



# 2013 Fall

# Fiat Lux

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

**Schedule of Poster Presentations Fall 2013 Fiat Lux**  
**All Presentations take place in the Lobby of CH**

**2:00 to 3:00**

<b>Last Name</b>	<b>First Name</b>	<b>Title</b>
Brown	Lauren	Against GMO
Cueto	Alexander	Protection of Fish and Wildlife in Florida
Falletta	Kaitlynn	Indoor Radon Health Risk
Klinepeter	Molly	Biomonitoring of Freshwater Invertebrates in Lake Hollingsworth
Lueber	Emanuel	Know Your Limits
Mohammed	Mohammed Ali	Johnson And Johnson: Environmental Sustainability and Profitability
Perry	Stanley	GMO (genetically modified organisms)
Rusk	Benjamin	What is Organic?
Scott	Michael	A Supplemental Investigation
Spagnuolo	Victoria	The Healthy, Hunger-Free Kids Act: Leaving a bad taste in our mouths?
Szczerba	Conor	Solar Energy in the Sunshine State

**3:15 to 4:15**

<b>Last Name</b>	<b>First Name</b>	<b>Title</b>
Beaumont	David	Be a Hero and Save the World
Capula	Fernando	Legalization of Marijuana
Davis	Leighann	Regulation vs. Innovation: Auto Franchise Laws
Gauslow	Lexi	Corporate Responsibility: TOM'S Shoes Case Study
Korattiyil	Marshall	Green Your Home
McCulloch	John	Keystone Pipeline
Schomaker	Rachel	Habitat Distribution and Ecology of Dragonfly and Damselfly Nymphs
Wallacew	Derek	Saving the Trees-One Instrument at a Time

## Schedule of Oral Presentations Fall 2013 Fiat Lux

<b>Last</b>	<b>First</b>	<b>Room</b>	<b>Time</b>	<b>Title</b>
Cota-Robles	Christina	207	2:15 to 2:30	Legitimacy and Counter-Violent Extremism
Nash	Lauren	207	2:30 to 2:45	The Elementary Reading Gender Gap
Myrberg	Ashley	207	2:45 to 3:00	The Effects of Eugenol on 3T3-L1 Adipocytes and Type II Diabetes
<b>BREAK</b>				
Toler	Charles	207	3:15 to 3:30	Isolation and Characterization of the Bacterial Diversity in the Microflora of the Coquina Clam ( <i>Donax variabilis</i> ) from the Florida Gulf Coast.
Suglia	Emily	207	3:30 to 3:45	Finding Novel Antibiotic-Producing Bacteria in Soil Samples: The Small World Initiative
Jensen	Tye	207	3:45 to 4:00	Raspberry Ketone Influence on PPAR-gamma Gene Expression in 3T3 pre-adipocytes as possible mechanism for anti-obesity effects
<b>BREAK</b>				
Beggs	Grace	208	2:15 to 2:30	Properties of proteolytic enzymes from thermophilic and hyperthermophilic archaea
Goodwin	Jared	208	2:30 to 2:45	Thinking Makes it So: Experiencing Shakespeare's Hamlet
van Huyssteen	Anushka	208	2:45 to 3:00	Laugh with me: An analysis of program context in relation to commercial viewing
<b>BREAK</b>				
Faison	Kristen	208	3:15 to 3:30	The Construction and application of an Inexpensive Absorption Spectrophotometer.
Schwarting	Leah	208	3:30 to 3:45	Broadcast and Facebook: A Study of Social Media in the Communications Department

## Fall 2013 Fiat Lux

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**Name:** Beaumont, David

**Co-authors:** Kenyah Brown, Chris Murphy

**Co-presenters:** Kenyah Brown, Chris Murphy

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Be a Hero and Save the World

**Abstract:** As a group we wanted to let people know that the disposal of old phones is a lot more detrimental than thought out to be. Most people go out and buy new phones when they simply get bored of their old phones and the disposal of their old phones is straight to the trash. We wanted to inform people of the negative effects cell phones and old phones have on the environment as toxins are released. This is such a serious problem as the rate at which one gets a new phone is sky rocketing and the disposal of the old phones is not being handled properly. Some of the rates are astonishing as on average people are getting new phones every 18 - 24 months and no one has really ever gone to the media or to the public with the issues of the wrongful disposal of old phones. We thought this was a good topic due to the fact that phones are one of the biggest industries today with a vast amount of technological advances making the demand increase drastically for phone products.

**Name:** Beggs, Grace

**Major(s):** Chemistry, Biology

**Faculty Mentor(s):** Roger Biringer

**Presentation Type:** Oral    **Presentation time:** 2:15 to 2:30    **Room:** CH208

**Title:** Properties of proteolytic enzymes from thermophilic and hyperthermophilic archaea

**Abstract:** We present a review of primary literature publications on proteolytic enzymes isolated from both thermophilic and hyperthermophilic archaea, collectively known as extremophiles. Extremophiles are organisms that thrive in extremes of conditions that are detrimental to most life. Thermophilic archaea specifically thrive under relatively high temperatures between 45 °C and 122 °C, and hyperthermophilic archaea thrive at temperatures above 60 °C. In order to survive under such extreme conditions, these organisms produce proteins and enzymes that remain biologically competent at temperatures that would normally denature most proteins. Proteolytic enzymes are those responsible for the degradation of proteins. In this review, discussion begins with a comprehensive overview of the structures, energetics and molecular interactions that prevent denaturation of the enzymes under these extremes of conditions. The effects of these conditions on cellular regulation of the proteolytic enzymes as well as enzyme activity are also considered. Lastly, applications of these proteolytic enzymes in industry for synthesis and biocatalysis are examined. All known, studied or predicted proteolytic enzymes are included as well as any known kinetic properties. Discussion also notes who the major research scientists in this field are.

## Fall 2013 Fiat Lux

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**Name:** Brown, Lauren

**Co-authors:** Brendan Mykle-Winkler, Eden Esquivel

**Co-presenters:** Brendan Mykle-Winkler, Eden Esquivel

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Against GMO

**Abstract:** GMO: Against Purpose: Are Genetically Modified Organisms safe? Definition: GMOs are plants or animals that have been genetically engineered with DNA of bacteria, viruses or other plants and animals. Key Points: Most developed countries consider GMOs as unsafe; several countries ban productions and sales of GMO products. In the United States, people are becoming more curious on what products contain GMOs. Though, large biotech companies have managed to keep this information to themselves. There has been a non-profit organization developed, called Non-GMO Project, their goal is to inform consumers on what foods have GMOs in them. They are striving to get labels put on the foods that contain GMOs. Studies have shown that there is about 80% of the processed foods contain GMOs. There are low and high risks of using the GMOs. Most of the GMOs worldwide are developed from herbicide tolerance. GMOs have been connected to health problems and environmental issues. Conclusion: The products that contain GMOs should be labeled. As consumers, the importance of knowing what is in our foods and potential risk of GMOs should be stated on those products.

**Name:** Capula, Fernando

**Co-authors:** Jonathan Cornelius, Dominic Lane, Yoshichika Saito, Ben Viox

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Legalization of Marijuana

**Abstract:** This presentation will display the benefits of legalizing marijuana would have in the United States. To begin this presentation will show the benefits terminal ill people get from using Marijuana and the advantages marijuana has over some prescription drugs. Next will be the benefits society will get from the lower crime. Also how the US government can gain revenue from all marijuana and marijuana products. Lastly if the government regulated marijuana then they could potentially make it safer for consumers just like the food administration does for the food that we eat. These are the main topics we will discuss.

## Fall 2013 Fiat Lux

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**Name:** Cota-Robles, Christina

**Major(s):** Political Science

**Faculty Mentor(s):** Kelly McHugh

**Presentation Type:** Oral      **Presentation time:** 2:15 to 2:30      **Room:** CH207

**Title:** Legitimacy and Counter-Violent Extremism

**Abstract:** This project explored ways the United States government responds to the socio-economic factors of terrorism through counter-violent extremism and counter-insurgency efforts made by development agencies and focused on the importance of establishing legitimacy. Legitimacy defines the lawfulness of an act based on the support of the people. If the people living in areas affected by terrorist activities do not accept the development projects of a region, those projects will not flourish. Locals must take ownership of the project in order to ensure success. In the same manner, violent extremist must be seen as legitimate organizations by possible recruits if they intend to continue their operations. Due to this phenomenon, the de-legitimization of terrorist organizations through media is equally important to counter violent extremism efforts.

**Name:** Cueto, Alexander

**Co-authors:** James Gibson, Sydney Montgomery, Clay Bolender

**Co-presenters:** James Gibson, Sydney Montgomery, Clay Bolender

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster      **Presentation time:** 2:00 to 3:00      **Room:** CHLobby

**Title:** Protection of Fish and Wildlife in Florida

**Abstract:** Our mission is to display the laws and regulations on fish and wildlife in the state of Florida. There are several different governmental run organizations that create the laws as well as hold society accountable to these laws. We will be focusing on the Florida Wildlife Conservationist to display one of these legal forces. From fishing to hunting, FWC works towards preserving the wildlife while letting gamers go about their business. To do this they place forth numerous laws and regulations on bag sizes, size limits and different seasons. Although these laws ,may seem to strict or descriptive, they have been set for everyone's protection. We will be touching base with a lot of these regulations, and how we as Florida residents can stay legally protected.

## Fall 2013 Fiat Lux

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**Name:** Davis, Leighann

**Co-authors:** Adam Carter, Jessie Viesta, James Flores

**Co-presenters:** Adam Carter, Jessie Viesta, James Flores

**Major(s):** Accounting Business

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Regulation vs. Innovation: Auto Franchise Laws

**Abstract:** In a nation that boasts endless opportunity through free enterprise, recent headlines have highlighted arguably outdated legislation that is bringing the nation to question whether the underlying intentions of these laws impede on the rights given to businesses in free market. Tesla Motors, Inc. is a manufacturer of innovative electric vehicles, selling its products directly to customers through Tesla stores and over the Internet. As Tesla began to expand across the United States, the company came up against a wall of lawsuits when multiple states sued Tesla for not abiding by the federal and state auto franchise laws. These laws prevent car manufacturers from selling their products directly to customers by requiring that they go through independent dealers. Although the dealers claim that the regulations protect consumers, the initial intent of the legislation was to protect dealers, a purpose which it continues to serve. Consequently, these laws act as a detrimental barrier to innovative startups like Tesla. This project questions whether this infringement on businesses' rights of free trade is justifiable by the protection of the consumers, and it explores what could potentially result if manufacturers were given the opportunity to experiment with alternative distribution models other than what the current franchise laws allow.

**Name:** Faison, Kristen

**Major(s):** Biology

**Faculty Mentor(s):** An-Phong Le

**Presentation Type:** Oral    **Presentation time:** 3:15 to 3:30    **Room:** CH208

**Title:** The Construction and application of an Inexpensive Absorption Spectrophotometer.

**Abstract:** The construction of a low-cost spectrometer that can be used in a variety of secondary and undergraduate programs. The spectrometer utilizes an LED light source, producing a full visible spectrum, an inexpensive diffraction grating, a stepper motor to rotate the diffraction grating, and a photoresistor and/or light to frequency converter to measure the absorbance. The application of the spectrometer to the measurement of bacterial growth will also be discussed.

## Fall 2013 Fiat Lux

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**Name:** Falletta, Kaitlynn

**Co-authors:** Miranda Rasnake, Shayla Bryant, Sara Martinez

**Co-presenters:** Miranda Rasnake, Shayla Bryant, Sara Martinez

**Major(s):** Health Science

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Indoor Radon Health Risk

**Abstract:** Have you ever stopped to think what might be in the air your breathing indoors? There could be high levels of Radon. Radon is a radioactive gas released from the normal decay of uranium in rocks and soil. It can be found all throughout Florida. There is no way to know if a building has high levels of Radon without testing, because it is invisible, odorless, and tasteless. High levels of Radon can have serious health risks, and lead to lung cancer. We choose this topic to further understand how Radon enters buildings, the health risks, testing requirements and the mitigation process.

**Name:** Gauslow, Lexi

**Co-authors:** Westin Riddle, Molly Adams, Jules Blythe

**Co-presenters:** Westin Riddle, Molly Adams, Jules Blythe

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Corporate Responsibility: TOM'S Shoes Case Study

**Abstract:** An investigation into TOM'S claims of being socially beneficial and into the regulations of organizations such as TOM's that claim social responsibility. TOMS slogan is 1 for 1, they give one pair of shoes to a third world country for every pair bought. We will analyze whether Tom's hand-outs and corporate practices align with true corporate responsibility and social cause. We will outline the systems in place to monitor and regulate acts of social responsibility by for-profit companies.



## Fall 2013 Fiat Lux

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**Name:** Goodwin, Jared

**Major(s):** Biology

**Faculty Mentor(s):** Catherine Eski, Nancy Morvillo

**Presentation Type:** Oral      **Presentation time:** 2:30 to 2:45      **Room:** CH208

**Title:** Thinking Makes it So: Experiencing Shakespeare's Hamlet

**Abstract:** The Canon of British Literature contains some of the world's most well-known and beloved works. An important part of the Canon is William Shakespeare's universally recognized Hamlet. One of Shakespeare's finest tragedies, Hamlet is often read by students of literature but rarely performed in a classroom setting. Fortunately, with a basic understanding of plot, characterization, and the Shakespearean soliloquy, Hamlet can easily be performed. A creative project, this Honorization project had two primary goals. The first goal was to share the power of Shakespeare's soliloquies with young students through close reading techniques. The second goal was to aid students in their understanding of Hamlet through live performance. This creative project was supervised by Dr. Catherine Eskin and the performance to be discussed took place in the Middle School Program at Rochelle School of the Arts in Polk County, Florida.

**Name:** Jensen, Tye

**Major(s):** Biology

**Faculty Mentor(s):** Emily Bradshaw, Britney Gasper

**Presentation Type:** Oral      **Presentation time:** 3:45 to 4:00      **Room:** CH207

**Title:** Raspberry Ketone Influence on PPAR-gamma Gene Expression in 3T3 pre-adipocytes as possible mechanism for anti-obesity effects

**Abstract:** The chemical compound 4-(4-Hydroxyphenyl)butan-2-one), also known as raspberry ketones, has recently been discovered to have miracle like weight loss properties. Raspberry ketones have been used in perfumes, as a food additive, recently in cosmetics, but most importantly to my research, this compound has been introduced as a weight loss drug. Specifically I will be studying the effect of raspberry ketones on the expression of the PPAR-gamma gene, and what effects this compound has on a cell's triglyceride concentration. According to several studies, raspberry ketones' anti-obesity action stems from increased norepinephrine induced lipolysis of white adipocytes in rats. Initially to begin the study on raspberry ketones' tie to weight loss, a concentration and time course study was completed on Chinese hamster ovary cells. The concentrations that will be tested are 1 uM, 10 uM, and 100 uM. The next phase of the concentration course study will be to establish and upper limit of toxicity and choose a reasonably dosing concentration for further applications. To test the upper limit concentrations 10 mM and 10 mM concentrations of raspberry ketones will be used. To study the effects of raspberry ketones on the PPAR-gamma gene, 3T3 cells will be administered this established dosing concentration over a 1 hour time course, and the expression of this gene will be analyzed using RNA analysis. A possible outcome of this experiment would be to visualize a suppression of the PPAR-gamma gene product by the raspberry ketones which would point to a possible mechanism behind raspberry ketones weight loss properties.

## Fall 2013 Fiat Lux

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**Name:** Klinepeter, Molly

**Major(s):** Environmental Studies

**Faculty Mentor(s):** Gabe Herrick, Celina Bellanceau

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Biomonitoring of Freshwater Invertebrates in Lake Hollingsworth

**Abstract:** The premise of the research was to study freshwater invertebrates and how they can be used as indicators of the health of the water in Lake Hollingsworth. Four different types of habitats were sampled: no vegetation, short grass, tall grass, and overhanging shrubbery. Five sites were sampled around the lake for each different habitat. Different qualities of the water for each site were tested, including pH, dissolved oxygen, ammonia, nitrite, and phosphate content. Using a dipnet, invertebrates were collected, placed in containers, and counted. Each site was swiped twice with the dipnet, except the overhanging shrubbery, which was swiped five times. The habitats with numerous mayfly nymphs and caddisfly nymphs present indicated good water quality. The short grass habitats displayed the best water quality out of all the habitats because they had the most mayfly nymphs and caddisfly nymphs present. It can be concluded that short grass habitats are conducive for good water health in Lake Hollingsworth.

**Name:** Korattiyil, Marshall

**Co-authors:** Pamela Paradis, James Straughn

**Co-presenters:** Pamela Paradis, James Straughn

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Green Your Home

**Abstract:** Greening your home is our objective. What we mean is fostering a more ecologically friendly household should be a homeowners goal, it will add to both economic and natural aspects of one's community. Answers to reach a status of a greener home will come from both the physical structure of a home and how we all run our daily lives: Eating in rather than eating out, choosing the proper way to prepare a dinner, developing more ecological methods to maintaining a lawn, use natural light to brighten your future, choose the most efficient energy star products, plugging air leaks will save you more green and many more methods will bring the average homeowner closer to reaching the status of a green household.

## Fall 2013 Fiat Lux

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**Name:** Lueber, Emanuel

**Co-authors:** Carl Lundberg, Adam Hansjons

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Know Your Limits

**Abstract:** The drinking age has been one of the most discussed issues throughout the last decade in the United States. The legal drinking age is different depending on where in the world you are located. Throughout this paper we will discuss what the positives and negatives are with a higher, respective lower drinking age, and try to speculate what the appropriate drinking age for the United States should be, and how a higher/lower drinking age will affect the environment and the society as a whole. In order for the U.S to find a suitable solution to this problem the government needs to be effective throughout their research, concrete work and dedication. Unless we prove our point on why a lowered drinking age would benefit the society as a whole, we will not see any changes in the coming years.

**Name:** McCulloch, John

**Co-authors:** Alexander Constantakis, Sota Watanabe

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Keystone Pipeline

**Abstract:** The Keystone Pipeline System is a four phase pipeline that transports crude oil from the oil sands of Alberta, Canada, and crude oil from the northern United States, primarily to the refineries in the Gulf Coast of Texas. Phases 1 and 2 are complete with phases 3 and 4 being delayed by the executive branch through the denial of requested permits that are necessary for construction. The pipeline has the potential to boost the economy with thousands of jobs and millions in potential revenue; however, runs the risk of detrimental impacts on the environment and contaminating crucial water supplies such as the Ogallala Aquifer.

## Fall 2013 Fiat Lux

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**Name:** Mohammed, Mohammed Ali

**Co-authors:** Brianna Nee, Megan Rector, Lexie Gutierrez

**Co-presenters:** Brianna Nee, Megan Rector, Lexie Gutierrez

**Major(s):** Environmental Studies

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Johnson And Johnson: Environmental Sustainability and Profitability

**Abstract:** Businesses damage the environment when they take natural resources from the Earth and dispose of waste. All of this is done within the natural environment in which interdependence exists with all entities in it. A company would harm the environment to whatever extent was profitable. Johnson and Johnson is the largest healthcare company in the world and one of their many responsibilities is protecting the environment. Johnson and Johnson puts a large emphasis on the interdependence between human health and the health of the planet, they aim to not only follow certain laws and regulations but to go above and beyond to reduce their environmental impact across all aspects of production and operation, and still stay profitable. By doing this Johnson and Johnson hopes to preserve and nurture the planets natural beauty and resources for future generations and can be used as a great example on how business can be profitable as well as environmental friendly.

**Name:** Myrberg, Ashley

**Major(s):** Biology

**Faculty Mentor(s):** Emily Bradshaw Brittany Gasper

**Presentation Type:** Oral    **Presentation time:** 2:45 to 3:00    **Room:** CH207

**Title:** The Effects of Eugenol on 3T3-L1 Adipocytes and Type II Diabetes

**Abstract:** Tulsi and cinnamon are plants with many beneficial qualities including anti-diabetic properties and lipid reduction. Several chemicals common to both have been identified that contribute to these beneficial qualities. However, the effects of eugenol, a chemical found in both plants, has not been studied extensively and it is unclear if eugenol has an effect on adipose cells. I tested the hypothesis that eugenol activates PPAR-gamma, a nuclear protein involved in lipid and glucose metabolism and insulin sensitivity. Trypan blue exclusion tests demonstrated that 1uM, 50uM, and 500uM concentrations of eugenol did not kill CHO cells compared to ethanol control. RNA isolated from eugenol treated 3T3-L1 cells was treated with reverse-transcriptase, and amplified by PCR using PPARgamma and actin primers. Preliminary data suggests that eugenol treatment results in increases in PPAR- $\gamma$  RNA. Thus, by activating PPAR-gamma, eugenol may enhance insulin sensitivity.

## Fall 2013 Fiat Lux

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**Name:** Nash, Lauren

**Major(s):** Elementary Education

**Faculty Mentor(s):** Lori Rakes

**Presentation Type:** Oral      **Presentation time:** 2:30 to 2:45      **Room:** CH207

**Title:** The Elementary Reading Gender Gap

**Abstract:** In classrooms throughout the nation and around the world, there seems to be a disturbing trend: boys are consistently outperformed by their female counterparts in the areas of reading and reading comprehension throughout the elementary grades. The purpose of this study was to answer the following research questions: 1. Does the reading achievement gap still exist between genders? 2. If so, what are the major identifiable causes of the gender reading achievement gap? It was found that the reading gender gap does in fact still exist, based on the examination of test scores, educational policy reports, and the accounts of teachers and administrators throughout the country. In addition, it was found that there are many causes for this gender gap and those reasons were placed into four distinct categories: attitude and motivation, personalities and learning styles, feminized elementary school culture and society's view of masculinity, and cognitive ability.

**Name:** Perry, Stanley

**Co-authors:** Kevin Jahna, Ryan Scarborough

**Co-presenters:** Kevin Jahna, Ryan Scarborough

**Major(s):** Citrus

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster      **Presentation time:** 2:00 to 3:00      **Room:** CHLobby

**Title:** GMO (genetically modified organisms)

**Abstract:** GMO For the study of (GMO's) or genetically modified organisms we will be looking at the current issues that crops help grow mass quantities of food for the world. The argument for this topic is that the modification of the genetics and chemicals used to create such mass producing crops are harmful to the consumers. The point that we will be proving is that they are just the opposite. The research will show that they are equal to or less likely to cause any bodily harm or sickness than a completely organic crop. The legality issues that this topic also presents has to do with food health and safety for the consumer.

## Fall 2013 Fiat Lux

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**Name:** Rusk, Benjamin

**Co-authors:** Bennet Harrington, Soleil River, Cam Grimsley

**Co-presenters:** Bennet Harrington, Soleil River, Cam Grimsley

**Major(s):** Business Administration Economics

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** What is Organic?

**Abstract:** Our intention is to investigate the actual meaning of Organic. What regulations, laws, and traditions go into that label on your local grocery store shelf? In light of events like the recent Naked Juice case, we plan to analyze not only regulations but also consumers' expectations of Organic products.

**Name:** Schwarting, Leah

**Major(s):** Communication- Broadcast, Print and Online Media Communication; Advertising and Public Relations

**Faculty Mentor(s):** William Allen

**Presentation Type:** Oral    **Presentation time:** 3:30 to 3:45    **Room:** CH208

**Title:** Broadcast and Facebook: A Study of Social Media in the Communications Department

**Abstract:** The paper contains a brief overview of the use of social media in education, the world, how it changes the minds of today's Digital Natives, as well as a small-scale study on the use of social media at Florida Southern College. The original hypothesis of the paper was that word of mouth would be more useful in a smaller setting than social media, since social media's effectiveness can go up with larger groups. To see whether or not social media would be more effective than word of mouth on a small scale the Communication Department's Broadcast Practicum @FSC: Fall Facebook page was observed. The page is used to communicate required practicum hours to students. Fifteen students in the department are required to log their hours. The students' recorded hours were then linked to Facebook posts that they observed to gain an understanding of how effective the page was. Several graphs were made to show the trend amongst the affected students.

## Fall 2013 Fiat Lux

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**Name:** Schomaker, Rachel

**Co-authors:** Molly Klinepeter

**Major(s):** Biology

**Faculty Mentor(s):** Gabriel Herrick

**Presentation Type:** Poster    **Presentation time:** 3:15 to 4:15    **Room:** CHLobby

**Title:** Habitat Distribution and Ecology of Dragonfly and Damselfly Nymphs

**Abstract:** The ultimate goal of this research was to describe the habitat distribution and ecology of dragonfly and damselfly nymphs. We collected dragonfly and damselfly nymphs from Lake Hollingsworth and the Southern Landing. Twenty sites of different habitat types were sampled; the different habitats included sites with no vegetation, sites with tall emergent vegetation, sites with short emergent vegetation, and sites with vegetation and overhanging trees or debris. Other features that were taken into consideration included vegetation type (if present), the types of organisms also inhabiting the area, the type of sediment present, and water chemistry. We examined the amount of nymphs that were found at each different location to determine which habitat type seems to be the best for the nymphs and why. Further, the presence of the nymphs in the different habitats will be related to the quality of the ecosystem and water itself.

**Name:** Scott, Michael

**Co-authors:** Ashley Woodham, Katieanne Morris, Ana Zele

**Co-presenters:** Ashley Woodham, Katieanne Morris, Ana Zele

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** A Supplemental Investigation

**Abstract:** Vitamins, minerals, fatty acids, fiber, amino acids, or other similar substances consumed outside of normal "foods" are considered dietary supplements. These supplements are supposed to be used to supplement a diet in which the consumer is lacking certain substances. While these dietary supplements can be helpful, they also are severely under regulated and often times incredibly dangerous. Currently, more than half of the adult U.S. population consumes supplements, most of which are multivitamins. These products are not intended to treat or prevent diseases. Unfortunately, that is there only regulation. Due to a bill being signed into law in 1994, Congress severely deregulated supplements to the point where the only regulation is not claiming to "prevent or treat diseases." Thus, many supplements are consumed that can be dangerous. Due to lack of funding, irresponsibility, and deceitful marketing purposes dietary supplements can actually become dietary disasters. With better investigation by the FDA, the amount of adverse effects due to unsafe supplements would decrease and the safety of consumers would increase. The disaster that is the current supplement market would be easily converted to a safe and successful food aid with some extra eyes.

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**Name:** Spagnuolo, Victoria

**Co-authors:** Olivia Spagnuolo, Rafa Gonzalez

**Co-presenters:** Olivia Spagnuolo

**Major(s):** Business Administration Communications- Ad & PR

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** The Healthy, Hunger-Free Kids Act: Leaving a bad taste in our mouths?

**Abstract:** In order to address the United States' epidemic of childhood obesity, President Barack Obama signed the Healthy, Hunger-Free Kids Act in 2010. This law allows the USDA to set nutritional standards for foods made and sold in schools across the nation. Among other things, it bans most high-fat, high-sugar foods and snacks from school premises and sets strict calorie limitations on student lunches. Is this an example of governmental overreach? As a group, we explored whether or not the Healthy, Hunger-Free Kids Act violates our rights.

**Name:** Suglia, Emily

**Co-authors:** BIO 1500 Biological Essentials Lab, Section 007

**Co-presenters:** Christina Casella, Shelby Booth, Isaiah Gonzolas, Luke Lewis

**Major(s):** Biology

**Faculty Mentor(s):** Nancy Morvillo, Brittany Gasper

**Presentation Type:** Oral    **Presentation time:** 3:30 to 3:45    **Room:** CH207

**Title:** Finding Novel Antibiotic-Producing Bacteria in Soil Samples: The Small World Initiative

**Abstract:** Antibiotic resistance has become a global problem. Many deadly pathogenic bacteria have become resistant to our strongest antibiotics, and we are rapidly running out of options to treat infections. A consortium of colleges and universities organized and led by Yale University, known as The Small World Initiative, is encouraging original research at the undergraduate level to find novel antibiotics from soil bacteria. A laboratory section of the freshmen major-specific course, BIO 1500 Biological Essentials, began isolating potential antibiotic-producing microorganisms this semester and is in the process of testing and characterizing them. Currently, we have 20 different candidate microorganisms that demonstrate the ability to inhibit the growth of relatives of pathogenic bacteria. Through the use of microbiological and molecular techniques, as well as crude chemical extractions, we have begun to characterize these organisms and the compounds they produce.



## Fall 2013 Fiat Lux

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**Name:** Szczerba, Conor

**Co-authors:** Conor Szczerba, Chelsea Oglevie, Mariah Cyphers, Robert Swann

**Co-presenters:** Conor Szczerba, Chelsea Oglevie, Mariah Cyphers, Robert Swann

**Major(s):** Business Administration

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster    **Presentation time:** 2:00 to 3:00    **Room:** CHLobby

**Title:** Solar Energy in the Sunshine State

**Abstract:** Solar Power in the Sunshine State Florida has more than 300 days of sun. However, this resource has not been harnessed as effectively as it should. Currently, most of the state's power is coming from "dirty" sources that harm the environment. By making homes, businesses and other buildings just 20 percent more efficient, enough energy could be saved to power almost 100 million homes. There is a recent push for more solar power, as this industry is growing and technology is becoming more accessible. Although, the initial costs are overwhelming and there is some debate how effective solar power truly is. Florida legislation has yet to fully jump on board of solar energy, but there has been recent progress. Overall, solar energy is a very important and achievable change for Florida.

## Fall 2013 Fiat Lux

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**Name:** Toler, Charles

**Co-authors:** Travis Barlow, Dr. Brittany J. Gasper

**Co-presenters:** Travis Barlow

**Major(s):** Biochemistry and Molecular Biology

**Faculty Mentor(s):** Brittany Gasper

**Presentation Type:** Oral      **Presentation time:** 3:15 to 3:30      **Room:** CH207

**Title:** Isolation and Characterization of the Bacterial Diversity in the Microflora of the Coquina Clam (*Donax variabilis*) from the Florida Gulf Coast.

**Abstract:** The Coquina Clam (*Donax variabilis*) serves as an indicator organism of the health of intercostal waterways. *D. variabilis* is a common inhabitant of the intertidal and shallow sub-tidal zones in the Southeastern United States that demonstrates optimal growth in environments of normal, uniform marine seawater with consistent isotopic composition of salinity and oxygenation. We isolated the natural occurring marine microorganism to give further insight into the organismal composition of a healthy *D. variabilis*. The health of the beach was measured by the level of fecal contamination in the water based on the number of fecal coliforms found in 100 ml of marine water. *Enterococcus* sp. does not directly indicate fecal contamination, but they do suggest a decrease in the health of the water and a potential increase in the presence of pathogens. *D. variabilis* were collected from the Fort Myers and Tampa Bay area of the Gulf Coast Florida during the month of June 2013 with relatively low levels of *Enterococcus* sp., being between 0-35 count per 100 ml of marine water. The metabolic, morphological and molecular characterizations of the isolated naturally occurring microorganisms of *D. variabilis* were carried out to further identify the taxonomic relationship of the various microflora inhabitants. The isolated marine microorganisms of the *D. variabilis* were characterized by sequencing the 16S ribosomal RNA, which serves as a molecular based species specific identification. Biochemical classifications were carried out by testing the classified microorganisms metabolic pathways using bacteriology specific biochemical procedures. Preliminary findings suggest that there is a close relationship between the health of intercostal waterways and the presence of the *D. variabilis*. The abundance of the *D. variabilis* varied greatly between that of healthy and unhealthy beaches illustrating increased levels of *Enterococcus* sp. present in the sampled marine water correlates to a decrease in the concentration of the *D. variabilis*. The isolated microorganism from the selected areas indicates a considerable healthy microflora of the Coquina Clam essential for sustaining the viability of intertidal and shallow sub-tidal zones in the Southeastern United States.

## Fall 2013 Fiat Lux

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**Name:** van Huyssteen, Anushka

**Major(s):** Communication- Interpersonal and Organizational Communication

**Faculty Mentor(s):** Dr. Cara Mackie

**Presentation Type:** Oral      **Presentation time:** 2:45 to 3:00      **Room:** CH208

**Title:** Laugh with me: An analysis of program context in relation to commercial viewing

**Abstract:** Some people have a love-hate relationship when viewing TV commercials. Especially, when a commercial interferes with viewing a specific program. However, there are those commercials that make everyone laugh and have everyone talking about them. This paper examines four concepts: Moods Induced by TV program, Emotions, Memory of Commercials, and Program Context and Evaluation of Commercials. Exploring these concepts enables a better understanding of how mood within program content affects recalling of a commercial, brand recognition and evaluation of a commercial.

**Name:** Wallacew, Derek

**Co-authors:** Kelsey Braun, Robert Williams, Bryant Phillips

**Co-presenters:** Kelsey Braun, Robert Williams, Bryant Phillips

**Major(s):** Music- Music Management

**Faculty Mentor(s):** Cindy Hardin

**Presentation Type:** Poster      **Presentation time:** 3:15 to 4:15      **Room:** CHLobby

**Title:** Saving the Trees-One Instrument at a Time

**Abstract:** The purpose of our project is to bring enlightenment on the subject of sustainability in the music industry, specifically pertaining to music instruments and government regulations regarding deforestation. Over the past century regulations regarding deforestation have grown starting with the Lacey Act of 1900, and including the most recent amendment to the Lacey Act in 2008. Not only will our project speak of regulations, but how many music corporations and organizations are standing up to the "green" initiative on their own and the steps they have taken to achieve such goals. Lastly, we will speak about businesses that have been affected by the Lacey Act, and other environmental regulations, and how they have combatted the rising costs of becoming more environmentally friendly.