

# Carolyn M. Small HONORS Program

## Spring, 2014 Symposium

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Thank you to all judges, advisors, and students for all of the hard work that you have put into this year's Honors Symposium. Without you, this would not have been possible.

*All posters will be displayed 9:00AM – 3:00PM in the Hubbard Banquet Room in Serrick. Presenters will be available for questions during the 60 minute time slots shown below. Also, the number that appears in brackets is the location number.*

*The oral presentations will be held in the Buchman Board Room and Cultural Arts Center every half hour.*

*\* denotes a member of the Carolyn M. Small HONORS Program*

## Congratulations to all presenters at the Spring Honors Symposium!

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**9:00am**

### Poster

**Chelsea Bell-** Integrating Technology in San Carlos, Belize [1]

Presentation Advisor: Ken Adair

Internet safety and security is part of educating about technology. In San Carlos, Belize this subject was introduced. This project sought to teach smart practices for using the Internet safely and cost effectively. The other key is prevention of viruses and adult content by adding virus protection and applications to ensure safe Internet surfing. This is in addition to reviewing keyboarding and computer usage skills. In addition, a water safety piece was done. Community partners were taught emergency response skills and had hands on experience to practice each skill. Villagers were instructed in basic water safety and rescue techniques including back boarding, reach assists, active drowning victims, and passive drowning victims. I talked about skills like kicking, not diving in shallow water, family rules and ways to propel in the water.

**Catherine Savage\*-** Direct Instruction versus Inquiry-Based Instruction [6]

Presentation Advisor: Josh Francis

The main description for a teacher's job is to teach others. In order for others to be able to grasp the information that a teacher tries to teach them, it must be presented in a way that fosters learning. There are many different types of instructional strategies. It is a teacher's job to decide what the best approach to use during their lesson is. Some subjects tend to fall under one strategy more than others. In particular, the traditional approach to math lessons was to use direct instruction. However, with the Common Core State Standards inquiry-based instruction is being pushed. This has led to a debate in math education looking for which approach is best. In reality, both strategies are evidence based and have definite benefits for the students. A teacher should not be using one strategy consistently and can even use multiple strategies in one lesson. Therefore, they need to take into consideration the students they are teaching and the objective for that learning segment to decide what type of instruction would be the most efficient while allowing all students to achieve their highest level of success.

**Abby Taylor\*- The Ethicality of Facebook Marketing [11]**

Presentation Advisor: Edwina Phillips

Every day, millions of people log onto Facebook, create statuses, check their notifications, and read updates of their friends' lives. As we scroll through the news feed, there are the constant-changing advertisements that briefly catch users' eyes. But, if observed close enough, you will realize that those advertisements tend to relate to your personal interests and possibly to pages you have liked on Facebook. What has been discovered is that Facebook is allowing marketers to target specific users by accessing their personal information and interests entered on their profile page. The ethicality of this situation is constantly argued over in the subject of business ethics. Did Facebook make an ethical business decision by allowing marketers to utilize this personal user information to target potential consumers?

**Kirsten Frissora\*- Health Care in Rural Belize [16]**

Presentation Advisor: Mary Ann Studer

Health care and the components surrounding it, such as access and quality, are high priority topics in many countries; Belize is no exception. Lack of adequate and consistent health care in remote villages has been a problem for some time; in 2006, a government article stated that "the health sector suffered imbalances...towards cities and towns and away from rural areas" and reform for this problem has progressed slowly (Coye et al. 2006). My project collaborated with the villagers of San Carlos and Indian Church, and the Programme for Belize rangers and foresters to improve the overall health in these areas in which they live and work; which are at least three hours from a hospital or doctor. A four-pronged approach served as a framework for the various aspects of health addressed by this project. This framework included the compilation of a natural remedies book specific to the location, the implementation of lessons on the dangers of intestinal worms, emergency response training, and the analysis of the state of health in the community made possible by a health and water usage survey for community partners.

**Matthew Coons\*- Ceramics: A model for successful project planning [21]**

Presentation Advisor: Jason Stockman

This poster presentation will highlight the intricate steps required to successfully and effectively craft a ceramic piece to completion. This poster will additionally explore how such a process is an effective and elegant model for successful business project problem solving, planning and development. The main steps required to successfully create a ceramic piece will be paralleled with the main steps needed for successful business project planning and troubleshooting.

**Megan Roberts\*- Technology in the Classroom [26]**

Presentation Advisor: Fred Coulter

Examples of technology that can be used in an early childhood classroom as well as the importance and impact of each.

**Ashley Roon\*- Works of Design [31]**

Presentation Advisor: Amy Drees

I will be presenting past works that I have created here at my time at DC. Some of work in my portfolio is actual clients such as the play posters. My work varies from my freshman year to now. I have been able to grow with various client work and projects through the school as well.

**Ashley Williams\***- Claude Monet: The Impressionist [36]

Presentation Advisor: Caitlin Gorman

My poster is about the artist, Claude Monet and the styles of his work that made him so famous in the late 19th and early 20th century. I will present some of his images and explain the pieces to ensure the understanding of his works of art.

**Brock Bell**- Enhanced Electronic Education in San Carlos [41]

Presentation Advisor: Mary Ann Studer

In December of 2013, I introduced e-readers to the students at San Carlos Government School in Belize, as a pilot project, to see how the students would react to the use of the e-readers. Not only were the students excited to have the devices, many students began to read on the e-readers right away. The devices have a small learning curve, and all of the basic features were easily learned by the students in just a few minutes of class room instruction. This leads me to believe that there is promising potential for a further expansion of this project and the ways in which the e-readers may be used to promote increased reading and learning. This is critical to providing access to a large number of books at little cost.

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**9:00am**

**Oral**

**Amanda Fooce\***- Justice [Buchman]

Presentation Advisor: MC Harper

Justice in any society can bring about conflicting issues and ideas in community members. There are different writers and filmmakers who portray this conflict brought about by opposing views of justice, as well as real life situations that have happened in the past because of the term justice and how people view what justice means to them.

**Anthony Nolfi**- Safety and Security on College Campuses [Cultural Arts]

Presentation Advisor: Dr. Don Knueve

This Senior Capstone project focused on safety and security on college campuses. Defiance College students and faculty/staff members were surveyed on their attitudes and beliefs toward safety and security. The purpose of this study is to see if students and faculty/staff members will have similar attitudes and beliefs.

**9:30am**

**Kenneth Miller\***- Home Defense [Buchman]

Presentation Advisor: Steve Sondergaard

I will present on the laws and statutes on home defense. These laws including the Castle Doctrine and the state laws for Ohio and Michigan. I will discuss different forms of home defense, including concealed pistol licenses, the use of other firearms, security systems, and other forms of home defense.

**Katie Haydett\***- Vital Sign Monitoring and Medical Record Keeping in Tanzania [Cultural Arts]

Presentation Advisor: Dr. Jeremy Taylor

The purpose of this project is based directly off of the McMaster trip to Tanzania where I will be working in collaboration with the Mvomero Health Clinic and elderly group to assess the current health conditions and provide a vital sign monitoring kit. Introduction of the equipment in addition to the importance of health record keeping to the elderly group specifically will provide a more accepting outlook from community members and allow for more data collection for future scholars. In preparation for this project to be successful on the ground, I will be explaining how to take blood pressure with a manual device, as well as pulse rate, and respiratory rate. In addition a system of personal record keeping will be introduced just as it will be in Tanzania.

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**10:00am**

## Poster

**Heidi Knight\***- The Anatomy of Schizophrenia [2]

Presentation Advisor: Alyson Laframboise

Schizophrenia is a severe, chronic brain disorder. Much research has been done on schizophrenia, however its effects on the brain are more pertinent than doctors lead on. The signs and symptoms of schizophrenia are controlled by the brain. When the gray matter of schizophrenia attacks the brain tissue, it causes the symptoms of the disorder.

**James Hodgkinson-** Why Kill Jackson? [7]

Presentation Advisor: Dr. Jeremy Taylor

A study into Richard Lawrence and his motivations to attempt to take the life of Andrew Jackson, delving into the psychosis that was Richard Lawrence.

**Jordan Heiliger\***- Quality of Life in Rural Tanzania [12]

Presentation Advisor: Dr. Jeremy Taylor

Quality of life indicators are a good method to examine the needs in developing nations. My project examines quality of life in rural Tanzania in order to determine community needs and inform the allocation of resources for future projects. My research will take into account materials and other resources available within the community to insure that future projects are sustainable.

**Alyssa Turton-** The Marketing of the Sun Breeze Restaurant [17]

Presentation Advisor: Mary Ann Studer

The issue that my project addressed is that the Women's Group of San Carlos who worked towards managing a restaurant had no basic knowledge on small business management. I worked with the women of San Carlos and the Sun Breeze Restaurant to assist in the startup of their very first marketing plan. I helped create signage to place at multiple crossroads outside of the town to attract tourists. Another aspect of my project was to work towards creating a set menu with prices and multiple menu items. Lastly, the women embraced yet another side of creativity and continued jewelry making. My last goal was to have the women be able to sell the jewelry in the open air markets of Belize City where all the cruise ships dock at and therefore increase revenue in their village and get the name of San Carlos in the market.

**Susanna Stoepfel\***- Digitizing the Defiance College Herbarium [22]

Presentation Advisor: Dr. Douglas Kane

This poster will discuss the process of digitizing the Defiance College Herbarium. The challenges and importance of digitizing herbaria will also be examined.

**Cord Speelman\***- Gender in Society [27]

Presentation Advisor: Elisabeth Woronzoff-Dashkoff

Males and females have set gender roles within society although they are not always followed. Gender roles can differ based on cultural beliefs. In my poster I will talk about these heteronormativity and gender roles that have been placed on males and females and what is expected of them.

**Kianna DeHoek\***- Traumatic Brain Injuries [32]

Presentation Advisor: Jeffrey St. Onge

Traumatic brain injuries are the leading cause of mortality and morbidity of people under the age of 45. In the United States a traumatic brain injury occurs every 15 seconds and leaves people with disabilities that will affect them the rest of their lives. This research explains what a traumatic brain injury is, the severities of traumatic brain injuries, the symptoms and how traumatic brain injuries are prevented.

**Elizabeth Pienoski\***- Juvenile Death Penalty [37]

Presentation Advisor: J. Strausbaugh

Throughout history, the Criminal Justice system has viewed and treated juveniles differently. Although many of the punishments that a juvenile received did not include prison time, throughout the years many more juveniles have been given harsher punishments for the crimes they have committed. A major battle in the justice system, along with whether or not a juvenile should be tried as an adult, is whether or not a juvenile should have the chance of being given the death penalty for a crime. The death penalty is a very controversial topic in the adult courts, and is even more so with juveniles. The main focus of the juvenile justice system is to rehabilitate the juveniles and to avoid the labeling theory, in which a child would believe that they were a criminal their whole life based on one past mistake. Now, a major controversy is should a juvenile be treated like an adult for some crimes while not for others, and should the punishments that a juvenile can receive be the same as those that are given to adults for the same offenses and what are the pros and cons related to the way juveniles are treated in the justice system.

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**10:00am**

**Oral**

**Edward Minear**- Weather Impact on Battle of the Bulge [Buchman]

Presentation Advisor: Dr. Jeremy Taylor

This project I will be analyzing how weather patterns and climate issues affected the Battle of the Bulge during World War II, more specifically the impact these variables had on a squad from the 82nd Airborne E Company. With the Battle of the Bulge being one of the most important and decisive battles during the Second World War, some of the aspects caused by the dangerous weather conditions that effected an individual soldier both mentally and physically are often overlooked. I will be analyzing the effect the weather

had on a squad within the 82nd airborne and what specific tactics, survival skills, as well moral support that the individuals within this squad used to get through the severe weather during this battle. In addition to an observation of the skills necessary to survive in a harsh climate I will try to recreate an atmosphere as well as feelings that these soldiers would have felt during the heart of the battle. The objective of these will to give a more personal understanding from the outside looking in. By the end of the presentation I will have successfully displayed and explained that individual obstacles that these soldiers faced taking on winters' fury during the Battle of the Bulge.

**Alexis Walker-** The Universal Language of Music [Cultural Arts]

Presentation Advisor: Andrew Schultz

The principal objective of this presentation is to demonstrate and inform my audience about the history and relationship of language and music. Music is meant to express our innermost feelings and it can be easily interpreted by people all over the world. The enjoyment of music is not something that can be taught and emotions that music (a stimulus to our sense of hearing) can convey. No language barrier can stop a person from identifying with the melodic lines of a musical composition. Music also carries its own symbols and descriptive language commonly second nature to instrumentalist and vocalist. They use universal terms to portray the message they desire to interpret to their audience through voice or instrumental. Music plays an immense role on mankind that can be seen as universal. It breaks the bridge of cultural divide and the language barrier that is common in the world today. By the key and tempo that a piece of music holds, it is scientifically proven that one person can choose between the emotions of happy or sad. An untrained mind will still show a significant response to the different emotions that music can convey. Whether one believes the phenomenon or not, I will present and exhibit information and facts that may say otherwise.

**10:30am**

**Phillip Balla\*-** Buddhism and Meditation [Buchman]

Presentation Advisor: JoAnn Burkhardt

This presentation provides a brief overview of Buddhism, meditation, and the specific use of meditation within Buddhism. After a review of key concepts the group will participate in a guided meditation session.

**Stephany Blackston-** Egyptian Mythology: The Reign of Pharaohs [Cultural Arts]

Presentation Advisor: Dr. Marian Plant

The Egyptians were an expansive culture reaching trading throughout the ancient world. Their 3000 year reign was wrought with many adversities but none that would topple their religious mythology. The Egyptians kept their religious reign going through many conquerors, but how? How did their civilization keep their Mythology intact?

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**11:00am**

**Poster**

**Caroline Hesterman-** Building Self-Esteem in the Young Women of San Carlos [3]

Presentation Advisor: Mary Ann Studer

In rural Belize the majority of young girls do not continue their education past the age of thirteen. The purpose of this project was to build self-esteem and confidence in the young women within the village of

San Carlos, Belize in order to in turn stimulate their interest in pursuing their education. By asking questions to the girls, the teachers and families I was able to assess the need for self-esteem building activities as well as the potential of increased self-esteem to increase education levels. I conducted a variety of self-esteem activities while in Belize. This project has the potential to influence the young women of the village to be active members of their community and continue their education past the age of thirteen.

**Ashley Tompkins\*-** Into the World of K-Pop: An In-Depth Look at Girls' Generation [8]

Presentation Advisor: Carroll

K-Pop, or Korean pop music, has increased in popularity worldwide, in part to Psy's "Gangnam Style." However, some of the credit can be given to Girls' Generation, also known as So Nyuh Shi Dae in its native language. It is South Korea's Representative Girl Group, a huge honor in the Korean Music Industry for being so popular and loved by the nation. The group has traveled the world, performing in France, Japan, China, Taiwan, Singapore, United States, and many other countries. Girls' Generation's creation will be investigated, in addition to its nine members and its most popular songs and dances.

**Sandra Hubler-** US Involvement in Genocide [13]

Presentation Advisor: Dr. Jeremy Taylor

As a world leader, The United States has a responsibility to protect human rights around the world. This is, perhaps, most evident in the United States' involvement with genocides. Many people know that The United States were the main liberators to the Jews in concentration camps. In Rwanda and Cambodia's cases, it sadly isn't the same story. I chose genocides because I feel that they are the best way to investigate The U.S' reaction to humanitarian problems. There are numbers of genocides that have happened since the Holocaust and unless one does research, they won't know the details of what happened in Cambodia and Rwanda, like they do in the case of the Holocaust. These three genocides are the ones that I chose to talk about in particular because they range on how much the general public might know about them. The Holocaust is well known, some people have heard about the Cambodian genocide, and it is also the most recent, and then not many people know a lot on the Rwandan genocide. With knowing anything about these genocides, it doesn't just include what happened but also the role that The United States had in bringing it to an end. Not only do people know different things about these different genocides, but they're all different in their own ways. Such as who was affected and why.

**Cody Wilson\*-** Robert Indiana [18]

Presentation Advisor: Caitlin Gorman

I will lay out Robert Clark's, also known as Robert Indiana's life in a nut shell. I will give a brief bio to introduce him as a person, and then I will go into depth on the different types of art he does. I will state who inspired him as well as worked closely with him throughout the years. I will explain the styles that he used and the time periods that he used them in.

**Zach Roush\*-** The Ukraine Situation [23]

Presentation Advisor: Michael Hohenbrink

This poster will discuss what is happening in the Ukraine today. It will also talk about some of the history between the Ukraine and Russia. It will also have some details about the involvement of the U.S. and other countries.

**Catherine Tilman\***- Secrets of SeaWorld [28]

Presentation Advisor: Casey Gibson

This symposium poster will review and discuss the arguments and controversies that have come to surface with SeaWorld in recent years. The major goal of this poster is to raise awareness of the controversy in an unbiased perspective and also raise possible solutions that could help the fix the current problems/situations. This symposium poster will review and discuss the arguments and controversies that have come to surface with SeaWorld in recent years. The major goal of this poster is to raise awareness of the controversy in an unbiased perspective and also raise possible solutions that could help the fix the current problems/situations.

**Claire Turner\***- Bullying In American Schools [33]

Presentation Advisor: Alesia Yakos-Brown

In this poster, I explore the reasons in which bullying is suspected to occur among school-aged children. I then examine the effects that bullying has on society.



**11:00am**

**Oral**

**Tory Savage\***- The Dangers of Concussions [Buchman]

Presentation Advisor: Andrew Bacon

In my presentation, I will discuss the history of concussion studies, some signs and symptoms of concussions, and how coaches and trainers can help lead athletes to victory with proper recovery methods. I will give a personal testimony on how concussions have affected me in my athletic career, and how from me, I hope that others can learn to take concussions seriously.

**Samantha Leu\***- Eyewitness in the Courtroom: Does the Delay of Identification Influence the Reliability of Eyewitness Testimony? [Cultural Arts]

Presentation Advisor: Dr. Don Knueve

In criminal trials, testimony from an eyewitness is often used to convict the defendant. Experts on human memory are sometimes asked to evaluate the accuracy of the eyewitness identification in these cases. Participants in this study were asked to act as mock jurors as they read the experimental materials, consisting of a scenario and a survey, and when responding to the questionnaire. The scenario included an eyewitness who identified the defendant and an expert witness who testified on memory. The participants received either a scenario involving a defendant that was identified within four hours of the incident or a defendant that was identified four years after the incident. It was predicted that the impact of the expert testimony on juror decisions would be influenced by the gender of the expert. The results reveal that although participant gender does not have an effect on the rating of eyewitness reliability, the delay of identification does. The participants that found the eyewitness reliable were more likely to convict the defendant. Based on the results of the study, the delay of identification may indicate an unconscious decision to convict a defendant in a criminal trial.

**11:30am**

**Kimberly Grubmiller-** Friendship, Mating-strategies, and Schadenfreude [Buchman]

Presentation Advisor: Dr. Deborah Dalke

Friends provide many benefits for us. On the other hand, same-sex friends may also be competitors for mates. This competition could cause us to feel schadenfreude, which is pleasure derived from learning that someone else has suffered a misfortune. Colyn & Gordon (2012) hypothesized that people will feel the most schadenfreude towards their same-sex friends when the friend suffers a misfortune that lowers his or her attractiveness as a mate. My research will extend this study by examining the relation between mating strategies and schadenfreude-eliciting events. Participants (38 females and 37 males) were classified as having one of two types of mating strategies: restricted (seeking long-term relationships) or unrestricted (seeking short-term relationships). This allowed me to test several hypotheses about the impact that mating strategies have on the types of misfortune that produce schadenfreude.

**Alicia Kalik\*-** McMaster Trip to Tanzania [Cultural Arts]

Presentation Advisor: Dr. Jeremy Taylor

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**12:00pm**

**Break**

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**1:00pm**

**Poster**

**Edward Minear & Josiah Poletta-** Hobbes vs Locke [4]

Presentation Advisor: Dr. Don Buerk

In this presentation, we will be comparing and contrasting the different ideologies between Thomas Hobbes and John Locke and the views that they had on human behavior. We will be addressing both ideologies in depth as well as give explanations on the viewpoints of both Thomas Hobbes and John Locke. After observing both sides of this argument, will we then be analyzing the development of human behavior and how both of these views are relatively jointly correct today.

**Zachary Lopez-** Assessing Change in the Communities on the Rio Bravo Periphery on Northern Belize [9]

Presentation Advisor: Mary Ann Studer

This project was implemented to provide a clear characterization of a rural community in Belize in order to facilitate various community groups' ability to apply for grants. In addition communities on the periphery of the Rio Bravo Conservation and Management Area were surveyed to determine the impact that the conservation entity has on their ability to thrive in its shadow.

**Zachary Brown-** John D. Rockefeller and the Rise of the Oil Industry [14]

Presentation Advisor: Dr. Jeremy Taylor

This project is going to be about John D. Rockefeller and the rise of oil industry in the United States. This project addresses how Rockefeller and his company Standard Oil revolutionized the oil industry and played a major role in the creation of modern America. Also, through his refining of crude oil how he lit homes across the United States with his kerosene lamps and eventually powered the cars of nineteen ten and twenty's with the creation of gasoline.

**Kirsten Gjertsen\*-** How America Fundamentally changes during World War II? [19]

Presentation Advisor: Dr. Jeremy Taylor

While World War II was taking place, America was changing its morals and beliefs. Women's roles were transforming in ways unimaginable. Women during World War II had to take on the Male roles of everyday life due to the war. With that being said, The Women's Professional Baseball League was created to take place of the Men's Professional Baseball League because most of the men were drafted for war. During World War II, the women's lives were turned upside down. This can all be shown in the movie, "A League of their Own". The movie gives good insight on the struggle and success of World War II, how women's society changed and the impact of The Professional Women's Baseball League had.

**Luke Nicely-** Wonders of the World Past and Present [24]

Presentation Advisor: Dr. Jeremy Taylor

For thousands of years the Wonders of the World have amazed humans. What is it that makes them a wonder of the world? Is it because they are visually stunning? While only one of the ancient wonders has stood the test of time, it is their architectural superiority that makes them memorable to this day. The same could be said about the new wonders of the world. While both the ancient and modern wonders are similar, they are also very different. The wonders are unique because of their architectural qualities and what they meant to the people who built them.

**Emily Wallace-** The History of Tanzanian Education [29]

Presentation Advisor: Dr. Jeremy Taylor

Throughout history, the area that is now the country of Tanzania has experienced three major periods of educational growth; indigenous education, colonial education, and 20th century educational developments. During the period of indigenous education, learning occurred through casual conversation followed by hands on involvement. Colonial education was framed by first Germany, then Great Britain, basing structures and developments off European models. Post-Tanzanian independence in 1961, the country's government created a series of educational developments, starting with the Arusha Declaration, in an attempt to make education of the individual more relatable to Tanzanian society.

**Spencer Saunders-** Ohio First Volunteer Infantry [34]

Presentation Advisor: Dr. Jeremy Taylor

My Project is about the first volunteer infantry of Ohio (1st OVI). This group of soldiers served in the western theater for most of the battles and campaigns. With the outbreak of the civil war president Lincoln called for 75,000 troops from each state. April of 1861, Ohio filled the quota of troops and regiments and was ready to be trained for the war. Under Colonel Alexander M. McCook, it travelled to Washington, D.C. for garrison duty in the capital's fortifications and defenses until July. This regiment was placed in Schenck's Brigade, Irvin McDowell's Army of Northeastern Virginia. It saw action at Vienna, Virginia, on June 17, 1861 and again on July 9, 1861 before occupying the Fairfax Court House. The 1st OVI fought at the First Battle of Bull Run which was the first major battle of the Civil War and helped cover the army's bitter retreat to Washington. The regiment soon returned to Ohio on August 2.

**Megan Wertz\*-** Case Study Analysis: Dress Code [38]

Presentation Advisor: Edwina Phillips

Religious discrimination in the workplace: ethical or not? Should the workplace be allowed to force an employee to remove a certain piece of clothing that represents their religion, just to please a customer?

**Keira Grandey\*-** Women in Entertainment from 1900s-1940s [40]

Presentation Advisor: Dr. Jeremy Taylor

Women have been seen in many different roles in entertainment in today's world. The world has not always been open to this idea though. Annie Oakley, Mary Pickford, and Lucille Ball all helped women to break away from their stereotypes to try new roles in the entertainment industry. The goal of this presentation is to educate the public on the importance of these three women in the entertainment industry.

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**1:00pm**

**Oral**

**Kimberle Maro\*-** Wannsee Conference: History's Most Pivotal Conference [Buchman]

Presentation Advisor: Dr. Jeremy Taylor

The presentation will explore the Wannsee Conference which involved some of the Third Reich's most notorious Nazis and laid out the plans for the "final solution to the Jewish question". Facts will be discussed arguing the conference's importance to the Holocaust and how it has been overlooked by historians as a turning point in history.

**Ceresa Page\*-** Synthetic mRNA can induce self-repair and regeneration of the infarcted heart [C. A.]

Presentation Advisor: Julie Kemarly

The journal article that will be presented is titled "Synthetic mRNA can induce self-repair and regeneration of the infarcted heart". The study was done by a group of scientist at the Medical University at Karolinska to develop a new way of treating heart attack other than inserting stem cells from the bone marrow into the heart, the use of synthetic mRNA that encodes VEGFA is injected into the muscle cells to produce cardiovascular tissue. The experiment was conducted using mice, in which the synthetic mRNA was injected into the muscle cells of the mice. However, they synthetically modified mRNA so that it escapes

the normal defense system of the body that is known to reject and degrade the non-modified mRNA as a viral invader. Only a single administration of a short pulse of expression of VEGFA is required. Markedly improved survival following myocardial infarction with a single administration of the synthetic mRNA when given within 48 hours after the heart attack was observed in the mice. The scientists concluded that this study will move us very close to clinical studies to regenerate cardiovascular tissue with a single chemical agent without the need for injecting any additional cells into the heart.

## 1:30pm

**Ian Fasnacht\***- Global Disconnect: Opinion of America [Buchman]

Presentation Advisor: Jeffery St. Onge

After the terrorist attack of 9/11 the global opinion of America and the opinion Americans have held of themselves has contrasted greatly. By examining international polling institutions, Pew Research Institution and Gallup International Polls, there appears to be a dramatic shift in the opinion of American. The shift occurs in 2003, aligning with the invasion of Iraq, and again in 2009, with the election of President Obama. However, with both events, the United States opinion does not match the opinion of allies or our enemies. This presentation examines the opinion disconnect, as well as explores the rhetorical myth of American exceptionalism as a possible explanation.

**Cheryl-Ann Francis\*** Drugs from Bugs [Cultural Arts]

Presentation Advisor: Alyson Laframboise

Research into natural anticoagulants in insects is an emerging field, and few studies have provided evidence of such. However, some research investigates the possibility of using insects for medical applications. Insects often do not get enough credit for their contribution to modern medicine, although they are known for beeswax, pollen and royal jelly. Anticoagulant factors are present in the saliva of arthropods including: ticks, flies, bugs, lice, fleas and other blood sucking insects. In order to be useful in medicine, extracts must be taken from the stings of bees and wasps, by grinding the bodies of the insects or from their secretions. Some insects such as mosquitos use their saliva as an anticoagulant. The protein antigens and toxins present in the saliva cause a reaction in the human body. Also, honey bee venom is also used as a natural anticoagulant. Silk produced by worms can be used with heparin to apply to areas of the heart in the form of a stent to prevent reactions to antigenic substances. Regardless, insects have to overcome the obstacles of hemostasis, inflammation and immunity in the host when they feed.

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## 2:00pm

### Poster

**Lindsay Kasmer\***- Assessing a family with multiple levels of need [5]

Presentation Advisor: Kimberly Forward-Hurt

According to the social work generalist practice model, families often have multiple levels of need, not just one. These needs are illustrated in the image of a house. The basic needs are the foundation of the house and must be met first in order to move up to the higher levels of need. This presentation will focus on prioritizing problems that need to be addressed, identifying interventions that could be used, and identifying techniques and the modality of treatment.

**Catlyn Pavel\*- Evidence Based Practices in Autism [10]**

Presentation Advisor: Clarissa Barnes

Evidence based practices (EBP) are the techniques or strategies that have been found to most likely improve individual outcomes. Identifying evidence based practices and interventions have helped improve the intervention and education for individuals with autism spectrum disorder (ASD). When an intervention is classified as evidence based practice it has been demonstrated to effective in multiple scientifically based controlled research studies. Until recently, there were no clear criteria for identifying EPB in the field of special education. This poster will identify the criteria defined by the Council for Exceptional Children (CEC) and compare these criteria to those set forth by the National Autism Center (NAC) and the National Professional Development Center on Autism Spectrum Disorders (NPDC).

**Tabitha Del Carmen\*- Cognitive Dissonance [15]**

Presentation Advisor: Dr. Deborah Dalke

Cognitive dissonance is an uncomfortable feeling caused by a conflicting thought and behavior. There are three ways to remove this uncomfortable feeling: change the behavior, change the thought or belief, or add a new thought. This presentation will focus on various examples and scenarios of cognitive dissonance.

**Zane Hayes- Assassination attempts on Hitler in 1938 [20]**

Presentation Advisor: Dr. Jeremy Taylor

Most of Hitler's would-be killers were unknown. It is said that they ranged 'from simple craftsmen to high-ranking soldiers, from the apolitical to the ideologically obsessed, and from enemy agents to his closest associates'. For this project, I have chosen 3 lesser-known early plots to show the variety and breadth of those who attempted to assassinate the German dictator. One was indeed a craftsman who believed that if he killed Hitler that Germany would not go to war. Another was a high-ranking military man who was among a group of officers who were anti-war and anti-Nazi because they believed Hitler's plan for Germany held the seeds of German destruction. And the third was a seminary student who was part of a group pledged to fight communism. When Hitler backed out on his promise to crush communism, he vowed to assassinate him for tolerance of communism.

**Tramel Chandler- William Hogarth [25]**

Presentation Advisor: Dr. Don Buerk

I am going to display a number of paintings from William Hogarth and explain the meaning behind each painting. Also, I will talk about who William Hogarth was and why decided to criticize England's economy in the 18th century through his paintings.

**Kayla Bierley\* & Joe Carpenter\*- Pros and Cons of Sex Offender Registration [30]**

Presentation Advisor: Steve Sondergaard

There are various benefits for requiring sex offenders to register, but there are also some disadvantages. Overall, sex offender registration laws are trying to inform the public of the offenders that live in their community, however there are those that did minor offences and are paying the same price as a major sex offender. The pros and cons for sex offender registration are in the eyes of the beholder. A mother of a small child will feel differently than the mother of a sex offender. Even though it is a flawed system, the law does its best to make the community aware of who is living in their neighborhood.

**Melina Alexander-** Water Quality Analysis in Rural Belize [35]

Presentation Advisor: Mary Ann Studer

According to the CIA World Factbook the country of Belize has 98% access to improved drinking water. However data previously collected by McMaster Scholars evidenced that many water sources are not safe for consumption. My own experiences in Belize have shown these results to be true as well. Families in rural communities are drinking out of contaminated potable and environmental water sources. The villages may have 'access' to clean water such as bottled water, but that is a luxury not every person can afford. This project continued the ongoing water quality analysis of the New River Lagoon, its tributaries, as well as surrounding potable water sources with the hope of providing sustainable clean water to remote villages. The testing consisted of both chemical and biological tests, with the advance in total water quality in mind. The information was collected and compiled, then conveyed to the community partners within San Carlos as well as Programme for Belize.

**Michelle Bulriss\*-** Lyon's Narrative on the Arab Transformation of Western Civilization [39]

Presentation Advisor: Dr. Don Buerk

In *The House of Wisdom: How the Arabs Transformed Western Civilization*, Jonathan Lyons argues that the early Western world owes a great deal of its recovery of classical learning to Arabic science and cultural practices. The text was published by the Bloomsbury Press in 2009, which also happened to be its first copyright date. *The House of Wisdom: How the Arabs Transformed Western Civilization* gains its title from the Bayt al-Hikma. The Bayt al-Hikma is a royal library built in Baghdad which is used to store Persian, Sanskrit, and Greek texts. This "House of Wisdom" also served to provide both administrative and financial support for scholars studying and translating these texts and made possible centuries of proactive scholarly achievement. I will cover how Lyons uses his text to cover the general theory of permanent Christian-Muslim animosity and then expands on the subtle relations that were of large scale impact to both cultures. This presentation will review and analyze this text for accuracy and readability.

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**2:00pm**

**Oral**

**Lynn Beining\*, Rachel Davis\*, & Brittany Pease\*-** Magazine: Honors Italy [Buchman]

Presentation Advisor: Mary Ann Studer

It can be difficult to put into words what you see in other countries, especially when you're trying to describe it to somebody who hasn't seen the same thing. We are so caught up on using general words, such as fabulous, awesome, or interesting that we fail to share the experience effectively. This presentation will describe the challenges and successes as a group of Honors students struggle to write about their experiences in Italy for those back home.

**Kirsten Frissora\*-** Health Disparities on a Global Scale [Cultural Arts]

Presentation Advisor: Dr. Jeremy Taylor

A comparative analysis of health disparities on an international scale. Including an in depth look at access and cost of health care, HIV/AIDS, and nutrition in Japan, the United States, Bolivia and Sierra Leone.

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