

Fall 2015 Fiat Lux and Academic Showcase

November 20th in Christoverson from 2-4pm

Christoverson 206 – Oral Presentation Session I

Time	Last	First	Title
2:15	Morose	Clara	What's the Hold up? : The Brutle Delay of the Homeless in Haiti
2:30	Smith	Harley	The Beef with Beef: What's the Big Deal with Feedlots and E. Coli?
2:45	Ruzhin	Egor	Syrian Refugee Crisis and its Implications on Lebanon
Break			
3:15	Ruzhin	Egor	How Syrian Refugees Destabilize Political Situation in Lebanon
3:30	Griffies	Erin	The Kids Aren't Alright: Low Graduation Rates in Atlanta's Inner City

Christoverson 207 – Oral Presentation Session II

Time	Last	First	Title
2:15	Galvez	Kassandra	How to Successfully Implement John Locke's "Unbiased Adjudicator"
2:30	Miller	Cory	Alms for the ill: Generating compassion for the mentally ill
2:45	Spoto	Steven	Investigating the Genetics of Diterpene Production in the Genus Salvia
Break			
3:15	Wetz	Samantha	Making Up for Lost Time: An Examination of Native American Literature
3:30	Sniffen	Christine	Biofilm Tolerance In the Presence of Antibacterial Agents
3:45	Lamons	Margarete	"No! You can't say &\$%!@ on TV!" - A look into censorship in the media

Abstracts (alphabetical by student last name):

Student name: Galvez, Cassandra **Major:** Political Science **Faculty mentor:** Bruce Anderson

Title: How to Successfully Implement John Locke's "Unbiased Adjudicator"

Abstract: Originated by John Locke and later revived by John Rawls, the idea behind the “unbiased adjudicator” has been an attempt to uphold the morals and values of the law without a predetermined bias; however, due to previous research, it has been proven that bias still exists in the United States judiciary. Through past research, several questions can now be raised: how do we get an efficient judge in a biased system? How do we elect an efficient judge in a partisan country? My goal is to determine which state judges are the most efficient: elected or appointed. I will measure efficiency by examining the volume of caseload that the judge can process. My goal is to make a policy recommendation that can be adopted in every state. The concept of John Locke’s “unbiased adjudicator” is not implemented to its fullest potential in the United States judiciary. This, in part, is due to the failure in the current judicial selection policy, which allows for bias to be worked into its system. Bias is defined as the undo of political involvement in the justice system and the ability for states judges to act on any personal prejudice especially: ethnically and racially. This bias can occur due to personal advantages, goals, and morals. However, it is possible that the current policy may be the best and effective way to appoint/elect state judges; however, there may be other alternatives that lead to a decrease of bias in the system.

Student name: Griffies, Erin **Major:** Political Science **Faculty mentor:** Bruce Anderson

Title: The Kids Aren't Alright: Low Graduation Rates in Atlanta's Inner City

Abstract: Atlanta’s public school system does not effectively serve its students. As a result, there are too few high school students in Atlanta’s inner city graduating from high school and moving on to institutes of higher education. The “Atlanta public high school graduation rate [rose] in 2014” (2014) to 59.1 percent, and many high schools fell below state of Georgia’s 2014 average of 72.5 percent. Although the graduation rate rose in 2014, it is not proof that Atlanta’s inner city high schools are effectively serving their students (“Atlanta public school graduation rate rises in 2014, 2014). Moreover, there are disparities in terms of graduation rates within the Atlanta Public Schools system: north versus south Atlanta. Students who attend high schools located north of Interstate 20 (i.e. Douglass, Grady, North Atlanta, and Washington High Schools), on average, have higher graduation rates than their peers who attend high schools in south Atlanta (i.e. Carver, Jackson, Mays, South Atlanta, and Therrell High Schools). In addition, those high schools located south of Interstate 20 tend to have students living at lower socioeconomic levels than their peers attending high school north of Interstate 20 (Fortner, C., Faust-Berryman, A., & Keehn, G., 2013, p. 16-18). As a result, the likeliness of Atlanta’s inner city

students to, both, graduate from high school and move on to an institute of higher education is negatively affected by the quality of education they receive attending inner city schools; a lack of parental involvement due to a multitude of factors; and the lack of accessibility to, or knowledge of, programs intended to assist students in terms of their education and other social needs. I believe these inequities arise from a lack of emphasis placed on education by families living in the inner city due to a lack of education themselves. Moreover, schools are not providing an abundance of positive opportunities to their students due to a lack of funding, both public and private, and a lack of experienced teachers (Fortner, C., Faust-Berryman, A., & Keehn, G., 2013, p. 37, 46-7). Schools and their educators, ultimately, are not put in a position to be able to positively impact their students' educations in terms of graduating high school and moving on to an institute of higher education.

Student name: Lamons, Margarete **Major:** Business Administration **Faculty mentor:** Cindy Hardin

Title: "No! You can't say &\$%!@ on TV!" - A look into censorship in the media

Abstract: Censorship is the act of suppressing an opinion, speech, or action that is found offensive to a group of people, or could cause harm to a group of people. As a society, we experience censorship everyday without truly realizing it. This research goes into discovering the history of censorship with a focus on the media, how we are exposed to it in our daily life, public opinion of censorship, and if the opinion varies between general censorship and censorship of the media, and finally different forms of censorship around the world. The purpose of this thesis is to give people the information to know not only what censorship is, but how to recognize it, and be able to form an opinion on what they think is an appropriate level of censorship.

Student name: Miller, Cory **Major:** Psychology **Faculty mentor:** Deah Quinlivan

Title: Alms for the ill: Generating compassion for the mentally ill

Abstract: Stigma against people with mental illnesses is alive and well, despite ongoing efforts to educate the general population about the true nature of mental illness. The present research attempted to identify whether personality factors influence how willing people are to adjust their beliefs when provided information and experiences that contradict their beliefs. The specific factors analyzed were "Openness to Experience" and "Neuroticism", as theorized in the Big Five model of personality. Respectively, they refer to how fluidly one seeks novel information and experiences and how emotionally reactive one is to life experiences. The author hypothesized that people scoring high on Neuroticism and low on Openness would display less flexibility in their beliefs than those scored low on Neuroticism and high on Openness. Although the sample used in this research was not representative of the general population, the data collected suggest that individual personality features predict willingness to alter beliefs.

Student name: Morose, Clara **Major:** Political Science **Faculty mentor:** R. Bruce Anderson

Title: What's the Hold up? : The Brutle Delay of the Homeless in Haiti

Abstract: After the 2010 earthquake, approximately 2 million Haitians have been displaced from their homes, and are actively seeking permanent housing (Miami Herald, 2015, p.1). Initially, the U.S Agency for International Development (USAID), allocated 97.3 million dollars to help build permanent housing that could aid the thousands of displaced Haitians (United States Government Accountability Office, 2015,p.2) .The housing project has ground to a halt because USAID underestimated (or did not account for) the lack of available stock, unclear land tenures, and lack of government capacity. As a result, production has slowed dramatically in constructing homes for the people of Haiti. There has been a disconnect with the way either government from each country can resolve the process of building homes in a timely manner. Currently, the USAID has built 900 homes out of their decreased target goal of 2,649 homes (United States Government of Accountability, 2015, p.2). The problem the USAID and Haiti face is how to increase the production of housing to decrease the number of displaced Haitians.

Student name: Ruzhin, Egor **Major:** Political Science **Faculty mentor:** Kelly McHugh

Title: Syrian Refugee Crisis and its Implications on Lebanon

Abstract: After the start of the Civil War in Syria in 2011, 4,180,631 million people have fled their country and became scattered all over the region of the Middle East (UNHCR). With unstable government in Lebanon, which is now hosting over 1 million refugees (a quarter of the country's earlier population), it is dangerous to keep those people in refugee camps with their situation up in the air. The more refugees there are in Lebanon and the longer their situation is unresolved, possible influx of violence may bring the government of the country down. In the analysis below, we are going to discuss possible solutions to this crisis in order to prevent possible spill-over of the Syrian Civil War to other countries in the region (Jordan, Israel), which will put interests of the United States in the region at risk.

Student name: Ruzhin, Egor **Major:** Political Science **Faculty mentor:** Kelly McHugh

Title: How Syrian Refugees Destabilize Political Situation in Lebanon

Abstract: After the start of the Civil War in Syria in 2011, 4,180,631 million people have fled their country and became scattered all over the region of the Middle East (UNHCR). With unstable government in Lebanon, which is now hosting over 1 million refugees (a quarter of the country's earlier population), it is dangerous to keep those people in refugee camps with their situation up in the air. The more refugees there are in Lebanon and the longer their situation is unresolved, possible influx of violence may bring the government of the country down. In the analysis below, we are going to discuss possible solutions to this crisis in order to prevent possible spill-over of the Syrian Civil War to other countries in the region (Jordan, Israel), which will put interests of the United States in the region at risk.

Student name: Smith, Harley **Major:** Political Science **Faculty mentor:** Bruce Anderson

Title: The Beef with Beef: What's the Big Deal with Feedlots and E. Coli?

Abstract: After World War II, and the Great Depression, the realization that consumers were more inclined to buy beef that was produced from rations of grain and crop surplus fed cattle due to the fact that this type of diet produced a more pleasing to the palette, beef cut. Incidentally, this realization also led to the growth of E. Coli related health problems, not only in the animals raised to produce this more appealing beef, but also in the consumers. This is due to the fact that prior to this time period beef had been produced on a commercially fed diet, however after the war and the depression ended, the economy was in an upswing, thus, grain was more plentiful, and the beef eating consumers were happier, and therefore, more apt to allocate more of their funds to beef, as opposed to another source of protein, such as chicken. The received consumer reaction seen through the jump in sales from beef production led to the quest for a steam-lined, uniform process for the production of cattle. The answer: feedlots. Farmers began to pack as many twelve to eighteen month old heads of cattle, as possible, into pens that held anywhere from 100-125 other animals, leaving each animal roughly, 250 square feet per animal, and generally around one foot of space at the feed bunk during feeding times where they are fed scientifically formulated feed, altered to include antibiotics that protect the cattle from diseases like E. Coli, often found in animal holdings with close quarters, due to the amount of excrement that may accidentally be consumed by the animals (Fact Sheet: Feedlot Finishing Cattle, 2015). Grain-fed cattle have a far higher acid content in their intestinal tracts, therefore creating the perfect breeding ground for a thriving colony of pathogenic E. Coli bacteria easily found in undercooked hamburger and can cause serious health problems, if not death to the consumer. These deadly pathogens are found in the intestines almost all feedlot cattle in the United States (Pollen, 2006, pg. 41-42). "by acidifying a cow's gut with corn, we have broken down one of our food chain's barriers to infections (Pollen, 2006, pg. 43)." Fortunately, there are ways to help decrease the E. Coli epidemic. Pre-harvest intervention methods like; adding probiotics, Tasco 14 (a seaweed extract), treating water by; electrolyzing, chlorinating it, and/or oxidation, and the introduction of bacteriophages (vaccines that infect bacteria), however these methods, only decrease the E. Coli problem, they do not claim to eliminate the problem all together.

Student name: Sniffen, Christine **Major:** Biology **Faculty mentor:** Brittany Gasper

Title: Biofilm Tolerance In the Presence of Antibacterial Agents

Abstract: Defying the immune system as well as a variety of common antibiotics, biofilms are durable, microbial communities that appear as polysaccharide matrices; components contribute to the stability of the biofilm and provide the cells with increased resistance to environmental triggers. Because antibiotic immunity is such a major concern in the medical community today, it is necessary to aggressively study the biophysical properties of bacterial biofilms to suggest effective treatment amalgamations using antibiotics and therapeutic agents. Current studies have indicated, antimicrobial cationic peptides may inhibit biofilm growth via antimicrobial chemotherapy; therefore, we can expand

their anti-biofilm characteristics and test for synergism in eliminating attachment of clinical isolates of Gram negative bacteria such as *Pseudomonas aeruginosa* with current antibacterial drugs. For example, by determining the minimum inhibitory concentrations (MIC), minimum bactericidal concentration (MBC) and minimum biofilm eradication concentrations (MBEC) through a microbroth dilution technique, we can propose an effective combination of antibiotics and antimicrobial peptides to effectively inhibit biofilm formation and maturation. After studying the effects of anti-biofilm agents against known antibacterial strains, the possibility of eliminating preformed biofilms and inhibiting the further development of future infections may become more apparent and applicable for current medical treatment options.

Student name: Spoto, Steven **Major:** Biology **Faculty mentor:** Nancy Morvillo

Title: Investigating the Genetics of Diterpene Production in the Genus *Salvia*

Abstract: Modern medicinal practices have provided antibiotics, but this sometimes leads to the development of antibiotic resistant bacteria. The plant genus *Salvia* has been used for thousands of years in traditional medicine, and produces diterpenes, a known type of anti-microbial compound. This study examines several different species from this genus that have differing known levels of diterpene production. The medicinal properties, as well as the genetics behind diterpene production in these plants, will be examined. This study will attempt to show if compound from these plants can inhibit bacterial growth, and if the presence of genes known in the process of diterpene production can predict the production of these compounds and antibacterial action.

Student name: Wetz, Samantha **Major:** English **Faculty mentor:** Rebecca Saulsbury

Title: Making Up for Lost Time: An Examination of Native American Literature

Abstract: "Making Up for Lost Time: An Examination of Native American Literature" studies Native American origin stories in an attempt to demonstrate that Native American literature is not only a cultural resource, but also bona fide literature to be studied as seriously as all American literature. To prove my thesis, I have selected a sample of the Earth-Diver sub-genre of creation accounts from different tribes, comparing and contrasting their syntax and focus. As expected, examining syntax adds new depth to the tales, showing that Native American literature should be taught and studied rather than restricted to token mentions in university classes. However, developing and supporting my hypothesis is frustratingly difficult given the limited number of published scholarly articles on Native American literature, and a dearth of primary resources (the tales themselves in English translation). Despite recent progress, so-called minority literature is still marginalized into "niche" and "exotic" categories, ghetto-ized from the Anglo standard of canonical American literature. Nevertheless, focused, in-depth study of and research on Native American literatures in the academy can serve to diminish if not altogether erase the fetishizing of this field.