2016 Spring
Fiat Lux

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

Tuesday April 26

Creative Art Displays

Performances

Poster Presentations

Friday April 29

Oral Presentations

Creative Arts Presentation
Tuesday April 26th
Honeyman Pavilion

Display	Time	First	Last	Title
1	1:45 - 3:05	Jessica	Chakis	The Twisted Lemon
2	1:50 - 1:35	Kelsey	Culm	Storytime: Children's Bookshop
3	1:45 - 3:05	Danielle	Zenga	Fast Fresh & Fit

Oral Presentations
Friday April 29th
Christoverson Room 206

Time	First	Last	Title
1:20 - 1:50	Grace	Donovan	The Relationship of Exercise to Quality Life Matters
1:20- 1:50	Paul	Brennan	Total Hip Replacement Surgical Procedures Influence Patient Post-Operative Pain
1:50 - 2:05	Wiresh	Punwasi	Our Delinquent Youth: Can After School Programs Be a Tool?
2:05 - 2:20	Destiny	Zunic	A Case Study: Drunk Driving from the Criminology Perspective of Social Disorganization Theory
2:40 - 2:55	Sarah	Cole	Measuring the Persistence of Bacteria on Hospital Curtains and the Occurrence of Conjugation
2:55 - 3:10	Katie	Widner	Access Denied: The Dilemma of Modern Birth Control
3:10 - :25	Wil	Fisackerly	Online Platforms and the Future of Analytics: How YouTube as Altered the Videography Process
3:25 - :40	Ryan	Arnett	Checking Out: Injury Reduction in the National Hockey League (NHL)
3:40 - :55	Judith	Cruz	Health Service Utilization Among the Immigrant Community in the US
4:10 - :25	Amy	Rooker	Likelihood of Condom Use for the Prevention of Transmission and Contraction of STIs Among College Students Who Do Not Rely on Condoms as Their Primary Form of Contraception
4:25 - :40	Katie	Gainer	Socially Activated Through Social Media
4:40 - :55	Haley	Seward	The Relationship Between Academic Factors and Personality Traits and Scores on the GRE

Oral Presentations
Friday April 29th
Christoverson Room 207

Time	First	Last	Title
1:20 - :50	Anne	Telcy	Determining the Distribution of Imidacloprid in Citrus Leaves by Gas Chromatography/Mass Spectroscopy (GC/MS) with QuECheRS
1:50 - :20	Monika Andrea	Loret de Mola	An In vitro Study of the Antimicrobial Effects of *Hibiscus sabdariffa*, *Valeriana officinalis*, and Carvacrol in Pectin-based Edible Films, Against *E.Coli*.
2:40 - :10	Stephen	Franzen	Optimization of Vinegar Fermentation
3:10 - :40	Rubens	Petit Homme	The Green Synthesis of Calarene as a Template for the Organic II
3:45 - :15	John	Zinno	The Optimization and Synthesis of Nanomatryoshkas with applications in Photothermal Ablation
4:30 - :45	Matthew	Young	Investigation of the Phylogeny of Parasitic Mites Found in the Nasal Cavity of Southern Leopard Frogs
4:45 - :00	Rachel	Schomaker	Waterfowl Influence on Fecal Indicator Bacteria in Central Florida Freshwater Lakes

Oral Presentations
Friday April 29th
Christoverson Room 208

Time	First	Last	Title
1:20 - 1:35	Rachel	Belli	How the Amount and Type of Social Media a Student Uses Affects His/Her Knowledge of World News and Current Events
1:35 - 1:50	Lauren	Griffin	Sexual Assault on College Campuses: What's the Real Problem?
1:50 - 2:05	Corey	Koch	Livin La Vida Broke-a: Examining Puerto Rico's Debt Crisis
2:05 - 2:20	Tim	Welch	Curing the ACA: How to Close the Medicaid Gap
2:40- 2:55	Monika	Mielecki	The Sights and Sounds of Anticipatory Flavor Conditioning
2:55 - 3:10	Samantha	Arroyo	Investigating Genetic Diversity and Variation of Roses
3:10 - 3:25	Jennifer	Crawford	Histological Responses of an *Apharyngostrigea pipentis* in the Cuban Tree Frog
3:25 - 3:40	Emma	Hamrick	Effects of Second Screen on Traditional Television Advertisement
3:40 - 3:55	Abby	Boone	An Examination of the Growth and Influence of Political Satire Across the Ages
3:55 - 4:10	Samantha	Hymson	A Look at Longevity, Security, and Media of Communication in Long-Distance Relationships of College-Aged Couples
4:10 - 4:25	Katie	Brown	The Relationship Between Self-Perceived Leadership Skills and Managerial Performance
4:25 - 4:40	Kelsey	Bacharz	Game On! The Influence of Computer Simulations on Understanding of Cancer-Based Therapies

Oral Presentations
Friday April 29th
Christoverson Room 209

Time	First	Last	Title
4:40 - 4:55	Jenna	Lanoue	The Effect of Cleanliness and Scheduled Quiet Time on Patient Satisfaction
4:10 - 4:25	Sera	Moore	Xenophobia - Could This be Affecting the United States Education System?
4:25 - 4:40	Brendan	Taylor	From Plato's Academy to Aristotle's Lyceum: How the Scholarch Model Radicalizes the Role of the Student
4:55 - 5:10	Evan	Talit	Breathe Easy: Cutting our Carbon Problem

Oral Presentations

Friday April 29th

Moc Theatre

Time	First	Last	Title
1:20 - 1:35	Ashlyn	VanDenDriessche	Is Scientology Shirking the Law?
1:35 - 1:50	Taylor	Duwe	The No-Tipping Movement
1:50 - 2:05	Danika	Thiele	Genetically Modified Statutes: America's Branding of GMOs
2:05 - 2:20	Corey	Reichert	Some Tests of Neo-Fisherism
2:40 - 2:55	Jazmine	Esparza	Student Athletes and Injuries: A Look at Predictive Factors
2:55 - 3:10	Meagan	Hebel	Fairness in Foreign Aid: Alternative Approaches for HIV/AIDS Funding in Africa
3:10 - 3:25	Virginia	Machado	Art- A Math Motivated by Beauty
3:25 - 3:40	Jessie	Finocchiaro	Data Mining in Sports
3:40 - 3:55	Daniel	Montes	Broken Promises: The Veterans Health Administration

Performances
Tuesday April 26th
Honeyman Pavilion

Time	Performers	Title
1:35 to 1:40	Richard, Emily Rakes, Johnathan Grooms, Judah, Murray, John Moore, Patrick	Grainger Suite; Percy Grainger (arr. Joseph Kreines)

Performances
Branscomb 202

Time	Performers	Title
1:45 to 2:00	Santillanes, Alejandra Patterson, Amanda Workman, Abigail Rodriguez, Jayden Vivi, Tory	Trois Pieces Breves by Jacques Ibert
2:00 to 2:10	LaVo, Rachel	Deh vieni, non tardar; Wolfgang Amadeus Mozart; Le nozze di Figaro
2:10 to 2:20	Ramos, Michael	Sonatine - Ravel
2:20 to 2:30	Rakes, Jonathan Ramos, Michael Moore, Patrick Fitchett, Corby	Shadows in Triple
2:30 to 2:40	Ramos, Sardee	Dove sei, amato bene?; George Frederick Handel
2:50 to 3:05	Hill, Brianna	"The Truth of the Matter" -- One Women Show
3:05 to 3:15	Rodriguez, Jayden	The Well-Tempered Clavier: Prelude and Fugue no. 2 in C minor - J. S. Bach
3:15 to 3:25	Trunzo, Jacob	Piano Performance: What You Might Not Know

Poster Presentations
Tuesday April 26th
Honeyman Pavilion

Poster #	Time	First	Last	Title
1	11:50 - 1:35	Andrea	Arellano	Alms for the Ill: Generating Compassion for the Mental Illness
2	1:45 - 3:05	Kelsey	Bacharz	The Caregiver's Burden: Psychological Distress in the Young Adult Caregiver
3	1:45 - 3:05	Ashley	Braley	Can Stability Balls Decrease Self- Stimulating Behaviors in Children Diagnosed With Autism?
4	1:45 - 3:05	Katie	Brown	Thumbs vs. Stars: Rating Scale Comparisons to Assess Web-based Job Interview Responses
5	11:50 - 1:35	Juan	Garcia	(Metal-Ligand)-Directed Organic Synthesis of Drug Molecules From Natural Sources
6	1:45 - 3:05	Lauren	Harris	In-vitro Mutation of Mer Receptor Tyrosine Kinase Residues and Their Effect on Protein Interactions
7	11:50 - 1:35	Meredith	Kaffee	The Relationship between Athletic Status, Music, Arousal, and Spatial Awareness
8	11:50 - 1:35	Lauren	Morgan	The Dunning Kruger Effect: How Narcissism Effects Self-Assessments
9	11:50 - 1:35	Alyssa	Parisi	Short vs. Long-term Retention Interval: Recognition and Attention in Children with Dyslexia
10	11:50 - 1:35	Erin	Phillips	Disliked but Not Forgotten: Likability and Rention of Blended Photographs in Children with Dyslexia
11	1:45 - 3:05	Tabitha	Powell	The Relationship Between Extraversion, Conformity, and Decision Confidence
12	1:45 - 3:05	Tabitha	Powell	The Relationship Between Working Memory Capacity and Mental Rotation Reaction Time
13	11:50 - 1:35	Lauren	Reynolds	The Brain Is: Effects of Graphic Novelization on Vocabulary Development.
14	1:45 - 3:05	Laura	Riley	Depth Profiling of Capsaicinoids
15	1:45 - 3:05	Hope	Saulter	Impressions Regarding the Media
16	11:50 - 1:35	Josh	Sessums	Alternative Solid Phase Extraction Methods for Isolation of Heterocyclic Aromatic Amines in Cooked Meat

Poster #	Time	First	Last	Title
17	11:50 - 1:35	Emily	Smith	Promoting the Past: Engaging the Public Through Digital Media
18	11:50 - 1:35	Leyna	Stemle	Internal Temperature Differences of Three-toed Box Turtles (*Terrapene carolina triunguis*) from Rural and Urban Study Sites
19	1:45 - 3:05	Suzanne	Wilson	Isolation and Identification of Antibacterial Compounds
20	1:45 - 3:05	Samantha	Zorn	Effects of Source Monitoring and Commitment Effects on Mugshot Exposure
21	1:45 - 3:05	Destiny	Zunic	The Effects of Media Type on Concealed Carry Perceptions on College Campuses

Poster Presentations
Tuesday April 26th
Honeyman Pavilion

Department of Biology
Poster Competition
Tuesday April 26th
Honeyman Pavilion

Poster #	Student presenters	Title
22	Agnini, Ashley and Spruell, Marissa	The Effects of Sanitizing Agents on Microbial Organisms on Toothbrush Bristles.
23	Barnard, Laura and Aycock, Amy	Negative effects of lower pH on two calcareous marine organisms, *Mytilus edulis* and *Halimeda incrassata*
24	Borgella, Stephanie	The effects of Caesalpiniaceae pulcherrima flavonoids of *Plasmodium floridense* of Anolis lizards: potential treatment for malaria
25	Cortez, Alexi and Evers, Caroline	Isolation of a MI antimicrobial compound and its effects on a model organism
26	Couch, Kim	The effect of varying nutrient levels on the growth and competitive interactions of *Lemna valdiviana* and *Salvinia minima*
27	Fry, Sonya	Analysis of global methylation patterns in the DNA of Drosophila melanogaster after exposure to aluminum chloride
28	Kerr, Edward	Process of developing virulent *C. difficile* phage through irradiation of Coliphage T4r
29	Lew, Joshua, Seboroski, Ashley and Allende, Jose	Acute effects of copper on the stress response and respiratory rate of freshwater mussels (Order Unionida)
30	Long, Amanda and Fass, Taylor	Examining the genetic relatedness of Rosa setigera varieties by DNA barcoding
31	McClanahan, Alex and Guindi, Joe	Searching for Novel Antibiotic-Producing Bacteria from Marine Environments on the West Coast of Florida
32	Mills, Callie	Measuring the effects of 2005 red tide on the growth of Gag grouper (M. microlepis) using fish metrics.
33	Murrah, Ashley and Woods, Delaney	The correlation of beta-amylase and starch degradation in strawberries
34	Rucker, Samantha	Feeding ecology of the bonnethead shark *(Sphyrna tiburo*) in Tampa Bay, Florida

35	Ruiz, Monisa	Effects of the ecology of Lake Hollingsworth on soil oxygen levels
36	Slivonik, Brian, McDermott, Caitline and Arroyo, Sammy	Fish Identification using DNA Barcoding in Florida Fish Markets
37	Stockowski, Taylor and Martin, Samantha	The Effects of Atrazine Exposure on *Caenorhabditis elegans* and *Xenopus laevis*
38	Stratton, Jenna, Williams, Haley, and Jarvis, Brittany	Color preference in the diet of Yellow Bellied Sliders (*Trachemys scripta scripta*)
39	Taminosian, Jacob	Optimal foraging: A theoretical exploration of the rate optimization prey model in behavioral ecology
40	Tate, Cyrena and Robers, Carolina	Comparing electrosensory pore density of bonnethead (*Sphyrna tiburo*) and sharpnose (*Rhizoprionodon terraenovae*) sharks
41	Zinno, John	The Optimization and Synthesis of Nanmatryoskas with Applications in Photothermal Ablation

Department of Biology
Poster Competition
Tuesday April 26th
Honeyman Pavilion

Abstracts

Student: Arellano, Andrea **Major**: Psychology
Faculty Mentor(s): Quinlivan, Deah
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Alms for the Ill: Generating Compassion for the Mental Illness
Abstract: Previous empirical literature has found that most people who need mental health services do not use them in order to avoid diagnostic labels and the consequent social judgment from having a mental illness which drastically reducing their chances of full recovery. The cause of judgment seems to be two commonly held and fallacious beliefs about the mentally ill. They are thought to be dangerous and incompetent, and thus unfit for participation in general society. Viewing people with mental illness as dangerous leads to social avoidance, limiting contact and opportunities for exposure to belief-challenging experiences. These beliefs have culminated into world-wide stigma that can exacerbate the intensity of mental illness and obviate the seeking of treatment. The present study sought to determine a link between personality factors and cognitive flexibility when provided with information about mental illness. Consistent with the guiding hypotheses, results indicated that (a) receiving true information about the causes of mental illness reduced stigmatizing beliefs and (b) highly neurotic individuals experienced less belief change than those with lower neuroticism scores.

Student: Arnett, Ryan **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce**;** McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 3:25 - 3:40

Title: Checking Out: Injury Reduction in the National Hockey League (NHL)
Abstract: This paper will inspect a growing issue of injuries of National Hockey League players. In this paper, I will investigate the amount of injuries present in the National Hockey League from year-to-year, ranging from injuries that stem from nobody contact, all the way to injuries that are caused by illegal hits and fighting. After an evaluation of the injuries that or sustained by players in the National Hockey League, the next step would be to describe the negative effects sustained by not only the players, but the teams and the organization as a whole. Literature on the battle against injuries in sports will be explored, not just limiting the literature reviewed to pieces about hockey, but also exploring pieces that pertain to other sports as well. These articles and studies will be instrumental to deliberate over the possible policy options and choose the best option for the hopeful reduction of injuries in the NH.

Abstracts

Student: Arroyo, Samantha **Major**: Biology
Faculty Mentor(s): Morvillo, Nancy**;** Manners, Malcolm; Gasper, Brittany
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 2:55 - 3:10

Title: Investigating Genetic Diversity and Variation of Roses
Abstract: Rose species are native throughout North America. Within one species of rose, there can be significant genetic diversity to characterize which area of the continent a rose came from. I plan to investigate how much genetic variation and diversity is present in an interesting species of roses with samples spanning different areas of the continent.

Student: Bacharz, Kelsey **Major**: Psychology
Faculty Mentor(s): Smith, Patrick
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 4:25 - 4:40

Title: Game On! The Influence of Computer Simulations on Understanding of Cancer-Based Therapies
Abstract: Although the topic of cancer is commonly acknowledged within the popular community, the actual awareness of how cancer spreads (and how cancer treatment works) is less understood. Fortunately, new technology-based strategies have been developed to better familiarize one with the science behind cancer technology. HopeLab industries has developed Re-Mission 2, a set of six short, interactive games that have been used by cancer patients to educate and prepare them (via knowledge-based content from the game) for what they will experience both with cancer progression and from treatment. While the results of the second edition have not been published, the collective literature suggests that video-game products on cancer progression and treatment may have a positive effect on one's attitude and understanding of the physiological mechanisms of what goes on in one's body. Although these products have been designed as a therapeutic tool, there is very little research that suggest a similar effect in a general population who is not directly linked to a cancer experience. The purpose of the current project was to explore whether the Re-Mission 2 product may be effective in characterizing cancer progression and therapy when compared to text-based literature that is commonly used for educational purposes among the general undergraduate population.

Abstracts

Student: Bacharz, Kelsey **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: The Caregiver's Burden: Psychological Distress in the Young Adult Caregiver
Abstract: Previous research on the effects of caregiving has primarily focused on middle aged to older adults who have cared for their sick parents or children (Teixeira&Pereira, 2012; Razaz et al., 2014). However, there is no published research on the psychological impact of caregiving on younger adults. Therefore, the current purpose was to determine how college-aged caregivers are psychologically different from non-caregivers. Another purpose was to determine what factors (i.e., amount of social support, financial involvement, etc.) significantly contribute to psychological distress or insulate younger adult caregivers (18-24 years old) from the distress of caring for a sick loved one

Student: Belli, Rachel **Major**: Communication- Broadcast, Print and Online Media
Faculty Mentor(s): Bradford, Beth
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 1:20 - 1:35

Title: How the Amount and Type of Social Media a Student Uses Affects His/Her Knowledge of World News and Current Events
Abstract: The use of social media sites is expanding rapidly; in 2014, there were over 1.39 billion active Facebook users and 288 million active Twitter users (Facebook Newsroom, 2015; "About Twitter", 2015). The sites allow users to pursue connectivity and instantaneously share ideas with large groups of people. While the social aspects of these sites are apparent, users are also obtaining news and knowledge of current events. The researcher examined how the amount and type of social media a student uses affects the student's knowledge of world news and current events. The researcher conducted a survey to gain information about participants' social media habits, as compared to their knowledge of current news. Students may intend to use Facebook and Twitter for social purposes more than they would to obtain factual news information but they inadvertently receive both.

Abstracts

Student: Boone, Abby **Major**: English
Faculty Mentor(s): Bravard, Rebecca
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 3:40 - 3:55

Title: An Examination of the Growth and Influence of Political Satire Across the Ages
Abstract: Political satire has been one of the most successful means of educating the public about political situations in the country and around the world. This thesis focuses on the use of satire by Jonathan Swift and Benjamin Franklin, Mark Twain and Charlie Chaplin, culminating today in the comedy of Jon Stewart and Stephen Colbert. Although the satiric tactics have changed across the ages, the use of satire has prevailed, a fact that is proved by the continued popularity of Mark Twain and the significant audience size of the shows of Stewart and Colbert. The fact that satire has remained popular from the 18th century until today attests to its versatility, influence, and importance in and upon America's political spectrum.

Student: Braley, Ashley **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani
Co-presenters: Lynch, Elizabeth
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Can Stability Balls Decrease Self- Stimulating Behaviors in Children Diagnosed With Autism?
Abstract: Children with autism often engage in self-stimulating behaviors (i.e., stimming), which can include repetitive, rigid actions (movements, sounds, etc.) that interfere with attention, learning and completing daily life activities (Koegel & Covert, 1972). There is some evidence that sensory modulation techniques, such as sitting on stability balls might improve the attention and behavior of children with autism. For example, Schilling and Schwartz (2004) found that children with autism exhibited an improvement on in-seat behavior, engagement, and responsiveness and a decrease in drooling while sitting on the stability balls. Others have replicated the behavioral benefit of stability balls in other samples of children with attention problems, including ADHD and dyslexia (Goodmon, Leverett, Royer, Hilliard, Tedder, & Rakes, 2014; Fedewa & Erwin, 2011). It is unclear whether the behavioral benefits will generalize to an applied behavioral therapy center setting. Today, there are no published studies on the effect stability balls might have on reducing self-stimulatory behaviors in children with autism. Therefore, the purpose of this study is to determine if the using stability balls in place of regular chairs in the classroom can be replicated in children with autism and whether the behavioral benefit generalizes to a reduction in self-stimulating behaviors in the context of an applied behavioral therapy center.

Abstracts

Student: Brown, Katie **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani**;** Smith, Patrick
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 4:10 - 4:25

Title: The Relationship Between Self-Perceived Leadership Skills and Managerial Performance
Abstract: The purpose of this study is to examine the relationship between self-perceived leadership capabilities as measured by the Student Leadership Practices Inventory (SLPI) and managerial performance, as measured by the Team Leader Readiness Simulation (TLRS) created by Employment Technologies, Inc. The SLPI consists of five subscales of traits that are associated with successful leadership: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart (Kouzes & Posner, 2002). The TLRS consists of six subscales of effective managerial behavior: analytical thinking, building relationships, coaching, decisiveness, problem solving, and team building. Participants in the present study were taken through a two-hour research process, during which they took the SLPI in paper form, went through the TLRS on the computer, and answered a demographics questionnaire that included questions about leadership experience, among other qualitative grouping variables. Students' responses to the SLPI were scored and reported using the appropriate software. Researchers at Employment Technologies, Inc. are responsible for scoring and reporting the TLRS results. A correlational analysis will soon be run on similar competencies between the two assessments. It is hypothesized that there will be a positive correlation between scores on the two assessments.

Student: Brown, Katie **Major**: Psychology
Faculty Mentor(s): Goodmon-Riley, Leilani**;** Smith, Patrick
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Thumbs vs. Stars: Rating Scale Comparisons to Assess Web-based Job Interview Responses
Abstract: The purpose of this study was to compare two rating systems for web-captured audio interview responses to two job interview questions. We compared a newly developed Thumbs up vs. Thumbs down dichotomous rating scale with a previously developed 5-stars Likert rating scale. We trained MBA graduate students to serve as "prospective employers" and use the two rating systems to assess the responses to interview questions collected from 51 undergraduates (Bacharz, Newness, Goodmon, Bucklan, & Burgess, 2015). Each job candidate was rated independently by three raters, and an average panel score was calculated for each candidate. Following each individual rating session, raters completed a satisfaction questionnaire designed to assess their subjective experiences in rating the applicants. The results clearly indicate greater inter-rater reliability and higher rater satisfaction for the 5-star Likert system.

Abstracts

Student: Chakis, Jessica **Major**: Art- Graphic Design
Faculty Mentor(s): Romero, Samuel; Blackmore, Eric
Presentation Type: Creative Art
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 - 3:05

Title: The Twisted Lemon
Abstract: The Twisted Lemon is a branding project done as a Senior Thesis for the Graphic Design department. Centered out of Florida, The Twisted Lemon is a hard lemonade beverage truck that allows patrons to specify the flavors and types of alcohol used in their lemonade. Overall, this fictional company uses illustrations, primary colors, and die cuts to transport their customers to a simpler time. These elements work together to create an interactive brand that is both fresh and somewhat nostalgic. Essentially, it's a mix between an old-fashioned lemonade stand and an ice cream truck-- only better.

Student: Cole, Sarah **Major**: Nursing
Faculty Mentor(s): Gasper, Brittany; Foley, Linda
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 2:40 - 2:55

Title: Measuring the Persistence of Bacteria on Hospital Curtains and the Occurrence of Conjugation
Abstract: While healthcare professionals are working in hospitals, they have a tendency of opening and closing the curtains throughout the care of their patients. Also, the patients and their families touch the curtains. Current studies have shown that the transfer of bacteria from hands to the curtains and vice versa is possible. Despite the possibility of hospital curtains being a mode of infection transmission, a study by DeAngelis and Khakoo (2013) showed that 53% of hospitals surveyed did not have a policy for cleaning or changing their curtains. Therefore, research can be expanded by comparing the time of persistence of bacteria—such as *Staphylococcus aureus* and *Enterococcus*—on different types of curtains that are available for use in the hospital. This information can be used to determine if certain materials decrease the time of persistence of bacteria more than others. Also, current studies have not shown whether bacteria like S. aureus and *Enterococcus* can conjugate on the hospital curtains to develop antibiotic resistance. This research can be useful to determine which hospital curtain materials are better for decreasing bacterial persistence and which curtains, if any, allow for conjugation. This information can be implemented in the hospitals to decrease nosocomial infection rates.

Abstracts

Student: Crawford, Jennifer **Major**: Biology
Faculty Mentor(s): Langford, Gabriel
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 3:10 - 3:25

Title: Histological Responses of an *Apharyngostrigea pipentis* in the Cuban Tree Frog
Abstract: *Apharyngostrigea pipentis* is a known parasite responsible for forming metacercariae in the ureter of the Cuban treefrog (*Osteopilus septentrionalis*). The Cuban treefrog is an intermediate host for this parasite, whereas, the definitive host is thought to be a wading bird. It was previously unclear what effect these parasites have on their intermediate hosts, as there were no wild juvenile treefrogs obtained that were vectors (although it was hypothesized that *A. pipentis* results in high mortality among this age group). *O. septentrionalis* tadpoles were collected from the wild and then reared to the adolescence; then experimental infections were performed to resemble the transmission and development of the *A. pipentis*. Data was collected from these experiments to conclude the immunological effects the parasite has on the juvenile treefrogs. Additionally, infected adult treefrogs were captured and the ureter was removed via dissection. After a series of dehydration processes, the specimen was placed in a paraffin mold and the specimen was sliced into 14 m sections using a microtome. The sections were rehydrated so that the tissue could absorb the tissue stain and then dehydrated again so they could be properly examined. The histological results of the project will be further discussed in the presentation.

Student: Cruz, Judith **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce; McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 3:40 - 3:55

Title: Health Service Utilization Among the Immigrant Community in the US
Abstract: The current health care system often fails to address the undocumented immigrants in the country. This is not only creating a burden on the immigrant community but it is also costing the government much more to pay for the emergency services individuals immigrants go through. In addition, it is a risk to society as whole because as these immigrants wait longer for emergency care disease can spread among the population. The methods use in this presentation is providing the viewers with graphs in regards to how much more it is costing the US government to not cover undocumented immigrants. Following the graphs there is an analysis of different countries around the world who have both a strict and loose health care system in place. Both these methods will follow an analysis of the best policy that the US could follow in regards to its current health care system.

Abstracts

Student: Culm, Kelsey **Major**: Art- Graphic Design
Faculty Mentor(s): Romero, Samuel
Presentation Type: Creative Art
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:50 - 1:35

Title: Storytime: Children's Bookshop
Abstract: At Storytime, the goal is to give children's stories the awesome bookstore they've always deserved. Authors, illustrators, and publishers work very hard to make books that take the imagination to the ends of the earth and beyond. It only makes sense that the store follow suit. We strive to create an experience celebrates the relationship of imagination, play, and discovery that exists between children and their very favorite story books.

Student: Donovan, Grace **Major**: Exercise Science
Faculty Mentor(s): Terrell, Sara
Co-presenters: Bretton, Peter
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 1:20 - 1:50

Title: The Relationship of Exercise to Quality of Life Measures AND
Total Hip Replacement: Surgical Procedures Influence Patient Post-Operative Pain
Abstract: The pelvic floor muscles (PFM) serve an important role in supporting internal organs, controlling urination and defecation, and enabling sexual activity. These muscles may be weakened due to age, hormonal changes, and lifestyle factors, and women are at a high risk for stress urinary incontinence (SUI). Despite a clear need for strengthening programs to target the PFM, it is unclear which exercise treatment modalities prove most efficacious. The purpose of this study is to assess the impact of a yoga intervention program on quality of life (QoL) related to SUI and weakened PFM in premenopausal women. Making a decision for which total hip arthroplasty (THA) to get can be difficult without considering different aspects of the surgery: causation for surgery, risks, pain, recovery, and mobility. Detailed analysis about these factors assist in the decision making process but it is unclear what levels of pain result from each surgical approach. The purpose of this study is to assess post-operation pain levels of active 60-80 year old patients undergoing the minimally invasive anterior approach (MIA) and the posterior approach (PA). It is expected this research will clarify what approach may be better for patient pain post-operation.

Abstracts

Student: Duwe, Taylor **Major**: Business Administration
Faculty Mentor(s): Ross, Larry
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 1:35 - 1:50

Title: The No-Tipping Movement
Abstract: A recent no-tipping movement has begun in the United States, which has caused much discussion as to why people tip in the first place. Does tipping actually improve service quality? The reasons for tipping have changed over the years, with the most common reasons including conforming to social norms and avoiding embarrassment. Several studies have asked the question of why people tip and tried to identify the reasons for tipping by analyzing how tips are affected by service quality, the effort given by the waiter, etc. This study will be looking at the relation hometown demographics correlate with tipping beliefs. The exploratory sample group of the study consists of Florida Southern College students and faculty. A 10 question survey was used as a data collection tool, and data was obtained from a total of 170 men and women from Florida Southern College, primarily female students from the ages of 18-23. Based on the results and other research, a conclusion will be given on the future of tipping in the United States in correlation with the no-tipping movement that is starting to cross the nation.

Student: Esparza, Jazmine **Major**: Mathematics
Faculty Mentor(s): Serrano, Susan**;** Lynch, James
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 2:40-2:55

Title: Student Athletes and Injuries: A Look at Predictive Factors
Abstract: The purpose of this research was to determine factors that may affect a student athlete's risk for injury, as judged by performance measures recorded by each sport's coach. If performance on pre-season and/or in-season testing can be predictive of injury, then interventions can be started with high-risk athletes to prevent the occurrence or lessen severity. Performance data, demographics, and injury data were collected for Florida Southern sports teams. Injury rates were assessed and injury profiles were created for each team. Regression equations were built as predictive models for future injuries.

Abstracts

Student: Finocchiaro, Jessie **Major**: Mathematics
Faculty Mentor(s): Mathias, David
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 3:25 - 3:40

Title: Data Mining in Sports
Abstract: Data mining, in simplest terms, is the recognition of patterns in extremely large sets of data.These data sets can be so large, computation can take a long time if the algorithm is not as efficient as possible.The researcher looked at what types of algorithms are used in data mining, how these algorithms work, and why they are the most common in the field. There was a focus in "market basket" analysis and the algorithms used in finding frequency correlations. The researcher wants to apply these algorithms in sports to investigate correlations between different statistics and win percentage. Future work will determine if there is any statistically significant correlation, and how a correlation found may change future approaches to coaching in a given sport.

Student: Fisackerly, Wil **Major**: Communication- Broadcast, Print and Online Media
Faculty Mentor(s): Allen, William
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 3:10 - 3:25

Title: Online Platforms and the Future of Analytics: How YouTube Has Altered the Videography Process
Abstract: Ever since the launch of YouTube in 2005, the process of content creation and distribution has metamorphosed into a multidimensional network of individual and conglomerate media. YouTube empowers the young entrepreneur yet caters to massive media companies like Discovery and Revision3. One of the major reasons for the massive swarming to YouTube is the tools the platform provides to creators. Whereas traditional television requires inconsistent survey data, YouTube allows creators to view critical details about their audiences. From how long they watched to the country where they live, creators have access to research treasure troves of information on their audience and its habits. One such creator is theCadoShow, a weekly talk show operating out of the Communication Department. Using YouTube Analytics and Facebook Insights, theCadoShow is able to adapt to its audience's preferences and not only increase reception but develop community between creator and viewer. Analytical data provides creators with the tools needed to create better content than some network companies, and this is the precise reason why YouTube is altering the videography process.

Abstracts

Student: Franzen, Stephen **Major**: Chemistry
Faculty Mentor(s): Le, An-Phong
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 2:40 - 3:10

Title: Optimization of Vinegar Formation
Abstract: My presentation is based on my senior project. My project was the optimization of industrial vinegar production(submerged fermentation) via a statistical design of experiment. This project was designed to take advantage of statistical models and response surfaces to maximize the rate at which white distilled vinegar is formed.

Student: Gainer, Katie **Major**: Communication- Advertising and Public Relations
Faculty Mentor(s): Mackie, Cara
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 4:25 - 4:40

Title: Socially Activated Through Social Media
Abstract: Social Media is a popular way to communicate with anyone and everyone. One of the most active groups on social media is the millennial generation. Some of them use platforms such as Facebook to speak their mind on current events in a multitude of ways. This sometimes gets other people to start talking about that issue. More recently multiple trends like the #icebucketchallenge have started on social media. This generated millions of dollars and increased awareness for Leu Gehrig's disease. Another example of a popular trend social media that sparked a since of social activism is how people were able to put a filter over his or her profile picture that could showcase support of the Paris Attacks or support of Equality. Social Media as a whole allows users to easily and effectively communicate with a large sum of people at the same time. Messages, status updates and pictures can be sent easily to people across the gobble, thus reaching many people, this creating a strong since of social activism that will be discussed throughout this presentation.

Abstracts

Student: Garcia, Juan **Major**: Biology
Faculty Mentor(s): Eubank, Jarrod
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: (Metal-Ligand)-Directed Organic Synthesis of Drug Molecules From Natural Sources
Abstract: Metal-organic materials (e.g., meta-organic polyhedral (MOPs), metal-organic frameworks (MOFs), or coordination polymers) are a unique class of organic-inorganic hybrid materials with the potential for high stability, large ordered pore systems, and facile tunability (i.e., modularity). This is a burgeoning area that has gained much notoriety for the potential of the corresponding materials in various applications, with primary emphasis on the open frameworks as materials for gas capture/storage (e.g., CO2, H2, CH4) in energy and/or environmental applications, among others. Only recently have these organic-inorganic hybrid materials been targeted for biological applications (including, but not limited to, MRI contrast agents, chiral separations, enzyme encapsulation, heterogeneous catalysis, as well as drug delivery, nitric oxide sorption and release, and other controlled release applications). Our project focuses on another unique area related to biomedical applications, where we utilize MOF design principles to direct the organic synthesis of potential drug molecules, with special emphasis on naturally derived (biogenic) ligands.

Student: Griffin, Lauren **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce; McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 1:35 - 1:50

Title: Sexual Assault on College Campuses: What's the Real Problem?
Abstract: This presentation is discussing the policy problem of sexual assault on college campuses specifically toward freshmen. The purpose of this paper is to examine the policies currently standing to combat sexual assault against college freshman and propose some new ones. The first alternative is to keep the current policies in place. The second policy alternative is to increase education on sexual assault, across the board, implementing nationally a “yes means yes” or “Enough is Enough” policy position. The third alternative is to strengthen presence of law enforcement during education and awareness events for first year students regarding sexual assault to tighten the association of sexual assault with the criminal implications. These alternatives are proposed extensive research, with cost, benefit, and risk analyses, laws (Title IX, the Clery Act, etcetera), seeing outcomes where these alternative have been implemented, and data (along the lines of campus climate surveys and statistics). After careful consideration, one alternative is chosen to best reduce the accounts of sexual assault.

Abstracts

Student: Hamrick, Emma **Major**: Communication- Advertising and Public Relations
Faculty Mentor(s): Bradford, Beth**;** Ortiz, Alex
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 3:25 -3:40

Title: Effects of Second Screen on Traditional Television Advertisement
Abstract: In the media saturated society present today, the process of multitasking between devices often results in information overload for media consumers. As a result, television viewers frequently tune-out traditional television advertising and instead allocate their attention to mobile devices and social media. This use of second screen is determined by viewers in order to fulfill their perceived media needs. In terms of live sports broadcasts, social media provides a secondary source for statistical information while also functioning as a communication hub that connects fans globally. These social sharing platforms enable users to gain insight into other viewer's opinions and share those of their own. This proposal seeks to determine if the use of a second screen is positively impacting the sports viewing experience whilst diminishing the brand recall of traditional television advertising on viewers.

Student: Harris, Lauren **Major**: Biology
Faculty Mentor(s): Shelby, Shameka
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: In-vitro Mutation of Mer Receptor Tyrosine Kinase Residues and Their Effect on Protein Interactions
Abstract: The eye is a very sophisticated organ and maintenance of visual function is of high importance. One process that is central to visual function is the engulfment and processing (termed phagocytosis) of spent portions of the retina by the retinal pigment epithelium (RPE). Defects in the clearance of the spent retinal cells results in blindness. Therefore, understanding the mechanism of RPE phagocytosis is critical to identifying future treatments for visual impairments. The goal of this research project is to identify specific interactions occurring in the RPE during phagocytosis. Previous work has identified a gene encoding the protein Mer receptor tyrosine kinase and some of its direct interactors, which are necessary for the uptake of spent retinal cells. We have potentially identified a required site of on MERTK for interaction of the proteins involved in the phagocytic mechanism. The results from this study will further our understanding of the RPE phagocytic mechanism.

Abstracts

Student: Hebel, Meagan **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce**;** McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 2:55 - 3:10

Title: Fairness in Foreign Aid: Alternative Approaches for HIV/AIDS Funding in Africa
Abstract: My paper is a policy problem, following the Eugene Bardach Policy Model, that focuses on the consistent issue with the funding mechanism for countries in Africa to receive funding from the United Nations for the combat against HIV/AIDS. I will propose four alternatives to this issue by evaluating their cost, benefit, and risk to the countries of Africa.

Student: Hill, Brianna **Major**: Theatre Arts- Theatre Performance
Faculty Mentor(s): Bawek, Paul
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 2:50 to 3:05

Title: "The Truth of the Matter" -- One Woman Show
Abstract: "When writing The Truth of the Matter, my purpose was to deliver a statement about topics that I'd never been able to openly discuss. I was raised in a fashion where talking openingly about controversial matters were looked down upon. Most of the issues in this piece focus on events, that in the last 5 years, I've either encountered or have been brought to my attention. From the death of Trayvon Martin to the Gay Rights Movement, I've observed the changes to this world and what is viewed as acceptable. I wanted to create a space where we, playwright to audience, can talk about a different side of what we think we know. This piece is, in a way, my open letter to people who might not think of the OTHER point of view. The truth of the matter is that we are all of the same race and though we might have different backgrounds, races and religions, we are all one. This show is my way of bringing to life 5 different versions of me if they'd been affected by the events that has shaped this era. I hope you can enjoy my little bit of crazy."

Abstracts

Student: Hymson, Samantha **Major**: Interpersonal and Organizational Communication
Faculty Mentor(s): Mackie, Cara
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 3:55 - 4:10

Title: A Look at Longevity, Security, and Media of Communication in Long-Distance Relationships of College-Aged Couples

Abstract: Despite the many misconceptions about long-distance dating relationships (LDDRs), studies have shown that they do work, and that couples can even experience higher levels of stability in their relationships compared to couples that are involved in geographically close dating relationships (Stafford & Merolla, 2007). Many college-aged couples have chosen the path of becoming a LDDR couple instead of breaking up. One main reason for this is that there are more immediate methods of communication to maintain their relationship now due to many different forms of media now in existence. This study looked at the differences between the longevity of LDDRs with couples who were together for at least one year who lived geographically close before becoming LDDR couples, with couples who lived geographically close for less than one year before becoming LDDR couples. Additionally, this study tested the differences in relationship security between LDDR couples who have daily communication with their partners with ones that do not. Also, media of communication used by LDDRs was tested to determine what form of media is mainly used by couples in LDDRs. The data provided in this study showed the some of the factors that affect the overall success and longevity of LDDRs.

Abstracts

Student: Kaffee, Meredith **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani
Co-presenters: Reynold, Lauren
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: The Relationship Between Athletic Status, Music, Arousal, and Spatial Awareness
Abstract: Fast-action athletes (e.g., baseball, softball) must have advanced perceptual skills in order to compete successfully. Ishigaki and Miyao (1993) found that fast-action athletes exhibited greater superior dynamic visual activity (DVA) (i.e., the ability to focus on a moving object) compared to non-athletes. Others report that fast-action athletes were better at tracking a fast moving target than non-athletes (Uchida, Kudoh, Murakami, Honda & Kitazawa, 2012; Bahill & LaRitz, 1984). There is evidence that mood and arousal is linked to improved spatial awareness (and enhances mental imagery skills). Thompson, Schellenberg, and Husain (2001), found that when participants listened to Mozart, they reported higher levels of mood and arousal, performing better on the spatial task than when they listened to Albinoni's Aldagio in G Minor. The spatial task benefit for the Mozart condition only emerged when the music increased levels of arousal and mood. The purpose of this study was to determine if fast-action athletes, who have greater perceptual skills, also have greater mental imagery abilities compared to non-fast-action athletes and non-athletes. Another purpose was to determine whether or not arousal through music can increase mental rotation performance. We hypothesized that fastball athletes would have faster reaction times on the mental rotation task.

Student: Koch, Corey **Major**: Political Science
Faculty Mentor(s): McHugh, Kelly**;** Anderson, Bruce
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 1:50 -2:05

Title: Livin La Vida Broke-a: Examining Puerto Rico's Debt Crisis
Abstract: The Commonwealth of Puerto Rico faces certain default on more than $70 billion in debt in the coming months. Because of vague colonial-era laws governing the way the United States territory relates to the Federal Government, the Island is in a state of limbo in its pursuit of debt relief. This paper examines the economic factors leading to the crisis, the dire situation facing the Puerto Rican government, and potential solutions to the crisis.

Abstracts

Student: Lanoue, Jenna **Major**: Nursing
Faculty Mentor(s): Pomella, Laurie
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Chistoverson 209 **Time:** 4:40 - 4:55

Title: The Effect of Cleanliness and Scheduled Quiet Time on Patient Satisfaction
Abstract: This topic was chosen due to a need that was observed at Lakeland Regional Health. trend of poor HCAHPS scores, which reflect patient satisfaction, caught my attention and I wanted to know what could be done to address the issues at hand. This is important because patients in the hospital setting are already anxious, nervous, and scared. They need to feel like they can ask questions, their needs are being met, and they are taken care of. This topic is especially important to me because of the care that I have seen my family members receive while they were in the hospital. I truly believe that good, quality care not only ensures the safety of the patient, but also helps the patient heal in a more holistic manner – incorporating not only their physical needs but their spiritual and emotional needs as well.

Student: LaVo, Rachel **Major**: Music- Performance
Faculty Mentor(s): Stahl, Diane
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 2:00 to 2:10

Title: Deh vieni, non tardar; Wolfgang Amadeus Mozart; Le nozze di Figaro
Abstract: Wolfgang Amadeus Mozart composed over six-hundred works, including operas, symphonies, concertos, choral works, chamber works and more. His operas remain in the standard repertory of opera companies around the world. Le nozze di Figaro (The Marriage of Figaro) is one of Mozart's most famous operas. It is a comedic opera about the ruses of the different characters at Figaro's wedding. De vieni, non tardar is an aria from Act IV. In this scene, the character Susanna is disguised as the Countess and sings about the beautiful night and the joy of love, all while being aware Figaro is spying on her. The translation is as follows: Finally, the moment has arrived when I will be in the arms of my beloved. Let nothing disturb my delight. Come, my beautiful joy. Come where love calls. Come to where the stream murmurs, and the breeze revives the heart. Here, the flowers laugh, and everything entices one to love's pleasure. Come, I will crown you with roses.

Abstracts

Student: Loret de Mola, Monika Andrea **Major**: Biochemistry and Molecular Biology
Faculty Mentor(s): Le, An-Phong; Gauthier, Carmen
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 1:50 - 2:20

Title: An In vitro Study of the Antimicrobial Effects of *Hibiscus sabdariffa*, *Valeriana officinalis*, and Carvacrol in Pectin Based-Edible Films, Against *E.Coli*.
Abstract: Edible films have received a considerable amount of interest due to their potential applications in the food industry. Edible films can be applied directly on produce or placed in food packaging systems as a barrier to prevent microbial contamination and spoilage. The objective of this study is to investigate the antimicrobial properties of *Hibiscus sabdariffa*, *Valeriana officinalis*, and Carvacrol when incorporated into a pectin base apple edible film against *E.coli*. *E.Coli* was plated and treated with edible films containing different natural antimicrobials. This research aims to provide insight on the antimicrobial properties of *Valeriana officinalis* and *Hibiscus sabdariffa* , when incorporated into biodegradable films.

Student: Machado, Virginia **Major**: Mathematics
Faculty Mentor(s): Langford, Gabriel
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 3:10 - 3:25

Title: Art- A Math Motivated by Beauty
Abstract: Art: "the expression or application of human creative skill and imagination, producing works to be appreciated primarily for their beauty or emotional power." By definition, art is not something you would think of in an analytical world. Math, however, is. A world mandated by numbers, rules, restrictions, lines, measurements, precise and exactness, math is a perfect candidate for analysis. But, math is also beautiful, and very capable of evoking emotions. And on the other hand, art also has a set of rules, and certain restrictions, measurements and preciseness that mandate it. So, the two are actually much more interconnected than what we generally tend to believe. I took twenty-six of what are thought to be the classical and most exemplary paintings of all time, and through the use of three distinct methods, I attempted to show some examples of how math and art are related. The first method was a comparison of the percentages of positive and negative space of each painting. The second, a look at the center of mass for each painting, based on the RGB and Mean value breakdowns of each painting. The third was a comparison between the use of the rule of thirds and the point where the center of mass lies. As it turned out, most of the results were what you would expect. Now the interesting thing will be to see if you, given the parameters required to make something aesthetically pleasing, can in fact, create a mathematically pleasing and artistically sound drawing!

Abstracts

Student: Mielecki, Monika **Major**: Psychology
Faculty Mentor(s): Smith, Patrick
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 2:40- 2:55

Title: The Sights and Sounds of Anticipatory Flavor Conditioning
Abstract: Auditory cues in food advertisements are used to promote flavor-based interest in consumer behavior. Although audition is not effective to directly elicit the perception of flavor, it is assumed that this sensory system is somehow associated with previous flavor experiences. Several studies (e.g., Smith & Stoltzfus, 2012; Spence & Shankar, 2010) suggest that while a flavor cue (CS) becomes associated with a post-ingestional unconditioned stimulus, the sound of a consumed food serves as a secondary CS that anticipates an oncoming flavor. Whether such a process generalizes to human reactions to foods remains unstudied. The purpose of the present study examined whether auditory cues are subject to anticipatory contrast reactions when they are inconsistent with what has been previously conditioned. 96 participants were pre-conditioned to an optimal sound and flavor association. Participants were then exposed to four different sound-carbonation pairing samples and then instructed to rate each of these samples based on their experiences with the preconditioning sample. Results from these experiments demonstrated that while high-carbonated flavor samples were generally rated significantly higher than low-carbonated samples ($ps < 0.05$), suggesting a possible mechanism that can adversely affect the usage of sounds as predictive stimuli for food products in the commercial world.

Student: Montes, Daniel **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce**;** McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 3:40 - 3:55

Title: Broken Promises: The Veterans Health Administration
Abstract: This paper is on the topic of the Veterans Health Administration of the Department of Veterans Affairs. The VA as the organization is more commonly known, is meant to help military service members returning home from war with their medical and mental health needs. However, this is not always the case as often reports of mismanagement, long wait times to receive care, inadequate women's healthcare, and even suicides as a result of a lack of adequate mental health are all too unfortunately common. This paper looks at many of the problems that are endemic to the VA and several viable solutions to addressing current problems and preventing future problems from arising.

Student: Moore, Sera **Major**: Elementary Education
Faculty Mentor(s): Blanco, Bernardo
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 209 **Time:** 4:10 -4:25

Title: Xenophobia - Could This be Affecting the United States Education System?
Abstract: In the United States education system, teachers need to be as unbiased as possible. They are taught to present information to a diverse population while being culturally cognizant of all students. However, this does not mean that bias does not sneak into the schools in other ways. One type of bias is known as xenophobia, which is the fear of strangers or foreigners. The topic of xenophobia has been incredibly popular in the past year, and it may have already begun affecting the education system with negative consequences. Some of these consequences could include developing a fear of students from another culture, bullying, ostracizing a student or a group of students, and a feeling of isolation. Many of these consequences have already permeated the United States schools, but the potential impact of xenophobia becoming widespread in high school age students and older could be catastrophic for academic reasons. This is because students could begin to develop an aversion to learning about new cultures and languages, a vital skill in the 21st century workforce. Therefore, this research focuses on how xenophobia is possibly affecting language retention in high school students, college students, and those that have already graduated.

Student: Morgan, Lauren **Major**: Psychology
Faculty Mentor(s): Quinlivan, Deah
Co-authors: Serrano, Nicole and Molleda, Gabriela
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: The Dunning Kruger Effect: How Narcissism Effects Self-Assessments
Abstract: The Dunning-Kruger effect refers to the inability of poor performers to recognize their own incompetence by overestimating their ability on self-assessments. The purpose of this study was to determine if this effect correlates with task difficulty and personality. The experiment formed a 2 X 2 between-subjects design. Participants completed a word-prospector task, a self-report scale, and a personality scale for narcissism. It was hypothesized that increased task difficulty would decrease self-enhancement. Additionally, it was hypothesized that increased levels of narcissism would increase self-enhancement. High narcissists performed in a task-dependent manner scoring higher in easier conditions and lower in harder conditions. It was also found that participants in the higher quartile underestimated themselves while those in the lower quartile overestimated themselves. These results support our hypotheses allowing us to extend our research onto why these trends occurred in individuals who scored high in narcissism. To study this trend, we are correlating our findings with self-concept clarity. We hypothesize that narcissists will score high in self-concept clarity; demonstrating that narcissists are proficient at understanding their perceived personal attributes.

Abstracts

Student: Parisi, Alyssa **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani**;** Smith, Patrick
Co-authors: Dill, Lauren
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Short vs. Long-term Retention Interval: Recognition and Attention in Children with Dyslexia

Abstract: Past research has shown that there is a link between environmental cues and memory (Godden & Baddeley, 1975), however there is no current research on the possible benefits for children with dyslexia. Additionally, studies have shown that people tend to like pictures of natural landscapes (e.g., forests) more than pictures of urban landscapes (e.g., city buildings) or pictures by an artist named Edward Burtynsky (i.e., artwork that combines both urban and natural components) (Hester, Smith, Goodmon, & Darby, 2012; Miller, Dobson, Hester, Smith, Goodmon, & Darby, 2014). Therefore, we examined the effect of picture preference on the short and long-term retention memory of 5th grade students with dyslexia. Each student was presented the three picture types in a forced-choice set-up. Then we tested each student's short (i.e., the same day) and long-term (i.e., four months later) retention memory. Picture preference and recognition were recorded along with reaction times (i.e., amount of time spent looking at the different pictures and making a decision). Consistent with the hypotheses, students preferred and retained the natural and Burtynsky pictures. Based on these results, educators should consider incorporating such stimuli as educational materials in order to increase students' overall attention and academic performance.

Student: Petit Homme, Rubens **Major**: Chemistry
Faculty Mentor(s): Bromfield Lee, Deborah
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 3:10 - 3:40

Title: The Green Synthesis of Calarene as a Template for the Organic II
Abstract: Environmental concerns in the 1970's led to the increase in the significance of green chemistry, which peaked in the 1990's. Both industry and academia have been splicing some emphasis on organic reactions that can be performed more efficiently, safely and preventing unnecessary waste, using changes such as use of aqueous medium or solvent free reactions, catalytic methods and microwave synthesis. Calarene is a sesquiterpenes from the carene family, which was synthesized by Coates and Shaw in 1970. The overall synthesis resulted in about 24% overall yield. Some of the reactions used included the Robinson annulation, pyrolysis, and hydrogenation where some of which have greener versions published, while others remain unsafe. Particularly, pyrolysis reactions may not be able to be performed into a traditional undergraduate laboratory. A couple of the material used in their synthesis were methyllithium and hydrazine hydrate which list amongst their hazards forming explosive peroxides, extremely corrosive and may catch fire spontaneously in air. This project focuses on the development of greener synthesis of calarene with comparison to established methods for comparison, using primarily reactions traditionally learned in Organic Chemistry, such as the Wittig and Diels Alder reactions. These reactions have been chosen because they utilize concepts tied to the 12 –principles of green chemistry. Based on our proposed methodology the overall theoretical yield for the synthesis is about 55%. The focus is to develop a semester long multi-week synthesis towards calarene for the second semester of the organic laboratory that emphasizes green chemistry at each step. Additionally, the lab provides experience towards a total synthesis of a small molecule.

Student: Phillips, Erin **Major**: Psychology
Faculty Mentor(s): Goodmon-Riley, Leilani
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Disliked but Not Forgotten: Likability and Rention of Blended Photographs in Children with Dyslexia
Abstract: Because of their learning disabilities we believe that children with dyslexia could benefit from research that dealt with visual stimuli in the classroom. People like pictures of natural landscapes (forests) more than pictures of manufactured landscapes (city buildings) or pictures by an artist named Edward Burtynsky, whose unique artwork combines both man-made and natural components (pile of tires in a meadow) (Hester, Smith, & Goodmon, 2013; Dobson, Miller, Goodmon & Smith, 2014). Our past research demonstrates similar findings with children with dyslexia, they also prefer natural photographs. The purpose of this current study was to determine if children with dyslexia would exhibit a preference for natural photographs that would correlate with better long-term retention for that type of picture. We returned four months later and retested their recognition memory for the pictures. We hypothesized that the children would exhibit significant memory differences as a function of photograph type after the long-term retention interval. Unlike the short-term memory results, at the long-term retention interval, the children more accurately recognized the Burtynsky photographs over the natural and urban photographs.

Student: Powell, Tabitha **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani
Co-presenters: Butler, Jessica **Co-authors**: Mitchell, John
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: The Relationship Between Extraversion, Conformity, and Decision Confidence
Abstract: Conformity is the changing of actions, behaviors, or beliefs to match that of a group or majority. The purpose of this study was to determine if social influence and rates of extraversion contribute to different levels of conformity and levels of confidence. Participants were asked to compare shapes of different sizes and make a perceptual judgment of which shape matches the comparison shape. Confederates were used to give a false answer in the Misinformation condition. Participants rated their confidence in their answers as being correct, took the BFI-44, and gave demographics information. It was hypothesized that extraverts would be less likely to conform and that participants will be less confident in their answers when given misinformation. There was sufficient evidence to support both hypotheses.

Abstracts

Student: Powell, Tabitha **Major**: Psychology
Faculty Mentor(s): Goodmon, Leilani
Co-presenters: Brown, Katie
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: The Relationship Between Working Memory Capacity and Mental Rotation Reaction Time

Abstract: This study examines the correlation between working memory capacity and 3D and 2D mental rotation performance. Previous researchers found that high capacity in several areas of working memory are linked with greater accuracy on mental rotation tasks (Pardo-Vasquez & Fernandez-Rey, 2012; Hyun & Luck, 2007; Kaufman, 2007). However, the purpose of this study was to investigate whether the correlation between working memory capacity and mental rotation accuracy also generalized to reaction time on mental rotation tasks. Participants were given an operation span task to determine working memory capacity, and were given both 2D and 3D mental rotation tasks. Participants' reaction times at various rotation angles were used as the dependent measures. Participants were grouped into either high or low working memory capacity groups based on their operation span scores, and a series of correlation analyses were conducted. While we did not completely replicate the correlation between high working memory capacity and mental rotation performance found in previous studies, we did find an effect of rotation angle in those with lower working memory capacity: the reaction times of participants with lower working memory capacity suffered more when a figure's rotation angle was more extreme, while those with higher working memory capacity were unaffected by the extremity of rotation angle. These results could imply that people with higher working memory capacity approach mental rotation tasks differently than those with lower working memory capacity.

Student: Punwasi, Wiresh **Major**: Mathematics
Faculty Mentor(s): Carter, Lisa
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 1:50 - 2:05

Title: Our Delinquent Youth: Can After School Programs Be a Tool?
Abstract: This presentation will bring forth research regarding the impact of after school programs on juvenile delinquency. For years, after school programs have been said to reduce the potential for delinquency by putting juveniles under supervision during times when juvenile crime is proven to be more frequent. The structure and effectiveness of after school programs are being analyzed to determine if they truly serve the purpose of reducing delinquency among juveniles. This study will delve further into the concept of the peak times of delinquency, apply two important behavioral theories (Hirschi's Social Bond Theory and Agnew's General Strain Theory) to help explain delinquency, compare domestic after school programs to some abroad, and present policy suggestions.

Student: Rakes, Jonathan **Major**: Music- Music Education
Faculty Mentor(s): Burke, Lawrence
Co-presenters: Ramos, Michel; Moore, Patrick; and Fitchett, Corby
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 2:20 to 2:30

Title: Shadows in Triple
Abstract: Our piece was inspired by our music history professor Mr. Burke. He encouraged the class to compose a piece based on the 12 tone model. The twelve tone model is a math based model that uses every note in an octave (I.e. C2 to C3) and doesn't repeat a note until all other notes have been played. This is called the Tone Row. After the tone row is created then you must make a mirror image or retrograde of that melody. You must also make an inversion and a retrograde inversion. Basically 4 melodies come from the first idea and all must be incorporated into the song. We were inspired by this idea so our song is a combination of that idea and a mixture of instruments and piano.

Abstracts

Student: Ramos, Michael **Major**: Music- Performance
Faculty Mentor(s): Parsché, Paula
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 2:10 to 2:20

Title: Sonatine - Ravel
Abstract: I was prompted to research Maurice Ravel's "Sonatine" after being assigned the piece for recital. What followed the research was a genuine interest and near obsession with Ravel's musical genius. The first movement was completed in 1903 for a competition. "Sonatine" was the only entrant, however, the piece was disqualified for being a couple measures too long. The second and third movements were completed two years later. Despite the stumble in the beginning of its life, "Sonatine" became an essential part of Ravel's developing style. Through usage of motifs, unresolved chords, and classical form structure, Ravel surpassed the "impressionist" label given to him and entered a new world of neoclassicism. "Sonatine" is a thrilling piece that requires incredible hand-eye coordination. The piece contains unusual positioning of both hands, fast arpeggios, rapid ostinati in strange intervals, and many polyrhythms. "Sonatine" is, most definitely, one of Ravel's most organized and classically oriented works.

Student: Ramos, Sardee **Major**: Music- Performance
Faculty Mentor(s): Stahl, Diane
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 2:30 to 2:40

Title: Dove sei, amato bene?; George Frederick Handel
Abstract: My presentation will be about George Frederick Handel and his opera, Rodelinda, which takes place in 17th century Italy. The King of Milan, Bertarido, has been overthrown and has vanished, leaving behind his wife and son who presume he is dead. Bertarido can no longer endure being without his family. Heartbroken, Bertarido sings Dove sei, amato bene? The lyrics are in Italian and are translated into: Where are you, beloved? Come, console my heart! I am full of sorrow and can only bear this pain with you beside me. As a voice performance major getting ready to attend graduate school next year I believe that being a part of Fiat Lux is a wonderful introduction to the type academic material I will be writing about for my graduate thesis as a performance major. The role of Bertarido is played by women in "pants roles" which means a woman taking on the role of a man. I will talk about Handel as well as Rodelinda and perform the aria, Dove sei, amato bene.

Abstracts

Student: Reichert, Corey **Major**: Economics and Finance
Faculty Mentor(s): Bias, Peter
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 2:05 - 2:20

Title: Some Tests of Neo-Fisherism
Abstract: Neo-Fisherism, the theory that monetary authorities should expect inflation rates to be positively and causally related to nominal interest rates, has recently been offered as a call for the Federal Reserve to raise interest rates off the zero lower bound, with the expectation that inflation will therefore rise. This theory is, of course, counter to long-held beliefs and models of how monetary policy "works." Given that the implications may be dire if this approach is implemented and wrong, and transformational if it is implemented and right, Neo-Fisherism certainly seems worthy of a close look. A brief review of the current debate regarding the efficacy of the Neo-Fisherism approach to monetary policy is presented. We then test the Neo-Fisherism argument by simulations under adaptive expectations and rational expectations regimes using an off-the-shelf consensus New Keynesian model. In particular, we test the rational expectations approach regarding how rational expectations is modeled as well as the levels of certainty in those expectations. Finally, we compare our simulations with actual US macroeconomic data to see which monetary policy approach appears to give the best fit.

Student: Reynolds, Lauren **Major**: Psychology
Faculty Mentor(s): Smith, Patrick
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: The Brain Is: Effects of Graphic Novelization on Vocabulary Development.
Abstract: Metaphor visualization (a technique in graphic novels) has been shown to make difficult content more engaging and comprehensible, and it has even been applied to the natural sciences. The study explored whether visual metaphors enhance an understanding of neuroscience-based vocabulary. Sixty introductory-level participants were exposed to a 10-minute video lecture on basic neuron communication in the nervous system. During the video, they were one of two vocabulary content formats (from the video): a text-based format and a graphic novel format (in which words illustrated a "story" that likened words to a working metaphor about politics and media). After the study time, participants were given two questionnaires that measured a.) level of engagement for the ancillary material and b.) short-term retention of the content. Two weeks later, students were given another questionnaire to measure long-term retention of the content. Results demonstrated that participants rated the graphic novel materials significantly higher than the text-based materials, and errors on vocabulary-based content (both short- and long-term) were significantly lower for participants who received graphic novel materials ($ps < 0.05$). These data suggest that the visual imagery in graphic novelization may prove useful in the enhancement of neuroscience-based vocabulary.

Student: Richard, Emily **Major**: Music- Music Education
Faculty Mentor(s): Brink, Brian
Co-presenters: Rakes, Jonathan; Grooms, Judah; Murray, John and Moore, Patrick
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:35 to 1:40

Title: Grainger Suite; Percy Grainger (arr. Joseph Kreines)
Abstract: The FSC Student Brass Quintet will be performing the "Grainger Suite" by Percy Aldridge Grainger (arranged by Joseph Kreines). Percy Aldridge Grainger (1882-1961) was an Australian-born composer and pianist, as well as a folk song collector. The "Grainger Suite" contains four of Grainger's compositions, titled Lisbon, Sussex Mummers' Christmas Carol, Six Dukes Went A-Fishin', and As Sally Sat A-Weeping.

Student: Riley, Laura **Major**: Chemistry
Faculty Mentor(s): Le, An-Phong
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Depth Profiling of Capsaicinoids
Abstract: Peppers, both fresh and dried, are used extensively in cooking throughout the world, and the capsaicinoids found in peppers (such as capsaicin and dihydrocapsaicin) give rise to the spiciness or pungency that many people find desirable. While peppers are common ingredients in a number of recipes, the migration of these capsaicinoids into food during preparation and cooking is not well understood. In this project, dry cayenne pepper powder was applied to beef samples, and after the spice was given some time to migrate into the meat, 50 micron sections were sliced to produce a vertical cross section. The capsaicinoids were recovered from each section using ultrasonic-assisted extraction and analyzed by gas chromatography-mass spectrometry. It was found that such compounds stayed concentrated within the first 100 microns from the surface of meat samples, and further investigations will examine the effect of different preparation methods (e.g. dry spices vs. liquid marinades, addition of salt) on flavor compound migration.

Abstracts

Student: Rodriguez, Jayden **Major**: Music- Music Education
Faculty Mentor(s): Chen, Fen-Fang
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 3:05 to 3:15

Title: The Well-Tempered Clavier: Prelude and Fugue no. 2 in C minor - J. S. Bach
Abstract: I will be performing Bach's Prelude and Fugue no. 2 in C minor, from the Well-Tempered Clavier (BWV 847). These pieces stood out to me as worth performing for Fiat Lux because of their technical nature. The pair also provides an introduction to Bach's keyboard works. The Prelude is a brisk, soloistic piece, which uses constant motion and chord changes instead of having a traditional melody. The rhythm of the piece never changes, but the tempo in the middle becomes extremely quick, making it more exciting to play. A fugue is a piece of music in which there are one or two themes played by multiple voices, successively. In Bach's Fugue no. 2 in C minor, there are three voices that trade off the main theme with one another. I've only got two hands, though! I have to use all of my fingers independently in order to make sure that all three of the parts can be heard clearly; especially when they have the melody. Bach wrote over a hundred fugues, becoming so good at it that he could even improvise them on the spot.

Student: Rooker, Amy **Major**: Biology
Faculty Mentor(s): Blankenship, Chastity
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 4:10 - 4:25

Title: Likelihood of Condom Use for the Prevention of Transmission and Contraction of STIs Among College Students Who Do Not Rely on Condoms as Their Primary Form of Contraception
Abstract: The Centers for Disease Control and Prevention reports that of the 20 million new sexually transmitted infections (STIs) that occur annually, half of all infections occurs among young men and women ages 15-25. Given this striking figure, it is important to learn more about the sexual health among students so that measures may be taken to reduce the incidence of STIs. Research has shown that the risk of contracting an STI has little to no influence on one's decision to use a condom, whereas risk of pregnancy is the main contributing factor influencing condom use. The ultimate goal of this research is to determine the likelihood of students who do not rely on condoms as their primary form of contraception to use a barrier method (e.g., condoms) to protect themselves against sexually transmitted infections. This notion is based on the increased level of STIs in retirement communities, where the residents have passed childbearing age and no longer need to use condoms to prevent pregnancy.

Student: Santillanes, Alejandra **Major**: Music- Performance
Faculty Mentor(s): Jossim, Jo
Co-presenters: Patterson, Amanda; Workman, Abigail; Rodriguez, Jayden and Vivi, Tory
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 1:45 to 2:00

Title: Trois Pieces Breves by Jacques Ibert
Abstract: Jacques Ibert (1890-1962) was one of the most influential french composers of the 20th century. He grew up playing violin first and then piano, ultimately deciding to continue his professional career as a composer. For some time before entering the Paris Conservatory, he worked with his family during a time of financial struggle and uncovered his own interest in the world of theatre. After his father discontinued support of his career in music, Ibert earned money for his studies by improvising music on piano for silent film theatres. This greatly influenced his playfully colorful, picturesque and improvisatory style, which is more than evident in his "Three Brief Pieces" written for woodwind quintet. The first movement introduces a jig-like melody that bounces between the flute, oboe, and clarinet; supported by the colors and textures of the horn and bassoon. This "Allegro" takes the listener out on the excitement of a day in the country, full of adventure and joyful playfulness. The second "Andante" movement is much more contemplative of the beauty and peacefulness of nature with the serene textures of the flute and clarinet, and finally all five instruments in harmony. In the third and final "Assez lent" movement, Ibert uses atonal colors and contrasting melodies in all instruments in order to create a humorous and mischievously witty game between voices. A staple work of the woodwind quintet repertoire, this piece is meant to take the listener on a whimsical journey to freedom of the human spirit in nature.

Student: Saulter, Hope **Major**: Psychology
Faculty Mentor(s): Quinlivan, Deah
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Impressions Regarding the Media
Abstract: Nationwide reports of murder and rape are published daily. These commentaries are not extensively censored and tend to release personal information about victims that any potential juror could receive (Daftary-Kapur, Dumas, & Penrod, 2010). The United States Constitution guarantees the freedom of press, and the public the right to be informed of public cases (Freedman & Burke, 1996). However, The United States Constitution established the judicial branch of government to ensure that everyone receives a fair trial, but previous research has suggested that unforeseen effects of pretrial publicity may be swaying juries (Daftary-Kapur, Dumas, & Penrod, 2010). Unforeseen effects such as the Just World bias, the belief that the world is a just and fair place, where people receive the circumstances that they deserve (Benabou & Tirole, 2006). The purpose of this study was to examine whether defendant verdicts were biased with exposure to pre-trial publicity. In ninety percent of trials, the majority of juror's pre-deliberation verdicts related to prior information, such as pretrial publicity, which influenced the final verdict. (Bornstein & Greene, 2011). Furthermore, additional research on pretrial publicity is needed to inform potentially new laws.

Student: Schomaker, Rachel **Major**: Biology
Faculty Mentor(s): Gasper, Brittany
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 4:45 - 5:00

Title: Waterfowl Influence on Fecal Indicator Bacteria in Central Florida Freshwater Lakes
Abstract: While many bacteria are beneficial to the ecosystems in which they are found, some bacteria can be indicators of pathogens that can raise human health concerns. Fecal coliform bacteria such as *Escherichia coli* are bacterial indicators that can survive similar conditions as pathogenic bacteria and originate from many of the same sources as pathogenic bacteria. High fecal coliform bacterial counts in water can be strong signs of contamination and pathogen presence. These counts may be influenced by waterfowl and mammalian presence, as well as many other well-studied environmental factors. While this area of research has been examined before, conflicting conclusions have been reached as to whether or not waterfowl abundance positively correlates with coliform bacteria abundance. Levels of the fecal coliform *E. coli* and *Enterococcus* species were measured from five freshwater lake samples collected around Lakeland, FL. The organisms were identified through a combination of biochemical characterization and genetic sequence analysis. Strain typing of the fecal bacterial isolates was performed to determine if the strains isolated from a lake match those found in the feces of the waterfowl present at the same lake. Results suggest a positive correlation between the abundance of *E. coli* and the presence of waterfowl.

Student: Sessums, Josh **Major**: Chemistry
Faculty Mentor(s): Le, An-Phong
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Alternative Solid Phase Extraction Methods for Isolation of Heterocyclic Aromatic Amines in Cooked Meat

Abstract: Heterocyclic aromatic amines (HAAs) are formed naturally in meat during cooking, and these compounds have exhibited mutagenic activity in vitro.Consumption of HAAs in cooked foods may be associated with increased incidences of gastrointestinal cancers.While meat samples have been analyzed in bulk to measure the HCAs produced through different cooking processes, the distribution of these compounds as a function of depth has not been investigated. In preparation for these efforts, this project investigated the use of Waters Oasis PRiME HLB solid phase extraction (SPE) cartridges to speed up the isolation of PhIP from cooked beef samples. PhIP recovery was quantitated using gas chromatography-mass spectrometry. Compared to previously reported methods using strong cation mixed-mode SPE media, preliminary work with the Oasis PRiME HLB showed reduced PhIP recovery with greater sample dilution. Future efforts will examine the recovery of other HAAs using these solid phase extraction methods, and the formation and migration of HAAs within meat during cooking will be profiled to better understand how these processes can be controlled.

Abstracts

Student: Seward, Haley **Major**: Psychology
Faculty Mentor(s): Goodmon-Riley, Leilani
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 4:40 - 4:55

Title: The Relationship Between Academic Factors and Personality Traits and Scores on the GRE
Abstract: Previous studies have revealed that GRE scores can be used with a student's GPA and practice tests to predict how well students will perform on certification tests. Furthermore, personality traits such as conscientiousness, rationality, ingenuity, quickness, creativity, and depth, have been shown to correlate with GRE scores. The purpose of the current study is to determine the relationship between various factors and how they influence students' GRE scores. These factors include: GPA, time spent studying for the GRE, academic history, scores on practice tests, and personality traits. Students enrolled in the Professional Issues Psychology course were used as the participants for this study. Participants took a total of three practice GRE exams throughout the semester, and were tested weekly on their verbal and math skills. Finally, each Participant was given a survey about the factors in question as well as a Big 5 Personality Inventory. Based on previous research, it is hypothesized that GPA, hours studied, quiz scores, and academic history will be positively correlated with GRE scores. Additionally, it is hypothesized that high scores on openness will be positively correlated with GRE scores, while high scores on conscientiousness, agreeableness, and neuroticism will be negatively correlated with GRE scores.

Student: Smith, Emily **Major**: Elementary Education
Faculty Mentor(s): Schaad, Gerrianne
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Promoting the Past: Engaging the Public Through Digital Media
Abstract: Our presentation focuses on our work to engage the general public in the Citrus Industry by utilizing social media. Posts are made on Facebook, Twitter, Instagram, Google+, YouTube, and BlogSpot about current events in the Citrus Industry, or interesting historical occurrences in the industry. We analyzed our sites and how much traffic each site garnered and how interactive people were on them. This helped us see what type of posts most people seemed interested in so we could increase the amount of people joining the sites and engaging with us. We also looked at the demographic of those joining the pages and interacting with us. This helped us alter what we post in order to gain a larger following. We found that alumni are more interested in the posts containing old crate labels, and the younger followers enjoy the posts around the Florida Southern College campus about the Florida Orange Bird. We hope to get more people interested in the Citrus Industry with our social media sites.

Student: Stemle, Leyna **Major**: Marine Biology
Faculty Mentor(s): Langford, Gabriel **;** Blake, Steve- Washington University
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 11:50 to 1:35

Title: Internal Temperature Differences of Three-toed Box Turtles (*Terrapene carolina triunguis*) from Rural and Urban Study Sites

Abstract: The St. Louis Box Turtle Project is an ongoing medical, temperature, movement, diet, and reproduction study of three-toed box turtles, which is conducted in both rural and urban study sites. The rural location is Tyson Research Center (TRC) and the urban location is Forest Park (FP). Over 2-3 years, the temperature of the turtles' shells was determined using iButtons, and hibernation data were gathered using surface iButtons. From the data collected, it seems that FP turtles are colder in the winter and warmer in the summer than TRC turtles (FP have a lower minimum and higher maximum temperature). TRC turtles are warmer during hibernation than FP turtles. Throughout the year, the temperature of FP turtles fluctuates more. Our study suggests that an urban habitat may be detrimental to box turtles' daily and hibernation-related temperature regulation. To ascertain how widespread this relationship may be, we suggest that more studies should observe the relationship between habitat quality (rural vs. urban) and the ability of box turtles to thermoregulate. Understanding these differences in thermoregulation, and the reasons behind it, will allow land managers to create and encourage habitats and parks that are more likely to support normal thermoregulation.

Abstracts

Student: Talit, Evan **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 209 **Time:** 4:55 - 5:10

Title: Breathe easy: cutting our carbon problem
Abstract: The United States dependence on dirty energy sources is one of the largest problems facing this country on a long-term scale. Despite recent downward trends in coal burning, coal remains the primary energy source and the United States burns the second most amount of coal in the world. Coal and crude oils produce about half of the energy consumed in the U.S. on a yearly scale, and they are not sustainable sources in a variety of ways. Burning coal itself produces a number of toxins, produces a quarter of global warming emissions and is responsible for 80% of anthropogenic carbon emissions in the United States. These emission scenarios are not just bad for the local environments (although, these areas do receive the brunt of the impact) they are also bad for the global environment as a whole. Pollutants in coal and other dirty energy sources contribute to most of urban air pollution in populated areas These pollutants are linked to lung diseases and onset as well as preexisting asthmatic conditions. The issues that these sources create have effects on the health of our planet as well as our health. This paper proposes a list of policy solutions that put the United States on a path to reducing our reliance on fossil fuels.

Student: Taylor, Brendan **Major**: Philosophy
Faculty Mentor(s): Harding, Sarah **;** Nethery, H.A.
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 209 **Time:** 4:25 - 4:40

Title: From Plato's Academy to Aristotle's Lyceum: How the Scholarch Model Radicalizes the Role of the Student
Abstract: The aim of my essay is to examine the more subtle pedagogical nuances between Plato's Academy, Aristotle's Lyceum, and its respective members. By doing so, further clarity will be made into how the works that are presented to us today did not emerge from an intellectual singularity, but the rigorous and often conflicting ideas that come from the scholarch model that each philosophical community utilized. Furthermore, professor and historian Jonathan Z. Smith's 'White Lie' will demonstrate how the current day educational system takes the labors of these Axial Age disagreements and present them abridged, omitting much of the revisionary history that took place across the generations of scholarchs that would follow Plato and Aristotle.

Student: Telcy, Anne **Major**: Chemistry
Faculty Mentor(s): Le, Dr. An-Phong
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 1:20 - 1:50

Title: Determining the distribution of Imidacloprid in citrus leaves by Gas Chromatography/Mass spectroscopy (GC/MS) with QuECheRS
Abstract: Imidacloprid is a widely used systemic insecticide by farmers throughout the world. It is commonly applied to the soil around citrus trees to prevent citrus greening disease. It has been observed that imidacloprid fails to protect trees from the insect that transmits greening once the tree reaches a certain height. This project aims to investigate whether or not imidacloprid is present in leaves at various translocation distances from the roots since systemic insecticides are effective only if they are absorbed into and transported throughout the whole tree. Homogenized dried leaf tissues were prepared using a QuEChERS method, and imidacloprid concentrations were measured using gas chromatography-mass spectrometry. Representative data and conclusions will be presented.

Student: Thiele, Danika **Major**: Communication- Advertising and Public Relations
Faculty Mentor(s): Trice, Mike
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 1:50 - 2:05

Title: Genetically Modified Statutes: America's Branding of GMOs
Abstract: Misconceptions are easily made when purchasing produce or other foods with inconspicuous or nonexistent labels due to the proliferation of branding caused by the modern media. In this presentation, I confront the public issue of Genetically Modified Organism (GMO) retail food labeling in the U.S. by reviewing policy arguments both in support and against labeling food containing GMOs. By describing the existing U.S. federal regulatory system pertaining to product branding, I explain why GMOs do not currently require labeling. I also review and interpret American consumer attitudes toward mandatory GMO retail food labeling, as found in recent studies. Scientific research regarding genetically modified foods will be discussed, in addition to a clear description as to what foods are "GMO," "natural," and unlabeled. Legislative and litigation strategies for the mainstream food non market strategy framework will be suggested in conclusion. This proposed framework could help assess what is and is not a genetically modified food, creating a more organized system and protecting the interests of American consumers.

Abstracts

Student: Trunzo, Jacob **Major**: Music- Performance
Faculty Mentor(s): Parsche, Paula
Presentation Type: Performance
Presentation Day: Tuesday April 26th
Room: Branscomb 202 **Time:** 3:15 to 3:25

Title: Piano Performance, what you might not know.
Abstract: I'm going to be conveying the idea of rubato, and with that how performing in different styles can change the approach to the instrument. I will approach this with a piece of music and the different ways it can be played. The style and the tempo moving with the implementation of rubato. Rubato itself is the "give and take of time" so, moving in and out of a strict tempo. I will also cover how being a classical pianist with other tastes in music and be a jack of trades situation, where we must change hats in a way to fit into different environments of music.

Student: VanDenDriessche, Ashlyn **Major**: Accounting
Faculty Mentor(s): Hardin, Cindy
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Moc Theatre **Time:** 1:20 - 1:35

Title: Is Scientology Shirking the Law?
Abstract: This project will investigate the Church of Scientology and whether or not they are shirking the law. The project will first discuss how and why Scientology was formed and how it became a religion recognized by the IRS. The project will explain the various legal entanglements and questionable actions the church was involved in during their formation. Next, the project will shift into modern-day legal disputes dealing with the church. These disputes explain how the church uses First Amendment legal rights, which they gained when the IRS recognized them as a religion. It will also discuss how the church treats its members, what life is like in the church, and how the church treats those who oppose them. The project will also discuss various claims about the church that have not gone to court. Discussing these claims will help others to understand the inner-workings of Scientology and why people sometimes choose to leave the church. The ultimate goal of this project is to prove the Church of Scientology is shirking the law, or at least taking advantage of it.

Abstracts

Student: Welch, Tim **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce**;** McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 208 **Time:** 2:05 - 2:20

Title: Curing the ACA: How to Close the Medicaid Gap
Abstract: Following the implementation of the Patient Protection and Affordable Care Act (ACA), several states opted out of expanding Medicaid within their states. These actions created a situation in which 3.8 million Americans have found themselves paradoxically earning too much money to qualify for Medicaid while not making enough to be eligible for federal insurance exchanges. These 3.8 million people were meant to be covered by the ACA, but because of the decisions of their home states find themselves continuing to go without health insurance. Using Bardach's model for policy analysis, I examine three potential policies the government could enact – government administered medical services, an expanded employer mandate, or an expansion of federal exchange eligibility – in order to close the gap. In order to evaluate which policy option is the best, I judge each by the following three criteria: cost, political viability, and efficacy. After running my analysis, I will make a policy recommendation based on which option I find the best.

Student: Widner, Katie **Major**: Political Science
Faculty Mentor(s): Anderson, Bruce; McHugh, Kelly
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 2:55 - 3:10

Title: Access Denied: The Dilemma of Modern Birth Control
Abstract: This presentation will address the problem of limited birth control access for many American women today. Although many types of contraception exist, they are not always affordable and easily accessible. This is a universal problem facing women in the U.S. This presentation will suggest and evaluate a series of alternatives to expand birth control options. Ultimately, this presentation will make a case for expanded birth control options for modern women.

Abstracts

Student: Wilson, Suzanne **Major**: Biochemistry and Molecular Biology
Faculty Mentor(s): Bromfield, Deborah
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Isolation and Identification of Antibacterial Compounds
Abstract: Antibiotic resistance is on the rise in many bacteria strands. Some well-known resistant strands include MRSA, pneumococci, and Salmonella typhi. Most of this resistance comes from the misuse and overuse of antibiotics. Even though there are efforts to change our habits, there is still a need for new antibiotics to kill these resistant strands. The purpose of this study is to isolate and identify antibacterial compounds that were found in known antimicrobial producing bacteria collected from soil samples. Methods that were conducted include thin layer chromatography (TLC), prep-thin layer chromatography, column chromatography, high performance liquid chromatography (HPLC), gas chromatography mass spectroscopy (GC-MS), ultra violet spectroscopy (UV-Vis), and nuclear magnetic resonance spectroscopy (NMR). Two bacteria samples containing antimicrobial properties were analyzed. The results showed that one of the compounds had similarities to a well-known class of antibiotic compounds known as prodigiosin. The second compound does not appear to match characteristics peaks on the NMR spectrum. Further studies include optimizing the purification of the medium in the extracts and trying to identify the structure of the compounds.

Student: Young, Matthew **Major**: Biology
Faculty Mentor(s): Morvillo, Nancy**;** Langford, Gabriel
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 4:30 - 4:45

Title: Investigation of the phylogeny of parasitic mites found in the nasal cavity of Southen leopard frogs
Abstract: Many molecular genetic studies have been conducted investigating the phylogenetic relationship between a variety of mites to determine the common ancestor to the mites as well as what species they delineated from. There is a large store of genetic information that is at the disposal of researchers looking to study the phylogenetic relationship between species in GenBank. A large portion of the genetic information is from the cytochrome c oxidase subunit one region of the mitochondria DNA that is commonly sampled to study intraspecies and interspecies relationships. The information gained from studying the genetics of the nasal mites of leopard frogs can be used to determine any phylogenetic patterns that may have been over looked in previous GenBank submissions, as well as examine the other submissions for possible errors.

Student: Zenga, Danielle **Major**: Art- Graphic Design
Faculty Mentor(s): Romero, Samuel**;** Blackmore, Eric
Presentation Type: Creative Art
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 - 3:05

Title: Fast Fresh & Fit
Abstract: I wanted to develop a brand with a unique design that was very professional for my senior graphic show. I created the company "Fast Fresh & Fit" because I am extremely passionate about eating healthy food. I believe that the food we eat can contribute greatly to how healthy we are, and that eating locally grown food can be beneficial to both our health and the environment. Unfortunately, in our society today, it can be very difficult to eat healthy food with our increasingly busy schedules. It was important for me to create a brand that was not only completely locally grown and eco-friendly, but also easily available and ready to grab and go.

ABOUT FAST FRESH & FIT Fast Fresh & Fit provides fresh, local options giving you a convenient way to eat healthy and amazing meals. Our goal is to eliminate the hassle of planning and cooking meals or purchasing frozen meals packed with preservatives. The menus are developed from only local foods that are seasonal, allowing our recipes to be constantly evolving. This gives you variety and options in your meals and meal plans. There are no bad choices in our stores. We make sure of it. We do this through an unwavering commitment to getting things right. The right partnerships. The right ingredients. The right balance. With a strong affinity towards clean, healthy and sustainable living, we are obsessed with delivering a modern convenience that suits all lifestyles and dietary needs. We are passionately picky when it comes to the choices we make. From our internal team of chefs and nutritionists to our trusted farmers, ranchers, and food suppliers, we aim to create stores that reflect our guests' values towards health, community, and sustainability. It's this commitment that produces strong, successful relationships. And it's this promise that drives everything we do.

Abstracts

Student: Zinno, John **Major**: Chemistry
Faculty Mentor(s): Montgomery, Jason
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 207 **Time:** 3:45- 4:15

Title: The Optimization and Synthesis of Nanomatryoshkas with applications in Photothermal Ablation
Abstract: In recent years plasmonic nanoparticles have shown a great deal of promise in a wide variety of applications. One particularly interesting application of plasmonic nanoparticles is their application as a photosensitizer in photothermal ablation treatment. However, due to the nature of plasmonics, is has been difficult to design a nanoparticle that can be used effectively in the body due to geometric and optical restraints. A new nanoparticle design, known as a nanomatryoshka, is a spherical multilayered particle that is capable of overcoming these restrictions. Since these particles are layered, any given nanoparticles size can have a wide variety of internal configurations and therefore optical properties. We have run Finite Difference Time Domain (FDTD) simulations on a comprehensive set of nanomatryoshka architectures spanning all possible designs in order to identify the optimal architecture for photothermal ablation applications. This optimal particle was then synthesized and characterized. The photothermal ablation efficacy of this particle was then evaluated using the Saccharomyces cerevisiae HA0 strain as a model.

Student: Zorn, Samantha **Major**: Psychology
Faculty Mentor(s): Quinlivan, Deah
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: Effects of Source Monitoring and Commitment Effects on Mugshot Exposure
Abstract: The purpose of the study was to determine if exposing participants to mugshots after viewing a video of a crime will affect the participants' subsequent identification of the perpetrator. To date, similar research studies have been done on mugshot exposure, but the current study will also view commitment effects toward the critical foil. A 2 (Perpetrator- absent and present) by 2 (Critical foil- present and absent), between-participants design will be used. Participants viewed a video of a crime, and were told to select a photo from a perpetrator-absent mugshot book. 48 hours later, participants returned to make an identification from a lineup. There was sufficient evidence to conclude that there was a significant interaction between the participants' ability to clearly see the perpetrators face and features in the video, especially with the absence of the target in the lineup. Given more time and participants, this study will have more results that would be significant.

Abstracts

Student: Zunic, Destiny **Major**: Criminology
Faculty Mentor(s): Carter, Lisa
Presentation Type: Oral
Presentation Day: Friday April 29th
Room: Christoverson 206 **Time:** 2:05 - 2:20

Title: A Case Study: Drunk Driving from the Criminology Perspective of Social Disorganization Theory
Abstract: For my honorization, I analyzed a local drunk driving incident through public records and social media posts, applying the Social Disorganization Theory (SDT) to attribute to the subject's behavior. SDT is defined as a theory attributing high-crime areas and resulting criminal behavior to a propensity for a lack of positive social bonds and controls, such as with a presence of delinquent subcultures, in the defined neighborhood (Adler, Mueller, & Laufer, 2013; Rengifo, 2009). I will begin by discussing a theoretical analysis of SDT. I will then provide an application of the theory through my case study from both the industrialized and rural area components. Prior to moving to a socially disorganized part of Lakeland, the subject lived and grew up in an under-developed community in the state of Ohio. I provide evidence from the subject's history to support a connection between his lifelong environments and relationships to his predilection to drive while under the influence of alcohol.

Student: Zunic, Destiny **Major**: Psychology
Faculty Mentor(s): Goodmon-Riley, Leilani**;** Carter, Lisa
Presentation Type: Poster
Presentation Day: Tuesday April 26th
Room: Honeyman Pavillion **Time:** 1:45 to 3:05

Title: The Effects of Media Type on Concealed Carry Perceptions on College Campuses
Abstract: The decision to allow concealed carrying on college campuses has become an extremely controversial topic. The purpose of the current study is to determine if a relationship exists between exposure to different types of media (fiction or non-fiction) of college shootings and student perceptions regarding concealed weapons on college campuses. An additional purpose was to determine if there is an interaction between certain demographic variables and exposure to different media clips. It was hypothesized that the trends of perceptions regarding concealed carrying on college campuses will change from baseline to post-test depending on the type of media to which a person is exposed. Furthermore, participants with all the pro-carry demographic characteristics and those with many anti-carry demographic characteristics would be least affected by any media. Participants that fell between the two extremes would be more likely to exhibit attitude changes after viewing the non-fictional media. Participants completed a baseline survey. They then watched one of three videos concerning guns on campus—a non-fictional compilation, a fictional account, or a college admissions video (control condition). After watching the video, participants completed a post-test containing the same questions from the pre-test, and additional questions designed to assess more in-depth attitudes.