

**2014**

**Undergraduate Research, Scholarship and  
Creative Investigations (URSCI) Exposition**

**&**

**Global Learning Symposium**

**Wednesday, April 2**

**Parmer Hall**

**PROGRAM OVERVIEW (A.M.) – All presentations are oral except for those noted under URSCI Posters**

	<b>URSCI 108 Parmer Hall</b>	<b>URSCI 115 Parmer Hall</b>	<b>URSCI 113 Parmer Hall</b>	<b>URSCI 107 Parmer Hall</b>	<b>URSCI Posters Parmer Atrium</b>
<b>8:30</b>	<p><b>Geraldine Holmes</b> <i>The Study of Nutritional Influences on Sex Ratio in a model organism, Tribolium confusum</i> 2013 Undergraduate Summer Scholarship Program Award Winner &amp; Degree with Distinction and Honors Project: Biology</p>	<p align="center"><b>Lisa Gullo</b> <i>Optimal Paths in Graphs with Variable Weights</i>  Degree with Distinction and Honors Project: Mathematics</p>	<p align="center"><b>Matt Cancilla Alexander Dee Kate Mann</b>  <i>Critiquing the Canon: Artists Who Challenge Stereotype</i>  Art History Panel</p>	<p align="center"><b>Megan Knape</b> <i>Using Water Landscapes to Inspire Digitally Printed Fabrics for Fashion Design</i> Graphic Design Paper</p> <p align="center"><b>Christina Belmont</b> <i>The Juvenile Justice System: A Disappointing Relapse</i> Criminology Paper</p>	<p align="center"><b>Apparel Design &amp; Merchandising Senior Collection</b> Seven examples are on display all day</p> <p align="center"><b>Focus on Art Slide Show</b> All day</p>
<b>9:30</b>	<p><b>Stephanie Capiello</b> <i>Compass Orientation Patterns in the Burrows of Gopherus polyphemus in Sanibel, Florida</i>  Degree with Distinction and Honors Project: Biology</p>	<p align="center"><b>Joanna Sasara</b> <i>Understanding The Dynamics of Drug-Related Crimes in Chicago Across Time</i> 2013 Undergraduate Summer Scholarship Program Award Winner &amp; Degree with Distinction Project: Mathematics</p>	<p align="center"><b>Ashlan Brennock Theresa Farris Faustina Halinski</b>  <i>It's All about the Process: Unconventional Methods of Art Making</i>  Art History Panel</p>	<p align="center"><b>Derek Jarosz, Erwin Kehrt, Kaitlyn Kurowski, Bonifacio Martinez, Elizabeth Rosales, Juan Rodriguez, Hector Santiago, Cayla Suarez, Kyle Testin &amp; Olive Yellukapally</b>  <i>Advance Databases</i>  Computer Science Panel</p>	<p align="center"><b>Community-based Learning</b></p> <p align="center"><b>Psychology</b></p>
<b>10:30</b>	<p><b>Samantha Hopper</b>  <i>Samantha Jean Photography: Past, Present, and Future</i>  Degree with Distinction and Honors Project: Graphic Design</p>	<p align="center"><b>Matthew Landess</b>  <i>Understanding al Qaeda</i>  Degree with Distinction and Honors Project: History</p>	<p align="center"><b>Marina Angelopoulos</b> <i>Pillage and Plunder: How the Nazi Regime Hijacked the History of Art and Its Impact on Contemporary Museum Collections</i> Art History Paper</p> <p align="center"><b>Nikita Belyaev, Yanyan Chen &amp; Peter Mielcarek</b> <i>The Development and Implementation of the Optimal Strategy For a Chance Based Game</i> Mathematics Panel</p>	<p align="center"><b>Cutberto Aguayo</b> <i>The Effects of NAFTA</i> Brennan School of Business</p> <p align="center"><b>Andrea Cardoso</b> <i>Angelina Jolie at the National Press Club: Refugee and Immigrant Children</i> <b>Brent Smith</b> <i>The Ideologies of a Running Shoe Commercial: A Rhetorical Criticism</i> Communication Arts &amp; Sciences Papers</p>	<p align="center"><b>Biology</b></p> <p align="center"><b>Modern Foreign Languages</b></p>
<b>11:30</b>	<p><b>Kaitlyn Kmetty</b>  <i>I Let Go: My Adventures in South Africa</i>  Degree with Distinction and Honors Project: Graphic Design</p>	<p align="center"><b>Danielle Eernisse</b> A First Look at DU's Hydroponics System  Please Note: This presentation will move from the CTLE to the Dominican University Greenhouse.</p>	<p align="center"><b>Haley Fraley, Sandra Lopez Petar Milenkovich, Shelly Uslenghi &amp; Breanna Watral</b>  <i>From Medieval Iceland to Resisting the Nazis</i> History Panel</p>	<p align="center"><b>Dominique Rodriguez, Holly Sammons, Aracelis Sanchez &amp; Willa Skeehan</b>  <i>Community-based Research: A Reflection on Social Justice</i> Community-based Learning Panel</p>	<p align="center"><b>Brennan School of Business</b></p> <p align="center"><b>Chemistry</b></p>

**Preliminary PROGRAM OVERVIEW (P.M.) – All presentations are oral except for those noted under GLS Posters**

	<b>URSCI 108 Parmer Hall</b>	<b>URSCI 115 Parmer Hall</b>	<b>URSCI 113 Parmer Hall</b>	<b>Global Learning Symposium 107 Parmer Hall</b>
<b>12:30</b>	<p><b>Tyehimba Turner</b> <i>Identifying Novel Genes Involved in Rebaudioside A Transport and Metabolism in Environmentally-Isolated Microbes</i></p> <p>2013 Undergraduate Summer Scholarship Program Award Winner: Biology</p>	<p><b>Erwin Kehrt</b> <i>A Simple Approach to Controlling a Robot with Body Movements</i></p> <p>Degree with Distinction and Honors Project: Computer Science</p>	<p><b>Ahmed al-Hamar</b> <i>American Foreign Policy with Saudi Arabia</i></p> <p><b>Eric Diaz</b> <i>The Rise of China: The US and Other Major Asian Nations Response</i></p> <p>International Relations &amp; Diplomacy Papers</p>	<p><b>Kelly Gerwitz</b> <i>Initial Contact: Alien Encounters with Native Americans</i></p>
<b>1:30</b>	<p><b>Christine Nguyen</b> <i>Ectopic Expression of Two Odor Receptors Have Complex Effects on Behavior</i></p> <p>Honors Project: Biology</p>	<p><b>Lauren Reiniger</b> <i>Women in Sports Journalism: Breaking Through the Barriers Established by Male Hegemony</i></p> <p>Degree with Distinction and Honors Project: CAS</p>	<p><b>Laura Rincon</b> <i>Why Quebec Has Not Seceded: Comparison with South Sudan and Kosovo</i></p> <p><b>Anna Wojciechowski</b> <i>Human Trafficking in Eastern Europe</i></p> <p>International Relations &amp; Diplomacy Papers</p>	<p><b>Andrea Hinojosa, Lisa Keller, Rebecca Komperda, Kelsey Myers, Aracelis Sanchez, Monika Stepkowski, Jacob Storck, Camille Walker &amp; Anastasia Zacour</b></p> <p><i>Service in Haiti: An Experience of Immense Poverty and Incredible Hope</i></p> <p>Social Justice and Civic Engagement Panel</p>
<b>2:30</b>	<p><b>Rachel Hunter</b> <i>Objects Cannot Think: Objectification and Cognitive Depletion</i></p> <p>Degree with Distinction Project: Psychology</p>	<p><b>Lauren Godsel</b> <i>Vision and Knowledge: Reflections of St. Thomas Aquinas and St. Bonaventure in Giotto's Arena Chapel Frescoes and the Stained Glass of Reims Cathedral</i></p> <p>Degree with Distinction Project: Art History</p>	<p><b>Joseph Biggs &amp; Jonathan Cabai</b> <i>Characterization and Biological Applications of Diazeniumdiolates from Primary Amines</i></p> <p>Chemistry Paper</p>	<p><b>Gwen Heifner, Sarah Gromek, Keylee Medrano, Evelyn Sanchez, Joanna Sasara, Jacob Storck &amp; Suzana Tesla</b></p> <p><i>Guatemala: How Coffee Makes a Difference in the Lives of the Poor</i></p> <p>Social Justice and Civic Engagement Panel</p>
<p><b>PARMER 3:30 ANNOUNCEMENT OF 2014 UNDERGRADUATE SUMMER SCHOLAR PROGRAM (USSP) AWARDS</b></p> <p><b>ATRIUM 3:45 GLOBAL LEARNING SYMPOSIUM</b></p>				<p><b>RCAS DEAN JEFFREY CARLSON AND DR. DAN BEACH</b></p> <p><b>PROVOST CHERYL JOHNSON-ODIM</b></p>
	<b>Global Learning Symposium Graduate Student Panel – 107 Parmer Hall</b>	<b>Global Learning Symposium Graduate Student Panel – 115 Parmer Hall</b>	<b>Global Learning Symposium Posters Parmer Atrium</b>	
<b>4:30</b>	<p><b>Jessica Mackinnon, Carol Seley, Vanessa Bahena, Eric Butler, Jonathan Valdez, Magdalena Thomas, Wojciech Galecki &amp; Norbert Dryjanski</b> <i>Doing Business in South Africa</i> Brennan School of Business</p>	<p><b>Sophia Kenney, Kara Williams &amp; Jodi Wortsman</b> <i>Bologna Children's Book Fair</i> Graduate School of Library &amp; Information Science</p>	<p><b>Apparel Design &amp; Merchandising</b> Brennan School of Business <b>Psychology</b> School of Education</p>	

## **Bluhm Lecture Hall -108 Parmer (URSCI Oral Presentations)**

### **8:30 a.m Geraldine Holmes Degree with Distinction and Honors Project and 2013 URSCI Summer Scholar Program (USSP) Award Winner**

*The Study of Nutritional Influences on Sex Ratio in a model organism, Tribolium confusum*

First Reader: David M. Craig, Biology

Second Reader: Margaret M. Jonah, Biology

In biology, species are generally expected to produce to a 1:1 sex ratio in their offspring. Some theoretical work, though, predicts that the nutritional environment may alter the sex ratio. I utilized the pest organism, *Tribolium confusum*, commonly referred to as the "confused flour beetle," to examine the conditions under which an altered sex ratio can be produced. *Tribolium* is a model organism frequently used to answer ecological/evolutionary questions in biology. Initially I focused on larval starvation as an environmental factor that can produce systematic deviations from the normally expected 1:1 sex ratio. Previous work on flour beetles involving starvation has produced conflicting results. In my study, however, both larval and parental starvation was found to produce female bias.

### **9:30 a.m. Stephanie Cappiello Degree with Distinction and Honors Project**

*Compass Orientation Patterns in the Burrows of Gopherus polyphemus in Sanibel, Florida*

First Reader: David M. Craig, Biology

Second Reader: Rob Carmichael, Wildlife Discovery Center, Lake Forest IL.

The orientation of 150 gopher tortoise burrows was determined at five locations on Sanibel Island, Florida. Overall, at the five different gopher tortoise sites there were a significant number of burrows that faced north. When individual sites were examined, though, the burrows did not seem to orient in a particular direction. A large number of burrows were oriented in the primary direction (N, S, E, W) versus the secondary direction (NE, SE, NW, SW), which coincides with the work of McCoy et al. 1993. While at an individual location there was no statistical significance in the orientation of the burrows, there was statistical significance across the total number of sites. One reason may be that because of human impact, tortoises may only have certain topographic reliefs available to them in certain locations.

### **10:30 a.m. Samantha Hopper Degree with Distinction and Honors Project**

*Samantha Jean Photography: Past, Present, and Future*

First Reader: Jean Bevier, Graphic Design

Second Reader: William Kerr, Graphic Design

Third Reader: Jeffrey Finn, Communication Arts & Sciences

This presentation is about Samantha Jean Photography. I will explore where her business started, how her past has shaped where she is right now, and her goals for her business's future after she graduates in May. I will present a timeline of Samantha Jean Photography and conclude with a presentation of her business plan, which will be put into action after graduation.

### **11:30 a.m. Kaitlyn Kmetty Degree with Distinction and Honors Project**

*I Let Go: My Adventures in South Africa*

First Reader: Jean Bevier, Graphic Design

Second Reader: William Kerr, Graphic Design

While studying abroad for a semester in South Africa, I recorded my stay through photographs and diary entries. I learned a lot in those five months, and I continue to try to keep these lessons alive over a year

later. With my project, I combined my experience as a graphic design major and the desire to share my encounters with others in order to create a book of photography, diary entries, and reflections about my trip. I discovered the complexities of organizing an assortment of parts into one cohesive piece. This project challenged me to consider different elements of visual appeal, such as type, page layout, and photograph selection, in addition to pushing me to summarize my adventure in a logical manner. My presentation will cover the overall experience of returning to these memories and my attempt to capture their significance in book form.

**12:30 p.m. Tyehimba Turner 2013 URSCI Summer Scholar Program (USSP)  
Award Winner**

*Identifying Novel Genes Involved in Rebaudioside A Transport and Metabolism in Environmentally-Isolated Microbes*

Faculty Sponsor: Margaret M. Jonah, Biology

The pathways involved in rebaudioside A (the major component of the natural, non-caloric sweetener, stevia) metabolism in humans, bacteria, and fungi are both under researched and poorly understood. This study tests the hypothesis that random transposon mutagenesis of wild type microbes is a novel approach to analyzing possible catabolic pathways that could catalyze rebaudioside A's utilization in cells and the human body. I have isolated four strains of bacteria from forest soil that show the ability to utilize rebaudioside A. The growth of these bacteria have been studied, and I have made tentative identifications of them by analyzing their 16SrRNA, as well as traditional cultural methods. When my identifications are complete, colonies of these bacteria will be subjected to random transposon mutagenesis and then screened for a loss of the ability to utilize rebaudioside A. Classical transposon mapping can be used to identify sites of insertion. There are two possible outcomes: 1) we will discover positive regulatory genes (i.e. genes that activate the metabolic genes), or 2) we will discover the metabolic genes themselves. In this way, we hope to identify the genes and pathway responsible for rebaudioside A metabolism and examine similarities and differences in how it is utilized in each microbe.

**1:30 p.m. Christine Nguyen Degree with Distinction and Honors Project**

*Ectopic Expression of Two Odor Receptors Have Complex Effects on Behavior*

First Reader: Scott Kreher, Biology

Second Reader: Irina Calin-Jageman, Biology

Understanding the sense of smell is a fundamental question in neuroscience, and it is important to investigate the basis of olfaction in insects. In previous work, we analyzed the behavior of mutants of two odor receptors, Or42a and Or42b, to three odor molecules structurally similar to ethyl acetate. We found that electrophysiological activity of the receptors was modestly predictive of behavior. We concluded that odor coding is weakly combinatorial, where some receptors and sensory neurons may be more important than others. We also ectopically expressed odor receptors in their non-native neurons. We discovered that ectopic expression of odor receptors reduced behavioral responses to odors; this alteration of behavior was similar to the effects of the mutations. We hypothesize that this effect may be due to interference with native odor receptor function, which may include down regulation of odor receptor genes.

**2:30 p.m. Rachel Hunter Degree with Distinction Project**

*Objects Cannot Think: Objectification and Cognitive Depletion*

First Reader: Tracy Caldwell, Psychology

Second Reader: Robert Calin-Jageman, Psychology

Objectification occurs any time that an individual's physical features are viewed as more important than inner characteristics. Women may experience a negative mood when objectified, which is believed to interfere with intellectual resources and performances, ultimately resulting in cognitive depletion. The current study manipulated objectification through the use of YouTube music videos created by the rap artist, Lil' Wayne, which were shown to female participants via Facebook. Participants were randomly assigned to a music video condition: objectifying content, non-objectifying content, or control content. After viewing the video, participants completed two self-report questionnaires, which measured current mood and feelings of objectification. Next, participants were given the option of studying for an upcoming cognitive task. Cognitive depletion was operationally defined as the percent of time spent studying. Results indicated that objectifying music video content did not significantly affect participant mood or the percent of time spent studying. Additionally, data suggests that Dominican University students may be more confident and self-objectify less than participants from other studies, which could describe why the hypothesis was not supported.

IRB # 13-24

### **115 Parmer** (URSCI Oral Presentations)

**8:30 a.m Lisa Gullo Degree with Distinction and Honors Project**

*Optimal Paths in Graphs with Variable Weights*

First Reader: Marion Weederemann, Mathematics

Second Reader: Paul Coe, Mathematics

I consider an extension of a basic shortest path problem with applications in the analysis of traffic patterns. Traffic patterns might vary depending on factors such as the day of the week and the time of day. In this project, I focus on analyzing the different traffic patterns between Gary, Indiana and O'Hare Airport. I investigate directed, acyclic, weighted graphs, where each weight varies according to a normal distribution. After determining the optimal path from Gary, Indiana to O'Hare Airport based on mean travel times, I use Monte Carlo simulations coupled with Dijkstra's algorithm to analyze the effect that standard deviations have on the optimal path. The mean travel times were calculated using two different approaches – the first approach used linear regressions, and the second approach used proportions.

**9:30 a.m. Joanna Sasara Degree with Distinction Project and  
2013 URSCI Summer Scholar Program (USSP) Award Winner**

*Understanding the Dynamics of Drug-Related Crimes in Chicago across Time*

First Reader: Marion Weederemann, Mathematics

Second Reader: Sara Quinn, Mathematics

The purpose of this project is to explore a developed model and describe the spread of illicit drug possession and trafficking in Cook County over time. The model is based on the theory of differential association, which proposes that through social interaction with others, individuals learn the values, techniques, and motives for criminal behavior. In this project, Chicago's population is split into three distinct groups: those who are not interested at all in committing a drug crime, those who are susceptible to committing a crime, and those who already have committed a crime. The model consists of a system of differential equations that describe the interactions between these groups. The solutions to the differential equations represent the size of each sub-population over time. Our approach to understand the dynamics of crime is similar to the one used in mathematical biology to model the spread or containment of disease. Our model is fitted to the number of arrests between 2006 and 2010, information collected from the Chicago Police Department.

### **10:30 a.m. Matthew Landess Honors and Degree with Distinction Project**

*Understanding al Qaeda*

First Reader: Aly Drame', History

Second Reader: Patrick Homan, Political Sciences

Many values in the West are mutually exclusive with the values of radical Islam. These values include democracy, feminism, secularism, and capitalism, amongst others. This misconception has persisted throughout the last decade and has yet to be resolved. This paper is an attempt to understand the philosophies of radical Islam. Many people often perceive radical Islam as irrational; this paper attempts to rationalize it and explain two types of radical Islam. There are those that have a local focus, and those that have an international focus. After that, the focus will shift to the most infamous radical Islamic group: al Qaeda. An attempt will be made to dissect the founding of al Qaeda and its formative years to pinpoint the turning point in the organization when it decided to target the United States as opposed to Afghanistan or Yemen. After al Qaeda's historical and logistical details are provided, the theological and political ideologies of al Qaeda will be addressed. The paper will conclude with a final analysis of al Qaeda's ideology as a whole and the prospect of future interactions between radical Islam and the West.

### **11:30 a.m. Danielle Eernisse Biology**

*A First Look at DU's Hydroponics System*

Faculty Sponsor: Margaret M. Jonah, Biology

Hydroponics is a method of growing plants in a liquid nutrient solution instead of soil. There are as many variations of hydroponics systems as there are growers. To support the growing plants, marbles, coco coir, gravel, clay pellets, rockwool, and even charcoal may be used in place of soil. A nutrient-rich solution is then continually flushed over the plant roots. Hydroponics presents a promising solution to many problems of urban agriculture because it gives the grower complete control over the crops' environment. This year, Dominican University has invested in a pilot system as a learning tool for students and for the production of microgreens, tasty nutrient-dense plants harvested before maturity. As a part of an environmental science internship, I have enhanced and maintained the hydroponic system while researching its function and potential. I have successfully grown the following microgreens: arugula, cabbage, wheatgrass, carrots, mustard, basil, and celery, all which can be used as vegetable or salad dishes or as spices by students in the Dominican University nutrition laboratories. In the future, I intend to also try growing broccoli, cilantro, endive, radish, beets, kale, amaranth, peppercress, kohlrabi, chard, tatsoi, romaine, and chia. I will give a tour of DU's first hydroponics system in the greenhouse.

### **12:30 p.m. Erwin Kehrt Degree with Distinction and Honors Project**

*A Simple Approach to Controlling a Robot with Body Movements*

First Reader: Cyrus Grant, Computer Science

Second Reader: Mark Hodges, Computer Science

I intend to create a robot vehicle that can be controlled solely by body movements. It is supposed to work with three main components: a Lego Mindstorm (the robot), a Microsoft Kinect (a camera that captures body movements), and a computer that will be the middleman between those pieces of hardware and will process all the commands from the camera to the robot. A user will be able to stand in front of the Kinect and perform predetermined gestures to make the car move. The car will be able to

move forward and move backward in a single speed, rotate its wheels about 45 degrees to the left and the right, and it will have the functionality to honk its horn.

**1:30 p.m. Lauren Reiniger Degree with Distinction and Honors Project**

*Women in Sports Journalism: Breaking Through the Barriers Established by Male Hegemony*

First Reader: John Jenks, Communication Arts and Sciences

Second Reader: Jennifer Dunn, Communication Arts and Sciences

Research Mentor: CarrieLynn Reinhard, Communication Arts and Sciences

This project includes a literature review on the evolution of women in sports journalism and what roles they have played throughout history. Primary research explores public attitudes toward women in sports journalism and provides evidence suggesting that women pursuing careers in sports journalism are generally accepted in this male-dominated field. Based on results from a public questionnaire, the public attitude appears to be more welcoming of female sports journalists. A journalist questionnaire surveyed women currently working in sports journalism. These responses suggest that sexism still exists, but these women are generally content with their careers. Overall, there is an apparent trend showing that women can expect to eventually break through the barriers in sports journalism established by male hegemony. While this project explores trends, more research would need to be conducted and compared to previous research in order to produce a definite conclusion that women are progressing in this male-dominated field.

**2:30 p.m. Lauren Godsel Degree with Distinction and Honors Project**

*Vision and Knowledge: Reflections of St. Thomas Aquinas and St. Bonaventure in Giotto's Arena Chapel Frescoes and the Stained Glass of Reims Cathedral*

First Reader: Kim Theriault, Art History

Second Reader: Paul Bacon, Art History

This presentation examines how the philosophies of St. Thomas Aquinas and St. Bonaventure, two theologians of the 13th century, are manifested in the intentions and esthetic programs of late Medieval art. Using the work of one particular artist, Giotto di Bondone and his fresco cycle in the Arena Chapel, and the architecture of the characteristically Gothic Reims Cathedral in France, I will elucidate how the philosophical ideas of these great thinkers were made visible through art. In doing so, the paper will show how such major philosophical shifts influenced the general mindsets of late medieval Europeans so much so that the ideas were integrated into the artworks of the era.

**113 Parmer Hall (URSCI Oral Presentations)**

**8:30 a.m. Art History**

**Panel**

**Critiquing the Canon: Artists Who Challenge Stereotype**

Faculty Sponsor: Kim Theriault, Art History

**Matt Cancilla**

*Kara Walker and Her Contemporary Process*

Kara Walker is a contemporary artist who exposes slavery and stereotypical representations of African Americans by placing them in environments of sex, subjection, domination and perversity. Her medium is usually life size, silhouette cutouts of scenes she has created from times of slavery and the antebellum

South. Although these scenes may look factual, they are just representations of the time period she is focusing on and stories that she creates fictionally. This paper will focus on how Walker uses these explicit and somewhat derogatory scenes to evoke an emotional response from the viewers of mainly white establishments, such as galleries and museums. I will address this argument by presenting an assortment of works created by Walker that incorporate the use of the white slave owners, as well as the African slaves, that both shock and please the audience in ways that Walker may not have originally intended.

### **Alexander Dee**

*Gabriel Orozco: Global Artist*

Considered one of the most intriguing and original artists of his time, Gabriel Orozco intermixes style and media in his work in a way that reflects the contemporary world. He travels to various countries and uses each location as inspiration for works in sculpture, photography, painting, and installation. Although his works vary, all are concerned with clarity, structure, and the relation of the object to the environment that motivated its creation. In doing so, Orozco not only shares his particular vision with the viewer, but also critiques the creative process through this art-making method.

### **Kate Mann**

*James Luna and the De-Romanticization of the Native American Culture through Performance Art*

James Luna is an artist of Native American and Mexican descent whose work focuses on the plight of the present-day Native American and other realities of the current Native American culture that often go unnoticed by our society. Non-Native Americans have been trained to associate Native Americans with the stereotypical norms to which we have become accustomed. The image of Native Americans usually includes someone dressed in feathers or animal hides and carrying a bow and arrow. Luna wishes to de-romanticize society's view of Native American culture. He accomplishes this through finding inspiration for his work in his own life experiences. This paper will explain how Luna uses his body as a medium and how his performances inspire discussion over the image of the mythologized Native American.

## **9:30 a.m. Art History**

## **Panel**

### **It's All about the Process: Unconventional Methods of Art Making**

Faculty Sponsor: Kim Theriault, Art History

### **Ashlan Brennock**

*Mel Chin: Artist as Activist*

Mel Chin is a contemporary artist who produces conceptual work that provokes greater awareness and responsibility regarding important ecological, social, and political issues. Many traditional artists confine themselves to creating only works that can be auctioned, bought and sold. The majority of Chin's projects demand the incorporation of multi-disciplinary and collaborative teamwork in order to conjoin different aesthetics with profound directions. In doing so, Chin introduces art into a variety of places in need of attention, restoration, and repair--including toxic landfills, abandoned houses, and lead-contaminated soil. Despite acknowledgement of the unavoidable disasters that occur in life, Chin believes that it is better to act than not to act and that artists, through their work, are in a position to take on an activist role. In this paper, I will show how Chin's work exemplifies the way in which artistic vision can serve as a catalyst to activate social awareness, engagement and regeneration.

## **Theresa Farris**

### *Marina Abramovic's Use of Body and Risk to Facilitate the Art Experience*

Marina Abramovic is a contemporary artist who is known for subjecting herself to extreme physical and mental stress in order to transcend into an altered plane of consciousness. Unlike a traditional painting, Abramovic's art involves creating temporary phenomena using her own body as a vessel for her art. She focuses on creating an artwork that is beyond material or space but is a real experience that can communicate her concepts to the public. Her art is not simply performance art. It cannot be narrowed down to a mere performance because there is not a set audience, no rehearsal is practiced, and there is no element of make believe in her work. Abramovic's art is a real-life experience of a human. This paper will seek to prove that Abramovic has invented her own medium of physical ordeals to accommodate her message that depriving the body restores the spirit. This paper will address this argument through analyzing Abramovic's various life-threatening acts that she implemented on herself. It will demonstrate how Abramovic's method of exposing herself to danger and other uncomfortable situations is a crucial aspect to creating the meaning in her art. The intentional risk that she generates and endures breaks the normal pattern of behavior and ultimately creates a spiritual awareness through which she engages herself and the public.

## **Faustina Halinski**

### *The Demanding Artmaking Process of Donald Sultan*

Donald Sultan's artmaking process is both conceptually and physically demanding. Many of his works require the application of heavy labor and the utilization of unique materials such as linoleum and roofing tar. He also incorporates multiple techniques such as printmaking, drawing, painting and mixed media in his various pieces of art. While he has journeyed through many styles and themes within his career, my paper will concentrate on specific works, which include the Industrial, Natural, Floral, and the Smoke Ring series. Focusing on these groups will aid in demonstrating Sultan's strong value and appreciation of hard work in making art, and his attention to craftsmanship, often ignored in contemporary art today. In addition, I will relate how his art process is the result of aspects of his life, upbringing, and background. Sultan is a contemporary abstract artist who creates his art through hard work, even though it is not always visible in the finished piece.

## **10:30 a.m. Art History and Mathematics Papers**

### **Marina Angelopoulos**

#### *Pillage and Plunder: How the Nazi Regime Hijacked the History of Art and Its Impact on Contemporary Museum Collections*

Faculty Sponsor: Kim Theriault, Art History

The Nazi Regime systematically pillaged artworks for Hitler's supreme Führermuseum and sold-for-profit works deemed "degenerate" in nature to protect the pure ideals of the German public audience. While looting is a common byproduct of war, the Nazis strategically appropriated millions of artworks from the clutches of European culture and many prestigious Jewish collectors. Adolf Hitler sought to create a supreme museum in his hometown of Linz, Austria and obtained desirable works by any means necessary. This era in art history continues to impact the art world decades later. Today, Jewish descendants come forth to claim their families' ownership of looted works; many of which have found their way into prominent museum collections. These claims of restitution against museums cause conflicting obligations between moral and occupational goals. Nonetheless, policies have been instated to help alleviate these dilemmas and insure responsible collections. This paper will discuss the trajectory of both conflicts and resolutions related to this continuing art crisis.

**Nikita Belyaev, Yanyan Chen and Peter Mielcarek**

*The Development and Implementation of the Optimal Strategy For a Chance Based Game*

Faculty Sponsor: Marion Weedermaun, Mathematics

The goal of this research project was to find and evaluate the most optimal strategy for playing 4-Way Countdown, a game in which tiles are flipped based on repeated rolls of two dice. Most of the research involved developing and testing a strategy for a single-player game and then extending that strategy to a multiplayer version of the game. If time allows, it could be possible to develop a program to implement the optimal strategy for 4-Way Countdown.

**11:30 a.m. History**

**Panel**

**Haley Fraley, Sandra Lopez, Petar Milenkovich, Shelly Uslenghi and Breanna Watral**

*From Medieval Iceland to Resisting the Nazis*

Faculty Sponsor: David Perry, History/American Studies

History majors will present their research completed for their capstone projects.

**12:30 p.m. International Relations & Diplomacy Papers**

**Ahmed al-Hamar**

*American Foreign Policy with Saudi Arabia*

Faculty Sponsor: David Dolence, Political Science/International Relations

The US policy toward the Arabian Gulf has not changed much under President Obama. In his speech in Cairo, Obama emphasized a new beginning and a comprehensive relationship based on mutual interest. For a long time, the US policy toward the Arabian Gulf countries focused mainly on security. Obama has promised to help these countries to address security issues by setting up anti-missile defense systems, as well as enhancing sales of weapons in the Gulf States. Although there is a hope that the new administration will bring a significantly new tone to the relationship with the Arab countries, the damage that President Bush inflicted in the Middle East is likely to haunt incoming presidents for a long time. In this paper, I will present a brief history of foreign policy between Saudi Arabia and the US. I will examine these policies before and after 9/11. Also, I will cover the George W. Bush and Obama administrations, respectively.

**Eric Diaz**

*The Rise of China: The US and Other Major Asian Nations Response*

Faculty Sponsor: Christopher A. Colmo, Political Science/International Relations

In the past half century, China has turned itself into a major player on the global stage. With this recent development, East Asia is now playing a greater role in international affairs than ever before. The U.S. has started shifting its crosshairs from the Middle East toward this area in order to deal with a global powerhouse that many believe can eventually, if it does not already, rival it. This presentation is meant to look at the factors that have led to China's growth and analyze the response of the U.S., along with that of other East Asian powers like South Korea and Japan, to its meteoric rise.

**1:30 p.m. International Relations & Diplomacy Papers**

**Laura Rincon**

*Why Quebec Has Not Seceded: Comparison with South Sudan and Kosovo*

Faculty Sponsor: David Dolence, Political Science/International Relations

For the last fifty years, Quebec, a Canadian province, has sought secession, but has failed in its attempts. Meanwhile, in the last twenty years, South Sudan and Kosovo have achieved secession. Four variables are looked at to see why Quebec has not seceded and why the other two countries have. The variables include cultural tensions within a country, political factors, economic advantages, and the role of international players in aiding or hindering a secession movement. All four variables are applied to the three case studies and compared against each other to determine why Quebec has not achieved independence.

### **Anna Wojciechowski**

*Human Trafficking in Eastern Europe*

Faculty Sponsor: David Dolence, Political Science/International Relations

This paper is an analysis of human trafficking in Poland and its impact on society. Various opinions and points of view will provide a snapshot of the issue and how it should be addressed.

### **2:30 p.m Chemistry Paper**

**Joseph Biggs and Jonathan Cabai**

*Characterization and Biological Applications of Diazeniumdiolates from Primary Amines*

Faculty Sponsor: Daniela Andrei, Chemistry

Nitroxyl (HNO), the 1-electron reduced and protonated congener of nitric oxide (NO.), has emerged as a potential pharmacological agent due to its biological properties. Currently, only a few reasonable HNO donors are available to researchers. Diazeniumdiolate ions, also known as NONOates, are extensively used in biochemical, physiological and pharmacological studies due to their ability to slowly release nitric oxide (NO.). However, primary amine diazeniumdiolates have been less studied. In the search for new, organic-based compounds that release HNO, we have synthesized several diazeniumdiolates as novel HNO donors using different primary amines. Given that the diazeniumdiolate sodium salts are very difficult to purify and the rates and extents of HNO generation are difficult to adjust, the next step of this project was to alkylate the diazeniumdiolate ions as a “prodrug approach” for targeting HNO release. Kinetic studies were performed for these diazeniumdiolates and the half-lives of the compounds in the various buffer solutions were calculated. Compounds showed anti-proliferative effects (10-40 uM) against ovarian cancer cells (HeyA8, ES2, EG) when tested with standard MTT assays and antifungal activity against pathogenic strains of Fusarium. The structure/activity relationships is discussed. Our results suggest that the diazeniumdiolate chemistry may offer a versatile platform for the development of HNO donors for biomedical applications.

### **107 Parmer Hall (URSCI Oral Presentations)**

#### **8:30 a.m. Graphic Design & Criminology Papers**

**Megan Knape**

*Using Water Landscapes to Inspire Digitally Printed Fabrics for Fashion Design*

Faculty Sponsor: William Kerr, Graphic Design

Since I grew up on a lake in Michigan and started college in Seattle, I am very inspired by bodies of water in these two locations. With the help of a Research Support Award, I traveled to key bodies of waters in these regions, where I took many pictures and collected artifacts. I then developed my research into digitally-printed fabrics that I incorporated into my Apparel Design senior collection, *Adrift*. My

collection is inspired by water landscapes and sailing and is made of the digitally-printed cotton silk and recycled sail cloth from my family's sail boats. I will share my process, from starting photographs to finished garments, and start a conversation about how research and technology can enhance fashion design.

### **Christina Belmont**

*The Juvenile Justice System: A Disappointing Relapse*

Faculty Sponsor: Michelle Van Natta, Criminology

The contemporary American juvenile justice system has gone through numerous changes to develop into the current system. Originally, the juvenile justice system was nonexistent. Juvenile offenders were treated as adults in all cases. By analyzing secondary sources, I determined an underlying theme: the juvenile justice system has flaws that have been transforming throughout history to create the current system. Early methods continued until a group of middle class reformers, who referred to themselves as the "child savers," took action. The child savers' values were idealistic and ultimately faulty. Their late-nineteenth- to mid-twentieth-century reforms drastically transformed the juvenile justice system from a faulty but strictly rehabilitative model into the contemporary system. The contemporary system is virtually identical to the adult corrections system with sentences such as juvenile life without parole. By examining past and current flaws in the system, researchers can investigate and further help policymakers develop and evaluate strategies to better serve juveniles in the system while addressing public safety.

### **9:30 a.m. Computer Science**

### **Panel**

**Derek Jarosz, Erwin Kehrt, Kaitlyn Kurowski, Bonifacio Martinez, Elizabeth Rosales, Juan Rodriguez, Hector Santiago, Cayla Suarez, Kyle Testin and Olive Yellukapally**

*Advance Databases*

Faculty Sponsor: Cyrus Grant, Computer Science

Oracle - Kyle Testin, Bonifacio Martinez

Hadoop - Derek Jarosz, Cayla Suarez

DB2 - Erwin Kehrt, Kaitlyn Kurowski

Windows Azure - Hector Santiago, Juan Rodriguez

Mongo DB -Elizabeth Rosales, Olive Yellukapally

### **10:30 a.m. Communication Arts & Sciences and Business Papers**

**Andrea Cardoso**

*Angelina Jolie at the National Press Club: Refugee and Immigrant Children*

Faculty Sponsor: Jennifer Dunn, Communication Arts & Sciences

I conducted a neo-Aristotelian criticism of award-winning actress and Goodwill Ambassador Angelina Jolie's speech on March 8, 2005, at the National Press Club Conference in Washington D.C. She advocated for creating a movement to assist refugee and immigrant children seeking asylum in the United States. By using this method of rhetorical analysis, I was able to understand the reasoning behind Jolie's rhetorical choices and evaluate how successful she was at influencing her audience. Her use of ethos was most important to her effectiveness because it significantly helped her to appeal to her intended audience, ultimately allowing them to be accepting of her message. Her credibility comes from being a role model and powerful celebrity who has devoted much of her life to promoting positive

humanitarian efforts. This conclusion is significant because I have observed that celebrity influence is a powerful rhetorical tool.

**Brent Smith**

*The Ideologies of a Running Shoe Commercial: A Rhetorical Criticism*

Faculty Sponsor: Jennifer Dunn, Communication Arts & Sciences

The consumption habits and technology usage of men and women from Generations X and Y continue to captivate the attention of advertising firms because of their interest in parody and personal identification. These generations respond particularly well to integrated marketing communications. The shoe and apparel company Brooks Sports, Inc. is one organization that has immersed its media culture in some of the defining characteristics of these two generations. In 2010, the company released a pair of commercials on the internet that exhibited an anachronistic look into the genesis of the brand's latest innovation in the running shoe sector. The commercial of interest for this project is titled "Brooks DNA Orientation Film." This ideological rhetorical criticism reveals the socio-cultural ideologies driving an idealization of the 1960s and 1970s in this advertisement. The representation of race, the near-parody of scientific innovation, and an exhibited ignorance toward the competition in the ad, collectively promote the ideologies of Generations X and Y.

**Cutberto Aguayo**

*The Effects of NAFTA*

Faculty Sponsor: Kathleen Odell, Brennan School of Business

The North Atlantic Free Trade Agreement between North American countries has had various effects. Some people argue that free trade hurts developing countries while increasing the disparities between developed countries and developing countries. My project will focus on the effects of NAFTA on both the United States and Mexico. Moreover, it will analyze the effects on issues that are germane to both countries like immigration reform, drug violence, and inequality.

**11:30 a.m. Community-based Research**

**Panel**

**Dominique Rodriguez, Holly Sammons, Aracelis Sanchez and Willa Skeehan**

*A Reflection on Social Justice*

Faculty Sponsor: MaDonna Thelen, Community-based Learning

We will be presenting a reflection on our Community-based Research projects as a direct result of the capstone course for the Social Justice and Civic Engagement minor. Dominique and Aracelis worked with the Chicago Metropolitan Battered Women's Network to investigate how the Affordable Care Act affects the screening for domestic abuse in healthcare facilities. Our main purpose was to research how telehealth services could be applied to healthcare facilities. Holly and Willa worked with Catalyst Circle Rock (CCR), a charter school in the Austin neighborhood of Chicago, to research parental involvement. We conducted a study that allowed us to gather data and advise CCR on how to increase parental involvement. IRB #13-36

**URSCI Poster Presentations in Parmer Atrium**

**8:30 a.m.**

**Apparel Design & Merchandising**

## **Dominican University Senior Apparel Collections**

*Seven examples are on display in the Parmer Atrium throughout the day*

Senior collections are investigations in design concepts. Students experiment with the breadth and depth of their inspiration and take the concept beyond the immediate and concrete. They document their design process and validate the construction techniques used to implement their ideas. In Senior Collection, students develop and articulate their personal design theory and voice.

Students present their collections to a panel of industry professionals. Garments are juried using five criteria: 1) concept viability, 2) creative inspiration, 3) design process, 4) professional workmanship, and 5) ability to articulate design philosophy.

Senior collections were displayed in live gallery runway exhibitions in the Lund Auditorium on March 29 and 30. Seniors participating in the exhibition are listed here, along with the title of their collection. McKinley Johnson, Apparel Design and Merchandising mentored all of the senior apparel designers.

Iris Burgos

*Tell Me What You See*

Laura Dohn

*'Til Death Do Us Part*

Becca Duff

*State of Grey*

Lydia Granger

*Saville Row*

Michelle Karaskiewicz

*Mother's Embrace*

Meghan Madden

*Everything Audrey*

Brianna Avia Martin

*The Metamorphosis*

## **Focus on Art Slide Show**

### **Dominican University Annual Juried Student Exhibition**

Each year, Dominican University showcases the extraordinary artistic talent of its student body by hosting an Annual Juried Student Exhibition. This annual group show gives students the opportunity to have their artwork shown in the O'Connor Art Gallery and compete for cash prizes. Held each spring

semester, it is open to all Dominican students regardless of major, and students may submit up to five works in any medium completed within the last year. After the submission deadline, Dominican University art department faculty select certain works for inclusion in the show, choosing works based on a combination of aesthetic and conceptual merit. After this initial selection, an outside guest juror awards prizes in different categories such as Best in Show, Best Color Photograph and Best Sculpture.

Because the guest curator is usually a prominent local curator, critic or art dealer, the Annual Juried Student Exhibition is a unique opportunity for students to have their work judged by an established and seasoned art world professional. Finally, each Annual Juried Student Exhibition kicks off with an opening night reception, which serves as a celebration of Dominican students' continued excellence in visual art. This year, the 2014 Annual Juried Student Exhibition Awards ceremony took place on March 26, 2014. The guest juror / curator was Camille Morgan, an independent curator and arts administrator at Columbia College Chicago.

The names of the award winners accompany the Focus on Art Slide Show, which takes place in the Parmer Atrium.

### **9:30 a.m.**

#### **Community-based Learning**

**Danielle Eernisse**

*Haiti is Hungry for Justice*

Faculty Sponsor: Madonna Thelen, Community-based Learning

After decades of ceaseless crises of every variety, Haiti is now known for being the poorest nation in the Western hemisphere and subsequently, one of the most food-insecure countries in the world. Very little foreign aid and few government resources have been allocated to improve Haiti's struggling agricultural sector and bring justice to disenfranchised farmers. I worked with Partners in Progress (PIP), an NGO which teaches Haitian farmers sustainable agricultural practices, and researched the value of cover crops in a food production system. The pamphlet I created for PIP's farmers will show them which cover crops are best for their climate and purposes, as well as how to best utilize them for increased yields and water conservation. I will present my work with PIP in educating farmers about the agroecological practices that will empower them to create an independent, thriving Haiti.

#### **Psychology**

**Chinelo Agwuncha, Andrew Meissen and Diana Vargas**

*Happiness and Student Engagement in Dominican University Students*

Faculty Sponsor: Robert Calin-Jageman, Psychology

Understanding what makes college students happy makes it easier for colleges to retain students (Aitken, 1982). Previous research suggests that the most important aspects related to student happiness are those of student engagement – faculty-student engagement, academic engagement and extracurricular involvement (Ma, 2009; Mangelaja & Hirvonen, 2007; Michalos, 2007). 144 Dominican University students participated in an online survey measuring aspects of happiness including overall life-satisfaction, day-to-day satisfaction, positive and negative affect and the above three aspects of student engagement. Overall life satisfaction and day-to-day satisfaction were measured using the Satisfaction with Life Scale (SWLS; Diener et al., 1985) and modified Wong-Baker FACES Pain Rating Scales (Wong, 2003). Positive and negative affect were measured using the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988), and student engagement was measured using questions from

the National Survey of Student Engagement (NSSE; Kuh, 2001). While it was believed that many facets of happiness would positively correlate with student engagement, our results displayed only significant relationships between faculty-student engagement, extra-curricular involvement and positive affect.  
IRB # CP 13-02

**Anissa Calvin, Sara Stepanovich and Anastasia Zacour**

*The Effect of Teachers' Democratic Ethos on Students' Engagement in Community Service*

Faculty Sponsor: Tina Taylor Ritzler, Psychology

A student's decision to volunteer in the community relates to how well a student is taught to understand the importance of justice in his or her society. The current study was completed in order to investigate the effect of teacher's democratic ethos on college students' current involvement in community service. Participants in this survey were college students at Dominican University (N=90) who completed an online survey assessing community service and perceptions of their college teachers' democratic ethos. A correlation was run, and it was found that there was no significant relationship between the two conceptual variables. Further research must be completed in order to fully comprehend the variables that have effects on college students' engagement in community service.  
IRB # CP 13-02

**Stephanie Castaneda, Kelsie Chasten, Danille EubanksBrady and Piotr Krypciak**

*The Mozart Effect: Exploring the Effects of Arousal and Lyrics on Spatial Abilities*

Faculty Sponsor: Rebecca Pliske, Psychology

This study attempted to replicate the Mozart Effect, which demonstrates that listening to Mozart will increase one's spatial abilities. Wilson and Brown (1997) found that participants who listened to Mozart performed better on a spatial ability task, and Jones et al. (2006) suggested arousal mediates the effect of music on performance. We hypothesized that individuals who listen to pop music will become more aroused and perform better on a spatial ability task, compared to individuals who listen to classical music. We measured spatial ability using a series of paper and pencil mazes and measured arousal using the revised Positive and Negative Affect Scale (PANAS-R). Our sample included 40 undergraduates from Dominican University. We tested our hypothesis using 2 x 2 mixed factorial ANOVA. We found that listening to both types of music were related to increased arousal; but there were no reliable differences in performance on the spatial ability measure, thus our research hypothesis was not supported. IRB # CP 13-02

**Legna Castro, Kimberly Mathes and Paulina Wojtach**

*Volunteerism and Emotional Connectedness*

Faculty Sponsor: Tina Taylor Ritzler, Psychology

Though volunteerism is prevalent in the United States, the variables surrounding the intentions of the volunteers are still under consideration. Past research has found a correlation between a person's emotional connectedness to his or her community and the amount he or she has volunteered in the past or is currently volunteering. This study attempted to replicate these findings by using components of the Community Service Attitudes Scale (CSAS) by Shiarella, McCarthy, and Tucker (2000), the Gilster (2012) study, and the Bobek and Zaff (2009) study. Students from Dominican University (N=90) filled out an anonymous Web-based survey to assess their past volunteerism, current volunteerism, connectedness to their community, and demographic characteristics. After analysis of the data, our hypotheses were supported with correlations between past volunteerism and emotional connectedness, as well as current volunteerism and emotional connectedness. The implications of the findings are discussed.  
IRB # CP 13-02

**Carina Chiquito, Tracy Halunka and Marissa Munoz**

*Academic Achievement and Use of Technology*

Faculty Sponsor: Rebecca Pliske, Psychology

The use of technology in classroom settings is increasing rapidly. Many professors allow students to sit in class with their laptops open at their desks. An advantage of students having their own laptops is that there is a student-to-computer ratio of one-to-one (Lowther, Ross & Morrison, 2003). A drawback to using technology during lectures is that it may serve as a distraction and thus hinder learning. Prior research has shown that students who use laptops in class are more distracted (Fried, 2008). In this study, we manipulated students' access to a laptop during a short lecture. We hypothesized that participants who have access to a laptop during a lecture will have lower scores on a quiz than participants who do not have a laptop. We analyzed our data using a one-way between groups ANOVA. Although the observed group differences in mean quiz scores were consistent with our research hypothesis, our results were not statistically reliable. IRB # CP 13-02

**Bruno Fernandez, Kimberley Giannini and Roxanne Gonzales**

*The Effect of Specificity on Accuracy Ratings of Horoscopes*

Faculty Sponsor: Rebecca Pliske, Psychology

We conducted a conceptual replication of a study by Snyder (1974), who demonstrated that the degree of specificity had an effect on accuracy ratings of horoscope descriptions. We wanted to examine whether the Barnum Effect was apparent in this type of setting. We hypothesized that participants would give higher accuracy ratings to the horoscopes we gave them when they believed the horoscopes were based on a unique, personal characteristic (their complete birth date) as compared to participants who were told the horoscope was generally true for everyone. In order to test our hypothesis, we collected data from 45 Dominican University undergraduates. We were unable to replicate Snyder's results for the effect of specificity on accuracy ratings. However, we found a statistically significant correlation between belief in horoscopes and accuracy ratings, which is consistent with the Barnum Effect. IRB # CP 13-02

**Karina Gutierrez, Megan Mistretta, Suzana Tesla and Susan Vega**

*Gender and Goal Pursuit in STEM*

Faculty Sponsor: Robert Calin-Jageman, Psychology

The purpose of this study was to determine whether the results found in a study by Park, Pinkus, Troisi, and Young (2001) could be replicated at a private Catholic university. This previous study indicated that women are less likely to be interested in science, technology, engineering, and math (STEM) when primed with romance. We recruited the general undergraduate university population through social media, flyers, announcements, and personal recruitment's to obtain a total of 144 participants. Participants viewed only one of three different sets of 15 images. Each image set primed one of the following: intelligence, romance, or family desirability. Participants rated each image, and then reported their STEM interest and demographics. We found no significant differences in overall STEM interest between genders ( $p > .05$ ) or between conditions ( $p > .05$ ). We concluded that intelligence, romance, and family goal priming do not have an effect on STEM interests and that women are not less interested in STEM than men are. IRB # CP 13-02

**Sahrish Khan and Vanessa Santana**

## *The Effects of Ominous and Happy Music on Perception of Video Elements*

Faculty Sponsor: Tina Taylor Ritzler, Psychology

Music is a melodic tune that often has the ability to change people's emotions and alter perception. The present study explores the effect of the mood of music on perception of a video. Participants were randomly assigned to one of three conditions while watching an ambiguous video; happy music, ominous music or no music. We expected to find that a happy music mood would lead to a more positive evaluation of the video and world, whereas ominous music would lead to a more negative evaluation of the video and world. Results were not significant, thus we cannot conclude that the mood of music affects video perception. We failed to replicate the findings of Shevy (2007). We discuss the implications. IRB #: CP 13-02

### **10:30 a.m.**

#### **Biology**

**Chinelo Agwunchu, Amarana Egwu, Julie Fenske and Elizabeth Golaszewski**

*A Tale of Two Plants: Mint & Lovage*

Faculty Sponsor: Irina Calin-Jageman, Biology

For this experiment we combined various molecular techniques to clone the GAPC gene from two different common plant species: mint and lovage. GAPC is a housekeeping gene, conserved across various plant species, responsible for encoding the enzyme GAPDH. This enzyme plays a role in glycolysis by breaking down glucose to provide energy for plant cells. We isolated genomic DNA and performed PCR amplification using degenerate primers designed to amplify the GAPC gene. Following amplification, we inserted the region of interest into a cloning vector, transformed it into bacteria and screened for clones containing the correct insert. Following sequencing, BLAST and CLUSTALw analysis was performed to determine the degree of conservation between the GAPC genes from mint, lovage and previously sequenced plant species. We found that our mint sample matched up with a species in the NCBI database within the same genus, *Mentha*. For our lovage sample, the extremely limited amount of data available in the NCBI database produced results that obtained similar portions of gene sequences, but these plant matches were not at all related to our actual species.

**Alemayehu Aulfata, Melissa Budz, Victoria Hernandez, and Trisha Neidlinger**

*Cloning the GAPC gene in *Thymus vulgaris* and *Mentha x piperita**

Faculty Sponsor: Irina Calin-Jageman, Biology

The objective of this experiment was to clone and sequence the GAPC gene from two different common plants. This gene participates in certain metabolic pathways such as glycolysis and gluconeogenesis and is also involved with an organism's response to oxidative stress. Cloning is an important procedure because it provides large numbers of exact copies of a DNA fragment. These copies are ideal to use for studying a particular gene or protein and can eventually lead to better ways of understanding, treating, and preventing diseases. In our experiment, we extracted genomic DNA from the plants Thyme (*Thymus vulgaris*) and Mint (*Mentha x piperita*) in order to clone the GAPC gene. DNA was extracted and amplified with primers specific for the GAPC gene using PCR amplification. The PCR products from each plant were inserted into a cloning vector, transformed into bacteria and isolated. Once the plasmids were screened, sequencing analysis was performed. We were then able to sequence our DNA and analyze the cloned genes using NCBI Nucleotide BLAST to see if we successfully obtained the GAPC gene.

**Robert Baird, Ian Cook, Catherine Nguyen and Jaime Torres**

*GAPC Gene Sequencing of Mint and Parsley*

Faculty Sponsor: Irina Calin-Jageman, Biology

Sequencing plant DNA has helped to reveal the genetic blueprints of dozens of plant species. The purpose of the experiment was to sequence the GAPC gene of locally grown mint and parsley in order to compare its sequence to those of other plants. The GAPC gene encodes for GAPDH, which is crucial for glycolysis to occur, and so is highly conserved in plants. Isolation of the GAPC gene for sequencing was done by extracting the DNA from the samples, two-step PCR amplification and electrophoresis, insertion of gene into pJet vector and transformation of bacteria, and the use of restriction enzyme analysis and electrophoresis to purify the plasmids containing the cloned gene. Clones were sequenced and analyzed. We found that *Mentha x piperita* (peppermint) had a 99% match with our mint plant. The parsley plant had a 99% match with *Petroselinum crispum* (garden parsley).

**Madeleine Clay, Ana Juarez and Eva Mehta**

*Cloning the Gene Coding for the GAPDH Enzyme from Salvia officinalis*

Faculty Sponsor: Irina Calin-Jageman, Biology

The main objective of this experiment was to isolate genomic DNA from the sage plant (*Salvia officinalis*), and to clone and sequence the GAPC gene. This gene codes for the enzyme glyceraldehyde-3-phosphate dehydrogenase (GAPDH) which plays a key role in metabolism and specifically in glycolysis. Therefore, GAPDH is an enzyme that is found in all plants and is good candidate for the study of evolutionary relationships among different plant species. Our cloning experiment was carried out using common molecular techniques including DNA isolation, PCR, gel electrophoresis, ligation, purification, transformation, and sequencing. The initial sequences obtained were of poor quality, and so gave unreliable results. The clones were isolated and sequenced a second time, and one good sequence was obtained. The sequence showed a 99% positive match with a previously documented *Salvia officinalis* GAPC2 gene and a 71% positive match with segments of chromosome 1 of *Arabidopsis thaliana*. The match between these two plant species is not as close as expected, suggesting some evolutionary divergence.

**Siri Borrud, Gabriela Cossyleon, Jamie Mussen and Natalia Wojciaczyk**

*Cloning of the GAPDH Gene from Levisticum Officinale*

Faculty Sponsor: Irina Calin-Jageman, Biology

Levisticum officinale, commonly known as lovage, is a culinary herb native to the Mediterranean region. The focus of this project was to clone and sequence the Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) from lovage. GAPC is a housekeeping gene that is necessary for cell survival. It codes for the enzyme glyceraldehyde-3-phosphate dehydrogenase (GAPDH) which plays a key role in metabolism and specifically in glycolysis. Therefore, GAPDH is an enzyme that is found in all plants, and is good candidate for the study of evolutionary relationships among different plant species. DNA from the lovage plant was isolated and quantified. Polymerase Chain Reaction (PCR) was used to amplify the GAPC DNA. Gel electrophoresis was performed to ensure the correct size of amplified DNA. The amplified DNA was cloned into the pJET1.2 vector and transformed into competent cells. Plasmid DNA was isolated and screened for the presence of a cloned fragment, followed by sequencing and sequence analysis. No matches were found in the NCBI database for the first sequence. The lovage in the second sequence was successfully best matched with Levisticum officinale clone GAPC2 – like gene with 83% similarity, using a BLAST search in NCBI database. A multiple sequence alignment to compare two cloned lovage GAPDH DNA sequences showed a 55.85% match.

**Chi Ebo, Nicole Fledderman, Jeewanjot Grewal, Karolina Kir, Chase Lawdensky, Lirije Milla and Christine Nguyen**

## *The Study of Olfaction through Drosophila melanogaster*

Faculty Sponsor: Scott Kreher, Biology

In previous work, we found that the fruit fly odor receptors, Or42a and Or42b, have low to small electrophysiological responses to three odors: anisole, 3-octanol, and acetophenone. Recently the lab conducted behavioral assays using mutants of Or42a and Or42b, and our hypothesis was that the mutants should not have altered behavior because these receptors do not respond to these odors. We found that the Or42b mutant had unaltered responses to these odors as expected. However, the Or42a mutant showed reduced attraction to acetophenone and anisole. One explanation for this data is that modest odor receptor responses are important for gaining control of the neuronal circuits. A second type of test included a behavioral arena that was divided into four concentric circle regions. The results of these tests indicated that some mutants are unable to smell some odors, rather than being repelled by the odors.

## **Efstathia Maroulis**

### *Synthesis of N-methylated Derivatives of p-Phenylenediamine and Investigation of Their E.coli Mutation Rates*

Faculty Sponsors: Scott Kreher, Biology and J. Brent Friesen, Chemistry

A synthesis was performed to produce N,N'-dimethyl-p-phenylenediamine in order to evaluate the influence that methylating the amine groups of p-phenylenediamine has on the resistance rate of E.coli to rifampicin. P-phenylenediamine is known to be mutagenic and is commonly found in dye for hair, furs, and dark makeup. Rifampicin is an antibiotic that binds to the RNA polymerase  $\beta$  subunit and inhibits the synthesis of RNA in bacteria. Carbenicillin resistant E.coli DH5a containing the N3 gene from Apis mellifera were used to test rifampicin resistance. P-phenylenediamine showed a 7-fold increase in the resistance rate of E.coli to rifampicin. To synthesize N,N'-dimethyl-p-phenylenediamine, a reaction was conducted with p-phenylenediamine and formaldehyde using a Pd/C catalyst in aqueous 2-propanol with ammonium formate as a reducing agent. Silica gel column chromatography was used to separate the products in the reaction mixture, and products were analyzed by GC-FID. The rifampicin resistance rate of E.coli exposed to the newly synthesized N-methylated derivative of p-phenylenediamine will be tested.

## **Modern Foreign Languages**

### **Claudia Ramirez**

#### *Healthcare and the Latino Community*

Faculty Sponsor: Lisa Amor Petrov, Modern Foreign Languages

The purpose of my study is to examine the relationship between being an immigrant and the experience of participation in a government program, specially in regard to the Affordable Care Act, better known as Obamacare. I am particularly interested in understanding how the new healthcare reform affects the Hispanic Community in the Chicagoland community. I will work in an established community agency to help educate community members on Obamacare leading up to the application for the program. I plan on presenting my personal reactions as well as a literature review on this topic. The poster presentation will include key figures in the history of Hispanics and the past reform of the Affordable Care Act. IRB # 13-34

**11:30 a.m.**

**Brennan School of Business**

**Carmelo Abate and Joseph Aiello**

*Should consumers purchase Nike, Adidas and Puma Products? A focus on Ethical issues in the Footwear Industry*

Faculty Sponsor: Kathleen Odell, Brennan School of Business

We plan to present a poster showing issues such as child labor and unsafe working conditions in the Footwear industry. We believe that these issues will open the eyes of college consumers. As a part of Dominican University's mission statement, we plan to participate in the creation of a more just and humane society and feel that this would be a step in the right direction.

**Ryan DiCristofano**

*Job Losses/Gains resulting from NAFTA*

Faculty Sponsor: Kathleen Odell, Brennan School of Business

NAFTA, the North American Free Trade Agreement, has impacted the North American countries immensely. It has created unity between the United States, Mexico, and Canada. In some instances this unity has resulted in thriving markets thus creating more jobs. However, not every effect of the trade agreement has been positive. One of the effects that many people do not know about is that there have been job losses because of NAFTA. This trend has affected each country's GDP because of the different impacts on the markets of each country. I want to show both the advantages and disadvantages of NAFTA since I believe that most people do not have enough information about it as a whole.

**Rebecca Durec**

*After 20 years, has NAFTA actually lived up to expectations?*

Faculty Sponsor: Kathleen Odell, Brennan School of Business

President Bill Clinton signed the North American Free Trade Agreement in 1994. The purpose of this agreement was to integrate the economies of the United States, Canada, and Mexico by reducing trade barriers, creating jobs, and narrowing the wage gap between Mexico and the United States. Now, twenty years later, the question of whether or not this trade agreement has lived up to expectations has gained relevance. More specifically, has NAFTA actually helped Mexico's developing economy, or instead left them to be exploited by the progress and growth of the other two countries?

**Michael Nardi**

*The Ethical Implications of Outsourcing Work*

Faculty Sponsor: Kathleen Odell, Brennan School of Business

A primary goal of firms all around the world is to maximize profits. One way to do this is by reducing labor costs. Therefore, there has been a recent increase in outsourcing work by many well-known firms. Outsourcing is a method of contracting jobs or services to foreign countries or suppliers in order to reduce expenses. In this presentation, certain questions will be answered such as, what will happen when firms outsource work? What values are helped or harmed when firms outsource? And why should the Dominican community care about these questions?

**Chemistry****Madeleine Clay**

*The Kinetics of Benzoin Synthesis from the Condensation of Benzaldehyde*

Faculty Sponsor: J. Brent Friesen, Chemistry

The condensation of benzaldehyde to produce benzoin is a common first-year organic chemistry experiment. Benzoin was historically synthesized from benzaldehyde using cyanide as a catalyst, but in recent years thiamine hydrochloride has been used in place of cyanide, making the synthesis safer and more environmentally friendly. In this study, benzaldehyde was reacted with thiamine hydrochloride in a basic aqueous solution of ethanol to produce crystallized benzoin. The reaction products were analyzed with gas chromatography followed by flame ionization detection. The rate of the reaction was tracked through a range of temperatures (20°C to 60°C), varying amounts of thiamine, and replacing ethanol with methanol. The reaction was found to proceed faster at greater temperatures. Reactions with reduced amounts of thiamine hydrochloride and ethanol replaced with methanol produced no observable differences from the control reactions. The secondary products benzil and deoxybenzoin were found in the reaction solution.

### **Gabriela Cossyleon**

*Investigation of the Chemical Composition and Bioactivity of Rue (Ruta graveolens) Extracts*  
Faculty Sponsor: J. Brent Friesen, Chemistry

*Ruta graveolens*, known as common rue, is a medicinal plant native to the Balkan Peninsula and widely grown as a garden herb. The focus of this project was to determine and isolate possible active compounds found in common rue. Characteristics of the experimental hydrodistillation of rue herb were compared with commercial essential oils. Essential oils are highly concentrated plant constituents that often possess potent medicinal and cosmetic qualities. Gas chromatography with flame ionization detection was implemented to determine purity and chemical composition. High Speed Countercurrent Chromatography was used to fractionate the essential oils and concentrate minor chemical components. Thin layer chromatography (TLC) was used to determine purity and polarity of the fractionated essential oils. A Soxhlet extraction was performed to extract a wider range of chemicals from the rue herb. The extract was fractionated by a series of separatory funnel operations. Silica gel column-chromatography physically distinguished high and low polarity values of the rue extract, and it further fractionated the compounds by separating them based on their polarity. The chemical components were tested for biological activity.

### **Jennifer Lee**

*Investigation of the Chemical Constituents and Bioactivity of Sumac (Rhus glabra) Berry Extracts*  
Faculty Sponsor: J. Brent Friesen, Chemistry

Sumac berries are a good candidate for research because they grow in the Midwestern United States and other temperate areas around the globe. Sumac berries are sold commercially as spices and ingredients for making beverages with therapeutic properties. We have investigated the chemical components of Sumac berries through Soxhlet extraction, silica gel column chromatography, and high-speed counter-current chromatography. Analysis of chromatographic fractions was done with thin layer chromatography (TLC) and assays to determine phenolic content such as the Folin-Ciocalteu reagent. Biological activity of these same fractions was evaluated with the colorimetric Ferric Ion Reducing Antioxidant Power (FRAP) assay. Several fractions were found to be highly active. The red dyes present in Sumac berries were also fractionated and studied.

## Global Learning Symposium Oral Presentations

### 107 Parmer Hall

#### **12:30 p.m. Pastoral Ministry Paper**

**Kelly Gerwitz**

*Initial Contact: Alien Encounters with Native Americans*

Faculty Sponsor: Kathy Heskin, Pastoral Ministry

This presentation will explore the dynamics of initial European contact with Native tribes. It will include a brief history of possible Celtic and Irish contact from the time of Christ to 400 A.D., through Scandinavian contact and conflict with Native Americans in the late 10th and early 11th century, and to the 1500's when Europeans began creating permanent colonies and regularly interacting with America's indigenous tribes. The central focus of the presentation will be on exploring the dynamics that emerged in these initial contacts and considering explanations for why and how certain relationships were formed or destroyed.

#### **1:30 p.m. Social Justice and Civic Engagement Panel**

**Andrea Hinojosa, Lisa Keller, Rebecca Komperda, Kelsey Myers, Aracelis Sanchez, Monika Stepkowski, Jacob Storck, Camille Walker and Anastasia Zacour**

*Service in Haiti: An Experience of Immense Poverty and Incredible Hope*

Faculty Sponsor: Madonna Thelen, Social Justice and Civic Engagement

Students who completed the HAITI Community-based-Learning Abroad course will present their learning about Haiti and their experiences as global citizens coming from the wealthiest nation in the world to serve in one of the poorest nations in the world. Students will share their knowledge of the socio-economic situation in Haiti and the devastation that has happened there, but will also reflect on the immense hope of the people whom they met and experienced. Students will describe how both *caritas* and *veritas* played a vital part in the work that they did with the rich culture and the beautiful people of Haiti--and the role that *caritas* and *veritas* must continue to play a role in the rebuilding of this incredible country.

#### **2:30 p.m. Social Justice and Civic Engagement Panel**

**Gwen Heifner, Sarah Gromek, Keylee Medrano, Evelyn Sanchez, Joanna Sasara, Jacob Storck and Suzana Tesla**

*Guatemala: How Coffee Makes a Difference in the Lives of the Poor*

Faculty Sponsor: Madonna Thelen, Social Justice and Civic Engagement

In this presentation, we want to share our experiences in Guatemala while working at the San Lucas Mission. There, we were able to work alongside the Guatemalan people on many of the projects associated with the mission such as coffee picking, coffee processing, and stove building. Every day provided us with new and exciting opportunities to learn more about the culture and the wonderful people. However, through our service, we also became more conscious of the struggles, limited opportunities, and injustices that people in third world countries often face. By experiencing this first hand, we were able to learn how we, as citizens of the world, can work with others to help better the conditions in other countries. After all, change first starts with knowledge and awareness, and that's exactly what we hope to pass on to others.



Students in Professor Odell's International Economics course will present their research into the integration of seven countries with the global economy. Each country is studied from the perspective of trade and trade policy, currency, and the balance of payments. Students will explain how their respective country's policies compare to those of other countries in the project and how the empirical data they have collected aligns with the most prominent theories of international trade and finance. Countries included in the project are Australia, Brazil, Egypt, Guatemala, Qatar, Singapore and Switzerland.

Australia: **Vito J. Benigno, Carmelo Di Franco, Karolina I. Jureczko, Michael J. Mistarz and Khalisha A. Pullen**

Brazil: **Khalid M Al Bedaiwi, Katherine L. Nichin, Rudy Rivera, Jerry M. Wallace and Michael P. Zentner**

Egypt: **Cutberto Aguayo, Msaad A. Alangari, Vasilios J. Balatsos, Dragan Jovanovic and Rami Shalabi**

Guatemala: **Carlos Escontrias, Lucas O. McKinney, Patryk Pliszka and Robert D. Potratz**

Qatar: **Ryan P. DiCristofano, Rebecca L. Durec, Sean D. Liu, Michael B. Nardi and Monica N. Tellez**

Singapore: **Carmelo A. Abate, Mohammed S. Alatawi, Nikita A. Belyaev, Sheena Marin and Amy T. Taraszka**

Switzerland: **Joseph N. Aiello, William Cortes, Lisa A. Gullo, Abdulhadi H. Qurayshah and Michelle Rojas**

## **Psychology**

**Darina Yakimec**

*Decreasing Maternal Mortality: A Case for Improving School Enrollment*

Faculty Sponsor: Tina Taylor Ritzler, Psychology

This poster presents secondary analysis of global data compiled by UNICEF on issues that affect women. The descriptive and inferential data analysis includes seven variables, with data from between 180 and 198 countries: total school enrollment, male school enrollment, female school enrollment, male HIV risk, female HIV risk, maternal mortality rate, and maternal mortality lifetime risk. The descriptive data analysis identified multiple nation outliers for school enrollment, maternal mortality rate, and maternal mortality lifetime risk, indicating that there are countries whose data is extremely better or worse than the typical global range. No outliers for male or female HIV risk were detected. Hypothesis testing did not reveal any statistically significant relationships between school enrollment and HIV risk. However, hypothesis testing did reveal statistically significant mean differences between male/female school enrollment and male/female HIV risk. I found statistically significant relationships between maternal mortality rates, maternal mortality lifetime risk, and school enrollment. For example, as school enrollment for males and females increases, both the maternal mortality rate and maternal mortality risk decrease. Future research should address whether school enrollment affects HIV risk behavior for males and females. Given the policy implications of these results, global efforts to improve school enrollment should be bolstered.

## **School of Education**

**Gabriela Godinez, Meghan Kennedy, Maria Lombardo-Nitsche and Rachel Swain**

*Expanding Intercultural Awareness through Young Adult Literature*

Faculty Sponsor: Penny Silvers, School of Education

Young adult literature provides a window into a wide range of cultures and social, political, and economic issues. When analyzed from a critical literacy perspective, the stories expand intercultural awareness. They provide an opportunity to deconstruct stereotypes about differences of all kinds, and through literature discussions, provide a way to rethink one's identity and recreate visions of reality. This poster presentation will provide information about thematic collections of young adult literature from different cultures and perspectives and the ways that they were evaluated for authentic representation. Based on their research, presenters will share interdisciplinary ways to teach their middle school or high school students about critiquing and analyzing texts regardless of the subject or content area. This will help the teachers and students better understand global influences and diverse perspectives that are similar to or different from our own American culture.

## **Vedrana Maric**

*Authentic Connections*

Faculty Sponsor: Susan McDonough, School of Education

In this project, I have created a Secondary Education Unit Plan, which displays the making of authentic cultural, social, and global connections through literary texts. This unit essentially interprets and explores issues such as gender, authority/power, sexuality, and educational inequities. These issues are manifest in the dystopian novel, *The Handmaid's Tale* by Margaret Atwood. The author has openly stated that she invoked authentic, real-world events and policies in her novel. Although it is fiction, the world of the novel raises universal issues concerning humanity. Dystopian fictions ask readers, "What if...?" This novel allows students to open their minds to real-world, global issues and invites them to further research these issues. These global issues relate to English and Language Arts because the students will thoroughly read and explicate a twentieth-century text, use research skills to apply critical thinking to the literary text, and compose a thesis-driven essay to guide their critical thinking and reflections.

## **Janice Quintero and Daniel Ramirez**

*Interdisciplinary Approach to Gender Studies Unit in Education: Iran*

Faculty Sponsor: Susan McDonough, School of Education

This project is an interdisciplinary approach to teaching Gender Studies in a 9th grade classroom. It merges a social studies/history class with a literature course. The project is a unit plan designed to study the differences and/or similarities in the representations of women in the media in Iran and the United States.

## **Undergraduate Research Opportunities at Dominican University**

The office of Undergraduate Research, Scholarship and Creative Investigations (URSCI) builds upon the instruction in information literacy and research methods undergraduates receive through the core curriculum and the major field, and seeks to enhance the spirit and practice of inquiry occurring already across the curriculum. URSCI promotes undergraduate student-faculty collaborative research in all disciplines, offering students opportunities to engage in scholarly activities that go beyond regular class assignments, and administers a variety of initiatives to support undergraduate students involved in such scholarly projects. If you have questions about these opportunities, contact Martha Jacob, PhD, Director of Undergraduate Research, Scholarship and Creative Investigations, at [mjacob@dom.edu](mailto:mjacob@dom.edu)

### **Students can earn course credit for working with a faculty mentor on a research project or creative investigation that is completed independently—not as part of a class assignment.**

A uniform course name and number (Beginning/Intermediate/Advanced/Senior Thesis Level Undergraduate Research/Creative Investigation --DEPT 195/295/395/495) has been established to designate participation in independent undergraduate research/creative activities across all departments. Students collaborate with faculty mentors on an ongoing faculty research project or conduct an independent project under the guidance of a faculty mentor. This directed undergraduate research or creative investigation culminates in a conference presentation, journal article, or other creative/scholarly project. *Students must obtain prior approval from a faculty mentor before they can register for any of these independent research courses.* Each course can be completed for variable credit hours (1-3) and can be repeated for two semesters at each class level. Students are encouraged to present their independent scholarly and creative work at the annual Exposition of Undergraduate Research, Scholarship and Creative Investigations that is held each spring.

### **The Undergraduate Research Support Award**

The Undergraduate Research Support Award (URSA) program promotes Undergraduate Research, Scholarship and Creative Investigations by helping to defray the costs of independent student projects and student travel to professional conferences. Awards up to \$500 are granted to pay for approved supplies and equipment for a research project or creative investigation, or for approved travel to a professional conference, or travel to a unique resource collection within the continental United States for the purposes of scholarly research. All full-time undergraduates who have a GPA of at least 2.5 are eligible to apply. A Dominican University faculty member must sponsor the student's application. In a typical semester, four awards are funded.

### **Rosary College of Arts and Sciences (RCAS) Undergraduate Research Assistantship Program**

The RCAS Undergraduate Research Assistantship Program (URAP) funds students who assist full-time undergraduate faculty in their scholarship. This program is intended to provide students with a substantive intellectual experience; that is, student assistants are not to be used as general clerical help. Assistants can help in areas such as library research, data collection and analysis, preparation of manuscripts, etc. Students can earn up to \$1500 per semester. A full-time, tenured or tenure track undergraduate faculty member identifies a qualified student and submits an application that describes the proposed scholarly project. Awards are granted on a competitive basis at the end of each semester for work to be completed the following semester. In a typical semester, five assistantships are funded.

### **Undergraduate Summer Scholar Program (USSP)**

The Dominican University USSP enables qualified undergraduate students to complete a research project or other creative investigation during the summer under the supervision of a faculty mentor. The student receives a \$2000 stipend and a tuition waiver for three credits of undergraduate research (DEPT 395/495). The USSP is open to any full-time Dominican undergraduate student in good standing who has

completed his or her sophomore or junior year. The student must have completed a minimum of 60 semester hours in order to be eligible. Faculty members must be full-time members of the undergraduate or graduate faculty at Dominican University. Selection of participants is based on the student's academic merit and the quality of the proposed scholarly project. Scholarship recipients are required to present their independent scholarly and creative work at the annual Exposition of Undergraduate Research, Scholarship and Creative Investigations that is held each spring.

**Departmental Honors: Bachelor of Arts and Bachelor of Science** Through the Honors program, honors students can complete an honors project and non-honors students can complete a degree with distinction project in their major field.

*Degree with Distinction Projects.* The project leading to a degree of Bachelor of Arts or Bachelor of Science *with Distinction in their major* gives superior students in their junior and senior years the opportunity to study independently and understand the nature of scholarship and creativity in a particular field. Generally, students attempting the Degree with Distinction begin working on the project in the first semester of their junior year. The faculty in the discipline approves the project, and the project supervisor and the second reader recommend the project to the Honors Committee in early March of their junior year. The project is completed in the spring of the student's senior year. A project in an interdisciplinary major or one which is interdisciplinary in emphasis is submitted with prior approval from faculty from the most relevant disciplines. A student majoring in a discipline in which Dominican has only one full-time faculty member should seek approval of both project and proposal from a second faculty member who is a member of the major department or a faculty member from a related discipline in another department, whichever is more appropriate for the project. Students must meet the following requirements to be eligible: junior status and a cumulative grade point average of 3.25 in the field of the project and an overall grade point average of 3.0. If the student's proposal is accepted, the student must take ENGL 345 Advanced Academic Writing as a part of the project. Exemption from this requirement is possible at the discretion of the course instructor. Detailed deadlines as well as guides for writing a proposal and project guides for both students and faculty mentors are available on Blackboard at the departmental honors project site, or from the Directors of the Honors Program.

*Honors Projects.* Students in the Honors Program undertake honors projects leading to a bachelor's degree with honors in the student's major. The process for completing the project is the same as for the Degree with Distinction. Additional information regarding the Honors Program is available in the Office of the Dean of Rosary College of Arts and Sciences, or by contacting Professor Mickey Sweeney or Professor Clodagh Weldon, Co-Directors of the Honors Program.

### **Global Learning Opportunities at Dominican University**

The Center for Global Peace through Commerce (CGPC) offers programming that focuses on how social and business entrepreneurship can be a force for global good. With the Office of Career Development, the CGPC promotes internships in international economic development, corporate social responsibility, and anti-poverty efforts. To learn more, visit <http://www.dom.edu/gpcommerce/index.html> or contact Professors Liz Collier and Kathleen Odell, Co-Directors of the CGPC.

### **The Office for Community-based Learning (CBL)**

The Office for Community-based Learning (CBL) allows students to engage in integrative cross-cultural learning experiences both within and across national borders through CBL courses, service-learning study abroad, organized service, and research that addresses community needs. To learn more, visit

<http://www.dom.edu/service> or contact MaDonna Thelen, Director, CBL.

### **Study Abroad**

The Study Abroad Office encourages students to spend time outside U.S. borders in both faculty led travel courses and semester or year programs in Latin America, Africa, Asia and Europe. To learn more, visit the <http://www.dom.edu/departments/studyabroad/index.html> or contact Sue Ponremy, director of International Studies.

### **Model Campus Engagement with Interfaith Youth Core (IFYC)**

Through this partnership with IFYC, the university has launched several promising initiatives to foster cross-cultural civic engagement. Those efforts include a fast to raise consciousness about relief efforts for Haiti and a “speed faithing” event at which hundreds shared what they value in their religious, spiritual or values-based traditions and reflected on what is necessary to talk meaningfully with those of differing beliefs.

### **Globally positioned student organizations**

Student groups engage deeply in global and intercultural learning and work at Dominican. The Black Student Union, the Organization of Latin American Students, the Polish Club, Team Kiva, Net Impact, the Eco Club, SERVE, Common Ground, Students for Peace and Justice, Amnesty International and the Dominican Student Immigrant Collective lead many on- and off-campus efforts to strengthen global knowledge and work for meaningful change.

### **Academic programs**

Providing pathways to active world citizenship is a core part of a Dominican education. RCAS students pursue global study in the core curriculum and through majors or minors in Black World Studies, International Business, International Relations and Diplomacy, Social Justice and Civic Engagement, and Women and Gender Studies. Both the Graduate School of Social Work and the Brennan School of Business offer students global field placements and host visiting international scholars for vital exchanges of ideas and practices.

The School of Education mentors students for an enduring commitment to social justice and enriching diversity, and the Graduate School of Library and Information Science, which publishes the international online journal, *World Libraries*, prepares students to understand libraries as agents of local and global socio-economic development. The School of Professional and Continuing Studies’ MA in Conflict Resolution is a one-of-a-kind, interdisciplinary program for those committed to working for peace and justice.

### **Acknowledgements**

The office of Undergraduate Research, Scholarship and Creative Investigations (URSCI) and the Academic Enrichment Center (AEC) would like to thank all of the faculty sponsors for their work with the undergraduate students participating in the URSCI Exposition and the Global Learning Symposium. The encouragement given to the students makes it possible for them to take their scholarly endeavors beyond the classroom walls. We also express our appreciation to the session moderators and timekeepers for volunteering their time to make this exposition a success. Besides the faculty sponsors who moderated their own student / departmental oral and panel presentations, we would like to thank the following volunteers: including Tom Freyman, Sue Ponremy, MaDonna Thelen, David Aron, Dianne Costanzo, Ellen McManus and Ning Zou.

We extend our gratitude to the faculty members who released their Parmer Hall classrooms for the day's presentations: Alyssa Braun, Carissa Buber, Robert Calin-Jageman, Steve Harrington, Margaret Jonah, Eva Lord Pearson, Patricia Rose, Lou Scannicchio, Pliny Andrew Smith, Jeffrey Spanogle, Aliza Steurer, Jill White & Lance Wilson. We appreciate your generosity and support of our efforts to promote undergraduate research.

We wish to express sincere thanks to Jennifer Stockdale for her detailed and thoughtful proofreading of this program. We also thank Pete Peterson, Information Technology; and Tina Weinheimer, Jackie Ortiz and Becky Lopez, Office of Marketing and Communications, for their help in processing applications and preparing the URSCI and GLS program. We thank AEC Experiential Learning Promotion Assistants Joshua Hoeg and Diana Galvan for the attractive promotional materials they designed for both the Expo and the Symposium. Appreciation also goes to Dave Carlson, Scheduling and Events Services and Samella Johnson-Hargro, Maintenance, for their help in the Expo organization and set-up, and to Helius DeGuevara, Chartwells Catering, for the day's refreshments.

We would like to acknowledge the faculty members of the Honors Committee for all they do to promote undergraduate scholarship at Dominican University: Mickey Sweeney and Clodagh Weldon, Co-Chairs, committee members David Craig, Wayne Koprowski, Jeanette Olli, David Perry, Lisa Petrov, Penny Silvers, Richard Woods, Internship and Research Advisor Carissa Buber, RCAS Dean Jeffrey Carlson and Dr. Dan Beach and volunteers Marie Masterson and Ning Zou.

We would also like to recognize the members of the URSCI RCAS Committee who give so generously of their time to ensure the continued excellence of URSCI initiatives: Martha Jacob, URSCI Chair and faculty committee members David Aron, Dianne Costanzo, Rogelia Ibarra, Tracy Jennings, Dennis Kirchen, Ellen McManus, Kathleen Mullaney, Sara Quinn, Chad Rohman, Mickey Sweeney and Ning Zou.

For the third year, the AEC sponsored a workshop series to better prepare students to give URSCI Expo and Global Learning Symposium presentations. Presentation topics were "Using PowerPoint to Support an Effective Presentation" by Jennifer Dunn (Communication Arts and Sciences); "A Crash Course in Design for Poster Presentations" by Bill Kerr and Jean Bevier (Graphic Design); and "Tips on Making an Oral Presentation" by Ric Calabrese (Communication Arts and Sciences). We would like to thank Andrea Sanchez, AEC office manager, and the faculty members who gave so generously of their time to coordinating and presenting these extremely beneficial workshops. We also want to thank Professor Jennifer Dunn and the student leaders of Speak Easy and the Communications Honors Society for holding peer practice review sessions that helped several of our scholars fine-tune their presentations for the day.

Finally, we thank Psychology Professor Daniel Beach and his wife Cynthia Jared for their support of the Jared-Beach Summer Scholar, and Rosary College of Arts and Sciences Dean Jeffrey Carlson and Dr. Dan Beach, Associate Provost David Krause, Provost Cheryl Johnson-Odim and President Donna Carroll for their ongoing generous support of Undergraduate Research, Scholarship and Creative Investigations and Academic Enrichment Center initiatives at Dominican University.

For more information, please see the URSCI page at <http://www.dom.edu/departments/ursci/expo/> and the Academic Enrichment Center page at <http://www.dom.edu/aec> .