

April 26
2012



Student
Scholars
Symposium
"A Celebration of Ideas"

UNIVERSITY *of* WEST FLORIDA



UNIVERSITY *of* WEST FLORIDA

April 26, 2012
Programs & Abstracts

Editors:

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

Brittany Boyd
Communication Arts Department

Event Organized By:

Office of Undergraduate Research

Office of Research and Sponsored Programs

The University of West Florida Graduate School

We would like to thank the following sponsors for the event:

Office of the President, Office of the Provost, Honors Program, Techsoft, iSpace.net, Wal-Mart Foundation, International Paper, ININBO and The Cantonment Rotary.

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.

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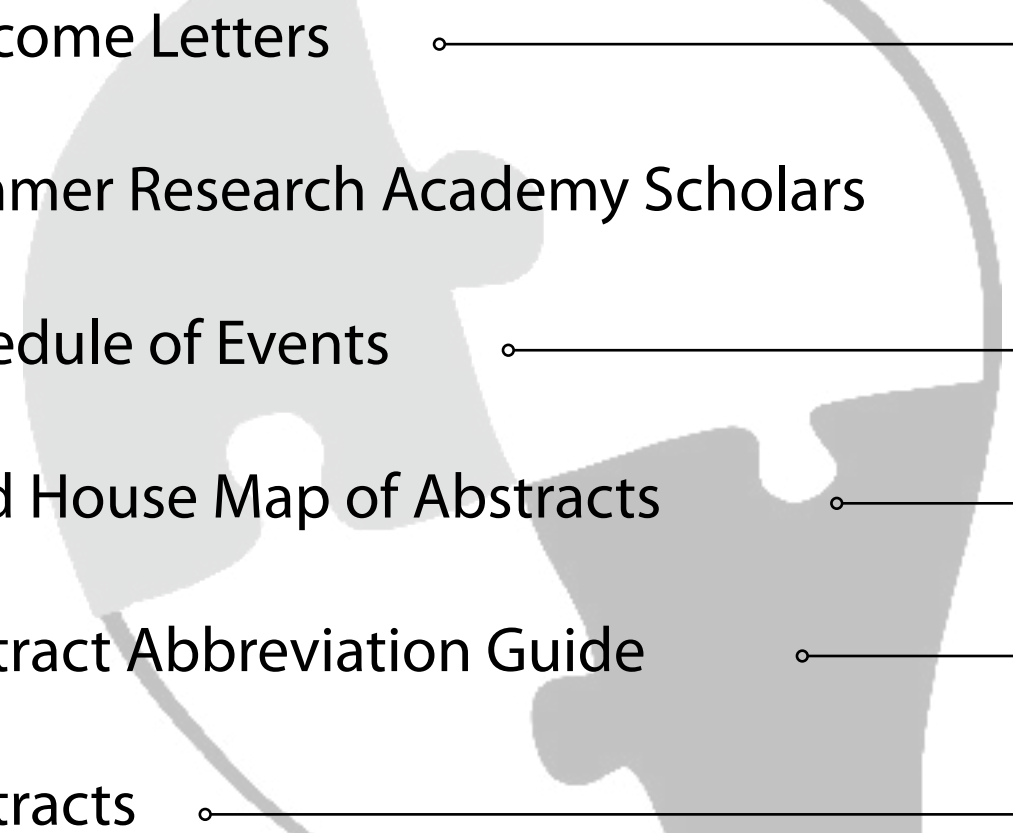
We thank Lisa Vanwormer and her Advanced Research & Design course (SPBS) for reviewing the abstracts.

Additionally, we thank our volunteer judges and Dr. Jocelyn Evans for coordinating judging. We would also like to thank the Symposium Planning Committee including; Jun Wei, Guoqing Wu, Xuan Tran and Lisa Vanwormer.

Symposium graphic design and program layout by Brittany Boyd, Communication Arts major.

Thank You

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Dear Student Scholars:

I am happy to welcome you to the University of West Florida for this year's Student Scholars Symposium and congratulate you on your academic achievement. Your diligence and hard work are to be commended.

We are delighted to have the opportunity to celebrate your accomplishments in this symposium that will enable you to demonstrate your learning and expertise.

Best wishes to you in your future academic endeavors. Please enjoy your symposium and your time on campus with us.

Sincerely,

President

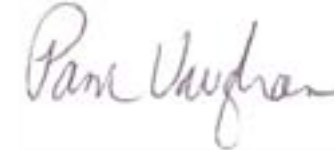


Judith A. Bense, Ph.D.
President



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. We are excited to carry on the tradition of a campus-wide symposium into a second year.

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



I am pleased to welcome the many student participants to the second annual Spring Student Scholars Symposium, sponsored by the Office of Undergraduate Research, the Office of Research and Sponsored Programs and the Graduate School. 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.



David Marker, Ph.D.
Interim Provost



Applied research is integral to UWF's core mission. The Graduate School and the Office of Research and Sponsored Programs are excited to cosponsor the Student Scholar Symposium. This is an exciting opportunity to celebrate the accomplishments of our undergraduate and graduate students as they showcase their research.

We owe a special acknowledgement to our faculty who foster a love for research in the classroom and laboratory and mentor students to become researchers themselves. Many of the presentations at today's Symposium are the result of just such faculty-student collaborations. Congratulations to everyone who helped to ensure the success of this wonderful event.



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

Welcome Scholars

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



To all faculty and students participating in the University of West Florida's Student Scholars Symposium, 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 symposium showcases the exceptional educational experience offered at UWF.

Sincerely,

Ed Ranelli, Ph.D
Dean of the College of Business



One of our most defining features at UWF is the hands-on, high-impact experience our students can have working side-by-side with our researchers and scholars. The Student Scholars Symposium provides a great opportunity to go public with the process and the outcome of such learning experiences. It is great to see this event continue to grow as a showcase for all that's best about UWF. Congratulations to Pam Vaughan and the committee for reminding us all why we do what we do.



Jane Halonen, Ph.D
Dean of the College of Arts and Sciences

On behalf of the College of Professional Studies, it is my pleasure to recognize and honor the outstanding work of our students at the Student Scholars Symposium. For those of you who will present your work at this symposium, I congratulate you on a job well-done. We encourage you to continue striving for the best in your studies and your careers. This symposium demonstrates the rewards of scholarship and intellectual endeavors, and shows how the dedication of our faculty can lead to wonderful opportunities for our students. We wish you all continued success.



Pamela Northrup, Ph.D
Dean of the College of Professional Studies



Welcome

Scholars

Summer Research Academy Scholars

Nicole Dickson
Theatre Major

My OUR research grant was for the creation of a new summer theatre program at the University of West Florida. I enjoy working with kids and have developed Drama curriculum for grades 6-9 when I taught at an international school in Japan so I was excited about the project. I created module lessons that I taught at the theatre camps already in place at UWF, and from student response to the lessons and my personal observations I created the Summer Theatre Academy; a two week acting intensive for high school students which offers collegiate level Theatre training in acting, directing, audition techniques and performance. This program will develop knowledgeable and professional theatre artists in our area and introduce young artists to the university.

Nicole was recently cast in a feature film to shoot in Los Angeles this spring. She will perform the major supporting role in a film titled The Woods.



Karen Cravero
Biology Major

The main focus of my research was to conduct a comparison analysis of two protocols for water quality monitoring; a molecular DNA-based technique and a traditional currently used culture-based protocol (Method 1600). Additionally, it provided the opportunity to measure the effectiveness of a DNA-intercalating dye known as Propidium Monoazide (PMA). When used in conjunction with the novel molecular methods, this dye provides a way to differentiate between viable and nonviable bacterial cells in the sample; thereby addressing one of the main drawbacks associated with molecular technologies. Lastly, different DNA-target sizes were utilized during this study to observe the possible effects target size has on PMA's efficiency.

This study has allowed me to formulate, evaluate and test my own hypothesis. Furthermore, it permitted me to experience research first hand as a lead investigator and provided me with valuable knowledge that will help me in the advancement of my career. I hope to one day attain a PhD degree in biology and thanks to the Summer Research Academy program, I feel more confident, better prepared and overall more qualified to reach all my future aspirations.

Karen has been accepted to Johns Hopkins Medical School for PhD in Cellular and Molecular Medicine and the University of Florida's Ph.D. Program for Biomedical Sciences.



Georgia Boles
Chemistry Major

Since spring 2011, my research group and I have worked on integrating high vacuum and electrical systems on a Matrix Assisted Laser Desorption/Ionization Reflectron Time-of-Flight Mass Spectrometer (MALDI RTOF-MS), an instrument used to analyze and characterize high mass samples such as proteins and peptides. Once the integration is complete, we will then develop new matrices to use for these experiments and determine if matrix size has an effect on the ionization of the samples we are running.

Working on this project while in the OUR Summer Research Academy has been a great experience. Conducting research while participating in the OUR sponsored workshops has been such a learning experience, and I have taken a lot away from it. After completing this program, I feel much more confident and prepared to continue to perform research as the graduate level.

Georgia presented her research at the American Chemical Society National Meeting in San Diego, CA.



Billy Abston
Computer Science Major

I am currently developing a traffic simulation that is aimed at helping young people with Autism and other learning disabilities to learn to cross the street in a safe manner in a controlled and immersive environment. Though this is not a wholly new concept the way in which I am implementing it I feel is. I have taken off the shelf motion tracking hardware and integrated it with free to use software. Using these tools the student will control their avatar on screen with only the use of the body movements. I hope to deploy this to area schools as well as bring the participants to UWF and let them practice using this technology in our Holodeck, a 3D immersive environment. It is my hope that these participants will gain the skills they need to complete a task we take for granted.

The Office of Undergraduate research has helped me in ways that I never would have thought possible. Through the Summer Academy I have found a group of students who are as excited and interested in their topics as I am mine. This cross exposure to other disciplines has propelled me to work that much more on my own project. This cross exposure has also given me an insight into other areas or research and also how computer science could help them in their research. The OUR also introduced me to the research side of education that I would not normally have been involved in. Overall, I have thoroughly enjoyed my time with the OUR and would recommend any student wishing to do research as an undergraduate to do so.



Stephen Schoen
Environmental Studies Major



The Office of Undergraduate Research Summer Academy has been a phenomenal experience. It has provided me the opportunity and funding, to pursue my research in a very supportive, friendly, and scientific environment. The weekly meetings gave me the tools and the confidence to pursue not only my scientific endeavors but a career in science as well.

My research is focused on the effects fire can have on groundwater chemistry. I installed and monitored wells with in and out of burned forested areas. I analyzed groundwater samples for nutrient concentrations using the spectrophotometric method.

Extensive research on the effects of fire upon the forest environment has been previously completed, though direct focus on groundwater chemistry is lacking. Although incomplete, my research has shined a light upon the interactions between fire events and changes in groundwater.

Cody Reinhardt
Economics

We found a form and fitted a specific model for alternative energy adaptation, and identified certain characteristics of the data which point to attributes of the subsidy structure. We looked at ideal ways to structure the subsidy (limits on size, requiring more efficient solar panels, ect) and found ways to improve the effectiveness of the subsidy in terms of both energy generated and contribution from the people adapting the technology (more people willing to pay out of pocket to set up these systems.)

Cody plans to attend graduate school in Economics.



Tiffany Nay
Biology



The summer research academy was a great experience. I learned so much about research and all of the aspects it entails. The academy allowed me to travel to Indonesia where I met scientists in my field from all over the world. I was able to learn about so many aspects of not only my field of marine biology, but also the fields of the other students in the research academy. Since completing the program, I have been accepted to work for a world wide conservation agency where I will be traveling back to Indonesia to teach high school students coral reef ecology. I am very glad I was able to attend the summer research academy. I learned so much and met some amazing people.”

This summer Tiffany will be the Assistant Schools Coordinator for Operation Wallacea on Hoga Island, Indonesia.

Lucas Nelson
Physics Major



For my OUR project I synthesized and studied the properties of ECCO, a high temperature superconductor. This material had not been studied which made its study all the more fascinating. Superconductor research, though still relatively new, has given way to many breakthroughs in nearly all areas of science. Over the course of the project I learned how to use many pieces of equipment; including an x-ray diffractometer, and several high temperature furnaces.

I have thoroughly enjoyed this research and will endeavor to continue working on similar projects with different materials. This research would not have been possible without the assistance of the Office of Undergraduate Research. The workshops and provided funding were invaluable resources that had an extremely positive effect on the outcome of the project.

Lucas presented his research at the American Physics Society Meeting in Boston, MA. Synthesis of the electron-doped copper superconductors $\text{Eu}_{(2-x)}\text{Ce}_x\text{CuO}_{(4-y)}$ and their physical property characterization using the X-ray powder diffraction and high pressure.

Mitra Vashi
Chemistry

I appreciate the opportunity to have been a part of the Office of Undergraduate Research’s Summer Research Academy last summer. The generous stipend toward our research equipment and supplies allowed our team to perfect analysis of the monomer, 3-oxetanol. We were able to accomplish the majority of our summer research goals such as distillation of the crude monomer, synthesis, and begin a comprehensive comparison of poly 3-oxetanol to the previously investigated polyglycidol.

The program and speakers developed me as a student in understanding not only how to reach to your audience no matter your subject matter through theatrical and speech coaching, but also how to become a more professional scientist through courses in the ethics of data reporting and how to search in scientific databases. I will be graduating in May 2012 after which I plan to seek a career in pharmaceutical sales and eventually return to get my MBA.



OUR Summer Research Academy

Schedule

12:00 PM Opening Remarks- Field House

12:00-3 PM Public Viewing in Field House
Performances in Argo Athletic Club

12:30 pm- Argo Athletic Club
Philosophy
"I'm Black and I'm Proud" or There is No Such Thing
By Ronterius Scott

1:00 pm- Argo Athletic Club
Theatre
Kabuki Hamlet
By Justin Norris

1:30 pm- Argo Athletic Club
Music
The Music and Social Impact of Elisabeth Jacquet de la Guerre
By Patricia Izbicki

3:00 PM Award Ceremony- Field House

Field House Map

41	42	43	44	45
36	37	38	39	40
31	32	33	34	35
26	27	28	29	30
21	22	23	24	25
16	17	18	19	20
11	12	13	14	15
6	7	8	9	10
1	2	3	4	5

Podium

Field House Map of Abstracts

84	85	86	87	88
89	90	91	92	93
84	85	86	87	88
79	80	81	82	83
74	75	76	77	78
69	70	71	72	73
64	65	66	67	68

56	59	60	61	62	63
52	53	54	55	56	57
46	47	48	49	50	51

Registration Tables

Free Food in Registration Area

Department Abbreviation Guide

ANT	Department of Anthropology
BY	Department of Biology
CHM	Department of Chemistry
CJS	Department of Criminal Justice/Legal Studies
COM	Department of Communication Arts
SS	Department of Computer Science
ECP	Department of Electrical & Computer Engineering
EVR	Department of Environmental Science
GOV	Department of Government
HLP	Department of Health Leisure & Exercise
MAT	Department of Mathematics
ME	Department of Marketing & Economics
MM	Department of Management/ MIS
MUS	Department of Music
PR	Department of Philosophy
PHY	Department of Physics
PSY	Department of Psychology
TA	Department of Theatre
TED	Department of Teacher Education

1. ANT	<i>Cannon to Crossbow: An Archaeological Glimpse at 16th-Century Spanish Naval Weapons</i> Mercedes Harrold
2. ANT	<i>An Investigation into the Identity and Location of Pensacola's 1882 Yellow Fever Epidemic Victim</i> Nicole Bonomo Lipson
3. ANT	<i>Chemical Characterization of Artifacts from the Emanuel Point Shipwrecks</i> Matthew Gifford, Erica Smith, Andrew Marr SCAC Funded
4. ANT	<i>Getting to the Root of the Matter: an Unexpected Burial Discovered in Gonzalez</i> Stephanie A Ward and Dr. A. Joanne Curtin
5. BY	<i>Persistence of Molecular Indicators for Fecal Pollution in Environmental Waters</i> Elizabeth Kennedy, Karen Cravero and Joe Eugene Lepo SCAC Funded
6. BY	<i>The Price of Living in Two Worlds: Water economy adaptations of mudskipper fishes from Indonesia</i> Tiffany Nay OUR Funded
7. BY	<i>Glycated Hemoglobin in Young Erythrocytes</i> Brianna Goley, Kristina Jackson Behan
8. BY	<i>Extraction and Screening of Secondary Metabolites with Antibacterial Properties Found In Plants</i> Chris Bagley, Theodore C. Fox
9. BY	<i>Comparing native and transplanted turtle grass and shoal grass beds in Big Lagoon, Florida, USA</i> Chelsea M. Hester, Heather M. Smith, Marie Gaona, Holly Langsten, Samantha Gourlie, Lindsay Sartory, Ellen Manor, Joel Norman, Jane Caffrey OUR Funded
10. BY	<i>Comparing restored and native seagrass beds for nitrifying prokaryotes</i> Chelsea Hester OUR Funded
11. BY	<i>Affects of oil and dispersant on phytoplankton communities in North Gulf of Mexico estuaries</i> Rosanbalm, Jessie
12. BY	<i>Investigating Pen-2 and its Role in the Alzheimers-related Gamma Secretase</i> Joel Brown, Hui-Min Chung SCAC Funded
13. BY	<i>Differences in Use of Preventive Eye Care Services Among Diabetic US Adults</i> Kenari Guest, BS, MPHc, Erica Holland, BA, MPHc, Melbourne Pierce, BS, MPHc, Sara Beard, BS, MPHc, Justice Mbizo, DrPH, Anthony Okafor, PhD
14. BY	<i>Comparison of a Novel DNA-Based Method with Traditional Culture Method for Water Quality Assess</i> Karen C. Cravero, Elizabeth M. Kennedy, and Joe Eugene Lepo OUR Funded

15. BY *Photoperiod and Temperature Effects on Sex Steroids and Dentition in Atlantic Stingrays*
Justin E. Speaks; Wayne A. Bennett; Duncan S. MacKenzie
SCAC Funded
16. BY *Coquina Donax variabilis as indicators of coastal PAH pollution along sandy beach shorelines*
Gracie Exline, Christina Welch, Alexandra Vestal, Robert Pelot, Melissa Ederington-Hagy,
Fredrick Hileman, Richard Snyder
OUR Funded
17. BY *Variations in Use of Preventative Dental Services Among Diabetic US Adults*
Erica Holland, BA., MPHc., Justice Mbizo, DrPH & Anthony Okafor, PhD
18. BY *Use of Influenza and Pneumococcal Vaccine in People with Diabetes*
Melbourne Pierce, BS., MPHc, Erica Holland, BA, MPHc, Justice Mbizo, DrPH , & Anthony Okafor, PhD
19. CHM *Al₂O₃ Nanopowders*
Lena Ibrahim, Joseph Brice
20. CHM *Design and Synthesis of HIV-1 Inhibitors Using SAR Analysis*
Joshua D Brown, Michael Summers Ph.D, Michael T. Huggins Ph.D
OUR Funded
21. CHM *Calibration of a Rebuilt MALDI RTOF-MS*
Georgia Boles, Joseph Brice, Brandon Burnette, Christen Butterfield
OUR Funded
22. CHM *A Physical Comparison: Determining the Speed of Sound and Temperature of Combustion in Gases*
Brandon Burnette, Bryan Solomon
OUR Funded
23. CHM *Synthesis and Characterization of Zinc Oxide Nanopowders*
Joseph Brice, Richard Santora
24. CHM *Fluorescence Studies of New Liquid Crystal Fluorescent Dipyrinone Analogs*
Christopher Heath, Amy Renaud, Rebecca Chandler, Hannah Buchanan, Samuel Beck, Darren North,
Richard Rode, Shane Drye, Chandra Prayaga, Aaron Wade, Michael Huggins
OUR Funded; Honors Thesis
25. CHM *The Determination of Dibenzo-p-dioxin in Diphenyl Oxide Using GC/MS Detection*
Cholena Russo, Huy Pham, Fred Hileman
26. CHM *Effects of Salinity and Organic Matter Content on Triclosan Photo-degradation*
Janae Baptiste, Noel Jones and Pamela P. Vaughan
27. CHM *Biological and Photochemical Degradation of Macondo 252 Oil in the Presence of Nutrients and Co*
Noel Jones, Pamela P. Vaughan, Wade H. Jeffrey, Sandra McFarland, Janae Baptiste, Jessie Rosanbalm,
Gabrielle Daniel, Rose Atkinson
28. CHM *Synthesis & Characterization of 3-oxetanol*
Cholena L. Russo, Mitra R. Vashi, Carla M. Staton and A. Timothy Royappa
29. CHM *Using Chemoselective Glycosylation to Study Structural Requirements of Natural Killer T Cell Antigens*
Joshua Brown, Ashley Lambert, Randal D. Goff
OUR Funded
30. CHM *Assembly and Integration of a High Vacuum Manifold and Safety Circuit on a MALDI-RTOF-MS*
Giovanni DeLuca, Brandon Burnette, James Schrock, Karen Molek
OUR Funded
31. CJS *Reentry Court*
Waleed Abdelqader
OUR Funded
32. CJS *Jury Nullification: How Do Jurors Really Decide?*
Jessica Hayslip
33. COM *A Pentadic Analysis of a High Dynamic Range Image*
Xynn Tii
34. COM *The Ethics of Journalism Portrayed in Film: The 1940s to Present-Day*
Rebecca Barnhart; Honors Thesis
OUR Funded
35. COM *Nixon's "Cambodia" and Obama's "Afghanistan": Image Restoration and Presidential Differentiation*
Samantha Rodzicz
SCAC Funded
36. COM *Rhetorical Criticism of Collective Political Silence*
Phylicia Pearson
37. ECP *Design of a Prototype Wind Energy & Load Compensation System*
John Vuong, Alan Newbold, Elizabeth Cherry
OUR Funded
38. ECP *Autonomous Research Surface Vessel*
Anton Yaresko
39. ECP *Design and Implementation of LabVIEW Based Monitoring System for Building 4 Utilizing CompactRI*
Asa Furman and Cortez Ashley
OUR Funded
40. ECP *Design and Implementation of Affordable Sight Technology for the Blind*
Linzy Franks, Noah Larsen, Alex Martinez
OUR Funded
41. EVR *Interactive Internet 3D Mapping and GIS for Public Access to Florida Census Data*
Alannah Ward, Zhiyong Hu
42. EVR *The Effects of Mob Grazing Practices on Soil Quality*
Jeremy Mullins, Johan Liebens
OUR Funded

43. EVR *The Effects of Fire on Groundwater Chemistry*
Stephen Schoen

44. EVR *Southern Escambia County's Urban Forests*
Rosemary Collins, Courtney Richards and Dr. Jason Ortegren
OUR Funded

45. EVR *Biostimulation of PCB Dechlorination in Escambia Bay Sediment*
Britta Hays, Fred Hileman and Johan Liebens
SCAC Funded

46. EVR *The Effects of Mob-Grazing on Soil Quality in Walnut Hill, FL*
Nicole Jeter, Jeremy Mullins, Johan Liebens
OUR Funded

47. GOV *Duration of Presidential Honeymoons*
Matthew Groff
OUR Funded

48. GOV *Mexican Migration: Political Changes South of the Border*
William Nugent

49. GOV *How the Sausage is Made: How Lobbying Influences Congressional Development of Food Policy*
Stephanie Jarrait; Honors Thesis
OUR Funded

50. GOV *You Can't Ignore the Game of Politics: A Study of Issue-Based Campaign Strategizing in Presidential Elections*
Diego Santiago

51. GOV *Nonpartisan Factors Affecting the Electability of a Political Candidate; Appearance and Person*
Cora Merritt

52. HLP *Measuring the Participants Spending of Pensacola Half Marathon and Its Economic Impact to Pensacola*
Mark Franklin, Kristian Stehpens, Austin Hunt, Hunter Lampley

53. HLP *Measuring the Participants Spending of 012 Gulf Coast Winter Horse Show and Its Economic Impact*
Caroline Zepp, Krista Griffin, Sara Bechler, Autumn Dunn, Vickie McPartland, Melinda O'Grady
OUR Funded

54. HLP *Measuring the Participants Spending of Pensacola Classic Soccer and Its Economic Impact to Pensacola*
Juan de la Torre, Spencer Capps, Shaun Rannals, Keven Fennell, Alex Grigsby
OUR Funded

55. HLP *Comparison of Activity Tracking & Ease-of-use for Five Free Web-Based Activity Trackers*
Kimberly Nelson, Matthew Aldred, Aaron Morton, Sarah Schwab and Jeremy Townsend, Debra Vinci

56. HLP *Measuring the Participants Spending of Pensacola Double Bridge Run and Its Economic Impact to the Pensacola Community*
Christopher Haskin, Josh Benton, Stelios Peterson, Kim Nesbit, Christina Murray, Samantha Rodriguez

57. HLP *Measuring the Participants Spending of the SPA Women's Spring Nationals...*
Geoff Nichols, Mark Dempsey, Laura Green, Josh Hurst, Mike Rogal
OUR Funded

58. HLP *A Comparison of Five Free Internet-Based Food Trackers*
Marg, Ashley; Anderson, Alyssa; Galloway, Andrea; Godwin, Elizabeth; Rodriguez, Julio

59. HLP *Effects of Brand Personality on Service Quality in Hotels*
Xuan Tran, Camille Dauchez, & Anna-Milena Szemik
OUR Funded

60. MAT *Lung Cancer and Air pollution in Florida – a statistical study*
O. Johnny Liseth, Matthew Shull, Linh Nguyen, Megan Bunnell, Dario Ackerman
SCAC Funded

61. MAT *Cauchy's Residue Theorem and Its Applications*
Holly Renaud; Honors Thesis

62. MAT *Numerical Solutions for PDEs: Finite Difference Methods and LU Factorization*
Rebecca Smith, Jia Liu

63. MAT *Cubic Spline with QR decomposition*
Su Hua
SCAC Funded

64. MAT *Thyroid Cancers among Adolescents and Young Adults in Florida – A Cluster Analysis Using SaTSca*
Dario Ackerman, Megan Bunnell, Peter Kennedy, Ole Liseth, Linh Nguyen, Matthew Shull, Aletheia Zambesi

65. MAT *SaTScan analysis of pediatric Leukemia rates in Florida*
Timo Bailer

66. MAT *HeadBanging smoothing of Leukemia rates in Florida*
Lukas Haegele

67. ME *Use of Online Product/ Service Reviews*
Joshua Davis

68. ME *The Antecedents and Consequents of Internal Customer Orientation in the Logistics Workforce*
Michael J. P. Dwyer, Kimberly Hochard, Thomas Rudolph, Dr. Scott Keller

69. ME *Cost/Benefit Analysis of Alternative Energy Use*
Chris Burkart, Cody Reinhardt
OUR Funded

70. MM *An E-Strategic Model for the Commercial Airline Business*
Jeesun Bang and June Wei

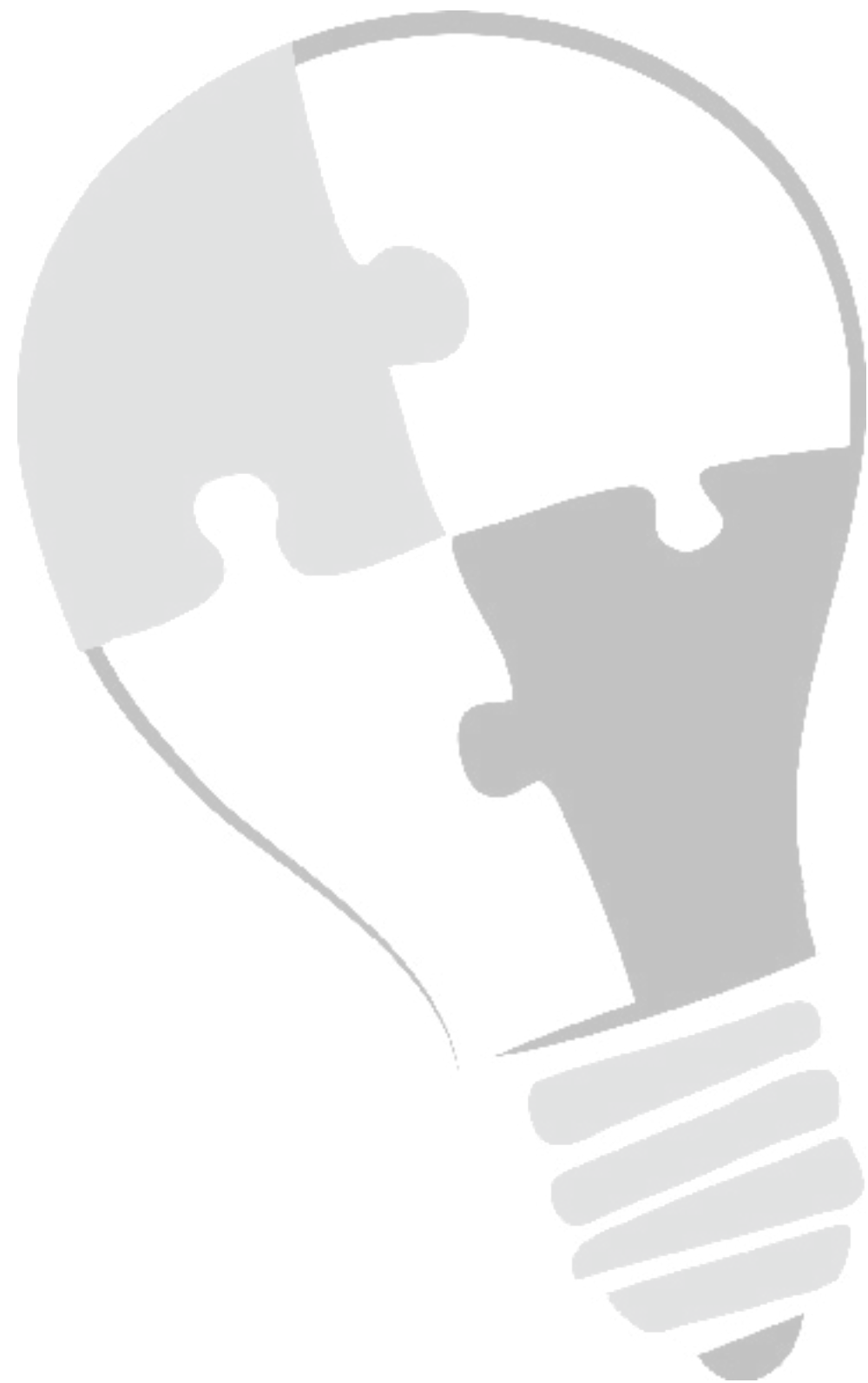
71. MM *A Model for Assessing the Smart City based on Strategic and Tactical Approaches*
Angel Francisco Carrete Rodriguez and June Wei
SCAC Funded

72. PHY *Optical Absorption and Laser Induced Fluorescence Studies of Liquid Crystal C-10 Fluorescent Di*
Darren North, Samuel Beck, Richard Rode, Christopher H, Amy Renaud, Logan Tate, Chandra Prayaga, Aaron Wade, Michael Huggins
73. PHY *Absorption and Fluorescence Study of New Liquid Crystal C14-Fluorescent Dipyrinone*
Richard Rode, Samuel Beck, Darren North, Logan Tate, Christopher Heath*, Amy Renaud, Michael Huggins
OUR Funded
74. PHY *Laser Induced Fluorescence Studies of New Liquid Crystal C16-Fluorescent Dipyrinone*
Samuel Beck, Darren North, Richard Rode
OUR Funded
75. PHY *Electron-doped superconductors Eu_{2-x}Ce_xCuO_{4-y}: synthesis and property characterization*
William Nelson
SCAC & OUR Funded
76. PHY *Magnetic property measurements in Eu_{2-x}Ce_xCuO_{4-y}*
Luis Flores
77. PHY *Preparation of C-16 and C-10 Fluorescent Dipyrinone Liquid Crystal Langmuir Films*
Giovanni DeLuca
OUR Funded
78. PHY *Resonance Circuit with a Nonlinear Liquid Crystal Capacitor*
Chloe Renfro, Samuel Beck
OUR Funded
79. PSY *The Impact of Childhood Trauma on Adult Social Anxiety: Differences in Gender and Sexual Orientation*
Jessica Thurmond
80. PSY *Imagery and Distinctiveness in the Survival Processing Effect*
Sarah K. Gillespie, Richard Hohn, Elise Evans & Dr. Lisa VanWormer
SCAC Funded
81. PSY *Women with Attention Deficit Hyperactivity Disorder: What do we need to know?*
Shelby Lorraine
82. PSY *Different levels of school related affect of middle school students in remedial, basic, and advanced classes*
Jessica Gladstone; Honors Thesis
83. PSY *Attachment Styles as Predictors of Couple Satisfaction*
Katherine Day; Honors Thesis
84. PSY *Virtual and Face-to-Face Teamwork Differences in Culturally Homogeneous and Heterogeneous Teams*
June Takeuchi, Steven Kass, Sherry Schneider, Lisa VanWormer, Kristy Hintz, Jenny Hasseltine, Amy Underwood, Heather Robinson, Mallory Wells, Megan O'Leary, Carline Radius
SCAC Funded

85. PSY *Emotional Communication and Cognitive Aging: What We Say vs. How We Say It*
Jonathan D. Sober, Jasmine McCorvey, Allison Bjorkland, Sarah Rupnaraine, & Dr. Lisa VanWormer
SCAC Funded
86. PSY *Using Conceptual Strategies to Examine Inhibitory Deficits in Older Adults*
Jessica McClain, Margeaux Donovan, & Dr. Lisa VanWormer
SCAC Funded
87. PSY *Media Coverage of NCAA Division I Basketball Championships*
Elisabetta Zengaro and Sally A. Zengaro
88. PSY *Is the book better than the movie: The impact of media type on responses to child misbehavior*
Donal Harrison, Erica Jordan
89. PSY *An exploration of lawyers' needs and desires concerning management skills*
Kathleen Hudon
SCAC Funded
90. SS *Simulating traffic in order to facilitate effective learning by persons with learning disabilities*
Billy Abston
OUR Funded
91. SS *Kindergarten Skip Counting*
Nancy Whitfield
92. TA *UWF Summer Theatre Academy*
Nicole Dickson. Nicolas Wilson
OUR Funded
93. TED *The Power of One*
Donald Cooper, Christian Beck, Tabetha Duke, Sarah Green, Lauren Crooke, and Courtney Trevino
94. PR *The Application of the Feminine-Relational Self in Christian Aid Groups*
Amanda Jo Combs Bowden
95. PR *The Demise of Philosophy: How Naturalism and the Nature of Language Suggested the Naturalization of Philosophy*
Jordan Stanton

Presentations and Performances

- MUS *The Music and Social Impact of Elisabeth Jacquet de la Guerre*
Patricia Izbicki
- PR *I'm Black and I'm Proud or There is No Such Thing*
Ronterius Scott
- TA *Kabuki Hamlet*
Justin Norris



Abstracts

1. Cannon to Crossbow: An Archaeological Glimpse at 16th-Century Spanish Naval Weapons

Mercedes Harrold

Department of Anthropology

The bodoque was a type of composite shot used in the 16th century. The bodoque is comprised of lead around an iron, square core. Archaeologists have found it on several shipwreck sites, including examples found on a wreck off Molasses Reef in the Turks and Caicos, the Padre Island vessels off Padre Island, Texas, and on the Luna fleet vessels, here in Pensacola. These three shipwreck sites are the focus of a thesis, in which the author hopes to compare the quantity and quality of weapons on different types of 16th-century Spanish ventures. As part of the author's thesis, she plans to execute an experimental archaeology project, in which she recreates bodoques and shoots them from a miniature cannon. During the experiment, she will attempt to answer certain questions: Why did the Spaniards use this shot over other types of shot from the period and why did Spaniards stop using them? With the help of Steve McLin, Fritz Sharar, and Roberto "Del" De Los Santos, from UWF's Marine Services Center, they and the author have created 5 solid lead shot and 5 bodoques. At the end of March, the author will complete the experimental archaeology project.

2. An Investigation into the Identity and Location of Pensacola's 1882 Yellow Fever Epidemic Victim

Nicole Bonomo Lipson

Department of Anthropology

During the summer and fall of 1882, Pensacola's health officials reported 197 yellow fever-related deaths to the National Board of Health. This study focuses on identifying each of the reported victims, locating their graves, and determining whether there were any changes in mortuary practices as a result of the epidemic. Primarily, archival research was used to identify and locate the deceased; this included the use of obituaries, government reports, articles from medical journals, census records, burial records, and cemetery surveys. Though currently in progress, this study has already yielded great

success in identifying the victims (approximately 95% of the victims). However, it has only located the graves of roughly 25% of the victims from this epidemic. Because a larger percentage of the population should be located in a formal cemetery, these results could indicate the usage of "abnormal" burial practices for the time, such as burying the deceased in individual or mass unmarked graves. After determining what percentage of individuals should have been located in a cemetery, the results will be compared to how many victims were actually located in a cemetery. These data will then be qualified by a significance test to determine if the results are statistically significant.

3. Chemical Characterization of Artifacts from the Emanuel Point Shipwrecks

Matthew Gifford, Erica Smith, Andrew Marr

Department of Anthropology

When a shipwreck is discovered, archaeologists use the artifacts they find to learn more about the ship and where it may have sailed. By applying certain analytical techniques to the artifacts, we can determine where they originally came from. This potentially allows us to unearth more about a ship's place within the overall maritime context of trade, exploration, and colonization. This poster will outline the results of three graduate students' thesis research and the tests used to determine the provenance of selected artifacts from the two 1559 Tristán de Luna shipwrecks found in Pensacola Bay (Emanuel Point I and II). Based on historical research, we know that many of the artifacts were gathered from within the Spanish Empire and loaded onto the ships in Mexico. What we want to determine is where the materials used to make the artifacts were initially mined or collected. By employing a variety of analyses including neutron activation analysis, organic and inorganic mass spectrometry, Argon-Argon geochronology and geochemical characterization, we have traced some materials back to sources in Mexico, Spain, and areas in between.

4. Getting to the Root of the Matter: an Unexpected Burial Discovered in Gonzalez

Stephanie A Ward and Dr. A. Joanne Curtin
Department of Anthropology

In May 2011, the University of West Florida's forensic anthropology field school was asked to investigate the discovery of human remains that were found by homeowners in Gonzalez, Florida, while clearing trees that were uprooted during Hurricane Ivan (2005). A human skull was discovered entangled within the roots of one of the fallen trees. The goal of this investigation was to determine the age and context (forensic or archaeological) of the burial in addition to characteristics, such as sex, age, and race, of the decedent. The skeletal remains and associated artifacts were recovered and brought to the biological anthropology lab at the University of West Florida for analysis. Buttons found with the remains were examined to determine a possible date range for the death of the decedent. Several other lines of evidence were utilized during this research, including archival records, GIS and air photos, osteological methods, and dental indicators. The remains were determined to be of a middle aged male buried during Pensacola's historical period. This poster describes the methods used and results of this investigation, and this research will add to the historical record of Gonzalez and the Pensacola area.

5. Persistence of Molecular Indicators for Fecal Pollution in Environmental Waters

Elizabeth Kennedy, Karen Cravero and Joe Eugene Lepo
Department of Biology

DNA-based methods (e.g. PCR) to detect fecal contamination are more rapid and specific than current government-recommended culture-based methods. However, PCR does not distinguish among live cells, dead cells or extracellular DNA. Propidium monoazide (PMA) is a DNA-binding dye that only permeates dead cells. Once inside a dead cell, it binds DNA, preventing PCR detection, allowing for PCR detection of only live cells. I used PMA coupled with PCR to compare persistence of live human-associated Bacteroidetes (HB) and Methanobrevibacter smithii to dead HB and *M. smithii* and their extracellular DNA in 20 liter carboys of creek water spiked with sewage (mesocosms). The HB PCR signal was detected for 5 to 6 days (d) in mesocosms regardless of PMA treatment. Thus, HB detected by PCR was due to live bacteria and would indicate recent human fecal contamination if present in natural water. In contrast, the *M. smithii* qPCR signal persisted the entire study without PMA treatment but only 5 to 6 d with PMA treatment. Thus, although live *M. smithii* decreased in the mesocosms, its DNA persisted. Therefore,

M. smithii detected by PCR, could be due to live cells, dead cells or extracellular DNA, leading to false indication of fecal contamination.

6. The Price of Living in Two Worlds: Water economy adaptations of mudskipper fishes from Indonesia

Tiffany Nay
Department of Biology

Common Mudskippers (*Periophthalmus kalolo*) inhabit open mudflats and can be found several meters from tide pools during low tide, where they are exposed to high wind conditions and temperatures. Barred Mudskippers (*Periophthalmus argentiniatus*), however, remain close to tide pools near mangrove prop roots. These areas are sheltered from high temperatures and wind at low tide. Mudskippers were collected and placed inside of a basket found in a Plexiglas® wind tunnel. The mass of the mudskipper was taken every 10 minutes, the basket was rolled every 5 minutes, and mudskipper behavior was recorded throughout the trial. As fish lost the ability to right themselves, the final weight was taken, rate of water loss and percentage of body weight loss was calculated, standard length was taken and the fish was placed into a recovery tank. Confirmation of the null hypothesis suggests that differences in mudskipper distribution are not linked to water balance adaptations. Other possible explanations may include behavioral or ecological responses.

7. Glycated Hemoglobin in Young Erythrocytes

Brianna Goley, Kristina Jackson Behan
Department of Biology

Because erythrocytes live in the blood-stream for approximately 120 days, there are young, middle aged and older erythrocytes present. As erythrocytes circulate through the blood-stream, they consume glucose. An imprint of the consumed glucose can be shown by taking an average of the glycated hemoglobin present in a blood sample of erythrocytes in a test known as the Hemoglobin A1c test. The Hemoglobin A1c test is a blood sample analysis that is used for the diagnosis and evaluation of diabetes. In this pilot study, a method of centrifugation is used to separate a blood sample into three age-based layers and the Hemoglobin A1c test is performed on each layer separately. The objective is to determine if the Hemoglobin A1c in the youngest cells is similar or different from the overall measurement, if there is an obvious trend in the different aged cells that can be seen among individuals with and without diabetes, and to consider the possible diagnostic utilization for the fractionated results.

8. Extraction and Screening of Secondary Metabolites with Antibacterial Properties Found In Plants

Chris Bagley, Theodore C. Fox
Department of Biology

Secondary metabolites are chemicals produced within plants which do not serve a direct role in the growth, development, or reproduction of the organism itself. However, their presence in plant tissue is suggested to be an evolutionary adaptation of some flora to form a biochemical defense against predation by herbivores as well as bacterial and pathogen infection. An increased understanding of these phytochemicals and their interactions within humans and other animals has been warranted due to the potential benefit in medicinal and pharmaceutical applications. Subsequently, identification of viable compounds for anti-bacterial or anti-fungal activity can greatly influence conservation efforts and ecological practices with particular species of plants. The purpose of our experiment was to determine the bioactivity of secondary metabolites within native, non-native, and invasive plant species of the University of West Florida's campus and the immediate surrounding area. Various plant species were retrieved, identified, and divided into major tissue groups. Each individual plant tissue was used to prepare a 50% ethanol extraction, upon which extracts were placed on 0.5µm filter paper disks and applied to petri plate cultures containing *Pseudomonas fluorescens*. Zone of inhibition around each disk was recorded in 24 hour increments for duration of 48 hours to determine the bioactivity of the tissue extracts. Of the twenty-one species screened, results suggested the significant presence of secondary metabolites in *Sapium sebifera*, *Campsis grandiflora*, *Eutrochium dubium*, and *Phytolacca americana*. Further investigation of these particular species is needed to determine the biosynthetic pathway responsible for the inhibition observed.

9. Comparing native and transplanted turtle grass and shoal grass beds in Big Lagoon, Florida, USA

Chelsea M. Hester, Heather M. Smith, Marie Gaona, Holly Langsten, Samantha Gourlie, Lindsay Sartory, Ellen Manor, Joel Norman, Jane Caffrey
Department of Biology

Seagrasses are an important component of marine and brackish water ecosystems. They are used as a shelter, nursery, and/or feeding grounds by many animals, and perform ecosystem functions such as sediment stabilization and nutrient cycling. Seagrass communities are rapidly declining however, making restoration efforts important. The Florida Department of Environmental Protection (FDEP) has a restoration and monitoring

program that routinely samples seagrass beds around the Pensacola area, in addition to transplanting seagrasses from less optimal sites. Our study took place in one such site located in Big Lagoon, Pensacola, FL. We measured the primary productivity and nutrient fluxes in mixed seagrass beds of *Thalassia testudium* (Turtle grass) and *Halodule wrightii* (Cuban shoal grass) as an indicator of the success of restoration efforts by the FDEP. We used replicates of light and dark incubation chambers in native (Na) and transplanted (Tr) seagrass beds. The three nutrients we measured were nitrate, dissolved inorganic phosphate, and ammonium. Our study found no significant differences in the productivity or in the nutrient fluxes of Na versus Tr seagrass beds. These findings indicate that the FDEP restoration efforts in Big Lagoon State Park are effective and should be continued.

10. Comparing restored and native seagrass beds for nitrifying prokaryotes

Chelsea Hester
Department of Biology

The goal of our study is to perform a sampling survey of current seagrass beds around Pensacola, FL in order to test samples for nitrification and denitrification activity though measurements of potential nitrification and denitrification and 15N experiments, test pore water and overlying water samples for nutrient concentrations, and use qPCR to test for ammonia oxidizing archaea (AOA) and ammonia oxidizing bacteria (AOB) ammonia monooxygenase (*amoA*) genes. Preliminary experiments will be performed on samples from sites in the Pensacola area in which either native or transplanted *Thalassia testudium*, *Halodule wrightii* or *Ruppia maritima* are present to narrow the study to three or four study areas. It is expected that native and restored seagrass beds will have no significant differences in prokaryotes present; however, in comparing prokaryotes in differing seagrass bed species, there is expected to be a larger amount of AOA *amoA* genes present. In all sites, nitrification and denitrification is expected to occur in the top 2 cm of sediment. It is also expected that pore water nutrients (sulfide, ammonium, and nitrate) will be higher than in the overlying water, however, there is no significant difference expected in nutrient concentrations between native and transplanted seagrass beds.

11. Affects of oil and dispersant on phytoplankton communities in North Gulf of Mexico estuaries

Jessie Rosanbalm

Department of Biology

On April 22, 2010 the offshore drilling unit Deepwater Horizon sank in the northern Gulf of Mexico, releasing an estimated 780,000 cubic meters of Sweet Louisiana Crude and 205,000 metric tons of methane. In light of the Deepwater Horizon oil spill, it is important to understand how oil and its constituents can affect the phytoplankton communities in the Gulf of Mexico because phytoplankton are the base of classical food webs. The affect of oil and dispersant on natural phytoplankton assemblages from several Gulf of Mexico estuaries was determined at the community level in enclosed microcosm experiments. Natural phytoplankton assemblages from Apalachicola Bay, Pensacola Bay, and Bay Jimmy were treated with water accommodated fractions of oil, dispersant, and dispersed oil for seven days. Sub-samples from days 1, 4, and 7 were concentrated and counted by sedimentation in a 50mL Utermohl chamber. Cell densities decreased in all treatments at each site. Effects of hydrocarbons depended on location and initial community structure.

12. Investigating Pen-2 and its Role in the Alzheimers-related Gamma Secretase

Joel Brown, Hui-Min Chung

Department of Biology

Presenilin enhancer 2 (Pen-2) is one of four components in the γ -secretase complex along with Presenilin (Psn), Aph-1, and Nicastrin. γ -Secretase is an important protease responsible for the processing of several transmembrane proteins such as Amyloid Precursor Protein (APP). γ -Secretase cleaves APP to release a short extracellular peptide (β -amyloid) which aggregates in the brains of Alzheimers patients. Pen-2 plays an essential role during γ -secretase maturation by cleaving Presenilin; however, it is not known if Pen-2 is also necessary for the proteolytic activity of mature γ -secretase. In this study, mosaic analysis and RNA interference (RNAi) were used to knock down pen-2 expression in localized patches of cells (clones) on the *Drosophila melanogaster* larval wing disc. The RNAi was performed in flies which transgenically expressed various Presenilin forms, some of which circumvent the need for Pen-2 dependent activation. In this environment, artificially matured γ -secretase activity was assayed in the absence of Pen-2 by observing the γ -secretase dependent localization of Cut protein along the dorsal/ventral margin of the wing disc. Additionally, mutant clone sizes were analyzed for potential γ - secretase independent cell

death. In addition to its role in maturation, results suggest that Pen-2 is also required for γ -secretase activity post-maturation.

13. Differences in Use of Preventive Eye Care Services Among Diabetic US Adults

Kenari Guest, BS, MPHc, Erica Holland, BA, MPHc,

Melbourne Pierce, BS, MPHc, Sara Beard, BS,

MPHc, Justice Mbizo, DrPH, Anthony Okafor, PhD

Department of Biology

Objectives: Diabetes is the leading cause of blindness among adults 20-74 years of age, resulting in on average to 12, 000 - 24,000 new cases of blindness annually in the United States. Individuals with diabetes are at increased risk for eye complications. Prevention of diabetes related ocular complications can be achieved through frequent use of eye health services. The American Diabetic Association recommends that individuals with diabetes should have a dilated eye exam every year. The current study examines gender variations in and determinants of use of eye health services by US diabetic adults. Methods: Data from the 2010 Behavioral Risk Factor Surveillance System (n= 57,480) were analyzed using STATA 12 for Windows. Frequencies distributions and multivariate logistic regression were performed. Multiple logistic regression models were also estimated. Results: Preliminary results suggest that, there is no significant difference between males and females in eye care services use. Age, BMI, having a diagnosis of retinopathy, race and ethnicity, general health status, and exercise are significant predictors (p <0.05) of eye care health services utilization. Conclusion: Strategies for increasing eye care services utilization among diabetics will be discussed along with detailed results of the regression analysis.

14. Comparison of a Novel DNA-Based Method with Traditional Culture Method for Water Quality Assess

Karen C. Cravero, Elizabeth M. Kennedy, and Joe Eugene Lepo

Department of Biology

Whereas DNA-based approaches can estimate environmental concentrations of bacterial contaminants of environmental waters faster than culture-based methods (e.g., USEPA Method 1600 for enterococci), they may also overestimate the concentration of bacterial cells in an environmental sample. Furthermore, the DNA detected in DNA-based methods may persist longer than the live cells detected in culture-based methods. Here we assess the efficacy of a technique that utilizes propidium monoazide (PMA) to detect and quantify DNA from only live cells. Researchers are di-

vided regarding the ability of PMA to prevent the detection of certain bacteria, such as enterococci, as well as to prevent the detection of small target DNA template. To test these hypotheses, plate counts by Method 1600 were compared to estimated cell concentrations from DNA-based methods targeting template of two sizes (Enterococcus 91bp, CK assay 296 bp). We observed a significant overestimation of enterococci by DNA-based methods compared to plate counts. Although DNA-based estimations were not comparable to culture-based estimations, PMA treatment coupled with large target DNA template resulted in the estimation of significantly lower "viable" enterococci concentrations. This decrease suggests that DNA-based methods utilizing larger target fragments may increase ability of PMA to resolve live-versus-dead cells.

15. Photoperiod and Temperature Effects on Sex Steroids and Dentition in Atlantic Stingrays

Justin Speaks; Wayne Bennett; Duncan MacKenzie

Department of Biology

In this experiment the proximate affects of temperature and photoperiod on dentition and reproductive hormones were quantified in the Atlantic Stingray. We proposed that if photoperiod and temperature are the dominant proximate factors for reproduction in this species, they should directly activate androgen production. The increase in androgens following gonadal recrudescence should, in turn, trigger the dental modification seen in mating male stingrays. Results indicate that temperature is a strong proximate cue for onset of testosterone production in laboratory studies, however wild samples indicated photoperiod to play an important role as well. Laboratory animals showed the highest hormone response in treatments that simulated both decreasing daylength and temperatures. High temperatures in the laboratory showed a distinct inhibitory effect on testosterone production. Dental morphology displayed a trend of increasing percentage of population with cuspidate dentition as the wild population moved into the breeding season, following a period of increased androgen production. Laboratory samples also responded in a similar fashion, although not as clearly as the wild population. Samples with low testosterone levels over the course of the experiment showed a higher percentage of molariform dentition, while those exhibiting increased testosterone had a higher percentage of cuspidate and transitioning dentition.

16. Coquina Donax variabilis as indicators of coastal PAH pollution along sandy beach shorelines

Gracie Exline, Christina Welch, Alexandra Vestal, Robert Pelot, Melissa Ederington-Hagy, Fredrick Hileman, Richard Snyder

Department of Biology

Coquina clams (*Donax variabilis*) are wondrously variably pigmented small filter feeding bivalves found in the intertidal zone of sandy beaches along the southeastern Atlantic and Gulf of Mexico coasts of the United States. With the impact of crude oil from the BP Macondo 252 (MC252) well failure on Florida pan-handle beaches during June and July of 2010, concerns were raised about dissolved components of the oil. UWF began a monitoring plan, for alkanes early on, and polycyclic aromatic hydrocarbons (PAHs) after the alkanes disappeared, in the sand and water of local beaches. The need for a biological indicator of PAHs reflecting impact to biota and food webs became apparent, and the Coquina were targeted as surrogates in the context of the international Mussel Watch approach. Collections documented population variability spatially and temporally, and provided tissues for extraction and analysis. An extraction and analysis method was refined and tested for first *Mercenaria mercenaria* tissue, and then Coquina tissue spiked with standards. Naphthalenes, Phenanthrenes, and Chrysenes were used as representative components of total PAHs. Preliminary results from these tissues show a 100 fold increase over measured sand concentrations and a 1000 fold increase over measured water concentrations, making these tiny filter feeders sensitive indicators of PAH contamination. Spatial and temporal patterns of PAH body burdens and coincident sand and water PAH concentrations will be presented.

17. Variations in Use of Preventative Dental Services Among Diabetic US Adults

Erica Holland, BA., MPHc., Justice Mbizo, DrPH & Anthony Okafor, PhD

Diabetes has been linked to a number of diseases including strokes, heart disease, and diabetes has been shown to be linked to oral health. Prevention of diabetes related oral complications can be achieved through frequent use of dental health services, such as teeth cleaning which can ensure the preservation of teeth. This can further improve the self-esteem, nutritional intake, glucose metabolism, general health and overall quality of life. We examine variations in, and identify systemic barriers to the use of dental health services by US diabetic adults. Methods: Data from the 2008 (n=47, 402) and 2010 Behavioral Risk Factor Surveillance System (n= 57,868) were weighted and analyzed using STATA

12 for Windows. Frequencies distributions were generated for categorical variables. Crosstabulations were performed to assess for associations between the covariates and dental services utilization. Multiple logistic regression models were also estimated. Results: Preliminary results suggest that, education, employment, income, overweight, cigarette smoking, general health status lack of exercise, race and ethnicity and age are significant predictors ($p < 0.05$) of dental health services utilization. Conclusion: Use of dental health services among diabetes appears to be associated the income, general health status, age, and overweightness.

18. Use of Influenza and Pneumococcal Vaccine in People with Diabetes

Melbourne Pierce, BS., MPHc, Erica Holland, BA, MPHc, Justice Mbizo, DrPH, & Anthony Okafor, PhD

Objectives: Infection with influenza or pneumococcal disease can result in serious complication for individuals with diabetes. Diabetic patients who are infected with the influenza virus face serious complications including pneumonia, dehydration and kidney failure, heart failure and hospitalization. Methods: We analyzed data for diabetic adult Americans ($n=57,480$) from the 2010 Behavioral Risk Factor Surveillance System using STATA 12 software package for windows. In addition to descriptive statistics, bivariate analysis is performed to determine associations between the covariates and uptake of influenza and pneumococcal vaccines. Multivariate logistic regression models are also generated. Results and conclusion: Preliminary results suggest that women, educational attainment, race/ethnicity are all significantly associated with the uptake of influenza and pneumococcal vaccines. Persons without insurance are nearly 40% less likely to take the pneumococcal vaccines ($p < 0.001$) and just as much less likely to take the influenza vaccine ($p < 0.001$). Individuals with a regular source of care are more 40% likely to report uptake of the influenza vaccine ($p < 0.001$) and 30% more like for pneumococcal vaccine. The results suggest that that diabetics faces systemic barriers to essential preventive services such as immunizations, that can be critical to avoiding serious complications.

19. Al₂O₃ Nanopowders

Lena Ibrahim, Joseph Brice
Department of Chemistry

Aluminum Oxide nanopowders were synthesized based on a single-step method using aluminum nitrate nonahydrate and urea¹. Three variations of the documented method were tested. The first two runs combined the microwave-assisted method and a muffle furnace, while the third run reproduced the documented single-

step furnace method. The yields were 0.82g, 0.68g, and 0.63g, respectively. Each product was characterized using Thermal Gravimetric Analysis. The products will also be characterized by infrared spectroscopy (IR), X-ray Diffraction (XRD), scanning electron microscope (SEM), and transmission electron microscope (TEM). The experimental TGA showed about a 5% loss of the products which is the same as the literature value.¹ The literature shows peaks in the IR characteristic to O-Al-O bonds^{2,3} at 865, 784, 635, 581, and 440 cm⁻¹ for the α Al₂O₃ nanopowders¹. The XRD peaks in the literature were found using JCPDS 10-01731 and showed purity in both methods of synthesis. The literature shows analysis by TEM providing for the particles to be in size range of 18-20nm and nearly spherical morphology¹.

20. Design and Synthesis of HIV-1 Inhibitors Using SAR Analysis

Joshua D Brown, Michael Summers Ph.D, Michael T. Huggins Ph.D

Department of Chemistry

In the human immunodeficiency virus replication life cycle, thousands of the viral Gag polyprotein associate at the cell membrane. The virus buds to form a non-infectious virion. Gag is then cleaved by protease. Capsid protein is released and assembles into the capsid core, creating an infectious virus. The capsid protein is an attractive inhibition site because its formation of the capsid core is crucial for viral infectivity. A compound, CAP-1, has been identified that binds to the N-terminal domain of the capsid protein (CAN) and inhibits capsid formation in vitro and in vivo, but the dissociation constant (K_d) is not within an acceptable range for clinical use. We have been testing new compounds for affinity with a K_d in the nanomolar range. NMR HSQC titrations have been used to calculate the K_d. The computer program, PyMOL, has been used to give a visual representation of the binding pocket conformation of the compounds bound to the capsid protein. A correlation has been found between the amount of unoccupied space within the pocket and the K_d. Using this information, several compounds' pocket conformations and K_d values were screened. Taking a structure activity relationship (SAR) approach, four potential inhibitors were formulated. All four targets are currently in the synthesis phase. The results of the future NMR HSQC titrations will provide the data needed for the next steps in the drug design.

21. Calibration of a Rebuilt MALDI RTOF-MS

Georgia Boles, Joseph Brice, Brandon Burnette, Christen Butterfield

Department of Chemistry

Matrix Assisted Laser Desorption Ionization Reflectron Time-of-Flight Mass Spectrometry (MALDI RTOF-MS) has been an invaluable technique to increase the mass limit for samples being analyzed. Following the rebuilding of our MALDI RTOF-MS, calibration and sensitivity experiments were run to determine the accuracy and sensitivity limit of our spectrometer's mass determination. These experiments were conducted over a mass range of 750 – 3,500 Da using the following peptides: Bradykinin fragment 1-7, Angiotensin II, P14R, ACTH fragment 18-39, and bovine insulin. Results of the calibration and sensitivity experiments will be presented.

22. A Physical Comparison: Determining the Speed of Sound and Temperature of Combustion in Gases

Brandon Burnette, Bryan Solomon

Department of Chemistry

The speed of sound was experimentally determined in Nitrogen gas and air by igniting a small sample in a vacuum tube filled with Nitrogen and measuring the time it took the sound wave to travel the length of the tube. In addition, preliminary measurements were measured to determine the effect of humidity on the speed of sound. The vacuum tube, microphone amplifier, ignition system, and humidity sensor were custom made for this project. The vacuum tube was designed using the CAD program SolidWorks. The aforementioned results and experimental design will be presented.

23. Synthesis and Characterization of Zinc Oxide Nanopowders

Joseph Brice, Richard Santora

Department of Chemistry

Zinc oxide nanopowders were successfully synthesized using a modified microwave-assisted self-assembly synthetic method from Zn(NO₃)₂·6H₂O and NaOH. The synthetic method gave an experimental percent yield of 75.58%. The nanopowders were characterized with Fourier Transform – infrared spectroscopy (FT-IR) and thermogravimetric analysis (TGA). The FT-IR spectrum showed an increased purity from previous syntheses. ZnO nanopowders assemble in the wurtzite crystal structure, which has the C_{6v} point group. Group theory analysis of the nanopowders indicates three irreducible representations present in the vibrational spectrum are A₁+E₁+E₂. These modes are Raman active only, and so no Zn-O bond should be present on the IR.

The TGA spectrum obtained for the nanopowders also resembled spectra in the literature. The nanopowders were also characterized via X-ray diffraction and scanning electron microscopy and the x-ray spectrum and the micrograph were compared to literature spectra.

24. Fluorescence Studies of New Liquid Crystal Fluorescent Dipyrinone Analogs

Christopher Heath, Amy Renaud, Rebecca Chandler, Hannah Buchanan, Samuel Beck, Darren North, Richard Rode, Shane Drye, Chandra Prayaga, Aaron Wade, Michael Huggins

Department of Chemistry

A new series of fluorescent dipyrinone analogs were synthesized and characterized for their liquid crystal properties. The synthesis was accomplished in four synthetic steps from commercially available materials in moderate to high yields. The fluorescence in the different phases, as indicated by Differential Scanning Calorimetry, has been studied. Fluorescence was induced by pumping the sample with 355 nm radiation from a frequency-tripled pulsed Nd:Yag laser and was analyzed with a monochromator and a fast oscilloscope, over a temperature range of 25-60°C. The synthesis and characterization of these new fluorescent dipyrinone liquid crystal systems will be presented.

R= C₁₀H₂₃, C₁₄H₃₁, C₁₆H₃

25. The Determination of Dibenzo-p-dioxin in Diphenyl Oxide Using GC/MS Detection

Cholena Russo, Huy Pham, Fred Hileman

Department of Chemistry

Halogenated dibenzo-p-dioxins have been an ongoing concern due to their toxicity. Therefore, the bromination of diphenyl oxide to produce classic flame retardants raises concerns if trace levels of dibenzo-p-dioxin are present which in turn could be brominated. An analytical technique was developed to detect ppb levels of dibenzo-p-dioxin in diphenyl ether. Separation of the dibenzo-p-dioxin from the ether was carried out on a basic alumina column which when using the proper eluting solvents retains the dibenzo-p-dioxin compared to the diphenyl ether. Variability in the recovery from these columns was compensated using ¹³C labeled dibenzo-p-dioxin as an internal standard. The analysis was then carried out using GC/MS techniques which monitored for both the native (unlabeled) and labeled dibenzo-p-dioxin. Detection limits of 10 ppb of dioxin in the ether were achieved.

26. Effects of Salinity and Organic Matter Content on Triclosan Photo-degradation

Janae Baptiste, Noel Jones and Pamela P. Vaughan
Department of Chemistry

Triclosan is a bactericide used in a variety of personal care products such as toothpastes, deodorants, and hand soaps. After its initial use, the anti-microbial agent enters the environment where it can photo-degrade to 2,7/2,8-dibenzodichloro-p-dioxin. These dioxins are members of a class of compounds which are extremely toxic to plant, animal, and human life. This study investigates the effect of salt and organic matter content on the rate of photochemical decay of Triclosan and its degradation products. Samples with Triclosan in water were adjusted by means of addition of artificial seawater and humic acid. The rate of photo-degradation increased with the addition of salt, but addition of humic acid did not appear to influence the rate of photo-degradation.

27. Biological and Photochemical Degradation of Macondo 252 Oil in the Presence of Nutrients and Corexit 9500A

Noel Jones, Pamela P. Vaughan, Wade H. Jeffrey, Sandra McFarland, Janae Baptiste, Jessie Rosanbalm, Gabrielle Daniel, Rose Atkinson
Department of Chemistry

The effects on degradation of Macondo 252 oil of light exposure, nutrient and dispersant (Corexit 9500A) addition were examined. Seawater samples containing 0.01% oil were incubated in full sun or darkness for seven days. Replicate treatments included oil with inorganic nutrients (N & P) addition, oil with dispersant and oil with nutrients and dispersant (light and dark). Samples were extracted and analyzed using GC/MS to quantify polycyclic aromatic hydrocarbon (PAH) degradation. In general, all light treated samples showed lower PAH concentrations compared to dark incubations. Based on PAH degradation rates, addition of dispersant did not accelerate degradation in either light or dark incubations. However, bacterial production measurements indicate addition of dispersant, regardless of light exposure, showed enhanced growth by day two. Addition of nutrients to samples containing oil and dispersant showed slightly enhanced bacterial growth. Results will also be presented for a study examining irradiation wavelength dependence on oil degradation.

28. Synthesis & Characterization of 3-oxetanol

Cholena L. Russo, Mitra R. Vashi, Carla M. Staton and A. Timothy Royappa
Department of Chemistry

Poly(3-oxetanol), a hyperbranched polyether-polyol, was synthesized by boron trifluoride-catalyzed cationic ring-opening polymerization in dichloromethane. This polymer is an analog of the well-studied polymer, polyglycidol. Both polyglycidol and poly(3-oxetanol) are hyperbranched polymers. Because of this, and also since both these polymers are formed from monomers that may be considered anhydrides of the biocompatible molecule glycerol, they are under consideration for biomedical applications such as drug delivery. The spectral and thermal properties of poly(3-oxetanol) were analyzed and compared to those of polyglycidol. Both polymerizations were exothermic; however, the exothermicity was less dramatic with 3-oxetanol than with glycidol due to the lesser ring strain in 3-oxetanol.

29. Using Chemoselective Glycosylation to Study Structural Requirements of Natural Killer T Cell Antigens

Joshua Brown, Ashley Lambert, Randal D. Goff
Department of Chemistry

Natural killer T (NKT) cells are involved in key responses in cancer and autoimmune disorders and influence other immune cells to proliferate or to deactivate, minimizing the effect of autoimmunity. Specific naturally-occurring glycosphingolipids (GSLs) have been identified as NKT cell antigens, with modulation of NKT cell function and potency occurring through synthetic variation. Common among structural features of NKT cell-relevant GSLs is the sugar D-galactose, the alterations of which also influence changes in NKT cell activity. To gain a better understanding of the structural requirements of the sugar component of GSLs toward NKT cell activity, a library of glycosyl variants will be produced via a chemoselective ligation method known as neoglycosylation. Using a methoxyamine functionality installed on a sphingolipid, virtually any sugar may be efficiently attached to this aglycon segment bypassing the need for orthodox multistep synthetic processes. To accomplish this, the project will initially focus on the synthesis of the sphingolipid using an eight-step synthetic pathway. Once created, the specialized aglycon will be glycodiversified using commercially-available sugars that are structurally unique in ring size, geometrical configuration, and ring conformation. The resulting biological response from GSL-NKT cell interactions will aid in the understanding of the saccharide structure-activity relationship.

30. Assembly and Integration of a High Vacuum Manifold and Safety Circuit on a MALDI-RTOF-MS

Giovanni DeLuca, Brandon Burnette, James Schrock, Karen Molek
Department of Chemistry

A vacuum system has been designed and assembled on a Matrix-Assisted Laser Desorption/Ionization Reflectron Time-of-Flight Mass Spectrometer. The spectrometer must be held at a constant high vacuum of $\sim 10^{-7}$ Torr to increase the mean-free-path, decrease collisions and increase accuracy in the readings. The vacuum system is comprised of five rotary vane pumps which consists of an Edwards E2M8, a Precision Scientific P100, an Alcatel 2012A, and an Edwards RV8, with an Edwards E2M2 vacuuming the sample chamber, reducing atmospheric pressure to 2.5×10^{-2} Torr before the two M4 Varian diffusion pumps are powered on, reducing pressure to 5×10^{-7} Torr. A safety circuit has been designed to protect the diffusion pumps, monitoring foreline pressure, chamber pressure, water flow, power and pump temperature. The safety relay was designed and simulated on NI MultiSims 11 before components were purchased for assembly. The vacuum manifold and safety circuit allows our instrument to maintain $\sim 10^{-7}$ Torr.

31. Reentry Court

Waleed Abdelqader
Department of Criminal Justice/Legal Studies

To help guide and support newly released prisoners from returning to their old life styles, the United States Court of the Northern District of Florida implemented reentry court, a specialized court that manages the return to the community of individuals released from prison. The cornerstone of reentry courts is the use of immediate rewards (praises), sanctions (criticisms), and advice to help guide participant behavior. Sanctions for negative behavior include verbal criticism, electronic monitoring, stricter curfews and an increase in the frequency of drug testing. Sanctions used by the courts are intended to quickly return the participants to compliant behavior and reduce the use of revocations. Positive incentives, also known as rewards, are given in response to the participant's good behavior and successes. Possible incentives used by the reentry court team include judicial recognition, certificates of accomplishments, time off of supervised release, relaxation of travel restrictions, small tokens such as pens and writing journals, and ceremonies to mark key program milestones. As a student at the University of West Florida, I am involved with the reentry court team to observe the process of administering rewards and sanctions. Using a qualitative research design, my goal is to acquire as much data as I can about

how rewards and sanctions are used and what forms of rewards (praises), sanctions (criticisms), and advice are given to the participants by members of the court and by the other participants. This presentation will provide rich information about the number and types of rewards, sanctions, and advice given to reentry court participants by the reentry court team (federal judge, US Attorney, Federal Public Defender, and local service providers) and other participants and how the participants react.

32. Jury Nullification: How Do Jurors Really Decide?

Jessica Hayslip
Department of Criminal Justice/Legal Studies

This paper will examine the process of jury nullification by discussing the current legal and social science literature. We will first define jury nullification and discuss the historical perspectives of this practice. We will highlight historical and recent cases where jury nullification is believed to have occurred and its implications. The paper will also examine jurors' understanding of evidentiary matters, including the jury instructions, and how these impact the process of jury deliberation. We will also review whether or not jurors should be informed of their power to nullify during jury instructions and how jury nullification serves as a check on the judiciary. Finally we will also address public perceptions that most jurors have of the American justice system and how these impact the deliberation process and the verdict. We will conclude by recommending how courts and policymakers should address jury nullification in future cases.

33. A Pentadic Analysis of a High Dynamic Range Image

Xynn Tii
Department of Communication Arts

The artifact I will be analyzing is a high dynamic range photograph. It is titled, *Caution: Only for the Open-Minded*. The drama and rhetoric within this artifact is what makes it considerably important as a subject matter. Rarely do you come across a photograph that is showcased as an oligochrome, meaning a frame with both color and black and white components. The intricate technique applied to this photograph compliments the explicitness of its message. The reason for analyzing such an artifact is to discover alternate perspectives drawn from the frame. Multiple interpretations can be drawn from this photograph so an analysis will provide a clearer understanding as to the rhetor's worldview and purpose behind capturing homelessness and displaying it in oligochrome form. The following analysis will also establish a better understanding for the relevancy of homelessness to society.

34. The Ethics of Journalism Portrayed in Film: The 1940s to Present-Day

Rebecca Barnhart

Department of Communication Arts

In the past seventy years, Hollywood has produced dozens of films about journalism and its ethics. Audiences can be unaware that these films often provide unrealistic depictions with glaring inaccuracies, which could potentially undermine the credibility of all journalists. Guidelines set by media outlets and organizations such as The Society of Professional Journalists all differ slightly, but include many common elements, including truthfulness and responsibility to citizens. Unfortunately, journalists are challenged more than ever as technological advances and other changes in society have blurred the line between ethical and unethical. Although the field has made strides in clearly defining ethical principles, the majority of present-day films portray journalists making wrong choices, ultimately giving citizens reason to discredit the craft.

35. Nixon's "Cambodia" and Obama's "Afghanistan": Image Restoration and Presidential Differentiation

Samantha Rodzicz

Department of Communication Arts

This paper examines the unique function of differentiation in restorative rhetoric. The emphasis on differentiation in Richard Nixon's 1970 "Cambodia" address and Barack Obama's December 3, 2009 address on Afghanistan serve as the central focus of the analysis. Both speeches rely on differentiation. I suggest that Nixon and Obama utilized differentiation in a manner specific to the presidency. As a result, the presidents achieve their rhetorical goals and maintained approval ratings. Elements of Benoit's (1995) theory of image restoration serve as the central components of the analytic framework.

36. Rhetorical Criticism of Collective Political Silence

Phylisia Pearson

Department of Communication Arts

In August of 2011, Representative Maxine Waters gave a speech during the Democratic Party's traveling town hall. Months later, that speech has become one of the most controversial moments in her 35-year Congressional career. During her speech, Waters asked a predominantly Black crowd for their permission to state her criticisms of President Obama. With their permission, she proceeded to call President Obama to task over what she called inattentiveness to the high unemployment rates in the Black community. Although, those in attendance during her speech seemed to be in full

support of Waters' statements, there were many leaders in the Black community that released statements against Waters. These people accused Waters' of being a sellout because she openly expressed criticisms of President Obama. Why were there such harsh reactions to Waters' constructive criticism of the President and why did Waters feel the need to ask for the crowd's permission? This presentation features a rhetorical criticism which utilizes an interpretive systems model written by Smith and Smith (White House Speaks) to analyze the motivation behind the Black community's reluctance to constructively criticize President Obama.

37. Design of a Prototype Wind Energy & Load Compensation System

John Vuong, Alan Newbold, Elizabeth Cherry

Department of Computer & Electrical Engineering

For the past few decades, the generation of most electric power by large wind turbine generators was mostly done on wind farms in very windy regions of the world. Today, scientists and engineers are researching how to improve electric power generation from large wind turbine generators. However, very little research is being done to improve electric power generation from small wind turbine generators and to tie small wind turbine generators into the residential and small business utility feeds. At the end of our project, the prototype of a small power system (hundreds of watts) that supplies electric power to a "dump load" (a resistor and an inductor) will be designed and built. Depending on the power system's master microcontroller reading of the electric power from the small wind turbine generator, the power system will supply electric power to the "dump load" from either the small wind turbine generator or the electric utility. Finally, if the power system is supplying electric power from the generator to the "dump load," the power system will improve the power efficiency (ratio of power at "dump load" to utility power) through the use of different power capacitors.

38. Autonomous Research Surface Vessel

Anton Yaresko

Department of Computer & Electrical Engineering

The Autonomous Research Surface Vessel is a fully-autonomous and fully-electric marine robot which will aid in the advancement of environmental science and water research. The main function of this autonomous vessel is to collect water samples from various user-specified locations within a large body of water, such as a pond, lake or ocean. The vessel will use satellite GPS to navigate to each location entered by the user and will be able to return to a starting point after

completing the water sampling route. Various electronic hardware components and software applications will be used to create this Autonomous Research Surface Vessel, some of which are the following: GPS and 3-D compass for navigation control, proximity sensors for the obstacle avoidance system, solar panel to provide additional power for run-time, and student-written programs to control overall functionality of the vessel. The project will use a lithium-ion battery pack as a main power supply. Overall, this project will promote science, education, engineering, and environmental awareness through its core purpose and solar technology.

39. Design and Implementation of LabVIEW Based Monitoring System for Building 4 Utilizing CompactRIO

Asa Furman and Cortez Ashley

Department of Computer & Electrical Engineering

This project is concerned with the creation and implementation of a building monitoring system for Building 4 on the UWF Pensacola Campus. The goal for the final product is a comprehensive monitoring solution that collects and presents in a user friendly format data such as real time energy and water usage, weather and indoor/outdoor environmental conditions.

The project utilizes the Compact RIO as an interface with the Siemens building management equipment which controls the vital functions for Building 4. Data is fed to LabVIEW over the network and used to generate a Virtual Instrument (VI) front panel summarizing indoor and outdoor environmental conditions, energy usage data, and water usage data.

40. Design and Implementation of Affordable Sight Technology for the Blind

Linzy Franks, Noah Larsen, Alex Martinez

Department of Computer & Electrical Engineering

Using the coding format for the Arduino Pro Mini Microcontroller, we plan to develop codes for the following functions: - The Braille system will use a real time clock working with a quartz crystal to keep track of the time and will send the time to the LED dot matrix display to simulate a Braille wristwatch. A pedometer will also be linked to the Braille system by a pushbutton. When it is pressed, the reading from the pedometer will be displayed for 3 seconds before returning to the time. When the pushbutton is held for 2 seconds, it will reset the reading on the pedometer. - The Ultrasonic Sonar system will consist of 2 Parallax Ping Sensors and a vibration motor. As the user gets closer to the impending object, the 1/2 second pulse will get quicker until it becomes a constant vibration: Distance to Object. The

vibration motor will be mounted on the user's lower arm, slightly farther back on the wrist than the LED display for the watch.

41. Interactive Internet 3D Mapping and GIS for Public Access to Florida Census Data

Alannah Ward, Zhiyong Hu

Department of Computer & Electrical Engineering

Web GIS (geographic information systems) gives one the ability to create, manage, and distribute GIS services over the Web to support desktop, mobile and Web mapping applications. This project creates a KML (Keyhole Markup Language) service with 3D extruded polygon features showing Florida counties demographic information. The objective is to let the general public have access to the interactive 3D mapping service via Google Earth. The KML service will be published using ArcGIS for Server software which provides one with a full range of GIS server capabilities that allow one to transform the maps, imagery, data, and GIS tools that one commonly uses in ArcGIS for Desktop into fast, reliable Web services that one can use anywhere. The project first use ArcGlobe to create a Florida Census layer file with 3D extrusion properties. Then add the layer in ArcMap to set the layer symbology and configure descriptive text that will be associated with features in the KML. Next, publish the map as a service with the KML capability enabled. Finally, create a KML network link on the server so that others can easily access the KML.

42. The Effects of Mob Grazing Practices on Soil Quality

Jeremy Mullins, Johan Liebens

Department of Environmental Science

The need for newer, sustainable farming practices has been a subject of much interest to scientists and agriculturalists alike. Current livestock farming practices and the use of fertilizer has been shown to decrease soil quality and increase soil pollution. Sustainability of the current practices is questionable. In a newer method, called mob grazing, livestock is rotated daily from pasture to pasture. Presumably, this method improves soil quality without using fertilizer and without compromising forage quality. The objective of this study is to analyze for a positive net effect in soil quality, if one does exist. In the study we are examining bulk density, infiltration rates, aggregate stability, and nitrogen concentration. We have compared results for fallow sites representing soil conditions at the onset of the mob grazing (Year 0) to results for mob-grazed sites last year (Year 3) and this year (Year 4). This allows a better understanding of the effects of

mob grazing and whether or not this practice is sustainable. We intend to, ultimately, share results from this study with the farming community to make a more environmentally safe and sustainable farming practice.

43. The Effects of Fire on Groundwater Chemistry

Stephen Schoen

Department of Environmental Science

The current understanding of the effects of fire on groundwater chemistry is limited. It is the purpose of this research to shed light on groundwater nutrient trends in relation to episodes of fire and subsequent precipitation events. The primary research objective is to determine the extent of fire's effects on groundwater chemistry. A secondary goal is to achieve a better understanding of the role precipitation events play in altering groundwater chemistry in burned areas. The study site for this research was located in the Blackwater River State Forest. Groundwater sampling wells were installed within burned and unburned areas of the study site. Samples were collected before and after a rain event. The physical parameters of the groundwater, including its temperature and turbidity were obtained; dissolved inorganic nutrient concentrations were also tested for. Spectrophotometric methods were used for analysis. Ammonium and phosphate concentrations within the groundwater underneath the burn site appear to be much higher than that found within the control site. The precipitation event seems to have impacted the groundwater chemistry. It appears that there may have been a greater effect on the groundwater beneath the burned area; as seen in the nitrate results.

44. Southern Escambia County's Urban Forests

Rosemary Collins, Courtney Richards and Dr. Jason Ortergren

Department of Environmental Science

The purpose of this project was to update a field survey of southern Escambia County's urban forest originally conducted in 2006. We collected data on urban forest characteristics at 39 plots in southern Escambia County to evaluate the economic and environmental benefits of the urban forest. Our measurements provide information about urban forest composition and structure, canopy cover, carbon sequestration and storage, air pollution removal and energy effects on residential buildings. We updated the original field survey using methods outlined in the U.S. Forest Service Urban Forest Effects (UFORE) model field manual. We also collected radial tree cores from living trees to compare actual growth rates with geometric growth model estimates. Our final results will be used to assess changes in the urban forest in southern Escambia County since 2006.

45. Biostimulation of PCB Dechlorination in Escambia Bay Sediment

Britta Hays, Fred Hileman and Johan Liebens

Department of Environmental Science

The purpose of this project was to update a field survey of southern Escambia County's urban forest originally conducted in 2006. We collected data on urban forest characteristics at 39 plots in southern Escambia County to evaluate the economic and environmental benefits of the urban forest. Our measurements provide information about urban forest composition and structure, canopy cover, carbon sequestration and storage, air pollution removal and energy effects on residential buildings. We updated the original field survey using methods outlined in the U.S. Forest Service Urban Forest Effects (UFORE) model field manual. We also collected radial tree cores from living trees to compare actual growth rates with geometric growth model estimates. Our final results will be used to assess changes in the urban forest in southern Escambia County since 2006.

46. The Effects of Mob-Grazing on Soil Quality in Walnut Hill, FL

Nicole Jeter, Jeremy Mullins, Johan Liebens

Department of Environmental Science

Mob-grazing is an alternative grazing method expected to be more sustainable than traditional livestock farming. In this method a high concentration of cattle are restricted to graze a small area, for a very short period of time. This study surveys the effect of mob grazing on pasture soil quality by evaluating soil quality changes between mob-grazed pasture and unaltered soil in Walnut Hill, FL. Our Results will be compared to site data from last year and from unaltered soil to identify trends in soil quality over time. The soil properties that will be assessed include soil respiration, earthworm counts, organic matter, phosphorus levels, and soil pH. We expect to find changes over time between the sites, however, this is an ongoing study and any trends we may find will have to be confirmed by follow-up studies. This study will provide more insight into the sustainability of mob-grazing and used to increase ecological awareness and knowledge of more efficient grazing techniques in the farming community of this region.

47. Duration of Presidential Honeymoons

Matthew Groff

Department of Government

In The Policy Opportunities in Presidential Honeymoons, Matthew Beckmann and Joseph Godfrey measure the "honeymoon effect" by policy the president

could pass despite an ideological position of Congress that predicts otherwise. The research contained in this paper will attempt to enhance this theory by adding a time horizon. In order to achieve this, the ideological positions of Democrats in the House of Representatives will be analyzed through the duration of presidential terms using DW-Nominate scores for individual Members of Congress. Three separate Democratic presidents' terms will be considered to provide both quantitative and qualitative analysis of the temporal nature of presidential "honeymoons."

48. Mexican Migration: Political Changes South of the Border

William Nugent

Department of Government

Within the past decade the debate of immigration in the United States has become deeply divisive. There are millions of Mexican immigrants who have entered the United States seeking work. This presents burdens to both the United States and Mexico. There is a surplus of cheap labor in the United States, which in and of itself creates tension in the U.S. labor market. Mexico however, faces problems of its own. Its economy has lost millions of workers which it requires to grow itself. This research project analyzes the problems emigration leaves behind in countries of migrant origin, specific to the case of Mexico. This project is of great importance to political debates because economy and wellbeing of the Mexican people affects the U.S. population politically and economically as well.

49. How the Sausage is Made: How Lobbying Influences Congressional Development of Food Policy

Stephanie Jarrait

Department of Government

Lobbyists have been vilified as using money to control Members of Congress, Washington, and policy, but the amount of influence lobbyists have on the legislative process is widely debated among political science scholars. This research employs a case study approach to understanding how lobbyists influence food policy by shaping the legislative behavior of Members of Congress. By studying bills from their inception to their end, it presents a more holistic view of the legislative processes thereby putting forth a more concrete analysis of how lobbying affects the development of policy, how lobbying affects a bill's progress through the legislative process, and how lobbying affects a Member's voting behavior.

50. You Can't Ignore the Game of Politics: A Study of Issue-Based Campaign Strategizing in Presidential Elections

Diego Santiago

Department of Government

It is often stated that election outcomes are rarely decided over factors such as issues, but rather, they are decided based solely on party politics. While party politics play a large role in the decision making of the average Democrat or Republican, it is the undecided voter as well as the informed voter that are likely to be influenced by the game of politics. Candidates for political office use this to their advantage by strategically framing issues to appeal to the most voters possible or to purposely split certain voters from their own parties. This strategy of prioritizing certain issues has proven to work in favor of these politicians because they are able to gain specific voter groups, even if the voter claims allegiance to another party. This paper seeks to layout the research of many political-minded scholars, who have conducted extensive studies to provide conclusive data in regards to this specific subject.

51. Nonpartisan Factors Affecting the Electability of a Political Candidate; Appearance and Person

Cora Merritt

Department of Government

The electorate evaluates different aspects of the lives of political candidates. The clear areas of interest outline the candidate's platform and confirm the candidate's political party affiliation. This research project goes beyond issue-based candidate descriptions, and it investigates other superficial qualities such as appearance and personality. Height, posture, grooming habits, and style are appearance related traits that make a difference to the voters. They lead to various perceptions about the candidate's persona and personality. Analysis of past research involving presidential candidates such as John F. Kennedy and Richard Nixon is used to explain the use of polls to determine what personality traits matter to the voters. Past presidential candidates were labeled with adjectives such as warm or friendly. Desirable personality traits improved a candidate's numbers in the polls. Other readings on the topic explain evidence that certain traits make the incumbent particularly more or less vulnerable. Research also reveals that female candidates are judged differently since overly feminine traits may lead to a perceived weakness in character or ability to lead. The hypothetical data visualization will include the results of voter polls used to determine a candidate's appearance and personality affect a candidate's success in an election.

52. Measuring the Participants Spending of Pensacola Half Marathon and Its Economic Impact to Pensacola

Mark Franklin, Kristian Stehpens, Austin Hunt, Hunter Lampley

Department of Health Leisure & Exercise

The research is being conducted in conjunction with the Pensacola Sports Association (PSA). The research project focuses on the early stages of Mullin's (2000) model, which includes the core of a successful sport marketing strategy, to conduct research into the "market and product idea, understanding the sport consumer, and conducting market research." Three major components are included in this research: (1) go into the field and conduct survey research at Pensacola Half Marathon that is sponsored/co-hosted by the PSA; (2) statistical analyses of surveyed data; and (3) measure the economic impacts of Pensacola Half Marathon on the Pensacola community using Mullin's model as a theoretical framework. Through analyzing the data the research report will include an event's participants' demographic and spending profile to calculate its economic impact on the Pensacola community, as well as an analysis of PSA's marketing strategy effectiveness to attract sporting events to the Pensacola area.

53. Measuring the Participants Spending of 012 Gulf Coast Winter Horse Show and Its Economic Impact

Caroline Zepp, Krista Griffin, Sara Bechler, Autumn Dunn, Vickie McPartland, Melinda O'Grady

Department of Health Leisure & Exercise

The research is being conducted in conjunction with the Pensacola Sports Association (PSA). The research project focuses on the early stages of Mullin's (2000) model, which includes the core of a successful sport marketing strategy, to conduct research into the "market and product idea, understanding the sport consumer, and conducting market research." Three major components are included in this research: (1) go into the field and conduct survey research at Escambia County Equestrian Center that is sponsored/co-hosted by the PSA; (2) statistical analyses of surveyed data; and (3) measure the economic impacts of 2012 Gulf Coast Winter Horse Show on the Pensacola community using Mullin's model as a theoretical framework. Through analyzing the data the research report will include an event's participants' demographic and spending profile to calculate its economic impact on the Pensacola community, as well as an analysis of PSA's marketing strategy effectiveness to attract sporting events to the Pensacola area.

54. Measuring the Participants Spending of Pensacola Classic Soccer and Its Economic Impact to Pensacola

Juan de la Torre, Spencer Capps, Shaun Rannals, Keven Fennell, Alex Grigsby

Department of Health Leisure & Exercise

The research is being conducted in conjunction with the Pensacola Sports Association (PSA). The research project focuses on the early stages of Mullin's (2000) model, which includes the core of a successful sport marketing strategy, to conduct research into the "market and product idea, understanding the sport consumer, and conducting market research." Three major components are included in this research: (1) go into the field and conduct survey research at Ashton Brosnahan Park that is sponsored/co-hosted by the PSA; (2) statistical analyses of surveyed data; and (3) measure the economic impacts of Pensacola Classic Soccer on the Pensacola community using Mullin's model as a theoretical framework. Through analyzing the data the research report will include an event's participants' demographic and spending profile to calculate its economic impact on the Pensacola community, as well as an analysis of PSA's marketing strategy effectiveness to attract sporting events to the Pensacola area.

55. Comparison of Activity Tracking & Ease-of-use for Five Free Web-Based Activity Trackers

Kimberly Nelson, Matthew Aldred, Aaron Morton, Sarah Schwab and Jeremy Townsend, Debra Vinci

Department of Health Leisure & Exercise

The increased availability of technology, both portable and home-based, has provided health-conscious consumers options to track daily physical activity levels. Therefore, it is necessary to discover the availability of free fitness trackers and ease-of-use for tracking individuals' activity levels. Currently, there is little research comparing fitness tracking websites with the needs of the consumer. The purpose of this study is to compare the features of five popular, free physical activity trackers as they apply to ease-of-use and accuracy of tracking daily activities by the consumer. Methods: Popular search engines were used to locate the activity trackers. A set number of variables (visual activity gauges, types of exercises, exercise intensities, use of RPE, goal setting, multi-user function, and smart phone applications) believed to be desirable for the use of the physical activity tracking were determined based on the perceived needs of the consumer. The websites were compared to each other in order to ascertain the ease-of-use and available features for consumers. Results: The results of this study indicate that the free online physical activity trackers studied offer many of the same features and are each beneficial

for the consumer depending upon the consumers' needs when tracking activity levels.

56. Measuring the Participants Spending of Pensacola Double Bridge Run and Its Economic Impact to the Pensacola Community

Christopher Haskin, Josh Benton, Stelios Peterson, Kim Nesbit, Christina Murray, Samantha Rodriguez

Department of Health Leisure & Exercise

The research is being conducted in conjunction with the Pensacola Sports Association (PSA). The research project focuses on the early stages of Mullin's (2000) model, which includes the core of a successful sport marketing strategy, to conduct research into the "market and product idea, understanding the sport consumer, and conducting market research." Three major components are included in this research: (1) go into the field and conduct survey research at Pensacola Beach that is sponsored/co-hosted by the PSA; (2) statistical analyses of surveyed data; and (3) measure the economic impacts of the Double Bridge Run on the Pensacola community using Mullin's model as a theoretical framework. Through analyzing the data the research report will include an event's participants' demographic and spending profile to calculate its economic impact on the Pensacola community, as well as an analysis of PSA's marketing strategy effectiveness to attract sporting events to the Pensacola area.

57. Measuring the Participants Spending of the SPA Women's Spring Nationals and Its Economic Impact to Pensacola Community

Geoff Nichols, Mark Dempsey, Laura Green, Josh Hurst, Mike Rogal

Department of Health Leisure & Exercise

The research is being conducted in conjunction with the Pensacola Sports Association (PSA). The research project focuses on the early stages of Mullin's (2000) model, which includes the core of a successful sport marketing strategy, to conduct research into the "market and product idea, understanding the sport consumer, and conducting market research." Three major components are included in this research: (1) go into the field and conduct survey research at the SPA Women's Spring Nationals that is sponsored/co-hosted by the PSA; (2) statistical analyses of surveyed data; and (3) measure the economic impacts of SPA Women's Spring Nationals on the Pensacola community using Mullin's model as a theoretical framework. Through analyzing the data the research report will include an event's participants' demographic and spending profile to calculate its economic impact on the Pensacola community, as

well as an analysis of PSA's marketing strategy effectiveness to attract sporting events to the Pensacola area.

58. A Comparison of Five Free Internet-Based Food Trackers

Marg, Ashley; Anderson, Alyssa; Galloway, Andrea; Godwin, Elizabeth; Rodriguez, Julio

Department of Health Leisure & Exercise

With continual increase in the use of technology coupled with the recognition of personal responsibility for health, individuals are consistently turning to the Internet for health-related information. As more information becomes available, growing trends in online resources include the availability of websites and programs that provide food tracking and dietary analysis. With this trend, however, comes the necessity to determine which resources provide the most useful and accurate information. Methods: Internet search was done using the terms "free food tracker," "online food tracker," "food diary," and "food tracker" on Google, Yahoo, and Bing to determine popular and free online food tracking programs. MyFitnessPal, Livestrong, MyPlate.gov, FitDay, and SparkPeople were identified. All five sites were then rated based on key variables including nutrient and calorie recommendations, options provided, history tracking, goal-setting features, overall ease-of-use, and additional resources. Results: The results of the study indicate that many of the free online food trackers offer consumers similar features for food tracking and dietary analysis.

59. Effects of Brand Personality on Service Quality in Hotels

Xuan Tran, Camille Dauchez, & Anna-Milena Szemik

Department of Health Leisure & Exercise

By recognizing the similarities of a product brand and an individual person, marketing researchers have created brand personality. Companies use brand personality to design its products and services in order to meet customers' expectation. Thus, this is increase customers' preferences and loyalty. Although brand personality is widely recognized in the marketing industry, it has not been implemented in hotel services. Consequently, the application of brand marketing has limited hotels' abilities to meet guests' expectation and increase their preferences. The purpose of this study is to explore the effects of brand personality on service quality in hotels. Canonical analyses have been applied to explore the relationships between three dimensions of brand personality and three dimensions of service quality in six hotel brands during the low season of the year. Reliability and validity of the study findings have been regulated. The

service quality in the hotel with sincerity brand is related with its caring and individualized attention to customers. The service quality in the hotel with excitement brand is related with its physical facilities equipment and appearance of personnel. The service quality in the hotel with competence brand is related with its knowledge and courtesy of employees. Management implications are discussed.

60. Lung Cancer and Air pollution in Florida – a statistical study

O. Johnny Liseth, Matthew Shull, Linh Nguyen, Megan Bunnell, Dario Ackerman

Department of Mathematics

It has long been known that polluted drinking water has detrimental effects on our health. We also know that certain air pollutions affect our respiratory system, particularly in individuals with compromised pulmonary function, such as people suffering from asthma or emphysema. On this background, we were interested in finding out if there were possible associations with air pollution and cancer, more specifically carcinogenic air pollution and lung cancer. We used data on air pollution data from the EPA, cancer data from Florida Cancer Data System and population data from the Census Bureau. The analysis was done using SaTScan, a disease surveillance geo-spatial clustering software capable of performing purely spatial in addition to space-time analysis. Our findings showed a large and statistically significant cluster in central Florida, roughly from the Orlando-Tampa area and north towards Jacksonville. The cluster did not change much when adjusting population data for age or race.

61. Cauchy's Residue Theorem and Its Applications

Holly Renaud

Department of Mathematics

Complex analysis is a wide branch of theoretical mathematics. A very important concept within the field of complex analysis is that of residues. The present paper is going to present the main theorem on residues, namely, Cauchy's Residue Theorem, and some of its applications. More precisely, we will show how complex residues can be used to evaluate improper integrals, integrals involving sine and cosine, as well as the Inverse Laplace and Fourier Transforms.

62. Numerical Solutions for PDEs: Finite Difference Methods and LU Factorization

Rebecca Smith, Jia Liu

Department of Mathematics

To solve fluid dynamic systems, (e.g., air flow

or water flow) a study of numerical analysis and partial differential equations is necessary. The finite difference method is used to discretize the partial differential equation into a linear system from which a matrix is constructed. This matrix yields the solutions to the fluid dynamic system. The type of fluid dictates the initial conditions and demands slight modifications to the process. The error analysis of finite difference methods will be analyzed and LU factorization will be explored. Numerical experience shows the numerical solutions for the Poisson equations in one dimensional and two dimensional spaces.

63. Cubic Spline with QR decomposition

Su Hua

Department of Mathematics

To construct the cubic spline in an interval $[a,b]$, a linear system is set up and there are two more variables than the number of equation. To make a square system, two arbitrary equations are inserted in all textbook, such as $f''(a)=f''(b)=0$ for the so called "cubic splines". This is unnecessary. There is another way to do it: Just accept the linear system as "under-determined" and apply the QR decomposition and solve the under-determined system for minimum norm solution.

64. Thyroid Cancers among Adolescents and Young Adults in Florida – A Cluster Analysis Using SaTScan

Dario Ackerman, Megan Bunnell, Peter Kennedy, Ole Liseth, Linh Nguyen, Matthew Shull, Aletheia Zambesi

Department of Mathematics

Cancer in the adolescent and young adult (AYA) population (ages 15-39) has emerged as a unique group when addressing cancer etiologic agents and therapies. Since the 1940s, an upward trend of rising thyroid cancer incidence has been observed in the United States and abroad. In this study, we sought to identify and confirm thyroid cancer clusters in the AYA population in Florida. We utilized the data from FCDS and modeled our analysis using SaTScanTM to test the following null hypotheses: (1) The AYA thyroid cancer rate of all cancer types is randomly distributed over space in Florida from 2000 to 2008, (2) The AYA thyroid cancer rate of all cancer types is randomly distributed over time and space in Florida from 2000 to 2008.

Our study found the incidence rate of AYA thyroid cancers (adjusted for age, sex, and race) to be significantly higher in the South Lake Okeechobee cluster when compared with the state. These findings are unlikely to be driven by non-factual attributes of cancer clusters but are suggestive of environmental factors or common risk factors in the areas. Consequently, these findings

could be etiologically driven, indicating the need for further investigation to identify the potential risk factors.

65. SaTScan analysis of pediatric Leukemia rates in Florida

Timo Bailer

Department of Mathematics

The study of epidemiological data is a very important point of the surveillance for public health. If we want to analyze epidemiological data we want to detect changes, trends and clusters. The so-called spatial analysis tries to detect clusters on a geographical basis. If we add to space the dimension time to this analysis – the so-called space-time analysis – we can add a temporal aspect to the information of our clusters. Furthermore we can investigate these space-time clusters more precisely, i.e. we can test if these temporal clusters are due to a trend in the whole area of interest or not.

All these methods can be implemented in the statistical software SaTScan. For the analyses we used leukemia incidence rates in Florida for the years 2000-2010 reported by the Florida Association of Pediatric Tumor Programs and data provided by the U.S. Census Bureau for additional information needed. One big advantage of these analyses are the detailed geographical information on the epidemiological dataset which gives the results a lot of significance.

66. HeadBanging smoothing of Leukemia rates in Florida

Lukas Haegele

Department of Mathematics

Smoothing algorithms are statistical techniques to enhance hidden patterns in noisy data. Hereby it is important to remove local fluctuations in data while preserving large-scale variations. There are specified properties that a good smoother has to fulfill. It should remove isolated extreme values in the data, that are not supported by neighboring points. These values tend to be errors in measurement and don't support large-scale data structures. Further, it is part of a good smoother to preserve areas of rapid transition in the variable of interest. Such areas tend to characterize distinct regions in the data. In our analysis, we used a smoothing approach called HeadBanging that performs very good according to the mentioned requirements. This approach enables us by using a descriptive approach to get a better view on the data and to identify possible clusters. Results for Leukemia incidences for persons under 20 in the years 2000-2010 on County and ZIP Code level indicate possible clusters in the South and in the North-East of Florida.

67. Use of Online Product/ Service Reviews

Joshua Davis

Department of Marketing & Economics

Online purchases now exceed 4% of total retail sales and have a growth rate higher than that of any other retail channel. Each day millions of searches are conducted as consumers search for goods/services online. In many cases, consumer search is enhanced through online product/service reviews (OPSRs). Yet, in spite of the apparent wide usage of OPSRs very little is known about them. This research measures the extent to which online retailers use OPSRs by type of retailer. Secondly, consumer activist groups warned of the possibility of biased reviews planted by company owners, employees, or persons who had been paid to write positive reviews. This extent of the occurrence of this was so great that the FTC issued formal rules requiring disclosure of any relationship between a reviewer and the product/service reviewed. To date, no research has been presented on consumer attitudes toward OPSRs. This research provides data from a national survey of college students on a. Frequency and characteristics driving their use of OPSRs; b. awareness of biased reviews; c. attitudes toward OPSRs; and d. intentions to use OPSRs in the future. Public policy implications are provided.

68. The Antecedents and Consequents of Internal Customer Orientation in the Logistics Workforce

Michael J. P. Dwyer, Kimberly Hochard, Thomas Rudolph, Dr. Scott Keller

Department of Marketing & Economics

Research supports that as a firm's internal customer orientation increases so does employee satisfaction. In turn, satisfied employees stay with the firm longer and perform better. In logistics operations, employee retention is a major concern. The purpose of the research is to discern the linkage between emotional intelligence and organizational identification as it relates to creating an internal customer orientation. Emotional intelligence is the ability to perceive, understand, use, and manage emotions of one self and others. Organizational identification is the degree to which someone identifies with a group and perceives feelings of belongingness to the group. Managers that are emotionally intelligent and identify well with the organization's goals and values will be better equipped to interact with subordinates in ways that are consistent with how the company wants employees to interact with customers. Logistics managers provided responses to a questionnaire pertaining to the three main aspects of the research. Data analysis using structural equation modeling supported the hypotheses that managers who possess emotional intelligence and

organizational identification create an internal customer orientation among employees that ultimately leads to higher employee satisfaction, retention, and performance.

69. Cost/Benefit Analysis of Alternative Energy Use

Chris Burkart, Cody Reinhardt

Department of Marketing & Economics

The state of Florida invested money to subsidize adoption of solar panels for both domestic and commercial use. This research looks at the allocation of money from an economic point of view, which looks at the costs to the state, the ratio of user investment to state funding, the amount of energy provided by the installations, and more. The purpose of this analysis is to find out the most efficient way to create such a subsidy for alternative energy adoption, and how to structure it in a way which encourages user input. Then we generalize this to a function to model the rates of adoption for future subsidies of this kind.

70. An E-Strategic Model for the Commercial Airline Business

Jeesun Bang and June Wei

Department of Management

The research aims to develop electronic business strategies for companies in the commercial airline industry to increase value. Specifically, it first develops an electronic strategic value chain model for the industry. The model illustrates how various activities in the airline industry can create value in business-to-business, business-to-consumer, business-to-internal, and business-to-government. The paper illustrates types of e-strategies that can be applied to value chain activities. Second, the paper derives a set of electronic business solutions by breaking down the components in the developed model. Third, a survey for the top dominant 20 companies worldwide was conducted to investigate the patterns of electronic business implementation. Finally, suggestions and recommendations were presented. The paper helps companies implement IT strategies in their value chain with a primary focus on improving the value. The research paper can help airline companies analyze and implement electronic business strategies. It also helps create value through developing IT strategies and finding sustainable competitive advantages. Implementing a well-developed IT adopted electronic value chain can benefit companies because it can help reduce costs, and achieve business growth and competitive advantages in domestic and international markets. It can also build stronger relationships between customers and companies.

71. A Model for Assessing the Smart City based on Strategic and Tactical Approaches

Angel Francisco Carrete Rodriguez and June Wei

Department of Management

Smart cities are communities that use smart technologies to transform fundamental infrastructures and services in the city, and the way these infrastructures and services work and communicate. The ideology behind smart cities is to better the quality of life for the residents in the community. The term smart city covers many aspects of a city such as utilities, communication and transportation, public safety, education, healthcare, entertainment, and administration.

Due to the lack of research on the assessment of smart cities, this research presents an assessment model for the level of the residents' quality of life. Specifically, it first develops a smart city strategic model by combining the different primary activities that aim to improve the value of the people's satisfaction derived from living in the city. Second, these smart activities are decomposed into a set of tactical smart elements. Third, a relative-weighted assessment method is proposed to assess the smart city levels with an illustrative example. The results of this research will provide strategies on how to transform cities into smart cities by accelerating the adoption of smart technologies and smart systems. It will also assist administrators when making decisions on how to transit to a smart city to improve people's quality living standards.

72. Optical Absorption and Laser Induced Fluorescence Studies of Liquid Crystal C-10 Fluorescent Di

Darren North, Samuel Beck, Richard Rode, Christopher H, Amy Renaud, Logan Tate, Chandra Prayaga, Aaron Wade, Michael Huggins

Department of Physics

A newly synthesized liquid crystal C-10 Fluorescent Dipyrinone was dissolved in chloroform and allowed to dry on a glass slide. The slide was housed in a temperature controlled environment constructed in the lab. A frequency-tripled pulse ND: YAG laser (355 nm) was used to induce fluorescence in the liquid crystal sample, which was analyzed using a monochromator, photomultiplier tube, and a 1GHz oscilloscope. The sample was tested over a temperature range of 30-700C. The temperature control was precise to within 1 mK, allowing precise determination of the phase transition temperatures. The area, fall time, and peak values of the fluorescence signal were studied as functions of wavelength and temperature. Absorption spectra in the spectral range 300 – 800 nm were also recorded using a commercial (HP8453) UV-VIS spectrometer.

73. Absorption and Fluorescence Study of New Liquid Crystal C14-Fluorescent Dipyrinone

Richard Rode, Samuel Beck, Darren North, Logan Tate, Christopher Heath*, Amy Renaud, Michael Huggins

Department of Physics

A new liquid crystal, C14-Fluorescent Dipyrinone, was synthesized and its absorption and fluorescence properties studied near the phase transitions. A frequency-tripled, pulsed ND: YAG laser was used to induce fluorescence in the liquid crystal sample. The fluorescence spectra and decay times were studied as functions of temperature using a 1GHz oscilloscope, monochromator, and photomultiplier tube. This sample was tested over a temperature range of 30-60 C with 1 mK resolution to allow precise determination of the phase transitions of the sample. The absorption spectra were recorded over the temperature range 30 – 600C using a HP 8453 UV-VIS spectrometer, on a sample of the liquid crystal dissolved in chloroform and dried on a glass insert.

74. Laser Induced Fluorescence Studies of New Liquid Crystal C16-Fluorescent Dipyrinone

Samuel Beck, Darren North, Richard Rode

Department of Physics

A new liquid crystal, C-16 Fluorescent Dipyrinone, was synthesized and its absorption and fluorescence properties investigated near the phase transitions. A sample of the liquid crystal was dissolved in chloroform and deposited on a glass slide and housed in a temperature controlled environment. Fluorescence was induced by pumping the sample at 355nm from a frequency-tripled, pulsed ND:YAG laser and was analyzed using a monochromator and a 1GHz oscilloscope. The sample was held at each temperature, from 30°C to 80°C, with 1 mK precision before taking the spectra. The results show significant changes in the peak in the spectra near the phase transitions, allowing for precise measurement of the phase transitions. The samples were further characterized by measuring their absorption spectrum at different temperatures in the range of 30-60°C was recorded over the spectral region 300-800 nm.

75. Electron-doped superconductors Eu₂-xCe_xCuO₄-y: synthesis and property characterization

William Nelson

Department of Physics

The electron-doped superconductors Eu₂-xCe_xCuO₄-y (x = 0.15, 0.16 and 0.17) were synthesized successfully using a solid state reaction method under a series of annealing and reduction procedures. X-ray diffraction and high hydrostatic pressure were used for

their structure and electrical property characterization. Preliminary results show that the samples are in a single phase and the T_c drops as the pressure increases with a rate in sign opposite to the hole-doped counterparts and in magnitude apparently smaller than other cuprate superconductors.

76. Magnetic property measurements in Eu₂-xCe_xCuO₄-y

Luis Flores

Department of Physics

We used our self-developed AC susceptometer to measure the magnetic properties of the electron-doped high temperature superconductors Eu_{1.75}Ce_{0.15}CuO₄-y. Our measurements were conducted at temperatures from 300 K down to 77 K in liquid nitrogen environment, showing rather large paramagnetic magnetic electron moments existing in the materials. This is also a test regarding the effectiveness of our self-developed AC susceptometer, a project supported by the UWF OUR and SCA awards.

77. Preparation of C-16 and C-10 Fluorescent Dipyrinone Liquid Crystal Langmuir Films

Giovanni DeLuca

Department of Physics

A new C-16 and C-10 Fluorescent Dipyrinone Liquid Crystal has been synthesized by the University of West Florida's Chemistry department. The liquid crystals have amphiphilic properties with their Dipyrinone polar heads and long hydrocarbon nonpolar tails. This led to the preparation and characterization of their Langmuir and Langmuir-Blodgett Film, using a Nima Langmuir-Blodgett Trough. The influence of the length of the hydrocarbon tail on the behavior of the pressure-area isotherm of the Langmuir film is studied. There is considerable difference in the behavior of the C-16 and C-10 Fluorescent Dipyrinone Liquid Crystal Films prepared. Ellipsometric characterization of the films, using an ellipsometer built by the Physics department, is used to further study the Liquid Crystal films.

78. Resonance Circuit with a Nonlinear Liquid Crystal Capacitor

Chloe Renfroe, Samuel Beck

Department of Physics

The liquid crystal 4'octyl-4- cyanobiphenyl (8CB) was injected into a commercially available liquid crystal capacitor cell (INTEC, Inc). The cell was housed in a temperature-controlled environment constructed in the lab and a resonant circuit was assembled using the 8CB capacitor. The temperature of the capacitor was

varied over the range 25 C to 45 C, covering the smectic, nematic, and isotropic phases. The sample was held at each temperature with a precision of 1mK before measuring the resonance curve with a network analyzer. The results showed a non-linearity in the resonance curve in the nematic phase, distorting the shape of the resonance curve. The corresponding curves for the smectic and isotropic phases were linear.

79. The Impact of Childhood Trauma on Adult Social Anxiety: Differences in Gender and Sexual Orientation

Jessica Thurmond

Physical and sexual abuse have long-lasting, negative impacts on the victim's life. While a wealth of information has emerged about the short- and long-term effects of physical and sexual abuse, most studies have focused on the aspect of re-victimization and the potential for victims to become abusers during adulthood. The purpose of this study is to examine the different effects of childhood physical and sexual abuse (hereinafter, childhood trauma) on adult social anxiety in males and females. Further analysis is assessing the differences in adult social anxiety between heterosexuals, and lesbians, gays, and bisexuals (LGB). Analysis has shown: (1) a significant difference in adult social anxiety reported by participants who experienced childhood trauma and those who did not and (2) a positive correlation between levels of trauma and levels of adult social anxiety.

80. Imagery and Distinctiveness in the Survival Processing Effect

Sarah K. Gillespie, Richard Hohn, Elise Evans & Dr. Lisa VanWormer

Department of Psychology

Recent studies have shown a unique recall advantage when items are processed in a fitness-relevant scenario. This "survival processing effect" put forth by Nairne, Pandeirada, and Thompson (2008), is especially robust in ancestral situations (i.e., survival in the grasslands; Nairne & Pandeirada, 2010). The goals of this study were to examine the roles of distinctiveness and imagery in survival processing. Participants were given a surprise memory test after being instructed to rate words for relevance to either a survival or non-survival scenario. Distinctiveness was manipulated by increasing the number of landmarks in the environment across scenarios with Mars being the least distinctive (i.e., unchanging terrain) and City being the most distinctive. Imagery was manipulated by testing half of the participants in a classroom setting and instructing them to imagine he/she were in one of the environments, and

testing half of the participants in a virtual reality lab (i.e., the Holodeck), guiding participants through a previously constructed virtual reality setting. Results showed main effects of processing and imagery by finding a benefit to non-survival processing in the Holodeck and no processing effect in the classroom, as well as overall lower recall in the Holodeck when compared to the classroom. Our findings suggest that the typical procedure of asking participant to imagine the scenario may be influencing the survival processing effect, and that this effect may vary in simulated and real environments.

81. Women with Attention Deficit Hyperactivity Disorder: What do we need to know?

Shelby Lorraine

Department of Psychology

I have been reading the literature on ADHD and noticed that few studies discuss gender differences and most studies had an unequal representation of males. This information caused me to wonder if ADHD affects females differently, and if so should treatment be different? I also asked myself what do we, as professionals, need to change and what information should we be sharing with these patients?

I have read several articles that question if the DSM-IV criteria for diagnosing ADHD should be different for females and what changes should be made. For example in the study done by Waschbusch and King (2006) it was found that there were many girls who had high rates of ADHD symptoms compared to the control group, but they still did not meet the symptom count criteria of the DSM-IV. Additionally I have come across many articles that question if being diagnosed with ADHD has different impacts socially and psychologically for females. According to Quin (2005) ADHD can remain hidden in females and increases their risk to engage in dangerous behaviors such as substance abuse and promiscuity. Quin also mentions that girls are more likely to feel inadequate as they struggle to meet gender roles expectations because of forgetfulness, disorganization and inattentiveness.

82. Different levels of school related affect of middle school students in remedial, basic, and advanced classes

Jessica Gladstone

Department of Psychology

In this study, students in remedial classes, basic classes and advanced classes in a middle school were asked to complete three different surveys. Each survey will help determine the different levels of school related affect experienced among these differing students. The

Academic Emotions Questionnaire was used to assess participant's emotions such as enjoyment, pride, boredom and anxiety as they relate to schooling. The Achievement Goals Questionnaire was used to assess three different types of goals: mastery, performance-approach, and performance-avoidance. The last survey, the Balanced Inventory of Desirable Responding, assessed social desirability experienced by the students. Once all of the data has been collected a series of independent t-tests were conducted to determine if there were any significant differences between remedial adolescents and basic and advanced adolescents for each mean response of the different scales. A correlation matrix was also used to see if particular relationships vary between remedial adolescents and basic and advanced adolescents.

83. Attachment Styles as Predictors of Couple Satisfaction

Katherine Day

Department of Psychology

This descriptive study examines the relationship between adult attachment styles and perceived relationship satisfaction of long-term, romantic couples. Specifically, the study uses cross-sectional surveys to replicate Hazan and Shaver's findings (1988) that a secure attachment style is positively correlated to relationship satisfaction, and an insecure attachment style (preoccupied, dismissive-avoidant, and fearful-avoidant) is negatively correlated to relationship satisfaction. A convenience sample is used, consisting of male and female college students who are currently in an exclusive, romantic relationship that has lasted a year or longer. Measures used include the Experiences in Close Relationships- Revised Questionnaire (ECR-R), Dyadic Adjustment Scale (DAS), and the Communications Patterns Questionnaire.

84. Virtual and Face-to-Face Teamwork Differences in Culturally Homogeneous and Heterogeneous Teams

June Takeuchi, Steven Kass, Sherry Schneider, Lisa VanWormer, Kristy Hintz, Jenny Hasseltine, Amy Underwood, Heather Robinson, Mallory Wells, Megan O'Leary, Carline Radius

Department of Psychology

Challenges caused by globalization and technological advances have led organizations to reassess their business models. High performance organizations now rely on self-managing teams. The current research examined team performance and cohesion in dyadic (two-person) teams. A total of 118 university students (i.e., 58 Asians and 60 Americans) participated. Each participant was paired in either a homogeneous (American-Ameri-

can or Asian-Asian) or heterogeneous (American-Asian) team. The teams performed a decision-making task in either a face-to-face setting or a virtual setting (i.e., video conferencing). The study showed that only team composition made a significant difference in performance; American-American teams and American-Asian teams outperformed Asian-Asian teams regardless of the face-to-face or virtual conditions. The results regarding team cohesiveness mirrored that of performance. There was no interaction effect between team composition and media type. The findings suggest that Asian cultures may require more time to form a cohesive and high performing team.

85. Emotional Communication and Cognitive Aging: What We Say vs. How We Say It

Jonathan D. Sober, Jasmine McCorvey, Allison Bjorkland, Sarah Rupnaraine, & Dr. Lisa VanWormer

Department of Psychology

Although there are general cognitive declines as one ages, the ability to regulate emotion improves and emotional content becomes more salient (Carstensen & Mikels, 2005; Carstensen and Charles, 1994). The positivity effect is a developmental shift seen in older adults toward more positive information and away from negative information in attention and memory. This study is the first to examine the positivity effect in relation to emotional prosody. Participants heard a factorial combination of semantically positive words (e.g., sunshine) and semantically negative words (e.g., murder) said with positive intonation (i.e., increasing pitch) and negative intonation (i.e., decreasing pitch). Similar to previous studies, a semantic positivity effect was found for older adults, but not for younger adults. Additionally, a prosody positivity effect was found for younger adults, but not for older adults. Results suggest that perceptual and conceptual processes differentially affect younger and older adults.

86. Using Conceptual Strategies to Examine Inhibitory Deficits in Older Adults

Jessica McClain, Margeaux Donovan, & Dr. Lisa VanWormer

Department of Psychology

Older adults tend to show a decrease in recall ability for lists of words containing more than 4 items. One possibility for this decline is addressed by the inhibitory deficit hypothesis, which states that older adults are less likely to block irrelevant information from entering working memory when compared to younger adults (Hasher & Zacks, 1988). In this study, older and younger participants saw mixed lists of to-be-remembered (TBR)

words and to-be-ignored (TBI) words that varied according to if the words were Categorical (e.g., types of dance), Random (e.g., words unrelated to each other), or Pseudo (e.g., words not found in any known language). Results showed a significant main effect of age in the Random TBR conditions, but not in the Categorical or Pseudo TBR conditions. This suggests that conceptual strategies used to process relevant information may negate the age effects previously found for inhibiting irrelevant information.

87. Media Coverage of NCAA Division I Basketball Championships

Elisabetta Zengaro and Sally A. Zengaro
Department of Psychology

Duncan, Messner, and Williams (1991) and Messner and Cooky (2010) have documented the decline in coverage of women's sports by both television and print media. Duncan, Messner, and Williams (1991) noted that over a three-month period, there were 23 times more stories covering men's sports than women's sports. Messner and Cooky (2010) noted that television coverage of women's sports has actually declined over the last 20 years. The purpose of this research was to investigate media coverage of male and female NCAA Division I basketball championships in the U.S. during March. Regional and national newspaper coverage was reviewed over three weeks along with television coverage. This research sought to answer the question of how gender stereotypes are reinforced in society's view of sport participation.

88. Is the book better than the movie: The impact of media type on responses to child misbehavior

Donal Harrison, Erica Jordan
Department of Psychology

Previous research suggests that the use of vignettes is more cost-effective and less time-consuming than other methods of measuring participants' attitudes and beliefs (Hugh and Hubby, 2002). Recent innovations in media delivery provide researchers opportunities to employ stimuli that may have been previously limited by technology and could elicit more accurate responses from participants. That is, subjectivity and bias may be reduced with exposure to different forms of media. The purpose of this study is to determine the impact of media type on participants' responses to child misbehaviors, specifically focusing on endorsements of corporal punishment and reasoning guidance strategies. A sample of undergraduate students (N = 115; M age = 21.23, SD = 2.83) completed an online, computer-based Parenting Strategies Survey (PSS) which was developed for this study. Two version of the PSS were developed, one

containing five video vignettes and the other containing five equivalent text-only vignettes. Participants were randomly assigned a survey version. Open-ended responses were coded by the type of discipline endorsed in each vignettes and compared according the PSS version to identify any differences in response between media type.

89. An exploration of lawyers' needs and desires concerning management skills

Kathleen Hudon
Department of Psychology

According to available research, law schools can be more traditional or more experiential in their approaches to educating students. Scholars, practitioners, and bar associations have weighed in on the strengths and weaknesses of each approach and have proposed various types of curricula and other resolutions that result in lawyers graduating with both traditional skills and technical skills, including management skills. A researcher-developed conceptual model that utilizes theories of professional socialization (e.g., Weidman, Twale, & Stein, 2001) and Social Identity Theory (Tajfel & Turner, 1986) will be used to predict when lawyers will be willing to pursue continuing education in management. Over 1,000 lawyers from The Florida Bar Association, the second-largest state bar association in America, submitted responses to an online survey. The researcher will use structural equation modeling with this collected data to test the overall fit of a proposed model. Expected results are that greater professional identification as a lawyer will result in lawyer's' perceptions that management skills are unimportant and that courses focusing on management skills are not a priority. It is anticipated that the study will fill in large gaps in the current debate on how legal education should be reformed in America.

90. Simulating traffic in order to facilitate effective learning by persons with learning disabilities

Billy Abston
Department of Computer Science

In 2009 there were a total of 4,092 pedestrians killed in the U.S. In Florida there were 466 (NHTSA). It is my desire to create a simulation that will help persons to practice safe street-crossing habits in a controlled virtual environment before practicing in the real world. This type of simulation has been done before most notably at the University of Haifa by (Josman et al.). I intend to enhance this by using immersive technology of 3-D and motion sensing provided by the Xbox Kinect. It is my hope that I will be able to create a working simulation and deploy it into the community and help children develop necessary life skills.

91. Kindergarten Skip Counting

Nancy Whitfield
Department of Computer Science

Skip counting in integers of 2, 5, and 10 are skills that are required of today's Kindergarten students under the Sunshine State Standards. Most of us are aware that children at this developmental stage have a large amount of energy. Educators should work with this element when possible instead of trying to suppress it. Doing this will make learning a positive experience for the children, and a rewarding one for the educator. After viewing tutorial videos found on WWW.YouTube.com (YouTube), I felt empathy for young children who may be asked to learn skip counting via outlets similar to the ones presented. The majority of teaching methods presented were ones where the children were required to listen to skip counting while watching a visual representation of the integer appear.

In addition to the utilization of auditory and visual elements, I propose adding a tactile/kinesthetic element to kindergarten skip counting lessons. To do this, I propose to develop a game that is a combination of hop scotch and twister. It is my hope that this method will aid teaching this skill to all types of learners in a fun and positive way. The educator would use twister mats, a twister spin board (spin board optional), laminated number cards, and a Musical Mathematics CD (ex. The Skip Counting Zone CD www.amazon.com) in this game. I also propose to write a fictional children's story with the use of PowerPoint or Apple's My Story application to present to the children before they play the game. I hope that the story will help the children feel more comfortable about performing in front of their classmates .

92. UWF Summer Theatre Academy

Nicole Dickson, Nicolas Wilson
Department of Theatre

UWF Summer Theatre Academy is a summer learning opportunity for high school students interested in developing skills as theatre artists. Focusing on performance and acting theory students will be introduced to college level training in Theatre beginning with studying the work of masters Spolin, Stanislavski and Hagen. Students will begin classes in acting theory and continue putting this theory into practice with classroom exercises that focus on challenging students to make strong acting choices and further develop their ability as creative artists. First week classes will end with a professional style audition process where students will be cast in scenes they will rehearse the following week and ultimately perform at the end of the camp session.

93. The Power of One

Donald Cooper, Christian Beck, Tabetha Duke, Sarah Green, Lauren Crooke, and Courtney Trevino
Department of Teacher Education

This presentation and poster addresses our Mathematics Intervention project at Brentwood Elementary. We currently have a partnership project between UWF School of Education and Escambia School District. We would like to present a video/ power point presentation which would highlight the techniques that we use to make a difference in a child's life. The instructional techniques that we learn in our studies are utilized in a real life tutoring scenario to assist students in understanding mathematical concepts. It will demonstrate that one person can make a difference, through what we do ...teach! Nothing in this world can be achieved without the knowledge and education that is provided everyday. We would like to demonstrate the joys of teaching through UWF pre-service teachers tutoring and quotes with inspirational music as a backdrop. "As one person we can not change the world, but we can change the world of one person!" We Believe in You! Isn't that where it all begins!!

94. The Application of the Feminine-Relational Self in Christian Aid Groups

Amanda Jo Combs Bowden
Department of Philosophy

I examine representations of Christian feminine selfhood drawing on the views of Rosemary Ruther Radford and Carol Gilligan. Patriarchal views have portrayed females as "the other," "the lower," and "the lesser developed," self. It has contained women within the domestic family and outside of public life. I assert that this has constructed females as having an "us" self, a "relational" self to as opposed to the male "independent" self. The feminist Christian view provides opportunity for economic stability for an entire community through charity work. I demonstrate the practical application of this identity through micro-financing, and assert the advantages it creates in missionary work to the poor. In response to Jesus' call in Matthew 5:42 (CEV) "When people ask you for something, give it to them. When they want to borrow money, lend it to them," put tithes in the hands of women through aid groups that focus on women.

95. The Demise of Philosophy: How Naturalism and the Nature of Language Suggested the Naturalization of Philosophy

Jordan Stanton

Department of Philosophy

Both scientific naturalism and some linguistic philosophy have shown how many of the problems of philosophy can be solved or disregarded. Why then has philosophy survived as a field? Have analytic philosophers failed at solving (or mooting) all the questions philosophy poses or have the full potential of their theories not yet been fully realized?

Scientific naturalism claims that all philosophical problems can be reduced to questions of science. With the continual advancements in science it seems like philosophy may be becoming less relevant. But are there larger metaphysical problems or problems within the nature of science itself that will always make philosophy significant? Some say all the problems of philosophy are linguistic puzzles: complications in the language used. This philosophy of language is also important to study in the possible naturalization of philosophy.

I believe it may be the case that philosophy may not always be around. Philosophy has been there to explain the unknown aspects of knowledge and reality. Perhaps much contemporary analytic philosophy is working toward a goal of merging or reducing philosophy and science. Our language poses some particular ideas as well: the way we use words or concepts that may not be grounded in anything real. I believe the demise of philosophy as a separate school of thought may be close, if it already has not already arrived. Philosophy may be used as the analytic tool to work on base questions and do work at the fringes that science may not be able to focus on at the time. But it should not be a wildly speculative practice that disregards science.

If human knowledge and language are ultimately insufficient at understanding reality, then there is little philosophy can do. If not, then a scientific explanation can be applied to a problem, or a linguistic explanation can show how the problem may not be relevant. Whatever the case, the most philosophy should be is a method in which scientific questions are analyzed but not as a system of giving answers.

Performances and Presentations

The Music and Social Impact of Elisabeth Jacquet de la Guerre

Patricia Izbicki

The role of women in the various periods of music has been vastly limited and under-recognized. The role of women in the Baroque period of music (1600-1760) was especially limited. However, Elisabeth Jacquet de la Guerre, a significant and influential harpsichordist and composer of the Baroque period, was one of the first women in music history to be fully recognized for her achievements in a field dominated mainly by her male-counterparts. The study will explore Jacquet de la Guerre's career, the technique of her compositions, and the influence of her works in French society and the musical world. The research will also explore the social issues and challenges Jacquet de la Guerre faced being a female musician and composer during the late 17th and 18th century and how these challenges and issues influenced her career and personal life. The stylistic techniques of her compositions will be shown through a performance of one of her works on harpsichord. The research on Jacquet de la Guerre will also be based on findings in "The Instrumental Music of Elizabeth-Claude Jacquet de la Guerre" by Carol Henry Bates and "An Introduction to Elisabeth-Claude Jacquet de la Guerre" by Edith Borroff. The implications of the research illustrate Jacquet de la Guerre's successful yet challenging career as well as her influence on the music of the French society in the Baroque period. Her impact on the recognition of women as musicians in a field dominated by men seems to be her most significant achievement in the Baroque era. However, realistically Jacquet de la Guerre not only paved the way for female musicians in the Baroque era and future eras, but also for women in all types of careers to be recognized and respected in societies all around the world.

Kabuki Hamlet

Justin Norris

My thesis will take the form of a directed scene from Hamlet portrayed in the style of Kabuki theatre. I will, through the thesis, translate the conventions of Shakespearean text and theatre through the styles and tones of Kabuki theatre. This thesis is important because it illustrates how flexible a play can be depending on a director's vision, and as a result will showcase how a classical piece of Shakespeare can be reinterpreted with the different distinct stylizations of Kabuki Theatre. The thesis is an in-depth study of both Western and Japanese theatre, and will show the inverse relationship between

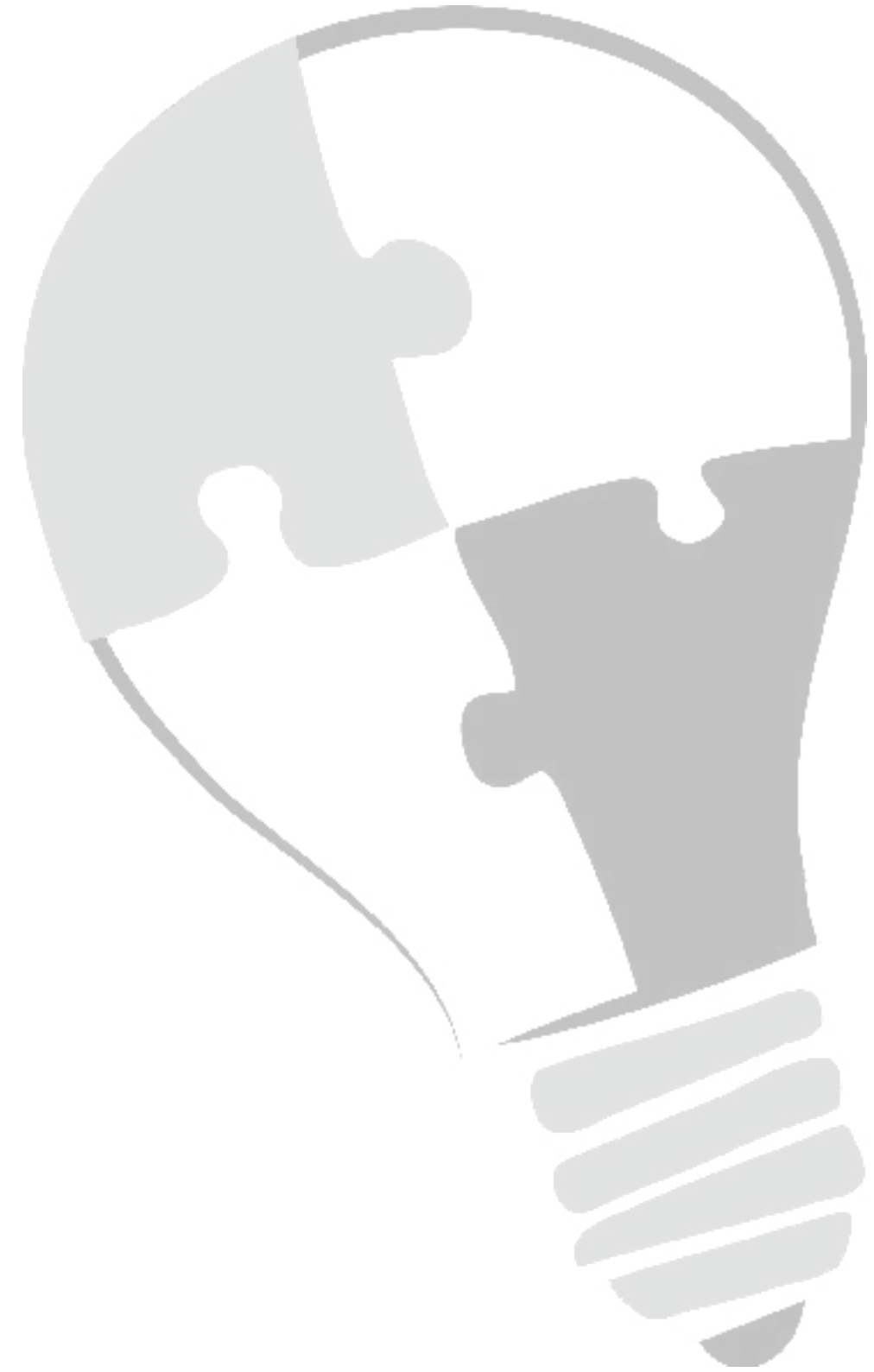
them. It will be a five-minute performance piece that combines the music, makeup, movement, and dance of kabuki with the traditional theatre of Shakespeare. The overall mission of the thesis is to culminate in a piece that successfully intertwines the two cultures.

I'm Black and I'm Proud or There is No Such Thing

Ronterius Scott

In my forthcoming paper/project, "I'm Black and I'm Proud" or "There is No Such Thing", I plan to discuss the following issues that involve race. I want to look primarily at racism in the United States as opposed to, say, Germany or France. First, I will discuss some reasons for keeping racial designations within US discourse in general followed by the benefits that are derived as a result of racial designations despite their sometimes decisive appearance... Next, I will talk about reasons for getting rid of racial designations. Once I have considered both reasons for keeping racial designations and reasons for getting rid of racial designations, I plan to talk briefly about the issue of color consciousness. Finally, I will try to reconcile the reasons for both keeping and getting rid of racial designations and reasons for getting rid of racial designations through a "common middle ground" between the two views. Sources for this paper come from the following thinkers: Naomi Zack, Ludwig Wittgenstein, Saul Kripke, David Hume, and John Searle.

Notes



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