chemistry

OAR 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 ZnO+ 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 silicon modified physical stabilizers were used to decrease aggregation and improve ZnO aqueous dispersion fluorescence stability. The effects of 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 stabilizing ZnO quantum dot dispersions were characterized by Dynamic Light Scattering and with Infrared, U/V-Visible, and fluorescence spectroscopy.

34. Synthesis and Characterization of Titanium Oxide Nanopowders

Christen K. Butterfield: Undergraduate, Tia K. Boucher: Undergraduate

Department of Chemistry

OAR Funded

Titanium oxide nanoparticle were synthesized using Titanium Tetraisoproproxide and varied pH values. The nanoparticle were left in solution from times varying between one week and 8 months. The synthesized nanopowders were then dispersed in 0.2 M NaOH at pHs of 9 and 13, to varying 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-Visible 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.

35. Synthesis of Biologically Useful Benzo[b]Thiophenes Via Iodocyclization/Etherification Multicomponent Reactions

Cathlene Del Rosario: Undergraduate, Jason Cout: Undergraduate

Department of Chemistry

OAR Funded

Benzo[b]thiophenes provide the core structure for a wide range of compounds with biological and physiological functions, such as anti-inflammatory, anti-fungal, anti-depressants, estrogen receptor modulator, Fmth antagonists, anti-motic, kinases inhibitor, and anti-tumor activities. Along with various medicinal properties, the physical properties of these sulfur-containing molecules have not been systematically studied. A novel green multicomponent reaction was developed by combining two different reactions into one efficient synthesis of benzo[b]thiophenes. Electrophilic iodocyclization was a key step in the process. In the past, iodocyclization has been used to synthesize various industrially and biologically useful compounds. This convergent reaction resulted in synthesis of benzo[b]thiophene in good yields under mild reaction conditions while eliminating excess waste of byproducts and chemical reagents.

36. Synthesis of Copper (I) Oxalate Complexes

Deb Blum: Undergraduate, Tien Dao: Undergraduate, Jacob Stepanomer: Undergraduate, Oliver Vu: Undergraduate

Department of Chemistry

OAR and SCAC Funded

The synthesis of novel copper (I) oxalate complexes of the form Cu(I)(L)₂(CO₃)₂−, where L = pyridine, 2,2'-bipyridine (bpy), phenanthroline (phen), dimethylphenanthroline (dmphen), diisopropylyl sulfide, and 1,5-cyclooctadiene (COD), was attempted in ethanol or near neutral pH. The complexes were stable at low pH in ethanol and 750K°C C varying 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-Visible 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.
37. Synthesis of HIV-1 Capsid Protein Inhibitors
Tia Jarvis: Undergraduate, Aliya Choudhry: Undergraduate, Zachary White, Senior, Undergraduate, Erica Mejia: Undergraduate, Samuel Byun: Undergraduate, We Gambrell: Undergraduate, Alan Schrock: Faculty Mentor, Michael F. Summers: Faculty Mentor, Michael T. Huggins: Faculty Mentor

In the 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 acyl or acyl amide group. SAR analysis identified two substructure benzenes that repeatedly showed high binding affinities for the capsid protein, and a wide variety of tail groups. Efforts are underway to prepare a new library of potential capsin inhibitors using these two readily available two substituted benzenes. The results of the synthesis and preliminary binding data for the capsin protein inhibitors will be presented.

38. Synthesis of Organic Light Emitting Diodes
Cheleau Carter: Undergraduate, Andrew Plaut-Burtner: Undergraduate, Andrew Ephron: Undergraduate, Gregory Kotzela: Undergraduate, Daniel Speed: Undergraduate, Alan Schrock: Faculty Mentor

Department of Chemistry
OUR Funded

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 OLEDs luminescent 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 Leviens: Undergraduate, Karen Molek: Faculty Mentor

Department of Chemistry

Our group synthesized a manganese oxide nanopowder MnO, MnO2, and Mn3O4, which were synthesized as described in the literature. Each species was characterized using several techniques including XRD, Raman Spectroscopy, and UV-Vis Spectroscopy. Each species was characterized using X-ray photoelectron spectroscopy (XPS), and IR Spectroscopy. Each species was characterized using X-ray diffraction (XRD), X-ray absorption spectroscopy (XAS), and UV-Vis Spectroscopy.

40. The Effect of Emulsifiers on the Cationic Ring Opening Polymerization of Glycidol
Carlos M. Lamon: Undergraduate, Eloey A. Shekhardina: Undergraduate, A. Timothy Boyappa: Faculty Mentor

Department of Chemistry
OUR Funded

Cationic ring-opening polymerizations of glycidol in dichloromethane were systematically carried out in the presence of one of the following ethers: tetrahydrofuran (THF), diethylene glycol dimethyl ether, diethyl ether and methyl tert-butyl 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 Schrock: Faculty Mentor

Department of Chemistry
OUR Funded

Solketal is 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 hydrophobic acetophenone. Additionally, aceton 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
Kerni Bowers: Graduate, AI Research Group

Department of Computer Science

Artificial intelligence (AI) enables the development of autonomous agents with the ability to make rational decisions and find solutions. Physical 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-offs. The ability to search for objects and avoid falls are essential requirements for even the most basic of such robots. The UW Flow Research Group focused on the development and evaluation of AI search and navigation algorithms for autonomous mobile robots. 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 Solar Tracking System
John Spitznogle: Undergraduate, Laurn Vinkonnson: Undergraduate, Alexander Scanlon: Undergraduate, Geveron Domantos: Undergraduate, Mohamed Khoubou: Faculty Mentor

Department of Electrical & Computer Engineering

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 monitoring and a full-featured security system. Through networking, all Agents will be able to communicate with a homeowner who will command the security system 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 for redistribution.

44. Energy Management System for a Micro-Grid Community
Joseph McPhermer: Undergraduate, Joseph Flaws: Undergraduate, Lindsey Cammery: Undergraduate, Chris Qesada: Undergraduate, Dr. Bhavas Ramamahdeman: Faculty Mentor

Department of Electrical & Computer Engineering

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 a Haskell program). Agents either as energy source are 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 a Haskell program). Agents either as energy source or 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.

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

Department of Electrical & Computer Engineering
OURS Funded

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 resistor array 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, Carolyn Serna: Undergraduate, Derek Lake: Undergraduate, Nathan Riddle: Undergraduate, Timothy Stewart: Undergraduate, Dwight Patterson: Undergraduate, Eric Jones: Undergraduate, William Mantell: Undergraduate, Andreas Fuchs: Faculty Mentor

Department of Electrical & Computer Engineering
OURS Funded

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 maintenance 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 unprecedented heights in 2007. Therefore, we argue that the recent salience of the police GSU is better understood as the result of moral panic vs fear of crime and symbolic power than as being a rational response to the objective threat of gang violence.

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

In John Grisham's The Runaway Jury, as well as in real-life cases like People of the State of California v. Orenthal James Simpson. Its significance in determining the outcome of a case has been recognized by some experts as thwarted to be no larger than 12" x 12" x 12". The competition is such that once the robot is placed in the start area of the playing field, it can no longer interact with any team member. A color sensor is used to detect the competition start signal, which is comprised of green LEDs turning on. The robot utilizes one camera based vision system to navigate the playing field while a second camera based vision system is utilized to detect target baskets. Points are awarded for successfully firing soft darts through a 5" diameter target basket as well as for moving accurately through the competition field and ending at a designated stop area, signified by red LEDs, within given time constraints.

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

When the term "pirate" comes to mind a person usually thinks of one of two things, modern pirates in Somalia, or the traditional pirates from the Golden Age. However, there is a deeper history of piracy not known to the general populace. The term pirate comes from the Greek root "peiraz" meaning "to attack, or make a hostile attempt." The earliest records of piracy originated from the Mediterranean region. The first written records of piracy derive from Egyptian tablets. The act of piracy traces throughout the rest of history. However, it was not until the 18th century that piracy was a constant threat throughout the seas. This time period is known as the Golden Age of Piracy. It was a time of Enlightenment and Revolution; a time that left a lot of people in an unstable environment. Lacking a strong government without any stable jobs, many people made a substantial living with piracy. The increase of piracy did not cease until strong governments were restored and punishments enforced.

Recently, the world has seen a re-emergence of piracy that may have surpassed the Golden Age. Investigating previous causes and factors that directly lead to a choice in piracy helps analysts create a more comprehensive understanding into the mindset, social psychology, and cultural factors of piracy. Reviewing the exact definition of a pirate, archaeological evidence, social factors, and maritime law show that defining a pirate is not a simple task. The pirate can simply be a national hero or a freedom fighter. The interdependency between crime and survival is huge and makes the exact definition of a pirate become dependent on a clear distinction between lawful and illegal. There has been an influx of people taking advantage of the system and using piracy as their main method of income. The problem that resides in the international community is not an issue of definition but one of jurisdiction. There is currently no legal international committee that addresses any issue regarding piracy. Instead, the cases are under the State's jurisdiction. The fact that many countries support their local pirates as a means of income to currently underdeveloped countries is a problem.

50. High Speed 3D Flight Path Tracking and Reconstruction

Robert Forrenberry: Undergraduate, Jimmy Tomas: Faculty Mentor Department of Computer Science Honors Thesis

Flying insects are excellent at navigating their environment without the need for any external localization system. In order for researchers to understand how insects navigate, they must first observe how they behave in controlled conditions. I propose a multi-camera, computer vision based localization system capable of tracking small flying objects in 3D space. Such a system could be used to track insects accurately in order to determine exactly how they respond to various visual stimuli, as well as being a useful tool for 3D tracking.

51. Human Warmth

Rebecca Riley: Undergraduate, Regina Sakalarios-Rogers: Faculty Mentor Department of English and World Languages Honors Thesis

In a small town in a bizarre version of Southern Georgia, three outcasts—an autocratic teenager, a depressed artist, and a mysterious grifter—become entangled in forces beyond their control.

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

Regina Sakalarios-Rogers: Faculty Mentor Department of Anthropology Honors Thesis

This thesis focuses specifically on three novels in Chinua Achebe’s “African Trilogy” fictionally portraying African literature as a whole. This thesis focuses specifically on Achebe’s treatment of Igbo culture and argues that the trilogy as a whole conveys the importance of adapting Igbo traditions to keep them alive during changing times. This theme is evidenced by examples in each novel of clansmen who abandon Igbo customs because those customs either prevent their participation in society, make them outcasts, or contradict their personal beliefs. This results in isolated groups of isolated individuals become Christians or seek European education. Empowered to obtain wealth through trade or through European positions in government, those who embrace the Europeans’ coming become leaders among their clansmen. When these characters adopt a way of life that is more European than Igbo, they hurt the clan by participating in the corrupt system that negates the Igbo culture; however, their actions benefit their families, Nigerians who would otherwise have no way of thriving in a society that rejects them. Tracing this theme through these three novels is a complex task because Achebe’s writing style is one that exposes how characters feel, rather than reductively stating that one course of action was the correct one for the clan to take. This complexity is one that Achebe’s trilogy explores and that this thesis explores.

53. An Analysis of Midwest Drought Variability

Zachary Ladd: Undergraduate, Bethany Walduck: Undergraduate, Dr. Jason Ortegren: Faculty Mentor Department of Environmental Studies

In recent decades, low-frequency influences on drought variability have been analyzed for different regions of the United States. The upper Midwest United States, an important agricultural region, has received little attention. Using principle component analysis, a Midwest warm-season drought region of the United States was identified. The drought metric used was the Palmer hydrological drought index from 1895 to 2013. The purposes of this study are to quantitatively identify the Midwest warm-season drought region and to determine whether Midwest drought variability is associated with any large scale, low frequency climate indices. Possible assumptions for the association between low-frequency forcing mechanisms and Midwest drought variability would be significant for water resource managers and municipal drought preparedness.

54. Atlantic Basin Climate Indices and Their Relation to Category 5 Hurricane Frequency

Jeremy Mullins: Undergraduate, Jason Ortegren: Faculty Mentor Department of Environmental Studies

Atlantic basin hurricanes have a dramatic impact on life and property along the Eastern and Gulf Coasts of the United States. Severe hurricanes (Category 3-5) in particular can cause severe coastal property damage and loss of human life. A review of the HURDAT database reveals a temporal pattern of “clusters” of Category 5 hurricanes at various points in the past century. There have been only six years in which multiple (>2) Atlantic Basin hurricanes achieved a Category 5 designation at some point in their life cycle. However, these six instances were not spread evenly across this time span. Rather, years with multiple Category
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 cyclone 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 Leadly: 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, secures 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 will determine the benefits or issues this technique may have on soil health. Two sites were sampled in mob grazed pasture and two nearby fallow farmland sites were sampled as controls. Aggregate stability was measured using field infiltrometers. An increase in hydraulic conductivities was observed during periods of higher wave energy events; this was most likely due to an interaction with the backshore causing an eroding effect. In many cases a fining shift was also observed during periods of higher wave energy.

56. Mob Grazing Effects on Soil Health: Earthworms, pH, Soil respiration, and Organic Matter
Zachary Leadly: Undergraduate, Traci Goodhart: Undergraduate, Christopher Head: Undergraduate, Johan Lieben: Faculty Mentor
Department of Environmental Studies
OUR Funded

soil 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 Treszkiewicz: Undergraduate, Klaus Meyer-Arendt: 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 transects were made from 8 permanent stirs 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 observe changes temporally 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 eroding 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
Esayas Mulat: Undergraduate, Dr. Williams: Faculty Mentor
Department of Government

Inequality is one of the most controversial issues. The objective of this research is uncover the reason for underdeveloping discrepancies within China. It versus female ratio. In the UN census reports the male ratio in China is greatly higher 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 1.09. The data is a legitimate debate to have. Rather, this research will examine the impact and the role of inequality on the recent Great Recession. Insiders trading, deregulation of the financial sector, two major wars, substantial tax cuts, inflation and many more cause the blame for this crisis. However, the biggest contributor to the crisis was the housing market bubble. Houses were bought easily and loans were given generously by the banks to many who cannot fulfill their financial obligations. After the recession began, many policy makers embarked in enacting laws that will address similar situations in the future. Banks were blamed for this financial dilemma, and they should, since they valued their marginal profit than their customers. Surprisingly, many never question why people borrowed money they cannot pay, live in house they cannot afford and struggle when they should not. As such, a fundamental question can be raised: was inequality in our society played a role for the Great Recession?

60. Does Western European’s progressive economic attract immigrants from less developed countries?
Dominique Biel: Undergraduate, Dr. 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 makers, 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 European countries 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 European Union and Non-European union members will be examined to determine if European Union membership affects immigration patterns.

61. Exploring the male versus female ratio inconsistencies due to the “One Child Policy” in China
Nicole Quantum Chatter: Undergraduate, Dr. Jenna Emery: Faculty Mentor
Department of Government

THE OBJECTIVE OF THIS RESEARCH IS TO DISCOVER THE FACTS OF THE "ONE CHILD POLICY" IN CHINA. This research paper is about the gender ratio in China. In the Census reports the ratio of males to females is 1.09. However, this ratio is not consistent everywhere in China. In the west, it has a ratio of males to females is 1.04. In the rest of China, it has a ratio of males to females is 1.2. This is an important argument that should be built upon, however, the main question at hand is: what caused the
65. The Effects of High Stakes Testing on Political research. I will also use scholarly sources to validate my point use of data sets and use trend analysis to determine at what global financial crises? I will explore this question through the

66. Immigration Rates in European Union vs Non European Union States
Alexis Causey: Undergraduate, Michelle Williams: Faculty Mentor Department of Government

The European Union was originally created as an attempt to bring peace into the European continent after World War II and today is a body of nations that share the currency of the Euro, and a single trade market (European Union 2014). Literature on migration into Europe details why the European Union is attractive to migrants and also how policy and the citizens of the country are affected. The literature lead me to believe European Union states will have a higher rate of immigration and to determine which group of states have a higher immigration rate I have sorted the countries in the data set by EU and non-EU states and discovered the descriptive statistics on each set. If I see that the statistical average of immigration rate into EU countries is higher than non-EU countries than we can conclude that people are moving to countries within the EU more frequently. There are a total of 27 EU countries and 21 non-EU countries. To be considered an EU country you must be an official member state of the EU. I did not include candidate countries or potential candidates as EU members. Immigration is on average, higher in EU states than non EU states. There was a significant difference between the group's immigration averages as they were almost 700,000 people choosing to move to EU countries rather than non-EU countries.

65. The Effects of High Stakes Testing on Political Awareness
Terry Knudel: Undergraduate, Kara Brown: Undergraduate, Dr. Jennifer Emery: Faculty Mentor Department of Government OUR Funded

This is a multidisciplinary study of political science, psychology, and education. The purpose of this research is to measure the effects of high stakes testing in secondary schools on political awareness. We have operationally defined political awareness as 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 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
Piraya Calahan: 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 causing of the global financial crisis. If migration rose upon the world over the past fifty years and a flow of people brought money from the countries in the world that are transferring 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 whether other possible impacts could be made on the economies in different regions of the world.

67. What Makes an Effective Congress?
Andrew Riffle: Undergraduate, Dr. 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 correlations 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
Alessi Causey: Undergraduate, Jenna Emery: Faculty Mentor, Joselyn 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 identify 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 on Congression 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?
Raquel Fonse: 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 literature on immigration in these countries and areas will focus on whether or not there is a 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 demographic 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
Marcel Crawford: Undergraduate, Charles McCorry: Undergraduate, Dr. Eric Grega: Faculty Mentor Department of Health, Leisure & Exercise

CrosFit 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 is likely to increase the risk of incurring an injury due to technique degradation brought about by fatigue. Therefore, the objective of this research is to test the program design of a CrosFit exercise program to that of a standard periodized program using a biomechanical analysis of hip angles while performing a clean and jerk exercise. A 16-camera 3-D motion tracking system will be used to capture and quantify the movement of the hip. Participants will study will have previous CrosFit 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 CrosFit's program standards one week and with 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
Rachel Deitrick: Undergraduate, Dr. Jocelyn Evans: Faculty Mentor Department of Health, Leisure, & Exercise

Growing evidence shows that endurance exercise confers a variety of health benefits against heart disease, diabetes certain types of cancer, and neurodegenerative diseases. Recent studies suggest that exercise-induced activation of neuphophil provides cellular protection. However, exactly how exercise-induced activation of neutrophil improves immune system remains largely unknown. One possible mechanism is the mitochondrial biogenesis and maintenance of neutrophils via endurance exercise since mitochondrial replication (biogenesis) can extend life span of neutrophils. The function of the mitochondria in neutrophils is not completely understood, but the important role in neutrophil programming is well 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 pathogen invasion. This study utilized a moderate-intensity endurance exercise protocol to test. Human 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
Karla A. Caillouet: Graduate, Nikolai Hokiou: 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 initial 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 loads representing approximately 75% of subject's body weight percentage by gender and age group for older adults. This guide may be used to establish initial weight loads for this population. RESULTS: Initial loads were determined to be within the United States 28,000 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 sprains. 3 (ankle conditions) x 3 (ankle conditions) repeated measures ANOVA will be used to quantify the data. A 4 (ankle conditions) x 3 (performance measures) repeated measures ANOVA will be performed. An alpha priori level for significance will be set at p<0.05. It is the hope that such findings may help to lower ankle injury recurrence of injury, time lost and medical expenses.

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 muscular strength and endurance of the student, the 90o push-up assessment is used by physical educators. Due to the subjectivity and opportunity for form and biomechanical variations among students, 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 FG protocols and another group of 10 that begins with the TS 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 look for load changes 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 Prophylactic Ankle Taping, Lace up Brace and Kinesio Tape on the Ankle During Walking, Agility and Vertical Jump
Chiara de Azevedo: Graduate, Dr. Eric Greka: Faculty Mentor
Department of Health, Leisure & Exercise
SCAC Funded
This is a three-part study, from the young to the weekend warrior’s ankle sprains are the most common injury in athletic activities. It is estimated that within the United States 28,000 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 sprains. A 4 (ankle conditions) x 3 (ankle conditions) repeated measures ANOVA will be performed. An alpha priori level for significance will be set at p<0.05. It is the hope that such findings may help to lower ankle injury recurrence 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, Youngil 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 inability 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 muscular-muscular system responds to exercise in different environments could 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. Understanding the human body’s ability to rewire these proteins to interact with neutrophils during heat stress activating them and initiating the alarm response is of great importance. 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 temperature environments.

77. Linguistic Isolation, Overweight, and Physical Inactivity among Florida Adolescents
Claire A. Caillouet: Undergraduate, F. Stephen Bridges: 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 study this is a 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. The purpose of this study was 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 initial weight loads for this population. 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 muscular strength and endurance of the student, the 90o push-up assessment is used by physical educators. Due to the subjectivity and opportunity for form and biomechanical variations among students, 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 FG protocols and another group of 10 that begins with the TS 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 look for load changes 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.

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 Zambrano: Faculty Mentor
Department of Health, Leisure & Exercise
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 study this is a 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. The purpose of this study was 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 initial weight loads for this population. 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 muscular strength and endurance of the student, the 90o push-up assessment is used by physical educators. Due to the subjectivity and opportunity for form and biomechanical variations among students, 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 FG protocols and another group of 10 that begins with the TS 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 look for load changes 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.
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 records, 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 Lorette: Undergraduate
Marie Therese Champagne: Faculty Mentor
Department of Interdisciplinary Studies
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 Bowling: Graduate
Dr. Helena Allman: Faculty Mentor
Department of Interdisciplinary Studies
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
Honors Thesis
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 Cahral: Undergraduate, Kijunyi 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 Modelling of Natural Disaster Data sets in the United States
Thapelia Ncube: Undergraduate, Anthony Okafor: Faculty Mentor
Department of Mathematics
Honors Thesis
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 the event. The Poisson, Zero-Inflated Poisson, and Conway-Maxwell distributions are all used for modeling discrete data. The purpose of this study is to 1) 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 ability 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 fires", 100,000+ acres"), 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
Honors Thesis
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 cardiovascular 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 4.8-9.5% 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 included logistic regression to determine how cardiovascular disease is associated with covariates such as LDL, cholesterol, BMI, age, gender, or ethnicity for patients with SCH. Additionally, we estimated odd ratios and confidence intervals for each covariate to determine if SCH patients have greater cardiovascular risk. All statistical analysis was conducted...
87. The Language of Mathematics for Autism Spectrum Students
Rachel Annette Henry: Undergraduate, Amber Subbaray: Undergraduate, Dr. Giang-Nguyen Nguyen: Faculty Mentor Department of Mathematics
Our Funded
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 these 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 for further research.

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 tabletop laser spectrometer system was built in the spectroscopy lab at the UWF physics department. The system consists of a laser source (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 equipped with a CCD detector. We present our research on the method laser-induced grating method to image 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 50-50 beam splitter. The two beams are then recombined inside of a sample creating an optical interference pattern. This interference pattern creates localized variations in the property of the material in the form of thermal, excitation, and/or Kerr gratings. These variations in the property form the diffraction grating, by which a fourth beam is scattered and detected. We can measure the relaxation time of the grating from the intensity decay function of the detected 4th beam. From the relaxation times, we can characterize the relaxation processes of the material. Samples of fluorescent dyes in polymer PMMA or in boric acid glass are used to test the highly fluorescent molecules. This instrument is used to measure vibrational and electronic spectra of biological molecules.

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

91. Polarization Sensitive Coherent Raman Measurements of DCVJ
Josiah Anderson: Undergraduate, Carlos Lawhead: Undergraduate, Nathan Cooper: Undergraduate, Laszlo Ujj: Faculty Mentor Department of Physics
Our Funded
Coherent Raman spectroscopy which recently developed into coherent Raman microscopy has been used to produce label free imaging of thin layers of material and find the spatial distributions of certain chemicals with a microscope, e.g. cancer cells. (1) Not all aspects of coherent scattering have been used for imaging. Among those for example are special polarization-sensitive measurements. Therefore we investigated the properties of polarization sensitive CARS spectra of highly fluorescent molecule, DCVJ. (2) Spectra has been recorded by using parallel polarized and perpendicular polarized excitations. A 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 acberrant Raman microscopy in the future. This is the first time coherent Raman polarization sensitive measurements have been used to characterize the vibrational modes of DCVJ.

92. Quantum Simulation of Long-Range Magnetism
Omid Hal: Undergraduate, Thomas Gius: Undergraduate, Shanna Muehr: Undergraduate, Brian Maynard: Undergraduate, Christopher Varney: Faculty Mentor Department of Physics
Our Funded
On 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.

93. A Descriptive Study of Work, School, and Life Balance among UWF Students
Casilda Ruiz: Undergraduate, Ryan Bird: Graduate, Valerie Morganson: Faculty Mentor Department of Psychology
Students often struggle to meet the demands of their competing life domains (i.e., work, school, and life). In our research, we surveyed 137 students in psychology courses at the University of West Florida. This study presents descriptive statistics to illustrate students’ experiences of work-school-life conflict. In the survey, we used a five point scale to measure the spillover of work to school, school to work, family to school and school to family. Other variables included were credit hours, work hours, number of children, and caretaker demands. Results will be in the form of graphs and tables. Through our results, we found that school to family conflict has the highest level of spillover, whereas, family to school conflict has the least amount of spillover. Although, the average amount of hours a student works a week is 12.5, the results demonstrate an equal amount of interference between school to work and school to work conflict. The present study provides a first step to understanding students’ experience of multiple life-domain conflict. Future directions for research and practical implications will be discussed.

94. Context Imagery in Survival Processing
Angélica Solidun: Graduate, Lisa VanWormer: Faculty Mentor Department of Psychology
OUR Funded
Research has given evidence to suggest that the brain is predisposed to encode and retrieve information that was presented with a survival scenario (readaptive 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. There were three main hypotheses: the grasslands-encoding/grasslands-retrieval/survival condition would have the best recall overall, the grasslands-encoding/grasslands-retrieval condition would have greater correct recall than grasslands encoding and city/retrieval 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.

95. Discrimination, Affective Reactions, and Forgiveness in LGTB individuals
Susan T. W. Kühlmann: Graduate/Undergraduate, Kelly J. Manning: Graduate, Kyle W. Harwell: Undergraduate, Monika L. Hausk: Undergraduate, Natalie S. Batn: Graduate, Suazr E. Wülck: 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). Huebner and Davis (2007) found that perceived interpersonal discrimination was associated with poorer physical health among gay men. Furthermore, it appears the negative effects of perceived wrongdoing can be moderated by forgiveness (Worthington, Vinitlerts, Pietrini, & Miller, 2007), but it remains to be seen if the role of forgiveness differs for institutional versus interpersonal discrimination. A total of
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 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 Nabulsi: Undergraduate, Mandy Johnson: Undergraduate, Ernie Dovis: Undergraduate, Dr. Lisa Blalock: Faculty Mentor

The purpose of our study was to examine how high and low tempo music affects 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 mental rotation task in silence as a control condition. Participants’ level of arousal was measured by completing a perceived arousal scale (PAS) before and after the task. 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

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. 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. Participants with a low tempo music condition indicated 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

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

This correlational study investigated whether young adult participants’ 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 (determining his or her 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 higher 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 higher 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
Dolphy Christie: Undergraduate, Elizabeth M. O’Connor: Graduate, Wendy Gonzalez-Canal: Graduate, Kyle W. Harwell: Undergraduate, Susan E. Walsh: Faculty Mentor

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 these negative effects (Graham, West, & Roemer, 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 (Enrich, 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 relationship. 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 Bich Carter: Undergraduate, Valerie Morganson: Faculty Mentor

In certain jobs, emotion regulation is a role requirement. This study tests a model in which emotional labor and burnout are constructs which influence turnover intention. There is a positive correlation between emotional labor and burnout 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 required for the job, which is linked to employee reports of job-related burnout and intention to quit one’s organization. Participants were 210 female students who worked in customer service jobs for at least 10 hours per week. Data collection consisted of an online survey. The model was partially supported. The impact of surface acting on turnover intentions was transmitted through job-related burnout.

Contrary to expectations, there was not a direct effect of deep emotional labor on turnover intention. These results add to the body of literature which indicates that displaying emotions as a work-role requirement is taxing for employees. The partial results may suggest a need to concepually distinguish types of emotional labor. In particular, deep acting may be best viewed as a coping strategy rather than a work demand.

101. Sexual Awareness, Religiosity, and Well-being among GLB-Identified individuals
Tamara Powell: Graduate, Dolph Tod: Graduate, Dr. Susan Walsh: Faculty Mentor

As with heterosexual individuals, levels of sexual consciousness and sexual monitoring may be related to measures of overall distress, with sexual consciousness negatively associated with sexual monitoring positively associated with measures of distress. However, given that gay, lesbian, and bisexual (GLB) individuals face stigma and discrimination on the basis of sexual minority status (Hollowell, 2012; Smith & Home, 2008), sexual consciousness and sexual monitoring may represent different experiences than those of heterosexual men and women. The social stigma that contributes to concealment of sexual minority status and religious prohibitions against homosexuality may discourage sexual consciousness and heighten sexual monitoring among GLB persons with formal religious affiliations (Hollowell, 2012; Smith & Home, 2008). On the other hand, spirituality and religion, defined as a set of mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one’s existence, may relate to levels of sexual consciousness and/or monitoring as well as distress (King & McCloskey, 2009, p. 99). Data were collected at an annual GLB recreational event in Pensacola, FL over Memorial Day weekend via a face-to-face, anonymous survey study including a range of self-report measures administered by trained research assistants.

102. The Gender Issue: The Impact of Gender and Gender Role Ideology on Work, School, and Life Balance
J. S. Bennett: Undergraduate, Sadie O’Neill: Graduate, Valerie J. Morganson: Faculty Mentor

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 are attributed 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
role ideology was expected to be more strongly linked with work-school-life conflict for women than for men. Data was gathered through an online questionnaire with 137 university students. We used hierarchical linear regression to test moderation with the Baron and Kenny approach (1986).

Hypotheses were not supported. Additionally, men and women were largely similar in their reports of work, school, and life conflict. There were significant main effects for gender role ideology in family-school conflict and school-to-work conflict. More traditional gender role ideologies were linked with more conflict regardless of gender. One limitation to our study is that a majority of participants identified with an egalitarian gender role ideology. A more varied sample may reveal an interaction effect; this is a direction for future research.

103. The Role of Teacher Supportive Behaviors in Contributing to Work-School Balance

Karen J. Morganson: Faculty Mentor
Department of Psychology

While there has been considerable amount of research on the work-life interface among professionals, very little has been addressed the work-family 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 family/supportive behaviors and perceptions of the teacher's role as a source of support for the student population.

104. Workaholism and Work-School Conflict

Leigh Phillips: Undergraduate, Kayla Duperreault: Graduate, Valerie Morganson: Faculty Mentor
Department of Psychology

Workaholism has been defined as the tendency to work excessively in a compulsive way (Schaufeli, Bakker, van der Heijden & Prins, 2009). Many studies have looked at the effects of workaholism on work-family conflict, or when work interferes with family responsibilities. Traditional work-family conflict theory suggests that there is a finite amount of resources we have for each of our life roles, and so if one consumes too many, the others may then suffer. Due to its excessive novelty, sociopathology was evaluated as elemental to one's family life and other roles an individual may have. Currently, no research has looked at workaholism in the student population as it affects work-school conflict. This study collected data from 137 Undergraduate, students who were working 10 hours per week while enrolled full-time. Through regression analysis, significant relationships were found with workaholism to work-school, work-work, and school-family conflict, as well as anticipated family-work conflict. However, significant relationships were not found for workaholism and family-school conflict or anticipated family-work conflict. Therefore, the pattern of relationships suggests work and school interfere (current and anticipated) with family; however, there is no interference of family with work or school responsibilities, in regards to workaholistic tendencies. Discussion on will be of further implications of work-school conflict stemming from workaholism in the student population.

105. American History and Disney

John Wood: Graduate, Dr. Susan J. Jonas: 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 speak to the role that Disney plays in the American’s 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, students, Graduate, students, 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. Jonas-Thomas: Faculty Mentor
Department of Research and Advanced Studies

SCAC Funded

Cuba’s government during President Fulgencio Batista’s reign was fraught with corruption, but changes created by the 1959 revolution have resulted in repressive despair (Wiszniak, 1995). Implementing ethnographic techniques, this study explores the complex life of the people of Cuba during and after the Cuban Revolution. According to Madden (2010), ethnography is an interpretative and explanatory story about a group of people and their sociality, culture and behaviors (p. 16). This study, therefore, investigates Cuba’s history through the life of a Cuban American scholar, Ana, who lived and experienced the Cuban Revolution. This study portrays the political environment of Cuba from 1952 until 1971, the period of time Ana lived on the Island.

107. Desegregation of Pensacola’s Lunch Counters 1960 to 1962

Sarah Z. Jonas: Graduate, Dr. Susan J. Jonas-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 prejudiced 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 (Diemstrey, 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 role of the NAACP Youth Council’s civil rights protests on Pensacola’s demographics and society. By implementing Busha and Harter’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 Blackwell: Graduate, Joc Calloway: Graduate, Chelela Rich: Graduate, Stephen Leiter: Graduate, Wesley Delaware: Graduate, Douglas Todd: Graduate, Maria C. Leite: Graduate, Kelly McCaughey: Graduate, Dina Tidwell: Graduate, Victoria Palmen: Graduate, Roger Rose: Graduate, Timothy Sowers: Graduate, Robyn Strickland: Graduate, John Wood: Graduate, Susan J. Jonas-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 writing history (Lorenz, 1999, p. 29). Through the process of historiography, synthesize 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.
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 variables of global competency on intercultural sensitivity. Study findings suggest that each of the three global competency factors contributes to intercultural sensitivity. Intercultural communication skills were found to have the strongest influence on intercultural sensitivity, followed by substantive knowledge as the second strongest and perceptual understanding as the third strongest. Findings suggest that intercultural communication skills carry almost five times more weight than perceptual understanding, and substantive knowledge has almost twice the weight of 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 they will be classroom teachers. However, they have other career options with an educational degree. This research project will explore the impact of the intervention on education students’ career goals. 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. 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.

112. Unlocking Math Strategies for Educational Standards  
Sheree Rosado: Undergraduate, Giang-Nguyen Nguyen: Faculty Mentor  
Department of Teacher Education  
OUR Funded

Unlocking the mystery of mathematics for elementary school students requires engagement of the elementary mind. Complex ideas can be broken down into manageable blocks of information with a rigorous and practical approach. The significance of this research is that it provides support for current pedagogical practices and provides more meaningful educational experience for students through tested mathematical intervention strategies. The teaching profession and students alike will benefit from a set of tested strategies that will work along with approved school district curriculum and the educational standards mandated by legislature. The use of these strategies can be a great benefit for the educational community in enriching the learning to the educational standards that educators are responsible for upholding.

113. Destination Objectification  
Brooke Martin: Undergraduate, Riz Fisher: Faculty Mentor  
Women’s Student Conference  
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 rare for women we ought to be in the industry. Especially when compared to many countries around the world. My focus for my paper is advertising and the ways in which its objectification and desexualization of women impacts young men and women. While I concentrate mostly on print advertising, I do examine a few television commercials as well. I especially focus on how the objectification and desexualization of media women leads to the perpetuation of rape and rape culture in our society, as well as the devaluation of women in general. I have been interested in the idea that in the same way that soldiers are taught to dehumanize the enemy in order to be able to kill people in battle more easily, perhaps advertising that humanizes women may perpetuate and reinforce the culture that has produced Steubenville and Vanderbilt and so many other similar scenarios. I also look at these devaluing images of women affect the imaginations of young women when it comes to seeing themselves in leadership roles or other positions of power, and how that perhaps contributes to our lack of women in position of power today.

114. Spatial and Temporal Variability of Karenia brevis within the Choctawhatchee Bay System  
Claire Lacey: Graduate, Matthew Schwartz: Faculty Mentor  
Department of Environmental Studies  
SCAC Funded  
The Choctawhatchee 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. The toxic dinoflagellate has impacted 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 Choctawhatchee 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 inflows.

Oral Presentations:

A Smoking Gun: A Study of The Ethics of The New York Times in the Timeliness of Judith Miller  
Haley Choiniard: Undergraduate, Bruce Swain: Faculty Mentor  
Department of Communication Arts  
Hosted The:

Judith Miller, former reporter at The New York Times, spent 85 days in jail in 2005 for refusing to reveal the identity of one of her sources. A month after Miller was released from jail, The Times asked for her resignation. In this study, coverage of Miller’s trail as reported in The Times of Washington Post, Los Angeles Times and Chicago Tribune were compared. By comparing the coverage of the story by the four publications, discrepancies were detected in their reporting and an argument can be made as to whether The New York Times followed the code of ethics and reported accurately on the case. Using the code of ethics of the Times, the Society of Professional Journalist and the American Society of Newspaper Editors, the ethics of Miller’s actions and those of the Times in asking her to resign were examined. In addition, scholarly articles that analyze the situation, as well as media ethics in general were consulted. Utilizing all of these methods, it can be concluded that The New York Times was ethically justified in its decision to ask Miller to resign and Miller was not ethically justified in her protection of the source in question. Miller violated multiple ethical codes, and The New York Times would have been within their rights to ask for her resignation much sooner than they did.

God’s Special Embalming Skill: Preservation, Permanence, and the Memento Mori Tradition in John Donne  
Rebecca Steward: Undergraduate, Angela Calcaterra: Faculty Mentor, Kathy Romack: Faculty Mentor  
Department of English and World Languages  
OUR Funded  
Rebecca Steward/UWF Scholar Symposium 2014Abstract"God’s Special Embalming Skill:” Preservation, Permanence, and the Memento Mori Tradition in John DonneThis paper focuses on John Donne’s poem “A Valediction of My Name in the Window.” Specifically, this paper describes the shift from Catholicism to Anglicanism in Early Modern England and examines how this shift is reflected 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 Donne’s shift and death can be justified as a condition 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 mori, 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. R. Komack: Faculty Mentor  
Department of English and World Languages  
John Milton’s eclectic 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 famously justified in the condition 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 mori, whether a skull or a work of art, acts as a viceroy for the spirit after death.

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Barred and Bewilded: The Under- and Misrepresentation of Shakespearean Women  
Brooke Martin: Undergraduate, Kathy Romack: Faculty Mentor  
Department of English and World Languages  
As an active partipant 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 quickly and decisively may express negative 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
Digital Writing and Higher Order Thinking in Postsecondary English Studies: Applying Bloom’s Revised Taxonomy

Honor Brown: Undergraduate, Judith Steele: Faculty Mentor
Department of English and World Languages

Honors Thesis

From Facebook to email to PowerPoint presentations, digital writing has infiltrated nearly every aspect of our modern lives: personal, social, professional, and academic. The place of digital writing in postsecondary academia has 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 fiercely 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, an Honors program at our University, to provide cover the research, design, and implementation of the digital writing course for the Fall 2016 semester.

Even though The Metamorphosis is almost one hundred years old, critics still cannot determine what the 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, dialogue, or character, and the truth of what writing can challenge reader expectations distinctive characteristic development and fluid, recognizable storyelling. I aim to present a short fiction piece that highlights certain personal or societal issues present in the author’s world, while in 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.

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

Terry Griner: 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 Relevance of ‘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 critical interpretations is that only one of these approaches contains the key for fully understanding The Metamorphosis. The Metamorphosis, in contrast, Kafka includes overlapping ideas from psychoanalytic, Marxist theory, femininty theory, and Jewish culture simultaneously in The Metamorphosis. Therefore, the reader will need to consider each of these perspectives 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 or perform 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 poetry bases its rhythm and rhyme are able to move audiences 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 passages in their upcoming assignments. After the performance, we will discuss how these spoken word pieces can aid students in understand 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 is because Adam’s attitude towards Eve suggests that he needs in a manner that is not necessarily reciprocated, but this suggests a completeness to Eve that does not appear to exist in Eve. Thus Eve also exhibits an intuitive intelligence that is more closely aligned with the angelic and divine beings of the epic than Adam’s broad discursive inquiry as a means of acquiring knowledge. To this end, Eve appears more aware than Eve that she believes Paradise her concerns currently 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 ad nauseam 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 suggestion mean before and after the Fall? God’s covenant for Eve to be subordinate to Adam. If she is already stumped 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 with which the discourse on intuition and its historical contextualization are invaluable in the context of my argument.

Mary Wollstonecraft’s Metaphysics of Gender: the Fall and the Aftermath

Karen Trier: Undergraduate, Katherine Romack: Faculty Mentor
Department of English and World Languages

Mary Wollstonecraft’s Gendered Subjectivity in the Dis guise of Female Adam, the latter appears to be a thinking being of the Fall. The Fall is the moment in which our world order was established, and it is in that moment that God first speaks to Eve, and she responds, “Surely the fear of the Lord will be无不 exchanges with the angelic and divine beings of the epic than Adam’s broad discursive inquiry as a means of acquiring knowledge. To this end, Eve appears more aware than Eve that she believes Paradise her concerns currently 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 ad nauseam 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 suggestion mean before and after the Fall? God’s covenant for Eve to be subordinate to Adam. If she is already stumped 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 with which the discourse on intuition and its historical contextualization are invaluable in the context of my argument.

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Karen Trier: Undergraduate, Katherine Romack: Faculty Mentor
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Mary Wollstonecraft’s Gendered Subjectivity in the Dis guise of Female Adam, the latter appears to be thinking in from their own experiences and how they have developed their own perspectives on the world. For example, Wollstonecraft argues that women have been systematically oppressed for centuries, and that this oppression has resulted in a lack of opportunity for women to develop their own unique perspectives on the world. This lack of opportunity has resulted in a lack of diversity in perspectives, which has led to a lack of progress in society.

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