2014 Fall

Fiat Lux

A showcase of Florida Southern College student scholarship, creative works, and research

Friday November 21, 2014

Schedule of Oral Presentations Fall 2014 Fiat Lux

Last	First	Room	Time	Title
Bradshaw	Michele	206	1:30 to 1:45	Multivariate Linear Regression: A Case Study of Tampa International Airport
Bilchik	Amber	206	1:45 to 2:00	Artificial Intelligence: To Be or Not to Be Human?
Buckley	Ryan	206	2:00 to 2:15	Social Media Impacts on Sports Marketing
Culm	Kelsey	206	2:15 to 2:30	START Lakeland: A Campaign for the Art of Lakeland
			BREAK	
Dyer	Chelsea	206	4:00 to 4:15	Women in Crisis: Gender Specific Programs for Women Offenders
Beggs	Grace	206	4:15 to 4:30	Effects of glucose and sucrose on mitochondrial dysfunction in human kidney cells
Scroggins	Amy	206	4:30 to 4:45	The Perceptions of Human Trafficking in the Media
Woodside	Anthony	206	4:45 to 5:00	Media Representation and Race

Last	First	Room	Time	Title
Boone	Abby	207	1:30 to 1:45	Watership Down: In search of a better life
Lenoue	Jenna	207	1:45 to 2:00	Medicating Atrial Fibrillation
Dangelo	Nikole	207	2:00 to 2:15	An Exploration of Social Media Usage by Very Small Businesses
Mays	Carolyn	207	2:15 to 2:30	The Recruitment Problem
			BREAK	
Haynes	Cassandra	207	3:00 to 3:15	Your Brain On Graphic Novels....and What Your Body Says
Hackett	Laura	207	3:15 to 3:30	Poetry and Publicity
Ragusa	Vincent	207	3:30 to 3:45	Breeding Better Traveling Salesmen: Genetic algorithms applied to TSP optimization
			BREAK	
Geras	Matthew	207	4:00 to 4:15	State Lobbying Laws in the United States
Triana	Carmella	207	4:15 to 4:30	Message Sent: How Early Cryptography Lead to Modern Encryption
Lamons	Margarete	207	4:30 to 4:45	Is the Law the Law? Governmental regulations on business and if they go too far

Name: Beggs, Grace

Co-authors: Meghan Cartafalsa

Major: Chemistry

Faculty Mentor(s): Bradshaw, Emily

Presentation Type: Oral   **Presentation Time:** 4:15 to 4:30   **Room:** 206

Title: Effects of glucose and sucrose on mitochondrial dysfunction in human kidney cells

Abstract: In 2011, the primary cause of 44% of all new cases of kidney failure was diabetes. Diabetes is the seventh leading cause of death in the United States and many deaths associated with diabetes are often due to complications such as kidney disease. Recent evidence suggests that mitochondrial dysfunction can be a disease initiating molecular mechanism for diabetes and diabetes-induced kidney failure. In healthy cells, mitochondria have three main functions: bioenergetics (generation of ATP), biosynthesis, and signaling. In this study, we chose to focus on changes in ATP production (energy production) in HEK-293 cells in the presence of sugar to study mitochondrial dysfunction in relation to diabetic kidney disease. In addition, we investigated the effects of sugar on cell morphology, protein expression, and lipid peroxidation (associated with oxidative stress). Our results suggest that exposure to high levels of glucose and sucrose leads to changes in cell morphology, and exposure to high levels of glucose cause an increase in ATP production and oxidative stress.

Name: Bilchik, Amber

Major: Nursing

Faculty Mentor(s): Smith, Patrick; Mary Pharr

Presentation Type: Oral   **Presentation Time:** 1:45 to 2:00   **Room:** 206

Title: Artificial Intelligence: To Be or Not to Be Human?

Abstract: This analysis looks at the movie Artificial Intelligence through the lens of psychology. Artificial Intelligence portrays an advancement of robotic technology and raises questions about the borders of sentience and humanity, as well as the moral responsibility we have towards our creations.

Name: Boone, Abby

Major: English

Faculty Mentor(s): Pharr, Mary

Presentation Type: Oral　　　　**Presentation Time:** 1:30 to 1:45　　　　**Room:** 207

Title: Watership Down: In search of a better life

Abstract: Watership Down is an animated film based on a children's novel, but it reaches a much deeper audience. Many minorities connect with the story and find its allegories to be personally relevant. This presentation focuses on the struggle of the film's minority, the smaller rabbits, to find and create their own home, a place where each rabbit can cultivate and be appreciated for his own skills.

Name: Bradshaw, Michele

Major: Mathematics

Faculty Mentor(s): Serrano, Susan

Presentation Type: Oral　　　　**Presentation Time:** 1:30 to 1:45　　　　**Room:** 206

Title: Multivariate Linear Regression: A Case Study of Tampa International

Abstract: Flight delays have far reaching effects felt by passengers, airlines, the US economy, and the environment. In 2007, the Joint Economic Committee calculated that delays resulted in costs of nearly $41 billion. Tampa International Airport has averaged arrival and departure delays of 17-19% from 2008-2013. The top three market share airlines at Tampa International are Southwest, Delta, and US Airways. Using multivariate linear regression analysis the relationship between these airlines' profits and delays are examined for the years 2008-2013. Several other variables relating to TPA are also tested to decide if there is any correlation to the airlines' profits. Finally, a model is selected after examining several model selection criterion. SAS, a statistical analysis program, is also discussed, as it is an important tool for analyzing big data.

Name: Buckley, Ryan

Major: Broadcast, Print, and Online Journalism

Faculty Mentor(s): Bradford, Beth

Presentation Type: Oral   **Presentation Time:** 2:00 to 2:15   **Room:** 206

Title: Social Media Impacts on Sports Marketing

Abstract: Examining the impacts that social media plays in terms of marketing sports events and products. This study focuses on the use of Twitter to market upcoming events and ask the question is it more harmful for a television network (i.e. FOX Sports) to market their own events rather than what majority of their viewership want to hear. To take a further look at this question, as well as others, we will examine FOX, CBS, ESPN and NBC and look at four major sporting events, followed by a parallel involving college students, twitter and popularity. What if students were forced to tweet about certain topics, or restricted to only mentioning certain phrases or people. How would this impact the amount of followers they gain/lose and how does this all relate to how television networks could more effectively market in the future.

Name: Culm, Kelsey

Major: Graphic Design

Faculty Mentor(s): Blackmore, Erick

Presentation Type: Oral   **Presentation Time:** 2:15 to 2:30   **Room:** 206

Title: START Lakeland: A Campaign for the Art of Lakeland

Abstract: Lakeland, Florida is home to a growing number of artists across all mediums: theater, dance, music, visual arts etc. However, the methods of informing audiences are sporadic at best. START Lakeland would provide a single platform through which local artists could advertise their art and art-related events. As a unified visual brand for the art of Lakeland, START aims to promote creatives and inspire creativity in Lakeland and beyond.

Name: Dangelo, Nikole

Major: Business Administration

Faculty Mentor(s): Dapko, Jennifer

Presentation Type: Oral   **Presentation Time:** 2:00 to 2:15   **Room:** 207

Title: An Exploration of Social Media Usage by Very Small Businesses

Abstract: Small businesses are constantly challenged to maximize their resources and to do more with less. Very small businesses (VSBs) are particularly prone to this resource maximization strategy considering the owner may also be the primary or sole operator facilitating all day-to-day operations of the business. For VSBs, the 60-90+ hour work week is consumed with operations activities getting the service completed and billed. Other important organizational functions, such as marketing, gets pushed to a time when business slows down or doesn't get addressed at all, in spite of its importance in increasing sales, and thus growing the business. Social media platforms such as Facebook, LinkedIn, and Twitter have provided a marketing solution to VSBs who have very little time to allocate toward marketing efforts. They've gained in popularity with VSBs primarily because it's fast and easy to set up a profile page, and post new information as time permits. In less than 10 minutes a VSB can be up and running and "marketing" their business for all to see. However, while VSBs are increasingly using social media, they are not necessarily doing so efficiently or with wherewithal to maximize favorable customer outcomes. As a result, many VSBs initialize their social media platforms then give up because they don't have time to commit to the program, they consider it a waste of time, or they simply don't know what to post. This research focuses on these areas and allows for primary research to unveil the success and pitfalls of social media perceptions.

Name: Dyer, Chelsea

Major: Psychology

Faculty Mentor(s): Carter, Lisa

Presentation Type: Oral   **Presentation Time:** 4:00 to 4:15   **Room:** 206

Title: Women in Crisis: Gender Specific Programs for Women Offenders

Abstract: Although the amount of women currently incarcerated represents about 17% of all offenders under supervision and this is less than that of males, the rates are increasing at nearly double that of male offenders. One such reason for this is due to the "War on Drugs" which has disproportionately affected women. The system has long been critiqued for demonstrating a systematic bias against minorities as it targets poor women for drug offenses, prostitution, and welfare fraud. Further, the "war" has not been successful in diminishing drug use or addiction and has actually ignored the causes, nature, and impact of the drug abuse. Instead of discovering and focusing on the root of the problem, efforts have gone to personifying the "tough on crime" attitude. This type of approach leaves women as the victims of the harsh and ineffective measures and contributes largely to the increasing amount of women behind bars. Despite the fact that the numbers continue to increase significantly throughout the years, treatment programs and policies seem to largely ignore this trend. Programs currently in place in prisons to help offenders and aid in reducing recidivism are scarce in general. Even worse is the fact that these programs are ignorant towards the realities of gender and the disparities this causes. This research aims to reveal not only the deficiencies of current programs but also potential remedies for these programs as well as proposals of model programs.

Name: Geras, Matthew

Major: Political Science

Faculty Mentor(s): Anderson, Bruce

Presentation Type: Oral   **Presentation Time:** 4:00 to 4:15   **Room:** 207

Title: State Lobbying Laws in the United States

Abstract: While there are some federal laws pertaining to lobbying in the United States, each individual state also has their own set of lobbying statutes. I will be examining and comparing each state's lobbying laws based upon each states' definition of a lobbyist, the content of their lobbying statutes, and what agencies are responsible for enforcing these laws in each state. Specifically, I will be looking to see if there is a relationship between the strictness of each states' statutes and the degree of enforcement of these laws.

Name: Hackett, Laura

Major: English

Faculty Mentor(s): Bernheim, Erica

Presentation Type: Oral   **Presentation Time:** 3:15 to 3:30   **Room:** 207

Title: Poetry and Publicity

Abstract: This creative presentation serves as an in-depth exploration of contemporary poetry. Through organizing and promoting poetry readings, engaging with poets, and creating my own portfolio, I have worked to better understand the nuances of the field and improve my personal work.

Name: Haynes, Cassandra

Major: Biology

Faculty Mentor(s): Smith, Patrick; Emily Bradshaw

Presentation Type: Oral   **Presentation Time:** 3:00 to 3:15   **Room:** 207

Title: Your Brain On Graphic Novels....and What Your Body Says

Abstract: Educators continue to find new ways of engaging students with ancillary materials (other than textbooks). The effectiveness of graphic novelization as an engaged learning tool has been researched to determine if such material enhances learning at a higher level than standard textbook formats. Furthermore, the current study attempted to measure physiological effects (i.e., electrocardiogram, or ECG, responses) that are associated with both graphic novel and textbook learning. Fourteen participants were exposed to both forms of ancillary material while ECG data were recorded. Although graphic novel content was rated as the more engaging source of ancillary material and was shown to be a more effective tool for material retention, the physiological data revealed greater physiological responses when text-based materials (when compared to the graphic novel content) were presented. These data suggest that while heart rate was significantly higher when reading text-based material, perceived student engagement and retention was significantly higher for graphic novel material. This would imply that student engagement may not be related to physiological arousal. Future studies will explore how another physiological response (e.g., electroencephalogram, or EEG, data) more clearly correlates with active immersion into ancillary material.

Name: Lamons, Margarete

Major: Business Administration

Faculty Mentor(s): Hardin, Cindy

Presentation Type: Oral   **Presentation Time:** 4:30 to 4:45   **Room:** 207

Title: Is the Law the Law? Governmental regulations on business and if they go too far

Abstract: Living in a free market, businesses are given many liberties in how they conduct their business. Both large and small businesses are given the opportunity to make a personal profit and run how they please. Since business is what fuels the economy, the government is strongly invested in businesses' success and growth. Therefore, the government imposes taxes and regulations on business. The taxes go to the government for them to create an income, and the regulations are to protect businesses from inhibiting other businesses as well as ensuring these businesses adhere to governmental policy. The creation of these regulations were not malicious in intent, however, they have progressed often to be unnecessary and convoluted.Governmental regulations are very beneficial in some applications, but, overall, are misused, wrongfully applied, and are too strict or too many for businesses to operate effectively and efficiently in the way they want to. Thus, this research goes in depth into governmental regulations for businesses and if they are truly necessary for the well-being of society.

Name: Lanoue, Jenna

Major: Nursing

Faculty Mentor(s): Pomella, Laurie

Presentation Type: Oral   **Presentation Time:** 1:45 to 2:00   **Room:** 207

Title: Medicating Atrial Fibrillation

Abstract: Atrial fibrillation is one of the most common arrhythmias. Merriam Webster defines an arrhythmia as, "an alteration in rhythm of the heartbeat either in time or force" (Webster). The condition of atrial fibrillation is characterized by rapid, disorganized electrical signals. Due to this, blood pools into the atria which causes the upper and lower chambers of the heart to not work together like they should (What is Atrial Fibrillation?). A more in depth explanation of this process can be found in the introductory paragraph of this paper. Cardizem, amniodarone, and digoxin are all anti-arrhythmic drugs that are used to treat atrial fibrillation. This paper serves to compare and contrast the uses of amniodarone, digoxin, and Cardizem in the treatment of atrial fibrillation.

Name: Mays, Carolyn

Major: Computer Science

Faculty Mentor(s): Mathias, David

Presentation Type: Oral   **Presentation Time:** 2:15 to 2:30   **Room:** 207

Title: The Recruitment Problem

Abstract: Recruiting for any organization is a mutual selection process between an individual and the organization itself. The individual must want to join, and the organization must want said individual. Seems simple enough right? But what if there are multiple individuals trying to join and a limited number of slots? What if multiple organizations want the same individual? How are the two matched then? Is it possible to insure that both parties are satisfied by the matching? This problem presents itself in the real world in many ways - fraternity recruitment, college applications, finding employees for positions - the list goes on. This shall delve into the problem, why it is difficult to find "stable" solutions for it, along with other variations of it that have solutions.

Name: Ragusa, Vincent

Major: Computer Science

Faculty Mentor(s): Mathias, David

Presentation Type: Oral   **Presentation Time:** 3:30 to 3:45   **Room:** 207

Title: Breeding Better Traveling Salesmen: Genetic algorithms applied to TSP optomization

Abstract: From the moment the first computer was built in 1936, there have been people trying to use them to solve their problems. Spanning the 80 years between then and now, as more and more problems were solved, the problems that needed solving grew harder and harder. The traveling salesman problem (TSP) is a graph theory optimization problem that asks for the shortest round-trip path that visits a list of locations exactly once. Solving TSP configurations has benefits for many disciplines including science, economics, engineering and business. TSP is classified as an NP-Complete problem which means that as the size of the problem grows computers quickly become unable to solve it. The popular puzzle Sudoku is also an NP-Complete problem because as the size of the puzzle grows so does its difficulty (imagine what solving a 500x500 Sudoku would be like!). Using a technique known as a genetic algorithm, computer scientists are able to accurately approximate the solution to massive TSP configurations. Genetic algorithms work by simulating the way DNA inside two sex cells combine to form the chromosomes of a zygote. This, along with a selection process that favors the best solutions, allows the algorithm to "breed" a fit approximation to large TSP configurations.

Name: Scroggin, Amy

Major: Advertising and Public Relations

Faculty Mentor(s): Bradford, Mary Beth

Presentation Type: Oral   **Presentation Time:** 4:30 to 4:45   **Room:** 206

Title: The Perceptions of Human Trafficking in the Media

Abstract: This study investigated how framing methods affect audience's thoughts and perceptions of importance of human trafficking issues. Human trafficking, often coined as "modern day slavery," exists as the second most profitable illegal industry (Polaris, 2013) and takes place in many forms, including sex, labor, and child trafficking. The Agenda Setting Theory asserts that the content the media more frequently covers shapes what the public considers important (Iyengar & Kinder, 1987). To test this, a sample of 92 participants were assigned to one of four experimental conditions a). Informational news clip b). Narrative or "human interest" news story c). YouTube advocacy video d). control. Each participant was given a Pre-Test, watched a newscast containing one of the four conditions, and then administered a Post-Test. Imbedded within a typical newscast was one of the conditions which highlighted human trafficking issues. The control group did not include any human trafficking material. The study found that certain framing methods played a significant role in the audience's perception of human trafficking, specifically informational newscast. Additionally, the Agenda Setting Theory was supported by the fact that participants shown any type of human trafficking material generally found the issue both more important and relevant.

Name: Triana, Carmela

Major: Computer Science/Mathematics

Faculty Mentor(s): Mathias, David

Presentation Type: Oral   **Presentation Time:** 4:15 to 4:30   **Room:** 207

Title: Message Sent: How Early Cryptography Lead to Modern Encryption

Abstract: The value of the private message is undoubted; however there is no guarantee how private each message is. Thus simple encryptions in the form of ciphers were not far behind the creation of the written word. Yet those messages were still susceptible to certain weaknesses and were eventually broken. Similar is the world of encryption today; many of the 'ciphers' have become much more complicated, however they still contain their own weaknesses which may eventually lead to their downfall. This research will explain the basics of what a cipher is, and give examples of famous ciphers and how they were eventually broken. Alongside will be similar explanations of current day encoding through the RSA Encryption, as well as the threat hackers put on modern encoding. In closing, we will consider the possibility of an unbreakable encryption and its eventual impact on the world.

Name: Woodside, Anthony

Major: History

Faculty Mentor(s): Nethery, H.A.

Presentation Type: Oral   **Presentation Time:** 4:45 to 5:00   **Room:** 206

Title: Media Representation and Race

Abstract: This paper examines George Yancy's concept of "whiteness as a transcendental norm" in relation to an invisible racial contract in order to explain how this relation influences media representation of race. The effects that this relation has on race relations in both media, and real life, are analyzed with the particular attention given to the white savior narrative and the 'Magical Negro' trope. By detailing various ways that blackness is erased, represented as secondary or subordinate to whiteness, and portrayed as delinquent in media this paper explains how the racial contract influences media representation of black folk and how that representation reinforces whiteness as the transcendental norm.