



CAROLYN M. SMALL  
SPRING HONORS SYMPOSIUM

2016

## Carolyn M. Small Honors Program Spring 2016 Symposium

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

*All posters will be displayed from 8:00 AM-3:00 PM in Hubbard Banquet Room in Serrick. Presenters will be available for questions during the 60 minute time slots shown within. Also, the number that appears in brackets is the poster location number.*

*Oral presentations will be held in the Buchman Board Room every half hour beginning at 9:00 AM and ending at 3:00 PM.*

*Oral presentations will be held in the Cultural Arts Room every half hour beginning at 9:30 AM and ending at 11:00 AM.*

*There will also be a film showing of the documentary "The Storm Makers" at 3:00 PM in the Cultural Arts Room. This Constitutional Conversation will be led by Nathan Height. There will be a discussion on this film with the Cambodia Learning Community at the McMaster Symposium on April 14th.*

*There will be a table in the Serrick Lobby inviting individuals to "Swipe Out Hunger" by donating a meal from their meal plan to the Path Center. Canned food donations will also be accepted.*

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

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

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## Oral Presentations

BUCHMAN BOARD ROOM + CULTURAL ARTS ROOM

9:00 AM	Catherine Tilman
9:30 AM	Susanna Stoepfel Megan Overmann (Cultural Arts Room)
10:00 AM	Robert Eikenberry Alyson Seibert (Cultural Arts Room)
10:30 AM	Brooke Waidelich Denique Dennis (Cultural Arts Room)
11:00 AM	Kenneth Miller
11:30 AM	Ben Maynard
12:00 PM	Tabitha Del Carmen
12:30 PM	Dava Donaldson
1:00 PM	Arlen Stoller
1:30 PM	Jennifer Repka
2:00 PM	Meredith Shank
2:30 PM	Ashley Tompkins

POSTER PRESENTATIONS  
HUBBARD BANQUET ROOM

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8:00AM

Susanna Stoepfel  
Taylor Haydinger  
Montgomery Irvine

Michaela Bauer  
Xavier Blyden

Amoy Russell  
Hunter Massingill

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9:00AM

Kaitlyn Kuhn  
Megan Davis  
Adam McGinnis

Amie Ricksecker  
Elizabeth Pienoski  
Ceresa Page

Lea McCoy  
Zack Bires

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10:00AM

Noah Beach  
Jessie Crigger  
Katherine Hazen  
Jeremiah Krouse  
Dixie Peterson  
Tanner Stippich

Kendrick Bischoff  
MacKenzie Durdack  
Stephanie Houston  
Samantha Linebrink  
Kiara Rodriguez

Jamison Clark  
Rick Custar  
Jessica Jacobs  
Colin Jones  
Bill Smith

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11:00AM

Logan Scott  
Reeka Edwards  
Keira Grandey  
Libby Leach  
Courtney Alexander  
Zach Roush

Melissa Waskiewicz  
Jeremy Verhoff  
Jordan Blank  
MacKenzie Combs

Catlyn Pavel  
Katie Haydett  
Da'Ja'Nay Askew  
Christina Gebers

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12:00PM

Cheyenne Bultman  
Spencer Gray  
Paige Ramey  
Marvin Strong  
Brendan Fifer

Derek Angelone  
Summer Lazar  
Dylan Hagan  
Mary-Michael Jackson

Rebekah Groden  
Adam Ordell  
Travis Manuel  
Breanna Lopez

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1:00PM

Toni-Ann Legister  
Ashley Williams

Remick Pearson  
Madeline Homan

Brittany Pease  
Alexis Walker

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2:00PM

Ashlyn Deming  
Bradly Matson  
Paige Sickmiller

Jacob Vicic  
Laura Lutzke

Beau Massingill  
Corinna Gebers

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CONSTITUTIONAL CONVERSATION  
CULTURAL ARTS ROOM

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3:00PM

**Nathan Height\***-*The Storm Makers*

*The Storm Makers* is a documentary on the across-borders human trafficking in Cambodia. Illustrated as the modern day slave trade, agencies recruit young Cambodian women and export them out of the country into terrible working conditions. *The Storm Makers* follows Aya, a former sex slave, as well as two of the "storm makers" that are leaders in Cambodia's human trafficking business.

## oral Presentations

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9:00AM

**Catherine Tilman\*** - Littering  
Presentation Advisor: Professor Mia Cinelli

This presentation will show how I used an iterative design process to evolve ideas through making, gathering feedback from classmates, peers, and professors to create visuals, and imagery in order to effectively to evoke, persuade, and communicate my stance on littering.

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9:30AM

**Susanna Stoepfel\*** - How Does the Controversy Surrounding the "War on Christmas" Shape a Culture of Free Speech?  
Presentation Advisor: Professor Jeff St. Onge

This past year, there was a major controversy in the news about the "War on Christmas." A similar debate has been going on for quite some time regarding issues of political correctness and the use of the word "God" in public. These debates raise important questions about religion and freedom of speech. This presentation will investigate the facts behind the "War on Christmas" and how this controversy shapes a culture of free speech.

**Megan Overmann\*** - Child Mortality in Haiti  
Presentation Advisor: Professor Elcin Haskollar

Twenty-one thousand children die around the world everyday. Many of these are from poverty, hunger, easily preventable diseases and illnesses, and other related causes. Not all countries have a high mortality rate. Child mortality refers to the death of infants or children under the age of five years old. Most countries that do have a high mortality rate are countries that are underdeveloped or have bad economies. One of the most known countries would be Haiti. This paper will discuss the causes of child mortality before and after the 2010 Haiti earthquake. First, I will discuss the struggles for children before the earthquake with facts and statistics from world organizations. Next, I will talk about the effect the earthquake created on the children. The earthquake caused the struggle for children to be harder than before and continues to be hard today. My last point is to

discuss the awareness and help Haitian children should receive the care they deserve after everything they have been through. One day, that could be you in this situation. Haiti has been trying to recover from this earthquake for many years. Child mortality is an issue that could easily be solved.

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10:00AM

**Robert Eikenberry** - Perception of Interrogation Techniques  
Presentation Advisor: Professor Deborah Dalke

Cognitive dissonance is an uncomfortable tension that arises when a person's beliefs are challenged with contradictory information. To alleviate the tension, a person can change the initial belief or find ways to reaffirm the original attitude. My study was conducted to determine if cognitive dissonance occurred when participants were asked about the morality of the enhanced interrogation technique called "waterboarding" that was used to extract information from suspected terrorists. Seventy-five undergraduates (41 male, 34 female) were asked if waterboarding was morally correct, both before and then again after watching a video of a person being waterboarded. Half of the participants were told that the person being waterboarded was an American soldier and the other half was told he was an Iraqi. I predicted that the participants who believed they were watching an American being waterboarded would report a larger change in the perceived morality of the technique. However, attitude change was not related to the nationality of the person being waterboarded,  $p = .561$ . A marginally significant correlation was found between political conservatism and expressed attitude change,  $r(75) = -.197$ ,  $p = .090$ , indicating that increases in a liberal orientation might be associated with decreases in cognitive dissonance.

**Alyson Seibert\*** - Honors Study: Study in Iberian Peninsula  
Presentation Advisor: Professor Mary Ann Studer

Bullfighting is a common past-time in Spain. There are many bullrings throughout the whole country, but most of the popularity comes from Andalusia. Andalusia is a southern region in Spain where the first bullfighting ring has dated back to the 1700's.

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10:30AM

**Brooke Waidelich\* and Ely King\*** - The Math Behind Everyday Objects  
Presentation Advisor: Professor David Stuckey

In this presentation, Ely King and Brooke Waidelich will go through the logical process of solving a real-life application of geometry. We are going to work to find and justify our finding of the area of a triangle on the surface of a sphere. Not only will we be explaining the math of this type of problem, but we will relate it to real-life situations by using hands-on visual aids as well.

**Denique Dennis\*** - The Black Woman: Journey to Rediscovery  
Presentation Advisor: Professor Alesia Yakos-Brown

First they were queens, then they were slaves. Today, they are working assiduously to rediscover their identities as Black women; secure and worthy individuals. This presentation sheds light on the journey of Black women on a path to self-discovery and healing. Among areas of discussion include hair typing, colorism, and body weight perceptions. Pertinent current issues affecting the community will be lamented, whilst victories are celebrated. In conjunction with these issues, findings of a recently conducted study exploring perceptions of body image, colorism, and hair typing woes among Black women on the campus of Defiance College will be presented.

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11:00AM

**Kenneth Miller\***- NSA, iMessage Wiretapping, and Ethics  
Presentation Advisor: Professor Steve Sondergaard

This presentation will cover the issues with the NSA and iMessage wiretapping. It will look into both the needs for and the ethical issues with the NSA and iMessage wiretapping.



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11:30AM

**Ben Maynard** - Gender-related Athletic Mascots  
Presentation Advisor: Professor Tim Rickabaugh

This presentation will provide information on the current use of gender-related athletic mascots (names) at the intercollegiate level. It will also present pilot study information from an on-campus survey of students and a focus-group discussion.

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12:00PM

**Tabitha Del Carmen\*** - Empty Bowls  
Presentation Advisor: Professor Tess Sullivan

The 16th annual Empty Bowls event took place on February 18, 2016. The junior class of social work majors are tasked with creating and running this event. This presentation will explain how we organized this event, how it benefited the Defiance community, and I will reflect on things we did well and possible changes for next year.

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12:30PM

**Dava Donaldson** - Community Development in Tanzania  
Presentation Advisor: Professor Elcin Haskollar

This paper examines the role of microfinance in community development within Tanzania. It explores the relationship between microfinance and women's empowerment, poverty relief, violence deterrence, and social inclusion. Furthermore, it will demonstrate an understanding of the potential microfinance has to maintain peace in developing nations. By analyzing microfinance and community development in Tanzania, I will substantiate an argument for economic stability as a catalyst for positive impact in communities. The project is significant because as a developing nation, the data from Tanzania will provide insight on ways to adequately develop communities. Furthermore, the topic of microfinance and community development in Tanzania is important because as one of the few consistently peaceful states, specifically in East Africa, it may provide answers to a simple question: how is peace maintained in a state surrounded by conflict?

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1:00PM

**Arlen Stoller\*** - Genomic Testing in the Dairy Industry  
Presentation Advisor: Professor Nathan Griggs

Due to advances in the field of genetics, the dairy industry has been able to capitalize on the potential of their cattle. Through genomic testing, vital information is provided on the individual cow when she is only a few months old. This presentation will build a base on the basics of genetics followed by the science behind genomic testing and completed with the application genomic testing has in the dairy industry.

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1:30PM

**Jennifer Repka\*** -Get'em Slugger! A Discussion on Adult Violence in Youth Sports  
Presentation Advisor: Professor Katherine Griffes

Violence committed by parental, and authority figures during youth sporting events is increasing at a terrifying rate. Parent versus parent, coach versus parent, coach versus coach, etc. Laws protecting youth officials are a ten year prison sentence for merely touching one. Opinions on this topic vary in degree and severity. How does this violence start? What types of violence are being committed? Have these behaviors always been present in sports and the media is now taking notice? What exactly is "Sport Rage," and how is it affecting our youth? What can be done to prevent further hostility and rashness in adults? These questions and more will be discussed by everyone as this presentation takes a look into this startling trend.

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2:00PM

**Meredith Shank\*** - Depressions and Recessions: Hard Times in America  
Presentation Advisor: Professor Arif Sultan

A compare and contrast of The Great Depression (1929-1939) and The Great Recession (2007-2009). Macroeconomic concepts such as, Gross Domestic Product, inflation and unemployment rates, Consumer Price Index, and recovery programs will be researched. Visual aids created on Excel will be used to explain the presentation.

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2:30PM

**Ashley Tompkin\*** - Whales are not Fish: Convergent Evolution, Analogy, and Homology  
Presentation Advisor: Professor Alyson Laframboise

Whales are not as closely related to fish as they appear. The reason behind that is the idea of convergent evolution, where independent species evolve very similar traits because of the environment they share. These traits would be considered analogous, meaning they are very similar, instead of homologous, where these are shared traits that came from a common ancestor many years previous. The differences between these will be broken down and explored, as will several other similar instances in the natural world.

# POSTER PRESENTATIONS

HUBBARD BANQUET ROOM

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8:00AM

**Susanna Stoepfel\*** - Water Analysis in El Congo, Panama [1]

Presentation Advisor: Professor Alesia Yakos-Brown

In Panama there are still locations that do not have access to safe drinking water. This poster presentation will cover my recent trip to Panama to complete water testing in the rural village of El Congo in Panama.

**Michaela Bauer\*** - Differences in Shoulder Injuries Between Softball and Baseball Pitchers [11]

Presentation Advisor: Professor Kathleen Westfall

Shoulder injuries are very common for both softball and baseball pitchers even though the pitching motions are not the same. Different motions for pitching means use of different mechanics and muscles being used, which can lead to different injuries. The purpose of this project will be to demonstrate the difference between shoulder injuries in a softball player and a baseball player. Some issues that may be seen are tears in shoulder muscles and other objects, such as the labrum, rotator cuff muscles, etc. Percentages over the years of pitching injuries has increased which has lead to shoulder injuries becoming a bigger issue in softball and baseball.

**Amoy Russell\*** - Helping Dyslexic Students Through the Use of Phonics [21]

Presentation Advisor: Professor Rachel Eicher

Dyslexia is a language based learning disability that affects individuals' oral and written language (Washburn, 2011). Students that are dyslexic is not only affected within in the classroom, but also, throughout each aspect of their life. Individuals with dyslexia face several problems such as, having self-imagery issues because they may feel dumb, which in some cases may eventually result in low academic achievement. This presentation is geared to educate others on the effects that dyslexia has on students and how the incorporation of phonics can help to provide effective reading strategies for dyslexic students.

**Taylor Haydinger\***- The World of Elliptic Geometry [31]

Presentation Advisor: Professor David Stuckey

Geometry is used in everyday life, from building houses and structural supports to finding the fastest way from Florida to the Philippines. Euclidean geometry is a familiar mathematical system composed of a set of axioms. Axioms make up Euclidean geometry, but there are other forms of geometry that have different axiom systems; they are called non-Euclidean geometries. The focus of this presentation will be elliptic geometry, a non-Euclidean geometry. The axiom that separates these two geometries is the parallel property. Euclidean states that parallel lines do exist, while in elliptic geometry parallel lines do not exist. This presentation will emphasize what separates elliptic geometry from Euclidean, real life applications, and what components are present in this geometry. This presentation will also delve into why parallel lines do not exist in elliptic geometry and how they are useful in society. This presentation will finally delve into the properties that separate elliptic from Euclidean and other non-Euclidean geometries.

**Xavier Blyden\*** - Searching for Life through Judaic, Christian, and Islamic Faith [41]

Presentation Advisor: Professor Marian Plant

Every second a breath of air is taken in by humans and other animals while seconds later a breath of air is given away. This continuation of contribution and reception to and from the surrounding environment helps to make life possible for most living creatures. When this process is interrupted, explosions of emotion can occur. For example, when uplifting or undesirable news is presented to someone they may gasp or scream which only allows air to either be released or held. When people receive uplifting news they may become more encouraged and proud. Conversely, when people receive undesirable news, they may become discouraged and hostile. In both situations if each individual does not return to a more balanced state they may eventually find their life in an unrecognizable place. Faith is one tool and idea that is used by many people around the world when they find themselves in one of those situations. This project focuses on three of the most prominent faith practices around the world and their unique ability to guide and support during the times when people are gasping and screaming and searching for a sense of hope and dignity.

**Hunter Massingill\*** - Concussions and Retirement in the NFL [51]

Presentation Advisor: Professor Colby Carroll

My presentation will be looking into how big of a role concussions are in current and future NFL player's retirement plans. I will be researching the effects of concussions, short term and long term. I will also be looking into the reporting of concussions in the NFL and the

severity of the concussions that they have or had previously received. I feel that this is a very relevant topic in today's time in the NFL. With all of these NFL player retiring at fairly early ages and I want to see if concussions had any weight in this decision.

**Montgomery Irvine\*** - What Triggers Brain Cancer In Children? [70]

Presentation Advisor: Professor Alyson LaFramboise

This study is to show what exactly, in most cases, causes childhood brain cancer. I will research what in the brain or body displays or triggers the cells that attack the brain to cause cancer. On my poster I will show different MRI scans of brains that contrast between a normal brain and a cancerous brain.

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9:00AM

**Kaitlyn Kuhn\*** - Transitions Matter [2]

Presentation Advisor: Professor Fred Coulter

In an early childhood classroom, time is of the essence. Young students need to stay on task and keep busy in order to maximize learning time. Transitions between classes and activities are more than just getting from one place to another. There is a science behind getting students from one place to another quickly, quietly, and efficiently.

**Amie Ricksecker\***- The Negative Aspects of Animal Testing [12]

Presentation Advisor: Professor Alyson Laframboise

Animal testing of consumer products is becoming an increasingly bigger issue worldwide, and the only way to reduce and ultimately stop it is to inform people of what happens in the lab. Although animal testing in medical labs has yielded many life-saving cures and treatments, animal testing of consumer products is largely unnecessary. Replacing animal testing with humane alternatives ensures safe consumer products and fewer animals used. This research is focused mainly on the treatment of animals and the use of animal testing in order to make sure a product is safe for humans. The research addresses the main companies that use animal testing and use it excessively.

**Lea McCoy\*** - The Ethics of Utilizing the Death Penalty When the Inmate Becomes Insane  
[22]

Presentation Advisor: Professor Sheldon Goodrum

The ethics involved whenever it is deemed necessary to kill another human being are constantly being challenged. Recently, there have been controversies involving the Eighth Amendment and the concept of cruel and unusual punishment. Is it possible to determine whether or not killing a murderer if they no longer understand the reason for their death? The main points here seem to be the revenge of the victim's family and the idea that you cannot hold responsible a person for something that they do not understand is or was wrong. Much like you would not hold a five-year-old criminally liable for stealing candy from the grocery store. However, if someone were to understand what they did at the time of the commencement of the crime, but later went insane and no longer understood why they were being punished, could that person still be held criminally liable, and if that being the case, should they be? Have we as a society evolved to the point where this is not acceptable, or is this something that should be carried out? This researcher intends to find out.

**Megan Davis** - Early Interventions for Struggling Readers [32]

Presentation Advisor: Professor Fred Coulter

It is vital to identify and address struggling readers as soon as possible in order to implement the proper intervention necessary to allow them to be successful readers later on. How to identify these readers as well as possible intervention strategies will be explored. Additionally, information on how to apply these interventions will also be explained.

**Elizabeth Pienoski\***- DNA Methylation for Forensic Identification of Body Fluids [42]

Presentation Advisor: Professor Nathan Griggs

In the forensic field, it is very important to identify the various body fluids that are found at a crime scene. Identifying the type of fluid as well as whom the fluid belongs to can help with reconstruction of a crime scene as well as validating the sequence of events for a specific crime. For many years, RNA was used to help identify body fluids; however, RNA is easily degraded and compromised in samples. Using a method of DNA methylation, the sample is more stable, will not degrade over time as easily and a smaller amount of the sample is able to be used due to replication processes for DNA. When determining the source of the body fluid, scientists use specific markers in the DNA and the type of methylation that occurs in these markers to show a certain reaction in accordance with

specific body fluid. There are different markers that are used to differentiate between each type of body fluid with multiple experiments conducted to identify each marker for each fluid type. The most common fluid types that have markers identified are venous blood, semen, vaginal fluid, menstrual blood, and saliva.

**Zack Bires\***- The Reasoning and Prevention Behind Falling of the Elderly [52]  
Presentation Advisor: Professor Matthew Lundin

Falling of the elderly is becoming a reoccurring theme in today's society. With muscles and bones getting weaker, this can be a big issue to those who are elderly because it can cause serious harm. Companies like LifeAlert are honing in on this issue, and medical professionals are seeing it more as an issue. Someone who was close to me fell and broke a bone in their leg, from a height that should have barely left a bruise. Finding out why the elderly fall will help lead to finding a way to prevent them from falling. Whether it is a muscle strengthening program, or working on the proprioception of these individuals, something can help reduce the risk of falling.

**Adam McGinnis\*** - Fraud in the Age of Technology [61]  
Presentation Advisor: Professor Edwina Phillips

This research will look at different types of computer crime in the world today. It will study how criminals commit these crimes. The research will also compare the crimes listed to how criminals completed similar crimes in the past. It will also have ways that authorities have combated these crimes. The focus of the study looks at the four types of computer crime as listed by a Michigan professor.

**Ceresa Page\*** - Moments in time of Spain's cultural History [71]  
Presentation Advisor: Professor Marian Plant

This poster presentation will provide an exploration of Spain's cultural history through public statuary. Every Statue tells a story and I intend to bring you on a journey through some of Spain's cultural time periods. This presentation will also help you understand some of the events that were happening in Spain and how they were depicted in various statues.



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10:00AM

**Noah Beach\*** - Musical Studying Assistance: The Correlation of Preferred Music and Deep-Context Learning [3]

Presentation Advisor: Professor Michelle Blank

**Kendrick Bischoff** - Violent Video Games: A Growing Problem or an Explosive Exaggeration? [8]

Presentation Advisor: Professor Michelle Blank

**Jamison Clark\*** - Accommodating Different Learning Styles In Relation To Students' Educational Success [13]

Presentation Advisor: Professor Michelle Blank

**Jessie Crigger\***- How Does Brain Injury Affect Decision Making and Criminal Behavior [18]

Presentation Advisor: Professor Michelle Blank

**MacKenzie Durdack\*** - DNA Evidence: The Impact of Forensic Science on Rape Kit Analysis. [23]

Presentation Advisor: Professor Michelle Blank

**Rick Custar** - Human Growth Hormone in Professional Sports: The Consequences of Professional Athletes Using the Drug. [28]

Presentation Advisor: Professor Michelle Blank

**Katherine Hazen** - Cats and Their Relationship to Advancing Research [33]

Presentation Advisor: Professor Michelle Blank

**Stephanie Houston\*** - Criminal Behavior: A Product of One's Upbringing? [38]

Presentation Advisor: Professor Michelle Blank

**Jessica Jacobs** - What are the Effects of Alternative and Conventional Medical Treatment on Anxiety and Depression? [43]  
Presentation Advisor: Professor Michelle Blank

**Jeremiah Krouse** - Mass Shootings and Their Connection to Mental Illness [48]  
Presentation Advisor: Professor Michelle Blank

**Samantha Linebrink** - Is Breaking the Internet Breaking Women's Images [53]  
Presentation Advisor: Michelle Blank

**Colin Jones** - Head Trauma: Prevention and Education of Sports-Related Concussions [58]  
Presentation Advisor: Professor Michelle Blank

**Dixie Peterson** - Adolescent Diabetes: Beyond the Scale. [62]  
Presentation Advisor: Professor Michelle Blank

**Kiara Rodriguez** - The Role of Parents in Public Views of Strategies to Address Childhood Obesity in the United States. [64]  
Presentation Advisor: Professor Michelle Blank

**Bill Smith** - How Do World Issues Affect Your Career After College? [66]  
Presentation Advisor: Professor Michelle Blank

**Tanner Stippich** - What is the Motivation for Under-Reporting Concussions as a Collegiate Athlete? [68]  
Presentation Advisor: Professor Michelle Blank

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11:00AM

**Logan Scott\***- Holy Week and its Significance in Spain  
Presentation Advisor: Professor Mary Ann Studer [4]

Holy Week is a big deal in the country of Spain and I will be discussing what happens during this important week and the history of its occurrence in Spain. I will use information gathered through my recent trip to Spain and also extensive research to inform others on this tradition that is a huge part of the Spanish culture.

**Melissa Waskiewski** - Quest for Interfaith Respect [9]  
Presentation Advisor: Professor Marian Plant

The world is showing more and more signs that the faith of others needs to be learned about and respected. I am on a quest to explore various faiths and share the knowledge and stories of the people I meet and the stories I read with those who will listen to them. I will do this through conversations, classes, work with youth, and a Facebook page I created. My presentation will show examples of these.

**Catlyn Pavel\*** - Reading at Home [14]  
Presentation Advisor: Professor Yakos-Brown

The poster will provide research on the importance of home reading programs as well as the developmental benefits of reading for children. Strategies to improve children's reading will be provided as presented in a parental workshop in Panama through the McMaster School for Advancing Humanity. Lastly feedback from the workshop on reading strategies for children will be presented, along with future implications for the project in Panama.

**Reeka Edwards\*** - Oppression of females in India [19]  
Presentation Advisor: Professor Dorothy Singer

The presentation will be about the treatment of females in India and how most of them do not have a voice. The focus of the presentation will also focus on female infanticide, dowry deaths amongst other sub topics that focus on the maltreatment of female in India.

**Jeremy Verhoff**-The history of technology in law enforcement [24]

Presentation Advisor: Professor Jeremy Taylor

This presentation will place technological advancements that law enforcement agencies use on a timeline. I will then explain the benefits of these advancements.

**Katie Haydett\***- Water analysis for the presence of an emerging zoonotic disease, Leptospirosis [29]

Presentation Advisor: Professor Griggs

The purpose of this research is to determine the presence of an emerging zoonotic disease, Leptospirosis, in drinking water sources in Katungulu, Tanzania. Membrane filtration that had been completed during the McMaster trip to Tanzania will be used to culture organisms on nutrient enriched media. The formation of colonies will indicate the presence and serve as amplified cultures for PCR analysis and identification at a later time.

**Keira Grandey\*** - Diego Velazquez [34]

Presentation Advisor: Professor Mary Ann Studer

Diego Velazquez is a famous painter from Spain. He started out as a young boy from Seville, to travel to Italy, and then spent time in Madrid. He was very influential during his time and even to the present. He has around fifty of his over one hundred known works that can be found at the Prado which is one of the most famous art museums in the world. His works can be found all over the world from the Louvre in Paris to the Metropolitan Museum of Art in New York City. Follow me on a quest through his life and some of his most famous paintings such as *Las Meninas* and his portraits of royalty.

**Jordan Blank\*** - Roman Influence in Spain [39]

Presentation Advisor: Professor Mary Ann Studer

Spain is a land that changed hands numerous times before its original unification as a nation in the fifteenth century. In the Common Era alone, it was conquered by the Visigoths and then by the Moors before the Christians took control. All three of these groups have left remnants and visible markers of their time spent ruling the country, with the Christians being the most prominent. However, even before these, the Romans incorporated the entirety of Spain into their empire over 2,000 years ago. This presentation will focus on the Roman influence in modern Spain, particularly in the major cities of Seville and Cordoba in the southern part of the country. The information

presented will be both from research and personal observations made while travelling through Spain. The presentation will include exposition of both the visual remnants of Roman influence and that which is unseen but evident, such as the name of the country itself. It will also touch briefly on other major cities visited personally in which Roman influence is clearly visible.

**Da'Ja'Nay Askew\*** - The Fundamental Attribution Error and Judgement [44]  
Presentation Advisor: Professor Debroah Dalke

This presentation will address an error in judgment that is known as the fundamental attribution error (FAE). The FAE occurs when people make a conclusion about the cause of someone's behavior. The error is the tendency to overestimate the impact of a person's disposition (his or her personality) and to underestimate the role that situational factors play on how someone behaves. For example, if you see a father yelling at his child, you would probably assume that the father is hostile, or you might even label him as a "bad" parent. You might not consider situational factors that might be involved, such as the possibility that the father may have just lost his job. This presentation will examine how people tend to make this error even when the situational factors are obvious.

**Libby Leach\***- Influence of Media in Trials [49]  
Presentation Advisor: Professor Thomas Sanford

There is no doubt that media influences our society greatly. Newspaper, magazines, news channels and the radio all help determine what our society begins to talk about and pay attention to. The film *The Devils Knot* based on the real murders of three young children, has brought much controversy in the news media since it led to the releasing of the three convicted killers. With the media paying so much attention to this case, it plants the thought of how much real influence the media has within the criminal justice system. Considering not only the media coverage that reaches society, but dealing with cameras in courtrooms affecting the behavior of the courtroom and witnesses is also a great concern for a fair trial. Additionally, the possibility of criminal justice officials being influenced by the media is also a reasonable thought to take into consideration. As we know, the media is greatly depended upon by society to present important information to society, however this presentation will show the harsh reality of the media's influence in the criminal justice system.

**MacKenzie Combs\***- El Greco [54]

Presentation Advisor: Professor Mary Ann Studer

This poster is about one of the most famous artists in Spain. Going and being able to see his work bring it to life. I was fortunate enough during my spring break to travel with the Honors Program and do some research on El Greco. My poster will talk about his personal life, how he got started, along with the interpretation of his paintings. His paintings were able to bring imagination to others. He was an asset to interpret real life events, and capture the art of it all.

**Christina Gebers\*** - Phillip II: King of Spain and Portugal [59]

Presentation Advisor: Professor Mary Ann Studer

Phillip II became King of Spain in 1556-1598, then King of Portugal 1580-1598. While Phillip II was conquering Europe, he returned home to 1559 and in 1561, Phillip II moved the capital of Spain from Toledo to Madrid. After his last conquest from the Netherlands he refused to leave the El Escorial Palace and ruled the country by his ministers. The people then began to turn against him and his ministers.

**Courtney Alexander\*** - How Yoga Benefits Mental Health [63]

Presentation Advisor: Professor Jeff St. Onge

This presentation will explore research on the ways in which yoga can benefit mental health. There have been several direct links found between the practice of yoga and a healthier mental state. Yoga has been shown to relieve stress and improve brain function in all types of people. Through a comprehensive literature review, this project will synthesize findings about how yoga benefits mental health.

**Zach Roush\*** - Family Histories in Rural Belize [67]

Presentation Advisor: Professor Mary Ann Studer

This poster will be a report on what this scholar's project was in Belize with the McMaster Scholars and Fellows program. It will be a report on what was done and a continuation of the scholar's fall symposium project on family history. This presentation will be about setting up a family tree, so that one can research their lineage. This is a project that will be implemented in the rural village of San Carlos, Belize as this part of this McMaster Scholar's research. The purpose of this project is to provide an accurate and easily accessible

resource that can be used by the village to teach future generations about their own ancestry and culture.

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12:00PM

**Cheyenne Bultman** - Young Children with Autism and the Sensory Tools to Help with Learning and Behavior. [5]

Presentation Advisor: Professor Matthew Lundin

**Derek Angelone** - The Role that Synthetic Turf Surfaces Plays in Severe Injuries that Occur During Sport. [10]

Presentation Advisor: Professor Matthew Lundin

**Rebekah Groden\*** - How Exercise Effects Blood Sugar Levels in Type 1 Diabetes. [15]

Presentation Advisor: Professor Matthew Lundin

**Spencer Gray\*** - Treatment Options and Efficacy for Patients with Orthostatic Intolerance from both Neurocardiogenic Syncope and Postural Orthostatic Tachycardia Syndrome [20]

Presentation Advisor: Professor Matthew Lundin

**Summer Lazar**- The Affects of Alcohol on College Students [25]

Presentation Advisor: Professor Matthew Lundin

**Adam Ordell** - Soccer Cleats Effect on Performance and Injuries [30]

Presentation Advisor: Professor Matthew Lundin

**Paige Ramey** - How Do El Nino and La Nina Affect the Raptor Populations in the Pacific Northwest? [35]

Presentation Advisor: Professor Matthew Lundin

**Dylan Hagan** - Distractions While Driving. [40]

Presentation Advisor: Professor Matthew Lundin

**Travis Manuel** - The Gaming Influence of the Youth of Society [45]  
Presentation Advisor: Professor Matthew Lundin

**Marvin Strong**-The Physical and (vs) Psychological Aspect of Professional Sports [50]  
Presentation Advisor: Professor Matthew Lundin

**Mary-Michael Jackson** - Grandparent Rights & Grandparent Visitation Rights [55]  
Presentation Advisor: Professor Matthew Lundin

**Breanna Lopez** - Breast-Fed Babies vs. Formula-Fed Babies [60]  
Presentation Advisor: Professor Matthew Lundin

**Brendan Fifer** - The Development of a Person's Political Views. [65]  
Presentation Advisor: Professor Matthew Lundin

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1:00PM

**Toni-Ann Legister\*** - The Heart, Heart Sounds and The ECG [6]  
Presentation Advisor: Professor Paul Passalacqua

In this presentation one will describe how the sounds of the heart are produced. The S1 and S2 sounds will be covered along with other sounds that can be heard during auscultation. Diagrams that explain the opening and closing of the valves and the different stages of the cycle of the heart will also be employed in this presentation. An overview of the ECG will also be given. How to read the ECG, what its purpose is, the importance of the ECG, what each wave or point on the ECG represents, as well as how each relates to the events of blood circulation in the heart will be given.

**Remick Pearson\*** - Constantinople 1453 [16]  
Presentation Advisor: Professor Donald Buerk

The Ottoman siege and capture of Constantinople (later called Istanbul) was a major turning point in the history of the Middle East. With this major trade hub secured, the Ottomans moved their capital to the destroyed city and built it anew. Later renamed Istanbul, the city had been the center of the Eastern Roman Empire for almost a



millennium. Now in the hands of the Ottomans, it would remain a focal point of an empire until the end of the First World War. As with most eras of history, nearly every facet of contemporary Middle East politics can be traced back to this point. Without the victory over the crumbling Byzantine Empire, the Ottomans would never rise to power, there would never be the eventual breakup in 1918, and the current divisiveness in modern day Mid-east politics would have never occurred. All of this can be traced back to one day over 500 years ago. The Ottomans would try to westernize their territory in the years after 1453, then internal reactionary forces would try to revert back to a more traditional government. The effect of these opposing viewpoints would create states such as Turkey, which is secularized compared to past governmental systems.

**Brittany Pease\*** - Bone Mineral Density [26]

Presentation Advisor: Professor Matthew Lundin

The purpose of the poster is to examine bone mineral density loss in the elderly. The focus will be on the causes of decreased bone mineral density, how to test levels of bone density and successful techniques to decrease the amount of bone mineral that is lost.

**Ashley Williams\*** - Youth In Sport [36]

Presentation Advisor: Professor Isabell Rhenwick

Sport has been on the rise for some time now. Sport has become a main focus and accepted into culture in the world in this day in age. Sport affects society just as much as society affects sport. The younger generation is just one example of the ways that the two affect each other. I will be describing why the topic relates to sport and society. Also, I will explain the good and the bad of youth sports and what the impacts are of them. The popularity of sport continues to grow, and that will lead to more positive and negative effects in not only youth sports but all generations and aspects.

**Madeline Homan\*** - The Alhambra [46]

Presentation Advisor: Professor Mary Ann Studer

In Spain, the Alhambra was built between 1238 and 1358 and became the residence of royalty in Granada in the middle of the thirteenth century. In this presentation, I will be discussing the history of the Alhambra and the religious influences of Islam and Christianity used in the décor of the palaces.

**Alexis Walker\*** - Diagnosis of an Elbow Injury: A Case Report [56]

Presentation Advisor: Professor Matthew Lundin

An injury to the ulnar collateral ligament (UCL) of the elbow was first documented with a javelin thrower in 1946. Since then, reports of this injury have been noted to be chronic and acute injuries involving numerous sports such as baseball, softball, volleyball, and track and field. Studies have shown that the UCL is the primary structure that protects the elbow against valgus forces. Diagnosis of the injury depends on the history, physical examination, and imaging testing such as magnetic resonance imaging and ultrasonography. Injuries to the elbow can be operative or non-operative depending on the nature of the injury. My project presents an elbow injury involving an athlete who presented symptoms that were indicative of a wrist flexor sprain, an ulnar collateral ligament injury, and medial epicondylitis of the left elbow. The mechanism of injury was unclear, although sustained during a football scrimmage, and imaging tests were not utilized during the

diagnostic process. The non-operative treatment was successful in that the patient completed his season of football and pain to the area is minimal. My presentation will discuss the overall case description, prognosis, and outcome of this case.

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2:00PM

**Ashlyn Deming\*** - Piaget's Theory of Cognitive Development in the Middle Childhood Mathematics Classroom [7]

Presentation Advisor: Professor Jo Ann Burkhardt

This research aims to find out how the Piagetian Theory of Cognitive Development would be applied in a Middle Childhood Education classroom in the area of mathematics. The following are the research questions: What does the Piagetian Theory of Cognitive Development say about acquiring knowledge? Specifically, what part of this theory would be applied in a middle childhood math classroom? What would it look like in the classroom?

**Jacob Vicic\*** - Ethical Considerations in Criminal Justice Administration [17]

Presentation Advisor: Professor Steve Sondergaard

The purpose of this project is to compile a list of ethical concerns in all areas of criminal justice, administration from patrol officers to corrections. The CJ system is not perfect and people should be aware of how difficult it is to ethically administer the various parts of the system.

**Beau Massingill\*** - The Nature of Ball and Socket Synovial Joints [27]

Presentation Advisor: Professor Kathleen Westfall

Joints are what allow us to move our body through everyday life. They are present everywhere in our body from the sutures in our skull to the phalanges in our toes. There are also many different types of joints in our body that each have different functions towards our lives. The joints that allow the most movement and are associated with injuries are known as synovial joints. There are many types of synovial joints, but of all synovial joints in the body only two are classified as "ball-and-socket joints". These two joints are the iliofemoral joint and the glenohumeral joint, commonly known as the hip and the shoulder. While both of the joints are classified as ball-and-socket joints they are very different in structure and function. It is very important to understand and recognize these differences for a variety of reasons whether it be diagnosing injuries to the joints, structuring workouts to strengthen the joints to prevent injury, or rehabilitating an athlete from an injury to one of these joints. In this presentation we will be discussing the anatomical differences that cause the differences between these two joints and what provides stability to the joints, to prevent injuries.

**Bradly Matson\*** - Effectiveness of Motivational Interviewing in Drug and Alcohol Treatment [37]

Presentation Advisor: Professor Tess Sullivan

The purpose of this presentation is to determine the effectiveness of motivational interviewing in drug and alcohol treatment. Specifically it will analyze case studies with drug and alcohol offenders to determine effectiveness.

**Laura Lutzke\*** - 1972 Munich Massacre [47]

Presentation Advisor: Professor Tyler Ault

This poster will show details of the 1972 Olympic Munich Massacre and information as to why this event is important to sports history. Also how this event dramatically shaped and impacted the rest of the world not only in the 1972 games but in all the following Olympic Games. Along with details on how this traumatic event could have been avoided that resulted in a dozen innocent lives being taken.

**Corinna Gebers\*** - Cork Forest Business in Portugal [57]

Presentation Advisor: Professor Mary Ann Studer

Portugal seems very small compared to other countries in Europe but they do not underestimate their potential. Portugal is composed of mostly all forests, and they are specifically known for their cork trees. I will be presenting about the process of harvesting the cork and what they can be used for.

**Paige Sickmiller\*** - Piaget's Theory of Cognitive Development [69]

Presentation Advisor: Professor Fred Coulter

Piaget had a theory about the nature and development of human intelligence known as Piaget's theory of cognitive development. To Piaget, cognitive development was a gradual reconstruction of mental processes that resulted from maturing and environmental experiences. This presentation is about the results of three different tasks that were performed with children taken from each developmental stage. Each child falls under one of the developmental stages; preoperational, concrete operational and formal operational.

# CONSTITUTIONAL CONVERSATION

CULTURAL ARTS ROOM

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3:00 PM

## "THE STORM MAKERS"

Presented by: Nathan Height\*



More than half a million Cambodians work abroad, and a staggering number of those become slaves. Many are young women, held prisoner and forced to work in horrific conditions, sometimes as prostitutes. A chilling exposé of

Cambodia's human trafficking underworld, *The Storm Makers* weaves the story of Aya, a young peasant sold into slavery at age 16, with that of two powerful traffickers (known as "storm makers" for the havoc they wreak) who use deception to funnel a stream of poor and illiterate people across the country's borders. French-Cambodian filmmaker Guillaume Soun presents an eye-opening look at the cycle of poverty, despair and greed that fuels this brutal modern slave trade.

This film, released in 2014, will last approximately one hour. When it concludes, the presenter will lead a brief discussion on the film.

I encourage you to join the Cambodia Learning Community as they discuss "The Impact of Human Trafficking on Individual Liberties in Cambodia" at the McMaster Symposium on Thursday, April 14th, from 11:00 AM - 12:15 PM, in the Buchman Board Room. This presentation will directly correlate with *The Storm Makers* film.

