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<td>Brian Ludlow Ed.D.</td>
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Title:
Heritage Presentation

Presentation Description
Heritage Presentation

Abstract
Heritage presentation on family history.

Co Presenter (s) / Group/Ensemble Participants
Title:
Intergovernmental Internship Cooperative

Presentation Description
The IIC partners with SUU and many public land agencies including the NPS, USFS, BLM, and the BIA. Come learn of the leadership opportunities available at the IIC.

Abstract
The Intergovernmental Internship Cooperative (IIC) operates as a collaborative partnership housed at SUU. The IIC partners with many public land agencies including the National Park Service, United States Forest Service, Bureau of Land Management, and Bureau of Indian Affairs. As an accounting intern for the IIC I have had many leadership opportunities. The opportunity to train the accounting intern hired to replace me serves as my EDGE project. The IIC provides an environment of employee empowerment. Though serving as an intern, leadership opportunities have been prevalent. Chances to both train an accounting intern and assist with youth crews gave needed experience in leadership that will boost a career in public accounting. It has been a privilege learning leadership skills from an organization that is a leader in conservation as the IIC has recently been awarded the Secretary’s Partners in Conservation Award from the Department of Interior for the outstanding conservation results achieved through collaboration and partnering.

Co Presenter (s) / Group/Ensemble Participants
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**SS Starlight**  
3:15-3:45

**Published Name of Group/Ensemble**  
**Faculty Mentor Name**  
Lynn White Ph.D.

**Title:**  
Make it Stop! Physiological Responses to Infant Crying

**Presentation Description**  
Using biofeedback equipment we measured physiological reactions to infant crying in relation to attachment style, parenting style and parental status.

**Abstract**  
When infants cry, individuals have different emotional, behavioral and cognitive reactions. An infant's cry also has a physiological effect that activates the sympathetic nervous system (SNS) (Boukydis & Burgess, 1982). It is not known if this SNS reaction is influenced by either close relationships with others (i.e. attachment style) and/or parenting style. This was the focus of our research. There is good evidence that an infant’s cries influences caretaking behavior. Parenting practices can have a large effect on a child’s developmental outcome (Bruning & McMahon, 2009). This underscores the importance of understanding variables which correlate with and/or influence parenting style. Personality traits and parenting styles appear to be related to each other (Sherry, Lyddon, & Henson, 2007). Edelstein and colleagues (2004) reported relationships between attachment and parenting styles. They further showed that attachment styles are correlated with parental behavior during events of child distress. SNS activity is a key component of the stress response, and SNS activity is correlated with at least some personality traits (Crider, 2008). Collectively, these findings suggest that all four variables (SNS activity, parental status, parenting style, and attachment style) may be interrelated in ways yet to be defined.
Effect of Inorganic Salts on the Aggregation of Cyanine Dyes in Aqueous Solution

Presentation Description
Cyanine dyes have an ability to form dimers and H- and J-aggregates in solution and on solid surfaces. Unique features like optical storage and ultrafast optical switching provide motivation to discover the properties of these certain

Abstract
The effect of inorganic salts (lithium chloride, sodium chloride, potassium chloride, and calcium chloride) on the spectroscopy of the cyanine dyes, (NK-3796 and NK-2707 whose structures are provided below), was investigated using UV-vis spectroscopy. Both dyes tend to form J-aggregates upon mixing with any of the tested monovalent cationic salts. However, H-aggregates were only observed in the case of NK-2707 upon mixing with calcium chloride (divalent cations). The appearance of a single red-shifted band at 636 nm in the UV-vis spectra suggests that the dye monomers are quantitatively converted to J-aggregate in the presence of inorganic salts. In the case of a concentrated solution of NK-2707, the J-aggregates tend to form first then upon time they convert to H-aggregates. While in diluted solution, H-aggregates are formed directly. The H-band was observed at 454 nm and it is broad in nature.

Co Presenter (s) / Group/Ensemble Participants
Austin Reese
Yougri Jung
Donald Long
### Performance Information

- **Last Name**: Alejandro
- **First Name**: Jessica
- **Performance**: Class Project
- **Performing & Visual Arts**: Undergraduate Individual
- **Published Name of Group/Ensemble**: CN Centrum Arena
- **Faculty Mentor Name**: Paul Ocampo MFA
- **Class Time**: 1:30-1:50

### Title:
**Escape to Clarity**

### Presentation Description
This piece focuses on the importance of making decisions for one's self and the pressure that comes with it. The dance shows life struggles we go through when making important and everyday decisions.

### Abstract
Escape to Clarity is a performance that gives the dancers and audience a different view into the mundane activities and decisions each of us are faced with on a daily basis. Being able to take what we already know and change it into what it means to us and for others is a skill much needed in the world.

### Co-Presenter(s) / Group/Ensemble Participants
- Jeremy Muir
- Kayla Clawson
- Amylia Ruybal
- Sara Harward
- Kourtney Nelson, Danyel Rosewood
Title:
YouBetchaPechaKucha

Presentation Description
Pecha Kucha is not a rare blood disease contracted from wild animals in sub-tropical plains in South America - come find out what is really is, how it started and why it's awesome!

Abstract
Parker Alleman and Jessica Lim will present a "behind the scenes" look at what goes into planning an event like Pecha Kucha, what it means, and the history of this style of presentation. Pecha Kucha is a great way to get information out to the masses in a relatively stress-free environment, and we will explain how this all comes together and why it has grown rapidly in popularity all over the East Coast and central Europe.

Co Presenter (s) / Group/Ensemble Participants
Jessica Lim
Presentation Description
This dance was based on a poem about a pearl that is created by sand and the sand is representing aches of the foreign object. The sand creates this beautiful pearl, it teaches that pain can represent beauty.

Abstract
As a choreographer I wanted this poem to come to life with its feelings. With the poem I believe everyone can relate to the idea that something that is painful has now made them beautiful. With the object being an oyster and a pearl, it is a great way to explain the feelings and expressions. I wanted my dancers as well to feel the pain and energy in this piece so when they dance this piece everyone in the audience can feel it too. Especially with the dance moves expressing the feelings of being in the wanted becoming an oyster, and feeling what myself as a choreographer feels.

Co Presenter (s) / Group/Ensemble Participants
Stephanie Ham
Jordan Barlow, Heather Watson

Heather Studborn
Thaddeus Cole
Melanee Gardnex
Title: The Hidden Threat of Botmasters and their Robot Armies

Presentation Description
Botnet masters and their robot armies wreak havoc on computers around the world. Computer security researchers seek to stop these botnet masters in their tracks.

Abstract
It is often overlooked that research in the computer security field can be dangerous. Researchers often deal with software of a malicious nature, putting their own machines and information at risk. This is no truer than in the area of botnet research. A botnet is a network of compromised computers, usually used for malicious purposes, under the control of a single user, or botmaster. Many of the current techniques available to researchers analyzing botnets require the researchers to put their own machines on the line by connecting to the botnets themselves. These connections provide the botmaster with information that may be detrimental to the researcher and his/her research, and may even put the researcher in harm’s way. This research will address three major issues in the field of botnet study.

First, what information a botmaster can uncover about researchers investigating their botnets. Second, ways in which researchers may interfere with each other, and ways they can better communicate. Finally, this research will address the issues of identifying botmasters, and identifying computers infected with botnet software. We also suggest methods and procedures researchers can implement to minimize their risk of being discovered or targeted by the botmasters of the botnets they are studying.

Co Presenter (s) / Group/Ensemble Participants
Ed Bennett
Title:
Numerical Analysis for a Lotka-Volterra System with Diffusion

Presentation Description
We show where the equations for a predator/prey system come from, then study the interaction between them and prey that are both moving around locally (dispersing) in a closed environment.

Abstract
We numerically study a Lotka-Volterra predator-prey system involving diffusion terms. A nonstandard finite difference, semi-implicit scheme is proposed for the system. We show that the nonstandard scheme is uniquely solvable, stable and that the numerical solution will approach the true solution uniformly on a finite interval.
Title:
Predatory Peers: The Power of Young Adult Realistic Fiction and the Culture of Bullying

Presentation Description
This study of the evolution of monsters once used to warn children of real-world dangers into modern, real, and predatory peers. Young adult fiction can be used in recognizing and avoiding these bullies.

Abstract
Young adult literature has the power to pick up where childhood storybooks and fairy tales leave off. Realistic fiction such as Kristen Randle’s The Only Alien on the Planet and Jay Asher’s Thirteen Reasons Why provide adolescents with stories of teens that have fallen victim to predator peers. Pytash, Morgan, and Batchelor (2013) advocate adults who read and discuss relevant texts with students and position themselves to have deep and difficult conversations in honest and meaningful ways. In a country where suicide is the third leading cause of death among young people (at least half of which are attributed to bullying) and 160,000 kids stay home every day from school because of fear of bullying, popular literature is essential in teaching us to recognize and avoid peer predators and begin the healing process for those who couldn’t.
Title:
Narrowing Transactional Distance in Classrooms using iPads

Presentation Description
This presentation will give attendees an experience to connect with an instructor using a powerful mobile device app, as related to a study set to collect data in an SUU online classroom. Attendees can use any mobile device to participate.

Abstract
Applying Moore's theory of transactional distance, this presentation is a precursor to a study set to collect data in an SUU online classroom, Fall 2014. Transactional distance is a psychological space that occurs when learners and instructor is separated. This presentation is related to a developing study that will measure transactional distance between SUU online learners and their instructor. The principle inquiry (qualitative) of the measure is the potential effect using mobile devices may have, with online learners when lecture is synchronously delivered using the devices. Guided by the transactional distance tenets of structure, dialogue, and learner autonomy, closeness between instructor and learner will the principal focus. Lessons created and delivered in the Nearpod tool will be utilized to provide a learner experience upon which they may reflect in writing, and report in interview, their lived experience in regard to closeness with others while learning.
Title:
The John Wesley Powell Survey in Southern Utah

Presentation Description
In a power point presentation, I will show how and where the Powell Survey in southern Utah operated in the 1870s. I will also discuss the survey's impact on various fields such as geology, cartography, geography, anthropology, and land

Abstract
The Powell Survey really began their survey of southern Utah and Northern Arizona landscape during the winter of 1870-71 when they camped near the new town of Kanab. Directed largely by Powell brother-in-law, Almon H. Thompson, the survey established a baseline on the Arizona Strip, then proceeded north overland toward Potato Valley (present-day Escalante). In the process they discovered the last named river in the lower 48, the Escalante River, and the last mountain range, the Henry Mountains. Powell and his geologists mapped the last blank spot on the U.S. map, made significant contributions to the understanding of the role of erosion in earth morphology, and identified the geologic principle of laccoliths.
Title:
Chasing the Dragon

Presentation Description
Where do tax payers' dollars go when it comes to wildfire? There have been big fires and much causality over the last few years. See this presentation for an overview of what goes on with these fires.

Abstract
Every summer the United States burns. It National Forests, BLM land, and National Parks acres and acres of public and private lands are ravished by wildfire. The government has developed a program to suppress these wildfires, but what are the goals to controlling wildfire? Taxpayers’ dollars fund all suppression efforts, so what goes one. Come and see how the logistics of wildfire and how firefighters put their lives on the line to protect our National property.
Title:
Estimating the Value of Tenure

Presentation Description
This paper estimates the dollar value of tenure using data from the Survey of Doctorate recipients.

Abstract
This paper estimates the dollar value of tenure to science and engineering PhDs. Data from the 2003 Survey of Doctorate Recipients is used to build binary preference models for STEM PhDs. These models allow one to estimate the probability of a doctorate worker being “very satisfied” with their position based upon job characteristics and demographic factors. Using this preference model, we estimate the extent relative income would have to be increased to offset the loss of tenure and keep job satisfaction constant, ceteris paribus.

Co Presenter (s) / Group/Ensemble Participants
R. Kim Craft Ph.D.
Michael G. Finn
Video Games in the Classroom at SUU Success Academy and Cedar High School

Presentation Description
This presentation will discuss how the education system is changing within the United States and how we can best tackle this changing scheme of education: with video games.

Abstract
Given that K-16 system within the United States is constantly changing, numerous methods are being implemented by teachers in the classroom. One such method includes implementation of online classrooms at both middle and high schools. A tutoring service called “Learn To Be” is newly available to teachers that offers free tutoring online to students all over the nation in contrast to lecture classes. Recently, video games are also being used as supplementary materials to augment classrooms with different technologies. This is beneficial to the new generation of students who are used to using technology in their day to day life. Therefore, it is important to keep this in mind while trying to teach students and grasping their attention in the learning environment. For example, Dr. Jan Plass of NYU’s Steinhardt School of Culture, Education, and Human Development comments to state: “game-based learning can actually get students interested in the subject matter- and can broaden their focus beyond just collecting stars or points.” In light of the above argument, this ongoing research project focuses on providing video games as supplementary chemistry material to various schools within the Iron County. Phase I: developing the video game. Phase II: testing as well as implementing it in to the schools by the fall of 2014. In order to continue this project under the mentorship of Dr. Kesar, I am requesting for the cost of an iPad Mini to make this project successful. Outcome includes: publications, peer recognition, and collaborating on curriculum development with schools.
Title:
Should you take an in-class or on-line course?

Presentation Description
Should you take an in-class or on-line course? This presentation describes the differences in students' grades based on that choice. It also describes the differences in students' grades as they progress in their university studies.

Abstract
With the increasing popularity of on-line courses, much controversy has arisen as to the effectiveness of on-line courses in relation to traditional courses. Several studies have indicated that on-line courses have no effect on student learning, while other studies indicate that students in on-line courses do worse than their traditional counterparts. In this presentation, student performance is analyzed and compared between traditional and on-line students in a skills-based, lower division, introductory computer applications course. This presentation also compares the differences in achievement among class rank of traditional and on-line students to determine if their performance differs as they progress in their university studies.

Co Presenter(s) / Group/Ensemble Participants
Laurie Harris
Connie Nyman
Title:
The Future of Online Instruction in Traditional Higher Education

Presentation Description
This presentation addresses the growth, acceptance, and future of online teaching/learning as a viable means of course delivery in traditional higher education institutions.

Abstract
Technology is changing the "landscape" of the traditional university. E-learning examples include - but are not limited to - digital simulations, e-books, text messaging, podcasting, wikis, blogs, Facebook, Facetime, Twitter, iPads, iPhones, etc. New technologies are emerging at an unprecedented rate and these forms of technology with their associated applications to social media are changing the way people communicate, share information, and also how professional educators teach and learn. The historical roots of distance learning are founded in correspondence study courses of the 19th and 20th centuries. Satellite delivery of courses (one-way video, two-way audio) occurred in the 1980s and 1990s. This was followed by interactive TV instruction (live two-way video and two-way audio via fiber optics and microwave technologies) began in the 1990s and continue to the present day. The most popular medium for distance learning today and what appears will be long into the future is online text, video, and multi-media via the internet. The notion of anytime, anyplace learning is a concept that has its roots in proprietary programs which are for-profit institutions most of which are non-brick and mortar (e.g., University of Phoenix, Walden University, and NOVA? University, etc.). In fact, per the Sloan 2010 "Survey of Online Learning," more than 1000 online degree programs are offered in the U.S. by proprietary institutions. Yet, the most interesting fact from the Sloan study is that 30 percent of all college/university students attending traditional institutions (not for-profit) now take at least one course online. And, enrollment in online courses at traditional university (again, not for profit) rose by 1 million in 2010 from the prior year. And, the numbers continue to grow at a rapid rate. Phenomena that is linked to the growth and acceptance of online courses are the creation of Massive Open Online Course referred to as MOOCs. Some MOOCs enroll tens of thousands of students from around the globe. The future on online distance learning courses is still unfolding.
Title:
The Effects of Transformational Leadership and Gender on Concern for Others within an Organization

Presentation Description
Come learn about the full-range leadership theory styles and why leadership and gender matter in lead organizations!

Abstract
We report on data indicating that the perception that one works in a caring environment varies based on both leadership style and gender. Whereas transactional and laissez-faire leadership styles are unrelated to the perception of caring, transformational leadership is positively associated with caring. Specifically, leaders high in transformational leadership are likely lead organizations in which caring is perceived, and leaders low in transformational leadership are likely to be employed with organizations in which caring is not perceived. We also found that when women are leaders, high levels of caring are perceived. A significant interaction between transformational leadership and gender revealed that the effect of transformational leadership on caring is more pronounced among men than women. Said plainly, to achieve the high level of caring observed among female leaders, male leaders need to be highly transformational in their leadership style.
Title:
Study Abroad in Ireland, Lessons for an Old Professor

Presentation Description
With 20 students and 3 colleagues, we toured the Emerald Isle; saw incredible vistas, observed rich cultural traditions, and met some very interesting people. I will share observations about the importance of international student experiences.

Abstract
"The world is becoming increasingly more interconnected. Students who hope to gain a competitive advantage in the workplace may find that international experiences and global perspectives help to provide the foundation they need. In constantly looking for ways to enhance the marketability of graduates, Southern Utah University promotes international student experiences through the Sargon Heinrich Global Engagement Center. The goals of the Global Engagement Center is to: ...inspire and enable SUU students, faculty, and staff, as well as members of the local community, to take advantage of opportunities provided by the GEC to do the following: Become informed about other cultures in formal and informal academic settings. Learn directly from people of other cultures in a variety of venues. Appreciate cultural values that differ from their own. Broaden their worldview by considering issues from diverse perspectives. Develop empathy for people of other cultures. Strive to reach common goals with people of other cultures. Work collaboratively to improve the lives of less fortunate people in other countries. Increase their desire to travel and learn independently about people of other cultures. Enjoy a campus environment that welcomes international students, scholars, and visitors. Discover new ways of learning. They seek to accomplish these goals through study abroad, international exchanges, internships, guest speakers and special campus events. This past summer, with support from a grant through the Center for Excellence in Teaching and Learning, I joined three colleagues and 20 students on a study abroad trip to Ireland. We toured the Emerald Isle, saw incredible vistas, observed rich cultural traditions, and met some very interesting people. Our students had the opportunity to think about a way of life very different from their own, yet also identify many common experiences that weave humanity into a cogent tapestry. I plan to share photos, thoughts, feelings and observations about the importance of international student experiences; not just in psychology, but in varied and diverse disciplines."
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**Title:**
Heritage Presentation

**Presentation Description**
My personal family heritage and what I learned from researching my family's past. This project is geared toward elementary school students, to show them how important their heritage is.

**Abstract**
A presentation on my heritage and how elementary students can learn valuable lessons from their own family history.

Co Presenter (s) / Group/Ensemble Participants
Title:
Graphic Design Packaging and Textile Design

Presentation Description
Considering the pattern on a shirt and shoeboxes being designed. My senior project incorporates designing patterns that are printed on fabric and creating packages to showcase the fabric.

Abstract
Generally graphic design is thought of as posters and business cards, but with my project I would like to expound upon that idea and present people with design that isn't generally thought about. For example, have you considered that the pattern on a shirt or the box your shoes came in had to be designed? I have incorporated this into my senior project by designing patterns that are printed on fabric and creating packaging to showcase that textile design. Using pens, pencils, paper, rulers and adobe programs, I created a custom, fictional brand that has custom fabric design, simple branding, and intriguing, modern packaging. This brand is based on summer night dreaming. It has inviting warm summer colors and encourages those who wear the products and the custom fabric to live their dreams and realize that with hard work, anything is possible. Creating a brand is more than a logo. It is an identity and a mood and feeling. I want to convey this mood and idea of living your dreams through exciting custom-made packaging, fabric and textile designs.
Title:
Senior BFA Capstone Project 93.7 SKY FM Radio Station Branding

Presentation Description
Exhibition in the Braithwaite Gallery. I created a potential brand and tradeshow display for a new radio station that fits not only the new, more contemporary and trendy music of today and the 2000's, but was also made to last into the

Abstract
The purpose of my project was to obtain real life experience in working with an actual client and using the skills and abilities that I have learned in the Graphic Design program while here at SUU. My goal was to help the client come up with a creative solution that works for the branding of their business. The client I worked with is a radio station owner who wants a brand for their new radio station, 93.7 SKY FM. They wanted their logo identity and brand to be trendy and current, yet still have the ability to last through the years. I proposed my ideas to this client by creating a logo and an event or tradeshow display with signage and giveaway items to help promote the new radio station. My display is being exhibited in the Braithwaite Gallery on the SUU campus along with several other Senior Art and Design Student’s Capstone projects.
Predictions of Trait Inheritance

Have you ever wondered what your offspring might turn out like? Well I have. That wonder is what inspired this project. Using family pedigree trait analysis and some research I predicted the probability of 10 traits in my own daughter.

Abstract
Trait inheritance from parent to offspring can be predicted by using a family pedigree and an understanding of the mode of inheritance for that trait. In this project I am predicting the likelihood of the expression of 10 different traits that will be present in my daughter who is expected to be born sometime in March of 2014. The traits I am predicting are: eye color, hair color, presence of dimples, attachment of earlobes, straight or curly hair, length of the middle toe, webbed toes, freckles, asthma, and epilepsy. I will be basing the predictions of the expressed traits on a family pedigree that will go back to my wife’s and my own grandparents, with our siblings, aunts, and uncles included in the pedigree. Also I will research the mode of inheritance for each trait to know how it is passed on from one generation to the next. I will then mathematically predict the percent chance that my daughter would have of expressing these specific traits. My predictions for the traits that my daughter will have without having done the pedigree and research are: hazel colored eyes, brown hair, with dimples, unattached earlobes, curly hair, a short middle toe, with no webbed toes, without asthma, and without epilepsy.
Title: "I Approved this Message": The Pornification of the Rhetorical Presidency

Presentation Description
This presentation examines the controversial ad "Your First Time," that ran as part of President Obama's re-election campaign. We explore the landscape of presidential rhetoric through the lens of the "pornification" of political discourse.

Abstract
This presentation examines the controversial ad "Your First Time," that ran as part of President Obama's re-election campaign. We explore the changing landscape of presidential rhetoric through the lens of what Karin Anderson has labeled "the pornification" of political discourse. We analyze the ad and discuss its implications for the rhetorical presidency.

Co Presenter(s) / Group/Ensemble Participants
Shawn Domgaard
Title:
Insight Dubai Women's Conference Reflections

Presentation Description
Attendees from the recent Insight Dubai Women's Conference will share their experiences and reflect upon the opportunity to engage in an international conference.

Abstract
Four students from SUU traveled to Dubai, UAE in March to participate in the Insight Dubai Women's Conference hosted by the Dubai Women's College. This presentation will provide an opportunity for these students to share their experiences with the SUU community and reflect upon the ways their lives were impacted by engaging in such a culturally diverse conference.

Co Presenter (s) / Group/Ensemble Participants
Claire Cleveland
Rebecca Powell
Melissa Wilkey
Title:
The Stability of a Semi-Implicit Numerical Scheme for a Competition Model Arising in Math Biology

Presentation Description
In this presentation, we propose a semi-implicit numerical scheme for a competition model in math biology. We also prove the unconditional stability, non-negativity, and convergence of this numerical scheme.

Abstract
We study a Lotka-Volterra competition model. By using the Non-dimensionalization Method, we analyze the stability of the steady state solutions for this system. Also, a stable numerical scheme is proposed to verify the theoretical results of the system. Using the Principle of Mathematical Induction, we prove the unconditional stability and convergence of our numerical scheme.

Co Presenter (s) / Group/Ensemble Participants
Amy Gifford
What's In a Name?

Presentation Description
Guiding students to learn more about their ancestors and what their name means to them can help build confidence and pride in who they are and where they came from.

Abstract
As an elementary education major it is important to know how to capture the interest of a young audience. In my presentation I will share a homemade treat and stories that have been part of my family tradition for generations. I will also have other visual aids in order to spark the curiosity of young minds. I will discuss where my ancestors came from, what my name means, and I will help students understand that their name and ancestors play an important role in making them who they are today.
Title:
A Century

Presentation Description
Experience the competition in a Cycling Century race through the eyes of this presenter.

Abstract
This presentation will briefly explore a Century race in cycling.
Title:
Moneyball: More than Just a Baseball Story

Presentation Description
“Moneyball” – a popular book and movie is the story of how the Oakland A’s beat the market in baseball. Similar stories can be seen throughout sports, showing that Moneyball is about more than baseball.

Abstract
The Moneyball story both in the book and the movie focused on how the Oakland A’s used advanced stats to build a winning baseball team without much money. Although the story focused on baseball, we find similar “Moneyball” tales in a variety of sports. In the NBA we see players rewarded for shooting inefficiently. In the NFL we see quarterbacks credited with wins and paid for how they look. And in the NHL we see goalies paid for the work their defense does in front of them. One might think that in sports where performance can be measured players would be rewarded for their contribution to team success. But again and again, we see that in sports the Moneyball story just keeps appearing.
Title: Academic Impact: The Southern Utah Museum of Art

Presentation Description
Reece Summers, Director of SUMA, Rachel Bishop, Director of Arts Administration, and Deb Snider, Assistant Professor of Art Education, will discuss the academic impact of SUMA, the first nationally accredited museum operated by Southern Utah University's College of Performing and Visual Arts 'Medical School.'

Abstract
The Southern Utah Museum of Art has been described as the 'Teaching Hospital' to Southern Utah University's College of Performing and Visual Arts 'Medical School.' The educational vision of SUMA is to become the first nationally accredited art museum operated by graduate and undergraduate students in a shared research, learning, and applied environment mentored by the faculty, administration and staff of SUU. SUMA has been designed to serve as a model laboratory for collections and exhibition research, educational programming, public school outreach, and empirical evaluation of the visitor experience. SUU's Master of Fine Arts in Arts Administration degree program develops graduates who balance administrative systems with creative process in an effort to ensure the artistic integrity and economic sustainability of arts organizations. SUMA will provide these students with the day-to-day practical experience managing staff, programs and facilities. These emerging administrators will earn a graduate degree and a verifiable arts management resume as museum professionals. SUU's Bachelor of Fine Arts in Art Education students will have an opportunity to develop and implement creative and innovative outreach programs in SUMA that will enhance the arts education experiences of thousands of K-12 student from throughout the region. SUU's undergraduate Museum Studies Minor students will gain hands-on experience in registration methods, collections care, conduction educational programs, exhibit design, and installation in SUMA. These students will earn a relevant degree and a resume built on solid knowledge-based museum skills. The academic impact SUMA will have on programs at SUU is astounding. In this panel, The directors of SUMA, Arts Administration Graduate Studies, Art Education, and Museum Studies will discuss this impact and the future of arts education at Southern Utah University.

Co Presenter (s) / Group/Ensemble Participants
Reece Summers
Deb Snider MFA
Zombie Friend, Zombie Lover: When the Walking Dead Becomes the Monstrous Boyfriend

Presentation Description
The rom-zom-com film "Warm Bodies" may be a fun take on Romeo and Juliet, but it propagates the dangerous myth that those violent boyfriends can be transformed into caring partners through simple love on the part of the beleaguered victim.

Abstract
While the fully formed zombie romantic hero has been developing for years in the pages of paranormal romance and young adult titles, Jonathan Levine’s zom-rom-com Warm Bodies (2013), based on the 2011 novel by Isaac Marion, marks the first mainstream feature film that offers audiences a zombie they can really fall for, the sweet and innocent “R,” anemically attractive, who knows how to treat a girl right when he's not killing and eating her boyfriend, of course. Warm Bodies asks audiences to rethink the definition of “monster,” proposing zombies may simply be misunderstood victims who suffer at the brutal hands of uncaring humans. The problem? Like Edward Cullen before him, Levine’s R is a monster in a more troubling way than simply his unfortunate existence as a walking corpse: he’s a “bad-boy” who represents the kind of narcissistic and abusive partner to whom far too many women find themselves irresistibly attracted. Because of the way R manipulates the feckless Julie—who begins the narrative as an essentially strong and confident woman—audiences are told to see romance where only controlling abuse exists. More disturbing, however, is the prevailing theme Warm Bodies and other paranormal romances propose that what I call the “monstrous boyfriend” can change if a woman can only love him deeply and truly enough.
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**Title:**
Legos

**Presentation Description**
Legos have developed, adapted and changed so much over the years. Learn how Legos mimic life.

**Abstract**
As the times have changed, so have Legos. This product continues to win people of all age’s hearts. They do a perfect job adapting to the ever so changing pop culture. Legos have shaped people’s lives and hearts.
Title:
Merging the arts through the Beverley Taylor Sorenson Arts Center

Presentation Description
Discussion of integration of technology, performing arts, education, and public arts programs in the forthcoming Southern Utah Museum of Art and the Utah Shakespeare Festival.

Abstract
Each presenter will discuss various aspects of programming integration in a museum (SUMA) and performing arts (USF) organization within the setting of the Beverley Taylor Sorenson Arts Center. Development of the various art education programs in SUMA will be outlined. Synthesis of technology with art exhibits and art collections in SUMA will be discussed. The augmentation of the SUMA sculpture garden and advancement of future public art programs on campus will be explored. New and creative ways of merging performing and visual arts will be examined.

Co Presenter(s) / Group/Ensemble Participants
Iryna Stadnik
Joe Nemrow
Jacob Taylor
Title:
Recent Student Research in History

Presentation Description

Abstract
In Fall 2013, two students, Kristen Hair and Corbin Edington, wrote quality research papers for their senior capstone course, HIST 4990. The Festival of Excellence offers an excellent venue for these students to present their papers. Ms. Hair analyzed political cartoons about Napoleon Bonaparte in the British press from 1795-1815. Her research revealed those images of Napoleon were used for a variety of purposes: to strengthen the war effort, to condemn and chastise not only the emperor but the nation of France as well, and to comment on developments within Great Britain itself. Corbin Edington investigated the "Upstairs Lounge Fire," 24 June 1973 in New Orleans, probing the repercussions of this incident for the Gay Rights movement in the south. Before this tragic event, no significant movement existed; the patent lack of concern and apathy from the sectors of the public and most officials spurred an intense level of activism which garnered tremendous support.

Co Presenter (s) / Group/Ensemble Participants
Kristen Hair
Corbin Edington
Effect of colostrum quality on health of dairy calves

Presentation Description
A research project was conducted to determine the effect of the quality of colostrum fed to dairy calves on their health. The project was conducted as part of an internship experience with AgReserves Inc. in Elberta, UT.

Abstract
The most important factor for the survival and health of newborn dairy calves is the consumption of high-quality colostrum soon after birth. Until the immune system of the calf is more fully developed, antibodies obtained from the colostrum provide crucial protection from disease. The quality of colostrum is determined by the concentration of the antibodies, also known as immunoglobulins. An experiment was conducted to determine the effect of the quality of colostrum fed to dairy calves on their subsequent health. Colostrum was collected from dairy cows and tested for quality, which was based on the concentration of Immunoglobulin G (IgG) found in the colostrum. The colostrum was then fed to newborn dairy calves. Blood samples were collected from the calves to measure the concentration of IgG in blood serum and determine the correlation with IgG concentration in the consumed colostrum. Calves were monitored for several weeks to determine their health status. Incidence of treatment for illness was recorded to be compared with the colostrum quality. The initial data collected did not show conclusive results regarding the effect of colostrum quality on incidence of illness. Data from additional observations that have been collected will be combined, analyzed, and reported.
Title:
Traversing the Logic-Magic Continuum: Why Fantasy Matters

Presentation Description
Science uses logical explanations to account for natural and physical phenomena. In this presentation, a scientist describes the value of creating fictional worlds using a science mindset. Whether writing science or fiction, every word counts.

Abstract
Scientists use objective observation, experimentation, and analyses to explore the natural and physical world. However, the scientific process involves much more than the prescribed “scientific method” that often tends to be the initial focus of discovery. Science and particularly science education also requires creativity, innovation, and forming connections with other disciplines. In practicing science, understanding the world around us requires that we discover and describe parameters within which organisms and systems function. In writing fiction, we have more freedom to redefine realities, but using creativity to define our own sets of parameters is a necessity; failure to do so creates worlds that are paper-thin. As such, a scientific/logical mindset becomes useful when writing creatively, and a creative mindset becomes useful in making connections within the study of science. In this talk, a scientist and fiction writer describes how she bridges the gap between the logical world and the magical world and how that bridge contributes to creating a logic-magic continuum. She discusses different ways to use science in creative works and conversely, the value of creativity in understanding the power of science. After all, whether one writes scientific papers or novels, every word counts.
Title:
Cadaver Analysis of Abdominal Aortas and Femorotibial Articulations

Presentation Description
We’ll focus on healthy knee joints and abdominal aorta dissections and compare them to medically repaired specimens. A newly discovered knee ligament will also be discussed.

Abstract
Multiple cadaver dissections of abdominal aortas and knee articulations have been performed. We will focus on healthy knee joints and abdominal aortas, and compare them to medically repaired specimens. Knee joints are one of the most commonly injured anatomical structures within the body. An in depth analysis of the anatomy of a healthy human femorotibial articulation will be presented. Additionally, a medical knee replacement will be explored. Finally, the newly discovered anterolateral knee ligament will be displayed and discussed. Cardiovascular problems and aortic pathologies are a leading cause of death in America. Healthy human cadaver aortas have been dissected, studied, and compared to diseased vessels. An analysis of healthy aortas and aortas that have undergone dystrophic calcification will be presented. Unrepaired and surgically mended aortic aneurysms will also be displayed and discussed.

Co Presenter (s) / Group/Ensemble Participants
Chris Cormier
Music as a Social Movement Condition

Presentation Description
This presentation will look at how music is able to attend as a condition that stimulates social movements.

Abstract
Music is able to achieve an activating energy for many social movements. Two cases will be compared against each other: the Civil Rights Movement and the LGBTQ Movement. Through analysis of the classic example, predictions for how music will impact the LGBTQ Movement should be able to be made. These cases will evaluate the role of music as a condition for overcoming oppression.
Title:
Aspects of South Asia: A Cultural, Political, and Economic Perspective

Presentation Description
The sociological honor society, AKD, will be presenting a poster board that has been prepared by its members who visited Nepal and India. The presentation will discuss the cultural, political, and economic aspects of South Asia.

Abstract
This poster board presentation will convey images, observations of South Asian culture as experienced by AKD members who attended India and Nepal, and discuss how those aspects of life differ from the United States. The political systems and economic systems will be similarly evaluated in a comparative way to reveal how the differences between countries - whether near or far from one another - allow for various opportunities for those countries to prosper.

Co Presenter (s) / Group/Ensemble Participants
Meskerem Tadesse
Shawn Wright
Title: Heritage
Presentation Description
Heritage Presentation
Abstract
Heritage Presentation

Co Presenter(s) / Group/Ensemble Participants
The Glorious (and Not-So Glorious) Deaths in "Gilgamesh" and "The Odyssey"

Presentation Description

The main protagonists in "Gilgamesh" and "The Odyssey" use their intelligence and physical skills to keep their comrades alive, and if a comrade dies outside of their control, the leader will try to gain more skills to keep more.

Abstract

The protagonists in Gilgamesh and The Odyssey see their comrades’ death, whether honorable or not, as a reflection upon their leadership abilities. Protagonists perceive the death of friends and family as loss of the oikos, or extended family and estate. Keeping comrades alive proves that the leader is strong and intelligent, because he didn’t unintentionally kill his comrades through needless blunders. Therefore, the protagonists are generally self-motivated to lead their men safely and avenge their deaths so the unnecessary deaths don’t reflect badly upon them as a leader. Self-preservation is the real reason they try to save their comrades from death. The protagonists try to maintain their status as a strong leader who doesn’t lose men in any skirmish other than a battle, which would be outside the leaders control. The protagonist feels the need to avenge the deaths of his fallen comrades if their deaths were pitiful or not honorable in order to prove his leadership and balance his oikos. Dying in battle is a noble death because of significance and importance of the warriors’ actions. In Gilgamesh, Gilgamesh sees Enkidu’s death as a sign he cannot keep his comrade safe, and he feels pressure to increase his strength through immortality to become a better leader. In The Odyssey by Homer, Odysseus must confront his lack of leadership as well as his own mortality through the literal ghosts of his past: Elpenor, Agamemnon, and Achilles. These protagonists want to maintain their image as a strong leader instead of exposing a weak spot in their leadership skills, so they avenge their comrades’ deaths. Leaders use their intelligence and physical skills to keep their comrades alive, and oftentimes if a comrade dies outside of their control, the leader will try to gain more skills to keep more comrades from dying.

Co Presenter (s) / Group/Ensemble Participants

Gardner Stevenett
Title:
Repercussions of Concussions

Presentation Description
This presentation will focus on the aspects of concussions in football, including the long term effects in a player's life.

Abstract
Concussions and head injuries are currently under discussion in the public and the NFL. How many injuries a player can handle and the long term effects in a player's life beyond football are major considerations in the debate about regulations.
Title:
Anatomy Exploration: Surface & Subsurface

Presentation Description
These works are a symbiosis of drawings from a live model and from a skeleton in the same pose. Expanding upon Vesalius' drawings the understanding of what lies beneath the surface is a powerful tool for the artist.

Abstract
These works are a symbiosis of drawings from a live model and from a skeleton in the same pose. Learning to see the structure beneath the surface is a powerful tool for the artist. In the 16th century Andreas Vesalius changed the world's understanding of the human body through his anatomy books. He hired artists from the "School of Titian" to do the illustrations. They drew skeletons in the attitude of living persons so that the reader could better understand something that cannot be seen in the living, how the body is articulated. The class takes this aspect of Vesalius' books further by showing a combination of surface and subsurface in the same drawing.

Co Presenter (s) / Group/Ensemble Participants
Darren Lewis
Victoria Mauer, Jacqueline Trujillo, Odalis Uribe and Chip Wigg

McKenzie Gallegos
Madelyn Jones
Derek Lawrence
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Published Name of Group/Ensemble: Academic Status
Faculty Mentor Name: Brian Ludlow Ed.D.

Title:
The Bridgeman's in America

Presentation Description

Abstract
Title:
High School Students with Pre-Medical Interests Visit the SUU Human Anatomy Lab

Presentation Description
SUU students that have excelled in the cadaver practicum courses have developed a liaison between our Anatomy Program and the Iron County School District.

Abstract
Early recruitment of potential students is a focal point of our mission here at Southern Utah University. Within the Human Anatomy Program, several successful pre-medical students within the Walter Maxwell Gibson College of Science and Engineering have researched and developed an outreach program between our department and the Iron County School District. In four separate sessions, over 40 high school students will have visited the Anatomy Lab and participated in hands on, university level learning activities specifically designed to supplement and enrich their current studies at the high school level. This program has been specifically designed to be conducted and expanded by SUU students in future academic years. It is the basis for highlighting the unique peer based learning opportunities available here at SUU to our Iron County high school students.

Co Presenter(s) / Group/Ensemble Participants
Jacob Preston
Title:
Patterning Supported Lipid Bilayers with Magnetic Tweezers

Presentation Description
Many cell communications are mediated by the arrangement of membrane components. We are attempting to pattern lipid bilayers, which could have applications ranging from allergies to cancer treatment if successful.

Abstract
Lipid bilayers have many important purposes in living cells. A lipid bilayer forms a barrier which separates the fluid inside the cell from the fluid surrounding the cell. The arrangement of components within cell membranes can be extremely important, particularly in cell communications. For example, when our immune system attacks certain pathogens, it recognizes them by specific proteins in the inner and outer regions. This can be thought of as forming a "bull's-eye" shape. The ability to generate such patterns in bilayers might see applications in many areas of biology. Our goal is to take an initially un-patterned supported lipid bilayer (model cell membrane) and use magnetic tweezers to generate patterns. We hope to show pattern formation using fluorescent lipids within our bilayer. In the past, we have used Oregon green-labeled streptavidin and biotinylated lipids. Currently, we are pursuing a fluorescein/anti-fluorescein setup, and we have high hopes that this much simpler setup will yield better results.

Co Presenter(s) / Group/Ensemble Participants
Madeline Gleave
Tyler Argyle
Chad Parsons
Title:
Protecting Your Online Information

Presentation Description
This group presentation is a research topic (safeguarding your personal information online) from our Information Security and Assurance Class (CSIS 2670) under mentorship of Dr. S. Kesar.

Abstract
In today's society information technology is used not only in businesses, but for personal reasons. Confidential and sensitive data is being stored on computer systems by people in their homes. This data can be compromised by other people who do not have authorized access, which can lead to identity theft and computer crime. Therefore it is important that an individual has basic awareness about information security to protect not only their information, but all sensitive information stored in a digitized format. The main objective of this presentation is to help individuals understand why protecting their information online is important. In addition we will focus on the following key points:
Why your personal information is at risk; How it can be compromised; What measures to take to avoid such attacks. While presenting our research we will also discuss various topics associated with suspicious emails, passwords and hoax websites.

Co Presenter (s) / Group/Ensemble Participants
Khaled Alebi
Kyle Broadhead
Greg Davis
Gabe Mouritsen
Synthetic Preparation of New Ligands to be used in Transition-Metal Catalyzed Reactions

Presentation Description
Transition-metal catalyzed reactions are useful in the synthesis of pharmaceuticals, materials, and agricultural products. Our research focuses on the discovery of trialkylphosphine ligands used to prepare novel transition-metal catalyzed reactions.

Abstract
Transition-metal catalyzed reactions are useful in the organic synthesis of pharmaceuticals, materials (plastics), and fuels. The structure and electronics of phosphine ligands coordinated to the transition-metal center can significantly affect the reactivity of the catalyst. This research focuses on the synthesis of new phosphine ligands to be used in novel transition-metal catalyzed reactions. Several trialkylphosphine ligands were synthesized and protected as borane adducts from reaction of phosphorus trichloride and Grignard reagents. The steric and electronic effects of the Grignard reagents were found to have a dramatic effect on the reactivity and selectivity of the 3-step nucleophilic addition reaction to the phosphorous(III) center. Future work will focus on the development of a general procedure to prepare the desired trialkylphosphine-borane adducts from phosphorus trichloride in high yield.
Title:
Lola Fabrics

Presentation Description
Lola Fabrics, a concept company, delivers quality materials to the fingertips of every seamstress. Innovative ideas that keep the customer in mind fuel the growth of Lola Fabrics, and drive your creativity and passion through future projects.

Abstract
Lola Fabrics, a concept retail company, delivers quality materials to the fingertips of every seamstress. With an easy-to-use selection, and a minimalistic carbon footprint, Lola Fabrics is a prudent solution for both the retailer and the consumer alike. The expanding line of products includes everything from yarn and needles, to fabric and binding. Neutral packaging colors enhance the inherent vibrancy of the materials, and the use of muslin eliminates the consumption of paper products. Innovative ideas that keep the customer in mind fuel the growth of Lola Fabrics, and drive your creativity and passion through your future projects.
Title:
Recent National Labor Relations Board (NLRB) Decisions and Non-union Employers

Presentation Description
Paper examines recent NLRB efforts focused on protecting the right to engage in protected concerted activity in the private sector of the economy.

Abstract
In recent years the NRLB, through decisions issued by the board and initiatives instigated by the NLRB's General Council, has become increasingly focused on non-union employers. A wide range of employer policies and practices have come under NLRB scrutiny. Most recently, numerous efforts by the Board and the General Council have been directed at protecting what many consider the heart of the National Labor Relations Act, Section 7. Section 7 of the Act provides employees of employers engaged in interstate commerce the right to engage in protected concerted activities for the purpose of collective bargaining or other mutual aid or protection. The purpose of this paper is to identify and assess recent NLRB decisions and General Council initiatives directed primarily at non-union employers and how these employers might respond.
Title:
Yes, I am a Google Glass Explorer

Presentation Description
Have you ever wondered what Google Glass (Glass) is and what it can do? I will briefly demonstrate what Glass is, how it can be used in the wild and the apps that are currently available for use.

Abstract
In March of 2013 I submitted a proposal to Google Glass through Google Plus on how I would use it if afforded the opportunity to own Glass. When you submitted your proposal you needed to use the "#ifihadglass" in order for Google to track the submission. In June I was notified I had won the opportunity to be a Glass Explorer. After picking up Glass at a Google office in Venice Beach I have been asked many questions about it and asked to demonstrate how it works. I have offered feedback to Google on what works well, what does not and how to make it better for a much broader audience.
Title: Heritage Presentation

Presentation Description
Where have we come from? Are we all immigrants? I trace my family tree as far as I can, through many countries, to their last known place of origin.

Abstract
Where have we come from? Are we all immigrants? I trace my family tree as far as I can, through many countries, to their last know place of origin.
Title:
Heritage Fair Project

Presentation Description
I will share my Heritage Fair project, which will discuss how my family came to America.

Abstract
I will discuss my family and roots. How and why my ancestors traveled to America. I will include family traditions.
Bone Density of Athletes vs Non-Athletes

Presentation Description
This study examined the bone density of athletes’ vs non-athletes, as well as age, calcium supplementation, and race. It found that athletes had significantly higher bone density than non-athletes and found it trended strongly with activity.

Abstract
Osteoporosis is a common disease that reveals itself as fractures occurring at multiple skeletal sites. This most often occurs at the spine, hip, or wrist, and causing significant injury and mortality. It was estimated that the prevalence of osteoporosis in the United States would increase from approximately 10 million cases to more than 14 million by 2012 (based on 2000 Census data). With a higher bone density earlier in life, the risk of developing osteoporosis decreases. Participation in physical activity such as organized athletics has often been associated with increased bone density.

This research project examined the question: Is there a difference in bone density of individuals based on their participation in sports? This study found that there is a positive correlation between lifelong athletic related activity and bone density which shows that individuals with physical activity throughout their lives had a marked increase in bone density when compared to those with lower lifetime activity levels. Individuals with no history of participation in athletic activities had a much higher likelihood of having low bone density (~10% of our population) compared to those with low, moderate, and high activity levels. The study found that as activity level increased, so did the likelihood of having normal or high bone density.
Title: University Learning

Presentation Description
Reading and creating a reading list is the focus of this presentation, and the conclusion will hopefully persuade attendees to continue to educate themselves following graduation through reading.

Abstract
Emphasizing the power of reading as key to learning here at SUU and following graduation. The presentation of reading lists and the influence they have had on people in our world and a list of my own. Attendees will be encouraged to create a reading list of their own that influence them in becoming individuals who are socially responsible.
Muay Thai: A Positive Culture

Presentation Description
An overview of Muay Thai, the national sport of Thailand, including religion, training, gym families and children fighters in this potentially violent sport.

Abstract
"Muay Thai is the national sport of Thailand. It is a full contact fight sport that allows kicks, knees, punches and elbows and is considered one of the most violent sports on the planet. Children in Thailand often turn pro and begin fighting for money as young as the age of 7, this allows them to bring in some extra income to their families. While this culture, especially with children involved, may appear to be extremely violent and negative, Muay Thai culture involves large amounts of respect, good values, hard work and Buddhism."
International Smuggling: Works of Art, Collectors’ Pieces, and Antiques

Presentation Description
The smuggling of cultural artifacts is an international problem. Comparing US customs import data records with export records of other countries indicates strong discrepancies and is correlated with corruption levels of exporting countries.

Abstract
The illicit trade of cultural property is an ongoing problem throughout the world. Cultural property includes works of art, collectors’ pieces, and antiques of an age exceeding one hundred years. All are protected by international laws. The theft and smuggling of art and cultural artifacts, as well as, the pillaging of archaeological sites both in the United States and in other countries, has led to an international problem. Analyzing the smuggling possibility for the illicit trade of cultural property, data will be gathered from all export countries and compared to the import records of the United States Customs and Border Protection records. Can measures of “Control of Corruption” and the “Rule of Law” indicators be correlated with measures of customs records? Comparing United States customs import and export data records indicate strong discrepancies, and are highly correlated with corruption levels of exporting countries.
Title:
An Introductory Student’s Perspectives on a Great Geology Field Trip to the Book Cliffs of Utah

Presentation Description
My perspectives as an introductory geology student on the value and importance of real world experiential learning that takes place out in the field.

Abstract
The Southern Utah University geology program visited the Wasatch Plateau and Book Cliffs of Utah for three days in the fall of 2012. Participants included fifteen SUU undergraduate students and eight undergraduate students from Snow College, led by professors from SUU, Snow College, and the University of Montana. The main objective of the field course was to learn about the wealth of sedimentary deposits and structures associated with the Cretaceous Sevier orogeny. We completed basic mapping and stratigraphic and sediment logic analyses across a transect from the proximal alluvial deposits in the Sevier highlands to the near shore and offshore deposits in the foreland basin. This transect allowed us to observe a variety of geologic features, including overturned folds, thrust faults, and a diversity of sedimentary facies. One of the most valuable experiences for an undergraduate student was the unique opportunity to learn how to interpret a range of depositional environments from the rock record. Most memorable is the progression of sedimentary deposits representing depositional environments that began in high energy alluvial fans, transitioned to braided and meandering channel systems, and concluded in deltaic deposits and low energy near shore and offshore shale. As an introductory geology major, I was exposed to topics in the field that typically are learned in upper level courses. These experiences helped me build a strong foundation for learning advanced concepts in the classroom, relating classroom concepts to field studies, and transferring field studies into geologic research and interpretation. Taking what I have learned in the Book Cliffs to the classroom has helped greatly in the understanding of material well beyond the scope of a textbook and lecture.
Title:
Darwin vs. Wallace: When Poetry Dies, When Poetry Lives, in the World of Science

Presentation Description
Charles Darwin and Alfred Wallace—discoverers of Natural Selection shared a commitment to epoch-making science. They did not share the same attitude toward poetry. This eye-opening presentation will explore the reason.

Abstract
Charles Darwin shared the honor of discovering Natural Selection (the driving force in Evolution) with fellow scientist Alfred Wallace. But behind their shared science we find a sharp divergence in attitudes toward poetry. Though both men loved poetry in their youth, Darwin confesses that he had lost all responsiveness to poetry by the time he was a mature man, a loss that he feared signaled a decay in his ethical sensibility. In contrast, Wallace retained a lively appreciation for poetry all of his life. What made the difference? Perhaps it was what Wallace called his "little heresy" that is, his refusal to believe that the science of natural selection could account for the human spirit. This heresy helped sustain what critic I.A. Richards called the Magical View of the universe (belief in spirits, inspiration, and ritual), a view Richards believed was essential for the well-being of poetry.
WECCO Anode Recycling Process

Presentation Description
WECCO, in one of their processes, uses anodes that contain lead dioxide, graphite, and copper. The lead dioxide makes disposal expensive. This project is attempting to find ways to recycle all or portions of the anodes.

Abstract
Western Electrochemical Company (WECCO) produces ammonium perchlorate, which is an oxidizer used in rocket fuel. In making the ammonium perchlorate, anodes are used in an intermediate electrolysis process. The anodes are approximately four-foot long graphite rods four inches in diameter with a one-foot long, one inch diameter copper rod embedded in one end of the graphite. The majority of the graphite is coated with lead dioxide after the electrolysis. The lead dioxide is hazardous. It is expensive to dispose of and hard to work with because of the possible hazard to workers. This engineering research and development project is seeking ways to recycle parts, if not the whole anode to reduce disposal costs, increase worker safety, and protect the environment.

Co Presenter (s) / Group/Ensemble Participants
Jeremiah Crook
Title: Building a Study Abroad Program for Graduate Students

Presentation Description
This presentation will detail the processes of developing a study abroad program geared specifically for graduate students. Learn how MPA students were able to apply their administrative skill set in the context of a study abroad

Abstract
Graduate students traveled to London and its surroundings to study the history, culture, and contemporary issues regarding higher education in the United Kingdom. Visits to Oxford, Imperial College of London, Roehampton University, University of Greenwich, and Regents University allowed students to examine, compare, and contrast the unique elements of British and American systems of higher education. Emphasis was placed on administrative oversight of higher education from local and governmental perspectives. The unique cultural components of each campus were explored in relative detail, as participants met students and administrators to learn about the world of "going to college in the "UK." A final group project provided an opportunity for students to develop consultation skills as they identified salient topics in English higher education and designed presentations aimed at helping a hypothetical institution address campus needs relative to the social, political, and economic realities of higher education in the United Kingdom.
Title:
Connecting College Students to Career Success: A Holistic Approach to Return on Investment

Presentation Description
As the costs and benefits of a college education are being critically evaluated, students are seeking sustainable return on their investment. Development of career self-concept may be the critical link that drives the desired results.

Abstract
"As the costs and benefits of a college education are increasingly critically evaluated, students are seeking engagement in their field of study that will generate tangible benefits and sustainable value. Recently, Gallup scientists presented the five elements of well-being that most directly correlated with perceived success: career, social, financial, physical, and community. By applying Donald Super’s self-concept theory as a link between students and success, the return on investment of a college education may be realized in the five elements of well-being ascribed by Gallup scientists. Faculty dialogues and student surveys have been facilitated to articulate career self-concept attributes and develop actionable ideas that will connect students with purposeful career self-concepts through investment in the five elements of well-being. Genuine engagement of these students with their career self-concepts will drive active participation in the student’s field of study and generate motivation toward self-directed investigations resulting in holistic success and return on investment. These incentives apply not only to young adults, but also to midlife career changers. As life spans increase, multiple careers will become increasingly attractive if not demanded by rapidly evolving marketplaces. By attracting these adults into the Southern Utah University community, younger students will benefit from the insights of those who have experienced educational, career, and life choices along with the outcomes of those choices. Additionally, Southern Utah University will expand its applicant pool and generate potential student mentors."
Influencing Judgments of Learning and Memory Accuracy with Deceptive and Valenced Stimuli

Research has tested memory accuracy and judgments of learning (JOL), with semantic or valenced stimuli, but not together. This study used both types of stimuli to assess the combined effect on accuracy, and confidence on matched pairs.

Abstract
Memory recall can improve through different techniques that enhance the retrieval process. Judgments of learning, also known as JOL’s, is where the individual determines the retrievability of the target when both the cue and target of the to-be learned pair are presented. Using paired-associated JOL’s where the individual will make judgments during the time of studying target-cue pairs can predict memory performance with cue-target recall. Emotional valence is the intrinsic attractiveness or the averseness of an event, situation, or object. When an object or word is emotionally negative, it can evoke emotions such as fear, anger, and sadness. Words and objects with emotionally positive valence can evoke emotions such as happiness, humor, and enjoyment. Information that may have any emotional valence can affect how well the individual learns it. Meaningful stimuli that can enhance arousal will be more effective for memory recall. A high level of arousal will increase the chance for encoding the information in the long term memory and will be recalled more easily. Memory performance can also be affected by other factors, such as semanticism in word pairs. Semantic word pairs are used in cognitive memory tests to determine future memory performance. Semanticism is the meaningfulness or how there is relatedness between the objects, words, or situations. Most studies have found semanticism to have a positive effect on memory performance and recall. An explanation for better memory recall for semantically related word pairs is they are easier to encode for long or short term memory. Strong meanings in words have a bigger influence than words that have little meaning because of the arousal level it can induce. A previous study have found that when testing word pairs that have positive, neutral, and negative valence that emotionally positive words had a larger impact on memory and shown an increase in memory accuracy (Khairudin et al., 2012). When negative stimuli are exposed, individuals will reject, dismiss, or ignore it, creating false memories as a defense mechanism for the mind, to block out uncomfortable thoughts. An explanation for this is that when the brain is processing the information, during the encoding process negative words encoded less because they are more likely to be studied less because it is unpleasant. Positive word pairs are more pleasing and tend to be studied longer which makes it easier to recall. A previous study observed the influence of deception in memory word pairs found that there was significance with using deceptive and non-deceptive items to create possible errors with memory. Participants in the study had a higher level of confidence despite having low accuracy in memory performance (Brewer & Sampaio, 2006). This may suggest that information that is stereotyped can lead to inaccuracy. Integrating semanticism, emotional valence, and deception can provide more clues to how our learning and performance is influenced and how it can be hindering or enhancing. This study questions if participants will have more confidence when answering for deceptive memory pairs, if negative word-pairs yield less accurate results from participants, and if semantically related word-pairs will yield more accurate results from participants.
Title:
The Mother's Blessing is a rich and compelling example of a dying mother's rhetorical performance that transcended barriers of gender and genre to become one of the most popular conduct manuals of the early seventeenth century.

Abstract
Dorothy Leigh’s Mother’s Blessing is often categorized as domestic literature. In this presentation, however, I argue that Leigh’s strategic depiction of herself as a “fearful, faithful, careful” mother helped her authorize herself as a public figure. Nan Johnson argues that home has often been perceived as a confining space with windows shut against winds of controversy. How did writers, however, create windows of opportunity? The seventeenth century represents a pivotal time; people were fashioning themselves and their spaces. Home was a complex place. One popular sermon explains that although the woman is confined within the walls of her home, knowledge of her good deeds climbs the walls and goes out the chimney for the world to praise. In The Mother’s Blessing, Leigh references the Old Testament book of Habakkuk where the stones of the home “shout,” and the wood “answers.” The “very walls” testify against the inhabitants who gather idols and bring them home to hide their idolatry. Leigh stresses that home is a place for essential silent reading and meditation. Home, as a conceived space, is ripe with rhetorical complexities that Leigh accesses to construct mother-based ethos. In this presentation, I argue that from within the supposed confinement of domestic sphere, Leigh specifically, actively, and successfully engages political, social, and religious debates. I argue that Leigh preaches a public sermon as if she were, as she describes herself, “a man and a preacher.” The Mother’s Blessing is a rich and compelling example of rhetoric that transcended barriers of gender and genre to become one of the most popular conduct books of the seventeen century.
Title: The Arab Spring: Has it Failed?

Presentation Description
This discussion explores the possibilities and challenges of the recent democratic transitions in the Muslim world, and asks the question: Has the Arab Spring failed in its intent?

Abstract
Democracy and Islam are both capable of multiple interpretations and applications. Islam possesses ideological resources that provide justification for a wide spectrum of political models. However, the compatibility of Islam and democracy relies on the critical questions of: “whose Islam” and “what Islam,” and “whose democracy” and “what democracy.” This discussion explores the possibilities and challenges of the recent democratic transitions in the Muslim world, and asks the question: Has the Arab Spring failed in its intent?
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**Title:**
Heritage project

**Presentation Description:**
Heritage project

**Abstract**
Come watch a presentation about heritage and why it's important. Oh, and our group has treats! :)

Co Presenter (s) / Group/Ensemble Participants
Title:
Stripping of Supported Lipid Bilayers Into Lipid Vesicles

Presentation Description
Cell membranes are fundamental in the field of biology and medicine. We will discuss a new method for repackaging regions of a supported lipid bilayer (SLB) into vesicles. SLBs have similar properties of cell membranes in vitro.

Abstract
Cell membranes have a central importance in medicine and biology. This presentation will focus on a method that has been developed for repackaging regions of supported lipid bilayer into lipid vesicles, which mimic the properties of cell membranes in vitro. Supported lipid bilayers were formed on clean glass slides inside the channel of a microfluidic device with a single inlet and outlet for deionized water. Deionized water flow was subsequently used to peel lipids off of the glass slides and reform them into vesicles. The extent to which stripping occurred was proportional to the rate at which water flowed through the channel, and did not occur at all below a threshold flow rate.

Co Presenter(s) / Group/Ensemble Participants
Mason Valentine
Title:
Rugby

Presentation Description
This presentation reveals the history of the game, how it is played, and who can play!

Abstract
A short overview of what rugby is. How it is played, rules, the history of the game, and why people love it so much.
Title:
Darker than Baby Blue

Presentation Description
A new baby is a cause for celebration and happiness. Why do I feel so wrong? This dance expresses the inner turmoil that a new mother with postpartum depression experiences.

Abstract
I am a communication major ready to graduate in May. My capstone project is an analysis of blogs written by mothers suffering from postpartum depression (ongoing). In September of 2013 I delivered a healthy baby boy. I was certain that I would not suffer from postpartum depression, but I was no exception. My days were dark and filled with tears. I felt hostile to everyone besides my husband and my infant son. I cried nonstop. I felt like I would never be normal again. Never be me again. Then I started dancing again. My world brighten. I remembered how to feel peace. Dance brought back my happiness. My experience with postpartum depression helps me understand others suffering from depression and mental illness. I am forever changed.
Title:
He is not Fat, Unhealthy, Lazy, etc., He Plays Football: A Social Cognitive Bias in Person Perception Evaluations

Presentation Description
When is an overweight male not perceived as lazy or unhealthy? Apparently, when he serves an acceptable cultural function. When information about a target person of judgment was culturally functional, perception processes were

Abstract
Social cognition (Fiske, 1995) refers to ways humans think about and process information about others. More specifically, person perception, refers to ways humans make evaluations of other people. Classic attribution theory describes several ways humans use heuristic processing to make judgments and evaluation of things and other people. There are several reasons humans might engage in heuristic attribution processes, but this is not the focus of this presentation.

The focus of this presentation is implicit personality theory, and a specific type of attribution related to issues of health and well-being. Implicit personality theories refer to the tendency humans have to make broad assumptions about human(s) based on small pieces of known information about the individual(s). The assumption is that certain traits covary with other traits. That is, if a then b, and even c, d, e, etc., must be present. While there are certainly many implications for such human tendencies, we were interested in learning whether changing a single perception of an individual might influence a health related judgment. Specifically, whether an obese (i.e., obese Body Mass Index) individual can be viewed as healthy because he is labeled as an athlete (e.g., football player).

All participants were seated a computer where the experiment tool place. Participants were told that we were interested in researching people’s perceptions of persons of varying body types, and they would be shown a photograph of an individual with a short description of the person portrayed in the photograph. After examining the photograph and reviewing the background information of the individual in the photograph, they answered a number of questions related to the individual. Next, condition specific, participants were shown a picture of one of two individuals. One individual appeared to have a higher than normal (obese) Body Mass Index (BMI) although no BMI information was presented. The other individual appeared to have a normal (non-obese) BMI; no actual BMI information was provided to participants. Appearing under the pictures was a short caption with some brief demographic information. Depending on the condition, the information described the individual as either a communications student or a football player. One additional condition, for comparison was also included which described the obese BMI individual as having a thyroid condition.

After viewing the picture and reading the brief caption, participants completed the Fat Phobia Scale (Bacon, Scheltema & Robinson, 2001), answered some critical questions about the pictured individual, and then completed some personality scales unrelated to this study.

The principle question under investigation in this study was whether perceiving an individual as a football player (vs. a regular student) influenced evaluations related to health judgments. Results were analyzed using analyses of variance (ANOVAs) and where appropriate, planned post hoc comparisons. To test for a difference in Fat Phobia attitudes, an ANOVA was conducted. The ANOVA revealed a significant main effect of condition, $F(4,89) = 20.91, p< .05$. Planned post hoc comparisons were conducted using Fisher’s LSD. These comparisons, revealed that participants showed greater Fat Phobias for the individual labeled as regular students relative to the pictures labeled as football players. The obese BMI individual labeled as having a thyroid problem did differ significantly from the obese football player but not the obese BMI regular student.

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Post hoc comparisons of the normal BMI pictures also revealed a significant difference. Specifically, the normal BMI students ($M = 2.60, SD = .22$) was perceived with more Fat Phobia than the normal BMI football player ($M = 2.22, SD = .28$), $p. <.05$

Co Presenter (s) / Group/Ensemble Participants
Matthew Schmidt MS
Wendy Gale
Michael Sauceda
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<td>Shalini Kesar Ph.D.</td>
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**Title:**
Computer Crime Today: Are You Safe?

**Presentation Description**
This is a group presentation on a research topic for our class Information Security and Assurance with Dr. Kesar. Under her mentorship, our presentation looks at general security and the recent occurrence of security breaches and threats.

**Abstract**
Information security breaches are increasing on a daily basis. For example, in 2012 the average loss alone was over $520,000,000 (see: www.ic3.gov, 2012). To make matters worse, researchers and practitioners indicate that the statistics on computer crime are just the “tip of the iceberg”. A recent case with the third largest retailer in the USA, Target, is a classic example. After investigations, it was reported that data loss was up to 40 million credit and debit cards of shoppers who visited its stores during the first three weeks of the holiday season (see: http://www.reuters.com). Now other retailers have also claimed that their security systems “may” also have been breached. For example, Neiman Marcus, TJ Maxx, and Michaels. Such cases make it evident that management of information security is critical. Our research findings show that technical safeguards are not enough to manage today’s threats. This presentation throws light on recent examples to strengthen the argument of our research topic.

**Co Presenter (s) / Group/Ensemble Participants**
- Fahad Alkhthilah
- Victoria Show
- Preston Barker
- Jojo Joseph
Presentation Description

Presentation about the exploitation of American Indian culture in modern and post-modern times, along with a brief history on Manifest Destiny, the false construct of Pristine Wilderness and the history of the Americas as it relates to American Colonialism.

Abstract

This presentation will be on my capstone research about American Colonialism and the exploitation of American Indian culture in modern and postmodern times. I’ll first begin with a brief history of the Americas and a quick historical analysis of Manifest Destiny and how every American citizen is an end product of this colonialism and how there is no such thing as Pristine Wilderness. Manifest Destiny suggests that when the colonizers came, the American landscape was untouched, unscathed, unused, undeveloped, virgin, and pristine. Over time, these ideas seem to have been perpetuated by the modern Environmental Movement. When reading the modern wilderness writers like Edward Abbey, they make it sound as if nobody lived in North America prior to Columbus setting foot in the New World? This argument is the backbone of my capstone and I will examine several areas where the exploitation of culture is most present starting off with pop-culture, mass media, and the commoditization of Indian culture, religion, and art. Native Americans are the most grossly misrepresented minorities in the United States, and they happen to be the only group within the American Melting Pot that are treated like foreigners in their own country. Next, I examine the exploitation of Native Spirituality and misappropriation by the gurus in the modern New Age Movement and how Native American Ceremony was actually outlawed up until the 1970s. After this, I begin to question and scrutinize higher education, more specifically, the Social Sciences like as Cultural Anthropology. Some distrust and a long history of skepticism from Native people against Anthropology generally stemmed from a lack of respect by a few academics who saw no issue exploiting Indigenous culture for their publication, book or thesis. This happened historically, quite frequently according to scholars like Vine Deloria, Jr. who wrote a chapter called; Anthropologists and Friends, in his famously titled; Custer Died for Your Sins.

As an end result of my capstone presentation I want to leave people with an idea, that maybe we can change our future by repatriating the past. As a conclusion to my presentation and capstone I want to introduce the idea of human beings decolonizing their outlook as a possible way to change the course of history and improve the future. I'm not just speaking about any specific race or ethnic group here, I’m talking about human beings in general or Americans. My research and outlook on history was never angry or cynical; it is actually quite the opposite. What does the future hold in regards to the relations between Indians and non-Indian people in the Americas? How can we teach people to decolonize their outlook, and how can this span to the rest of society? Isn’t the truth far more important than colonial mythology in general? Shouldn’t everybody know this information, regardless? If we could simply teach people the truth, dispel the untruths; we can learn the most basic respect. In a lot of ways, exploitation is a result of a lack of knowledge and understanding.

In conclusion, I just want people to be interested in learning more about this and what happened historically. I want to show people who are curious that that these weren’t just atrocities happening in some far distant past and that First Nations people are alive and well today and dealing with some very real human issues.
Title: Rural High Schools Piloting the “Introduction to Engineering and Technical Design” TICE Curriculum

Presentation Description

Introduction to Engineering and Technical Design (TICE) Curriculum and share experiences with anybody that might be interested in incorporating this curriculum at their school or interested in learning from their experience.

Abstract

The technology used to generate mechanical drawings has evolved significantly in the last few years. These changes have had a huge effect on technology and engineering education. The objectives and assessments at the state level of Utah System of High Education (USHE) and Utah System of Education (USOE) has been a subject of discussion for several years, particularly because of the change in technology and how it is reshaping the industry. Matthew Loew of Engineering.com has recently published an article in which he made the following statement “CAD has arguably become the most important tool in developing new products in many industries.” He further states “The fundamentals from statics, dynamics, structural mechanics, mechanisms, etc. can be incorporated right into the workflow of geometry creation in just about any CAD program. When the engineering work is integrated into the geometry creation, development time is shortened, results are generally graphical, and documentation is consolidated and far easier to generate.” The designer of today must understand the design intent and constraint requirements of the part and/or assembly being created. It is critical that these concepts be incorporated into the existing drafting and design course without neglecting the fundamental concepts traditionally taught in this course. The amount of time in the classroom remains constant but the content has increased to include the use of software. This evolution has also created a subtle shift in the kind of capability and knowledge industry is looking for in a college graduate.

This evolution requires an instructor with special expertise not only in the design process but application of the CAD software as well. This additional requirement, along with other external requirements, has put engineering and technology programs at risk because the teacher is expected to have such a broad yet deep understanding of the subject. In the past, the teacher has had the responsibility to develop the curriculum. It is challenging to have a deep knowledge in this area and update curriculum when you only have one prep hour per day. Teachers in small rural schools have an even bigger challenge because most of them teach five different subjects. It is difficult to keep up on the changes in one area, let alone five. Developing and updating curriculum for five different subjects with only one prep hour per day is next to impossible.

A collaborative program sponsored by USHE and USOE has provided an opportunity for curriculum development that incorporates this evolution in technology to help meet the requirements of industry. This collaborative program is titled Technology Intensive Concurrent Enrollment (TICE).

In 2012-2013 a ten member team, from across the state representing both USHE and USOE institutions created a STEM related curriculum to meet the technology evolution discussed above. The curriculum was developed on Canvas so it could be used as a web-based course or as a supplement to the traditional face to face class. The curriculum includes eBooks, Power Points Presentations, self-grading quizzes and videos along with a common Final Assessment. The curriculum was reviewed by four different external review members. The curriculum was taken through the Quality Matters Scoring Rubric. In the Fall Semester of 2013, the course was piloted by eight different high schools and two university classes. This Spring Semester (2014) there is 18 schools piloting the class.

Twelve of those schools are large schools that have dedicated Engineering and Technology teachers. The remaining schools are smaller rural schools in southern Utah. Three of these schools have offered similar programs for years but have been strengthened by this new curriculum. What is unique is that the remaining schools have added this curriculum with the support of Southern Utah Universities CAD/CAM Engineering Technology program. This collaboration is providing the students a STEM related (with college credit) experience, an opportunity previously.

Co Presenter(s) / Group/Ensemble Participants

Kelly Wood
Brent Judd
John Tripp, Callie Johnson, Anthony Shaw
Tracy Davis
Mark Anderson
Title:
The History of M&M’s

Presentation Description
See this presentation to learn about the history and evolution of one of America's favorite treats!

Abstract
This presentation on the history and evolution of M&M’s provides a look at how this popular candy began, and how it became what it is today.
Title:
Morality And Values

Presentation Description
The following study pertains to the presence, prevalence, and persistence of moral hypocrisy among subjects of differing religious backgrounds.

Abstract
What are factors that lead to religious hypocrisy? The study will be conducted with approximately 200 participants divided between 4 groups, who will be recruited online through an anonymous survey posted on targeted webpages. The groups that will be studied are Mormons (LDS), Fundamentalist Mormons (Polygamist), Agnostics, and Atheists. The study design consists of 6 measures: religious orientation, religious strictness, religious commitment, moral priming, hypocrisy measurement, and an experimental hypocrisy measurement. Research indicates that there are correlations between religious hypocrisy, religious orientation, religious strictness, religious commitment, and priming. The goal of this study is to determine if certain religions or lack thereof contribute to moral hypocrisy and well as identifying factors that contribute.
Title:
My Heritage

Presentation Description
My presentation is about my own heritage and how the way you present to elementary students can make a difference.

Abstract
Using a tri-fold science board can be very beneficial to elementary students because you can use it in many ways to display your information. If you’re reading a story you can do beginning, middle, and end. You can also have it used as a venn diagram, one side be one object, the middle be the similarities, and the last side as the other object. If you are using it for science, you could have step 1, step 2, and step 3. There are so many possible ways to make this fun for students. Especially for younger children, having it split up and being able to actually see where the information splits, helps them understand it better. I have chosen to use a tri-fold board for my heritage because I can use one side for where my dad and his family came from, one side to do the same for my mom and her family, and the middle can be used for my family tree/maps/etc. I put it together this way because I feel that sometimes pictures and information can get confusing all on the same page, so if I split my parents up and then bring them back together in the middle, it won't be as confusing to see where I come from.
Title: Brother

Presentation Description
A Pecha Kucha about how gaming brought together friends and created the bonds of friendship.

Abstract
A Pecha Kucha about how playing variously different video games brought together a bunch of dudes and made them all best friends.
Title:
Creation or Uncreation? Gruesome Births in Milton's Paradise Lost

Presentation Description
This paper explores the grotesque births in Milton's Paradise Lost and ideas about dark creations, toxic wombs, and de-masculinization resulting in the concept that good vs. evil is predestined due to a gruesome birth.

Abstract
Myths concerning the creation of mankind are vast throughout different cultures, illustrating this act as a beautiful miracle. However, in the masterpiece Paradise Lost, John Milton examines the biblical acts of creation and their fall, but in a darker more impure perspective. He exposes this viewpoint through his depiction of the womb and the painful event of childbirth. Milton exemplifies the effects of a venomous creation and deadly womb in the births of Sin, Death, and the Hellhounds, highlighting the idea that there is not a choice between light and darkness due to predestination from a gruesome birth. Furthermore, Milton de-masculinizes Satan and Adam by allowing these characters to undergo childbirth, portraying the author’s views upon the male ideal and the woman’s womb. The worlds of Satan and Adam come together through the potential for an incestuous cycle. Ultimately, the births are incubations of beings of creation or uncreation, through purity and joy or impurity and toxicity.

Co Presenter (s) / Group/Ensemble Participants
Melanie Jensen
Deena Marchel
Title:
From Dreamer to Poet: The Symbolic Transformation of Thomas in Rita Dove's Thomas and Buelah

Presentation Description
"Poetry as Survival" Gregory Orr argues that one can cross the threshold of the traumatized dreamer into the poet through the use of symbols.

Abstract
In Poetry as Survival, Gregory Orr makes a distinction between the dreamer and the poet. The “dreamer” is a traumatized self, bearing all the marks of dissociation: guilt, alienation, disconnection from the world and others. By contrast, the poet is a ‘physician to all men.’...whose songs and poems are ‘a balm’ and healing medicine for those who hear them (124).” Orr theorizes that a poet’s linguistic facility allows him or her to cross the threshold of the dreamer into that of the poet through the use of symbols. In this paper I will explore how Orr’s poetics of symbolism in light of trauma becomes complicated in Rita Dove’s lyric sequence Thomas and Beulah. The reoccurring images associated with these characters, particularly those associated with music or song, become symbolic as Thomas and Beulah negotiate the space around thresholds of trauma. But these songs are not a "'balm' or healing medicine." I will explore the dissonance between the poet and the poem as Dove creates these transformative symbols to be recognized by the reader even as the characters remain dreamers within their own trauma.
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**Title:**
Ruffian in the Dimond

**Presentation Description**
Patricia reads a selection from her MFA manuscript at the University of Pittsburgh. Her creative nonfiction memoir is a hybrid of personal essay and narrative journalism set in several U.S. cities.

**Abstract**
Patricia is currently revisiting her MFA manuscript, a book-length memoir and research project she completed at the University of Pittsburgh. Her creative nonfiction memoir is a hybrid of personal essay and narrative journalism set in several U.S. cities. Each chapter reveals a nation whose collective consciousness is in transition and a writer consumed and surrounded by western wanderlust. Her stories engage those who ramble toward self-realization, starting with her great-grandfather, who once jumped a train with Jack London on the Pacific Coast.

Co Presenter (s) / Group/Ensemble Participants
Title:
The Value of Outdoor Engagement

Presentation Description
Outdoor education has been linked to lifelong learning outcomes with participants gaining knowledge and skills used throughout their lives (Neill, 2006). Explore how you can enrich your life through adventure and enjoying nature.

Abstract
Researcher Penny Travlou (2006) found that "experience of the outdoors and wilderness has the potential to confer a multitude of benefits on young people's physical development, emotional and mental health and well-being and societal development." In addition, outdoor education has been shown to lead to lifelong learning knowledge and skills that participants utilize and develop as they mature. The purpose of this presentation is to explore how you can enrich your life through adventure and simple time enjoying nature.

Co Presenter(s) / Group/Ensemble Participants
Breezy Bassett
Kevin Koontz
Title:
Learning Through Adventure

Presentation Description
Visit amazing places and find out what you can learn through outdoor adventure.

Abstract
This Pecha Kucha will take you on an outdoor adventure to discover what you can learn.
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**Title:**
Don't Care How, I Want It NOW!

**Presentation Description**
A brief look into societies' obsession with instant gratification.

**Abstract**
This presentation addresses instant gratification online and in life.

**Co Presenter (s) / Group/Ensemble Participants**
Sage Platt
Title:
Looking for Ideas for Your EDGE Project?

Presentation Description
Looking for EDGE Project ideas? EDGE is now in its third year and there have been so many wonderful projects. Spend 6 minutes to get some great ideas for your EDGE project.

Abstract
The EDGE is in its third year, looking forward to many more. SUU students have created some great projects, including some that have led to job offers, others that have helped many people. Hear about some of the amazing experiences those Leadership EDGE students have had, and get some ideas for your own project.
Title:
Another Perspective on the Nation's Unemployment Numbers

Presentation Description
Each month the Government releases information to the public on the unemployment rate for the U.S. which is now reported as less than 7%. The true rate appears much greater than that and ought to be of great concern to all.

Abstract
On about the third Friday of each month, the Federal Government releases information to the public on the unemployment rate for the United States. The official rate was as low as 4.4% in 2007 but went to 10% in 2009. In the five years since, the stated rate has generally fallen to about 7% and since December of 2013 has been reported as less than 7%. But when one gets into the details of the numbers and the processes used to determine the rate, there are reasons to believe that the true rate is far greater than that. As will be shown in the presentation, (1) the realities of the employment situation in the United States and (2) the economic factors that are tending to make it worse ought to be of great concern to all Americans.
Title:
Heritage Presentation

Presentation Description
My presentation will be about my family heritage and how that has shaped the person I am today.

Abstract
My presentation will be about my family heritage and how that has shaped the person I am today.
Title: Death by PowerPoint?

Presentation Description
Presentation software has become the standard for classroom presentations. We recommend it’s judicious and correct use, and provide eleven suggestions that will enhance any electronic presentation.

Abstract
Although the authors have been using presentation software (PowerPoint, Keynote, Corel Presentations, etc.) for over twenty years, they have recently become reluctant to subject students to electronic presentations (e-presentations) on a daily basis. When used incorrectly, or to excess, we find that e-presentations limit our ability to engage students in classroom discussion. However, e-presentation is a valuable tool and we recommend its judicious use, particularly for what it does best—providing a simple platform for projecting a rich assortment of images. Our presentation will illuminate eleven suggestions that will enhance any e-presentation.

Co Presenter(s) / Group/Ensemble Participants
Larry E. Davis
ldavis@csbsju.edu
Title:
Fabrication of Microfluidic Devices that Facilitate Small Molecule Separation and Detection

Presentation Description
Microfluidic devices have myriad uses. We will show a few of the ideas we are currently pursuing.

Abstract
The advent of polymeric material use in microchip fabrication has made research in microfluidic separations more practical and efficient. We are fabricating microchips constructed from a poly (dimethyl siloxane) (PDMS) substrate using electrodeposited nickel templates to construct separation channels. The PDMS substrates are cleaned with scotch tape and exposed to UV radiation in an attempt to plasma clean the polymer. Once cleaned, the PDMS is added to a glass slide to form the bottom of the separation channel. The open format of these microfluidic devices allows for analysis of small molecules using spectroscopic techniques.
The SUU Alliance for Education Revisited: The Fruits of this Unique Public Land Partnership

Presentation Description
In 2006 Bryce Canyon NP and SUU established an Alliance for Education. These agreements have created many opportunities and a review of the successes will be the topic of this presentation.

Abstract
On July 26th, 2006, and then again in 2011, Bryce Canyon National Park (BCNP) and Southern Utah University (SUU) signed an agreement that officially established a cooperative working relationship. The Alliance for Education unites the efforts of its partners to (1) protect Park resources, (2) enhance visitor opportunities, (3) educate students about Park resources, (4) expand knowledge and use of the Park as a resource, and (5) provide excellent educational and outdoor experiential opportunities for SUU students. The Alliance was a first of its kind agreement between universities in the Utah System of Higher Education (USHE) and the National Park Service (NPS). The two entities were already intertwined due to longstanding functioning of their personnel. The executive director of Bryce Canyon Natural History Association (BCNHA) was a member of SUU’s Board of Trustees, and served as Board Chair. Four SUU faculty members serve as members of BCNHA’s Board of Directors. On November 12, 2008, the collaborative model created with Bryce Canyon National Park was replicated as SUU formalized its relationship with Zion National Park, Cedar Breaks National Monument and Pipe Spring National Monument through the Zion Group Alliance for Education. These two models partnership have provided numerous opportunities for park employees and SUU students including: internship opportunities; park staff service on campus committees; consultation services; office, and lab space for University research; participation in lectures, field trips, and seminars; library access for park employees; and the dissemination of information about each other’s services. This collaborative effort also paved the way for the 2007 formation of the SUU Intergovernmental Internship Cooperative (IIC) an effort that has placed over 500 student interns and crewmembers with public and tribal land management agencies. The IIC recently received the U.S. Department of Interior Secretary’s Partners in Conservation Award for outstanding conservation results, and was cited as the representing the “gold standard” of conservation and resource management enhancement.

Co Presenter(s) / Group/Ensemble Participants
Briget Eastep Ph.D.
Gayle L. Pollock, Executive Director Bryce Canyon
Title:
A Case Study in Publishing In An Open Access Scholarly Journal

Presentation Description
This will be a discussion surrounding the issues of open access scholarly publications, including a review of emerging models.

Abstract
The traditional model of scholarly publishing is under strain due to advancements in technology and economic pressures in higher education. The open access movement advocates some interesting shifts that may have dramatic impact on how scholars access and distribute knowledge. This session will be a discussion of issues around open access and its current and potential influence on the process of scholarly publishing.
The Voice of Southern Utah University

Presentation Description
The talent of SUU is published yearly in a review journal called the Kolob Canyon Review. Highlighting literary works as well as art pieces produced by SUU students and alumni, the KCR is staffed by dedicated English and design students.

Abstract
The talent of Southern Utah University is published yearly in a review journal called the Kolob Canyon Review. Highlighting literary works as well as art pieces produced by SUU students and alumni, the Kolob Canyon Review is staffed by students who are dedicated to broadcasting the rich talent Cedar City has to offer. The KCR is in its seventh year and is the brain child of Dr. Wynn Summers. The KCR is made up of two distinct staffs: the literary staff (who compiles the poetry, fiction, and nonfiction submissions), and the design staff (who compiles the art submissions and designs the journal's format and layout). Using multiple departments across campus, including the marketing, and computer science schools, allows the KCR to maintain its versatility while allowing SUU students of all majors real world experience in their respective fields.

Co Presenter (s) / Group/Ensemble Participants
Karyn Vincent
David Baxley
Devin Jackman
Emalee Smith
Title:
Analysis of Poverty and its Effect on Youth

Presentation Description
My presentation will be based around my senior project. Using my sociological eye encompassed with my service based research at The Family Support Center I have examined the various effects of poverty on youth.

Abstract
Poverty in its fullest has become the shocking new reality throughout American society. In America alone 15 percent of the population is living under the governmental defined poverty line, which equates to roughly 46.5 million people. Much of these American citizens are children suffering from the pains of poverty and the limitations that encompass this lifestyle. With numbers like these I am interested in examining the various factors that poverty has on youth. More specifically I have examined the effect of poverty on youth in regards to educational opportunities, nutrition and health and lastly the rates of crime among impoverish children. Coupled with my service work at the Family Support Center I have addressed and answered the following questions. First, what effects does poverty have on education among youth? Second, how is poverty an influential factor on overall nutrition and health? And lastly, does poverty influence crime rates and mental health? Because poverty is becoming a common theme within our society, youth are being affected in various ways with educational opportunity, health and nutrition and prevalence of crime having the most influential impact.
Title:
The Homeless Population of Las Vegas, Nevada: A study of Health and Lifestyle

Presentation Description
We investigated the health and lifestyle of the homeless population of Las Vegas, NV. Test and survey results were surprising, leading us to question previous assumptions about the group and to develop new explanations for the

Abstract
A 2012 survey estimated that approximately 633,782 US individuals were found to be homeless on any given night. Poor physical health may arise as these individuals live in unsanitary conditions, eat little or poor quality food, and have limited access to health care. In 2012, Las Vegas was found to possess the 5th largest homeless population in the US. Most of these individuals are concentrated in a small geographic area and served primarily by sites which provide meals, shelter, and other services. This study surveyed and compared the health and lifestyle of 58 homeless individuals (average age was 41.9 ± 11.7). The study consisted of two groups: those in an addiction recovery program (Group A) and those passing through the sites for meals or shelter (Group B). Health indicators that were collected include blood glucose, blood pressure, BMI, hematocrit, and lipid profiles. Survey information collected included income, medical conditions, drug use, time being homeless, etc. There were no significant differences between the study groups regarding health indices. It was found that participants of both test sites were within healthy, acceptable ranges for all health indicators, except for elevated BMI. Explanations for these positive findings could be that this population has received health screenings in the past, informing them of potential health concerns. Additionally, participants averaged 2.8 meals/day, showing that most are aware of available shelters and food sources. These individuals walk between shelters daily which may also promote their health through increased physical activity. Future studies should examine other cities, other sites, and include larger sample sizes.
Title:
Exploring the Future of Library Technical Services

Presentation Description
New technology has been the catalyst for many of the changes that have occurred in libraries through the years, and those transformations have frequently directly impacted library technical services departments.

Abstract
During the past several decades, libraries have moved from a print based environment to one that includes numerous online systems and digital resources. New technology has been the catalyst for many of the changes, and those transformations have frequently directly impacted library technical services staff. With the goal in mind of improving accessibility, there has been a recent trend in some public and school libraries to “ditch Dewey” and use the Book Industry Standards and Communications (BISAC) system or a modification of it as a guideline for classifying library materials. Many libraries are in the process of implementing the new cataloging standard Resource Description and Access (RDA) which was designed to better accommodate the digital environment. Digital resources are already an integral part of most libraries, and it’s expected that the number of eBooks, databases, individual online journals, and streaming videos will rapidly increase. The latest trend appears to be the cloud-based library services platforms that are in development or have been recently launched. Multiple vendors have been redesigning products, extending services and moving them to the cloud in an effort to help libraries better manage their services and resources. By staying informed and continually expanding their skills, library technical services staff are successfully and effectively handling the challenges associated with these issues as well as preparing for the impact of new technology and future challenges.
**Presentation Description**

This presentation is about things I learned while completing my Capstone project. For my Capstone project I served at Headstart. While serving there I noticed some sociologically significant issues that Headstart addresses.

**Abstract**

As part of my senior Capstone project I decided to do service with the Headstart program. The Headstart program is a preschool for underprivileged children. Their goal is to give these children every advantage possible so that they can succeed throughout all of their schooling. While serving here I began to notice some social problems that were affecting these kids in their day to day lives. The different social problems I noticed were poverty, family dynamics, and inequality. These subjects became the focus of my service because I wanted to understand more about the challenges the kids face. Through personal experience and research I was able to gain a clearer understanding of all of the sociological issues the Headstart program helps to address.
Abstract
Canada and the United States have different ways of handling legal issues. Immigration policies are at the center of the social justice issues that this paper discusses. There are large differences in immigration issues between the two countries. In Canada there are legal services that are not for profit as well as government services that help refugees, victims of domestic violence, and solely Spanish speakers. These populations are the focus of this paper. My questions concentrate on how each country handles the different immigration situations, and how this may show a progression in where the United States’ immigration policies are heading. Many immigration workers that I interned with at The Barber Schlifer Clinic, Legal Aid Ontario, and The Center for Spanish Speaking People (all in Toronto Ontario) commented that Canada was more progressive than the United States. More specifically, in social issues such as racism in immigration processes. The research that I present will show what is done in each individual country and the services that they provide concerning immigration issues experienced by refugees, victims of domestic violence and Spanish Speakers. To connect my firsthand experience of what happens in the legal office and how individual cases are handled. With cases that I was given access to during my internship, I was able to read the stories of people who were seeking refugee status in Canada. I describe the case; I analyze points of racism/discrimination and compare US and Canadian policy in the context of each case. Social justice issues are always important, but it is difficult to only do research and not feel connected to the issue. Field research makes one feel more connected to what one is trying to research. This immigration issues that I am passionate about are the ones I have been exposed to throughout my life.

Co Presenter (s) / Group/Ensemble Participants
Title:
Using Our Hands: What Hand-Setting Type Can Teach Design Students About Typography

Presentation Description
Flourishing at SUU is letterpress printing, one of the oldest typographic printing. I have been incorporating letterpress printing into my own work and student’s work in typography courses.

Abstract
The letterpress printing process is one of the oldest typographic printing methods for putting words on paper. The process originated in about 1450 when Johann Gutenberg introduced movable type in Europe and has remained virtually unchanged to this day. Over the past two years, Assistant Professor Jessica Gerlach has been incorporating the use of letterpress into her own work and the work of her Typography I and Typography II courses at Southern Utah University. The students are introduced to the process of hand-setting metal and wood type and hand-printing using a Vandercook Proofing Press and two tabletop proofing presses. Through the process of hand-setting type, students gain a thorough understanding of the anatomy of type, scale, kerning, tracking, line spacing, and alignment as it is used in letters, words and paragraphs. They make connections between the terminologies of typography as it relates to the origins of movable type and typesetting. One example of a project occurred in Typography II course in Spring 2013. Her students completed a seven-week project creating broadsides, using poems written in an Advanced Poetry Writing course. They combined traditional letterpress processes with digital technologies to design and print 12.5 x 19 inch broadsides for their assigned poems. Working with manual typesetting, students learn to use problem-solving skills that is often overlooked in digital publications. For example, using multiple type styles and sizes in the same line, or having letter ascending or descending above the baseline, both of which are difficult to achieve in metal type.
Title:
Patterning Model Proteins in Supported Lipid Bilayers with Magnetic Tweezers

Presentation Description
Many cell communications are mediated by the arrangement of membrane proteins. We are attempting to pattern model proteins in lipid bilayers, which could have applications ranging from allergies to cancer treatment if successful.

Abstract
Lipid bilayers have many important purposes in living cells. A lipid bilayer forms a barrier which separates the fluid inside the cell from the fluid surrounding the cell. The arrangement of components within cell membranes can be extremely important, particularly in cell communications. For example, when our immune system attacks certain pathogens, it recognizes them by specific proteins in the inner and outer regions. This forms a shape that resembles a "bulls-eye". The ability to generate such patterns in bilayers may see applications in many areas of biology. Our goal is to take an initially un-patterned supported lipid bilayer (model cell membrane) and use magnetic tweezers to generate patterns. We initially calibrated the magnetic tweezers and are currently working on pattern generation. We began our approach by using streptavidin and biotin; however, we switched to using fluorescein and anti-fluorescein due to an easier experimental set up. Once we are able to view pattern formation we will continue looking at patterns formed from biotin-streptavidin interactions.
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**Title:**
Rowdy Tailgating Supply Co.

**Presentation Description**
Gallery exhibition - Tailgating supply company that conveys a fun, classy, vintage feeling, with modern twist.

**Abstract**
This tailgating company will be a company that has not been seen before. It will have a different look and feel than what other companies have done already. This company will cater to families, not just the stereotypical rambunctious people that attend tailgating parties. It will be a company that conveys a fun, classy, vintage feeling, with a modern twist. I will be branding the company so I will be creating a logo, packaging, and a catalog to showcase the products. The goal of this company is to relate to families by selling products that are fun and family friendly. The identity of the company will have a vintage look and feel to appeal to all ages. For example, it will sell soda instead of beer and fun, colorful balloons as well as other products that would be used to host a tailgating party – plates, cups, utensils, etc. My display will include my logo that I designed. I will also be displaying products by the company. A truck tailgate will serve as a shelf to display the products with a backdrop of an old Chevrolet truck. The sodas will have labels that I have created and designed. This will strengthen my portfolio by showing a few different elements of graphic design that I am capable of designing. It will show that I can brand a company as well as create packaging and catalogs.
**Title:**
Gyotaku Pecha Kucha

**Presentation Description**
Paint with a fish! Dr. Grant tells the story of gyotaku (fish printing) and 2000 children who learned about fish biology by painting with fish.

**Abstract**
Gyotaku is the Japanese art of printing with fish that have been painted with ink. We created an educational activity at the Garth and Jerri Frehner Museum of Natural History in which gyotaku and fish biology were combined. Many of Utah’s native fish species are sensitive species, and unable to be killed for the sake of art or education. We created anatomically accurate sculptures of 13 nongame fish species found in Utah. Fish molds were cast from the sculptures then the molds were used to create “rubber” fish for gyotaku. Children learned about features of fish that make them fast, maneuverable, or good at hiding, and how those features are correlated with habitat type. Each child chose a rubber fish, created her own fish print then explained to the class which features her fish exhibited and what those features told us about the fish and its habitat. We taught over 2000 K-8 visitors from four southern Utah counties during our Fall Educational Program with the Braithwaite Gallery. The program was so successful and the product so unique, that the Garth and Jerri Frehner Museum has been requested to create these fish for the educational programs of larger museums in the state, such as Thanksgiving Point. For a small museum, we are having a big impact!

**Co Presenter (s) / Group/Ensemble Participants**
Delaney Patterson
delaneypttrsn@gmail.com
Title:
School Gym VS. Gold's Gym

Presentation Description
We have published a study that provides information on which gym, SUU's on-campus gym or Gold's Gym, is favored, and what factors cause this gym to be more desirable.

Abstract
SUU's on campus gym provides students with many different opportunities, including basketball, volleyball, racquetball, swimming, rock-climbing, and full gym equipment. We believe that more students will prefer SUU's gym, not only because of all these fun things, but also because it is more convenient and students can receive a credit from using it. But because Gold's Gym is cheaper, can this one factor cause SUU's gym to become the less favorable option? Through surveying a sample of students, we can use statistical hypothesis and data analysis to answer this question.
Title:
City Government Youth Engagement Program

Presentation Description
This study focuses on city government youth engagement programs, specifically local city Youth Councils. Getting our youth involved and interested in city government is meant to create a more educated group of individual citizens as they grow up. Many youth are ignorant of the goings on of city government. Youth engagement programs such as city Youth Councils have the ability to actively promote youth involvement in local government. This research study reviews how different city governments in Southern Utah involve local youth in city government. External studies are referenced in order to gain a larger perspective of the importance of city governments participating in youth involvement programs.

Through external studies, interviews, and data analysis, it is concluded that city governments that involve youth through the use of City Youth Councils creates socially engaged youth who have the knowledge that their actions can effect positive change. Cities in Southern Utah are starting to use City Youth Councils as a means of engaging youth in local government. These programs are analyzed and compared to other cities within the state of Utah.
The Effect of Habitat on Forensically Important Insects

Presentation Description

We collected FII in Southern Utah. FII included many species of flies, beetles, and ants. Corpse eaters are all around us, we will show you some of the thousands we have collected.

Abstract

Forensically important insects (FII) are insects that use animal or human remains as a resource for colonization, reproduction, and nutrients. Forensic entomologists use FII to help determine important information about when death may have occurred. Environmental parameters can affect which specific FII colonize a body. We collected FII at a low elevation sagebrush site (1680 m) and a high elevation aspen site (2500 m). Our preliminary results indicate that a greater number and diversity of FII are present at low elevation sites in Utah than in high elevation sites.
Title: Hydrothermal Mineralization of the Jurassic Navajo Sandstone, Footwall of the Blue Mountain Fault

Presentation Description
Sandstones were discovered at Blue Mountain (near Minersville, Utah) that were hydrothermally altered and now appear similar to metamorphic quartzite. The area immediately around the fault has not been metamorphosed.

Abstract
The Wah Wah Mountain Range near Minersville, Utah, has been prospected for mining resources during the last several decades. Resources are concentrated along hydrothermally altered fractures as porphyry deposits, typically where Tertiary quartz monzonite has intruded into Paleozoic limestones. In addition to Tertiary magmatism, the Wah Wah Mountains display significant Late Cretaceous Sevier Orogeny thrusting that placed Paleozoic sedimentary rocks over Middle Cretaceous sedimentary rocks. During a structural mapping project in this region, the Navajo Sandstone in the footwall of the Blue Mountain Thrust Fault was found to have undergone hydrothermal silicification, making it appear to be a quartzite. Upon closer inspection, other hydrothermal mineralization was discovered. These discoveries changed the research focus from documenting the structural geology to documenting the unique hydrothermal alteration in the Navajo Sandstone. This study included the following methods. The Blue Mountain area was prospected for deposits near the Sevier-age thrust faults. Jurassic Navajo Sandstone samples were collected and thin sections were made to analyze the metal content within the rock. Samples found near the eastern-most edge of the Blue Mountain Thrust Fault contain quartz, hematite, and other minor metals. Mineralization is not particularly abundant, but the vein could be richer in metal deposits with increased depths. Further analysis, such as an analysis of gravity and core data, is necessary to determine the value of the mineralization.
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Title:  
The History of Lipstick

Presentation Description  
The brief history of lipstick, why so much emphasis is given to lips in the media, and why they are cared for so much.

Abstract  
The brief history of lipstick, why so much emphasis is given to lips in the media, and why they are cared for so much.
Title:
Gender and Domestic Violence

Presentation Description
Domestic violence is a serious issue that effects many women and children in our community. I am here to share my personal experiences with volunteering in a women's shelter and how it matches my research.

Abstract
In this paper I will discuss issues in domestic violence. There will also be discussion on how gender is related to the issue. Various books and scholarly journals have been reviewed and contribute too many of the facts in this paper. I have researched why women are often the victims of domestic violence and why they are stereotypically the targets in our society. I have weaved my personal experiences from volunteering at a women’s shelter to support and strengthen my evidence. I also explore the perspectives of children who grow up seeing domestic violence.
Title:
An Unconditionally Stable Numerical Scheme for a Lotka-Volterra Model Involving Three Species

Presentation Description
In this presentation, I will introduce a mathematical model that describes the interactions among three species. A numerical scheme for this model is proposed and the stability of the scheme is proved.

Abstract
A uniquely solvable, unconditionally stable, semi-implicit finite-difference scheme is proposed for a Lotka-Volterra model involving three species. Also we prove that the numerical solution from this scheme converges to the true solution uniformly in a finite interval. This is the joint work with Dr. Seth Armstrong.
Title:
Experiencing ESL

Presentation Description
This presentation will demonstrate how SUU’s ESL program uses the arts, hands on experiences and community interaction to provide cultural, social, emotional and linguistic opportunities for growth.

Abstract
Southern Utah University’s mission states that we “[engage] students in a personalized and rigorous experiential education, empowering them to be productive citizens, socially responsible leaders, high achievers and lifelong learners.” Our International students who are studying English as a Second Language have the opportunity to study in our Intensive English Program prior to entering the University as matriculated students. During this time, our ESL teachers provide not only academic linguistic instruction, but encourage students through experiential learning to connect with each other, with our university and our local community. Benjamin Franklin said “tell me and I forget, teach me and I remember, involve me and I will learn.” Under the direction of Dr. Stievater, SUU’s ESL faculty has provided students a myriad of experiential learning opportunities. Some of these include theatrical production, writing poetry, visiting community art galleries, integrating with English speaking university students, participating in dance classes, attending concerts and theatrical productions, service learning such as the Happy Factory and the Iron County Care and Share, interviews with the Cedar City Mayor and local businesses and the Southwest Wildlife Foundation. We believe these types of opportunities coincide with John Dewey when he said “there is an intimate and necessary relationship between the process of actual experience and education.” Our presentation will demonstrate the types of methodologies utilized specifically in various levels of curriculum. Our processes are supported by research from Northern Illinois University suggesting that “content is important; learning from the process is at the heart of experiential learning.”

Co Presenter (s) / Group/Ensemble Participants
Mindy B. Young
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**Title:**
Hardy Heritage

**Presentation Description**
Personal heritage of family

**Abstract**
Research on the Hardy family and the in's and out's of how we began and made it to where we are.
Title:
Kind of a FIG deal: Focused Interest Groups (FIGs) Mean Improved Retention

Presentation Description
Focused Interest Groups (FIGs) at SUU were implemented to engage freshmen science and engineering students in their very first semester. This program helps with registration, promotes connections and improves retention.

Abstract
It’s interesting to see the different faces when advising new freshmen students. There’s the, “I’m so excited to be in college face”, the, “I’m nervous in this new environment face”, and, there’s the blank stare when students are told they have to register for classes. This session will focus on a program SUU has implemented to engage freshmen science and engineering students in core required courses in their very first semester. We call this program Focused Interest Groups (FIGs). We’ll focus on how students are registered for a FIG, how faculty and administrators create opportunities to collaborate, and how FIGs can improve retention.

Co Presenter(s) / Group/Ensemble Participants
Brittney Hernandez
Jared Wilcken
Title:
Uniformitarianism: Why Lake Turkana, Kenya, is Important to You

Presentation Description
This presentation discusses several examples of how geology impacts our daily lives. Including an example from Kenya!

Abstract
The fundamental principle in geology is the Principle of Uniformitarianism, which is best summarized as “the present is the key to the past”. Geologists use modern processes to infer and interpret the same processes in ancient deposits. Lake Turkana, northern Kenya, is one such example. The lake is situated in the East African Rift and preserves igneous, metamorphic, and sedimentary rocks. This study focuses on the southeastern margin of Lake Turkana, which reveals a variety of rocks and structures that are used to produce a depositional model that is useful for comparison with ancient rift basins that host economic quantities of hydrocarbons. The application of uniformitarianism affects everyone’s daily life – not just geologists!
Volunteer Experience: Canyon Creek Women’s Center

Presentation Description
In my presentation I will discuss domestic violence trends in Utah as well as different types of abuse. This presentation also covers teen dating violence, rape and sexual assault as well as the different types of abusers.

Abstract
According to the Canyon Creek Women’s Crisis Center (Crisis Center) there were 33 Utah domestic violence deaths in 2011. For the past few years Utah has had a higher domestic violence rate than the rest of the country. Based on information learned through volunteer work at the Crisis Center, this paper will explore and document why this may be the case by investigating 5 types of abuse, the attitudes and behaviors of men who abuse and the type of abusers. It will also cover the topics of teen dating violence, the effects of trauma on children and rape and sexual assault. This paper will also cover the training required for volunteers at the Crisis Center and will summarize their overall experience and its affect them both mentally and physically. Keywords: Domestic Violence, Canyon Creek Women’s Crisis Center, Abuse, Rape and Sexual Assault, Trauma, Dating Violence, Volunteer
Title:
Dickens on China, or What Hard Times Can Teach Us about Present-Day China

Presentation Description

Abstract
This presentation compares the economic, educational, and environmental challenges of present-day China with those of Victorian England, and it demonstrates how Charles Dickens, mainly in his novel Hard Times, proposes how such challenges might be addressed.
**Title:**
Man Up!: Millennial Men and What They Mean

**Presentation Description**
A presentation exploring modern masculinity, combining elements of scholarly research, popular culture, and personal experience to present a study of what men mean in a time when concepts of gender, place, and identity are being

**Abstract**
What is “manly”? Can something even be considered “manly” in our day and age? 20th Century society largely endorsed a model of masculinity based not on firm social principles, but in negative reactions to trends like naturalism and feminism. However, this model has almost entirely collapsed in the millennial generation. The old Man, born of the old West, is dead, and “traditional” masculinity has become quaint, if not antiquated or defunct. Its main presence endures in popular culture and entertainment, particularly in film, and insists on sexist and discriminatory ideologies that retard progress for both men and women. Research has indicated that this confusion of identity is having strongly negative effects on boys, and in this environment, a new meaning of manliness is incubating. While encouraging to some, this change has given pause to others, who worry that the new century man will only be another iteration of the old.
Title:
Albrecht's Grail Temple in Light of Sassanid and Zoroastrian Influences

Presentation Description
This paper deals with a medieval work of German literature, Der jüngere Titurel, in which there is a lengthy description of the Temple of the Holy Grail. This paper summarizes attempts to find an actual building similar to this temple.

Abstract
Proposal for SUU’s Day of Excellence James W. Harrison, Ph.D. Albrecht’s Grail Temple in Light Of Sassanid and Zoroastrian Influences Der jüngere Titurel was composed by Albrecht in 1270. There are 55 manuscripts of the work, indicating that it was one of the most popular works of literature in the Middle Ages. A large part of the work, over 112 strophes, was given to a description of the temple of the Holy Grail. It is the longest narrative of an architectural work in medieval literature. Sulpiz Boisseree was the first who tried to capture the verbal description of the temple in a drawing. After Werner Wolf’s 1943 critical edition of the Der jüngere Titurel it became obvious that Boisseree’s drawings were incorrect. Wolf’s edition corrected some errors which reduced the size of the temple significantly. Before Wolf’s edition the number of choirs in the temple was 72; after, it was 22. Other measurements had to be revised downwards thereby debunking the mythic grandeur of Boisseree’s draft. What had been an impossibly large building now became one that could actually be built. Albrecht’s work placed the temple in the land of Salvaterre. It was there that Titurel encompassed the mountain Monsalvatsche with a wall and built on that mountain the Grail fortress (Gralburg). He also built a temple there to house the Holy Grail. It was built of precious stones and a great quantity of gold. The plans for the building, which is a wide, tall rotunda with 22 choirs, appeared one morning on the onyx base of the temple. When the temple is compared with ancient Iranian and Persian architecture, some interesting similarities appear. The paper which I am proposing, and which is based on the work of Lars-Ivar Ringbom, will investigate the nature of these similarities and what influence they might have had on Albrecht’s work. Some, like Konrad Burdach, have looked for the origin of the Grail legend in the ancient Near East. This paper will try to summarize the possibilities of this being the case and will further examine the meaning of the temple in the Near Eastern religious practices by examining Mircea Eliade’s and other comparative religionists’ conclusions concerning the temple’s “holy space,” and the possible reflexes these theories might have on Albrecht’s work.
Title:
Death, Flight Anxiety, and Consumerism: A case study of Las Vegas McCarran International Airport

Presentation Description
This presentation will feature results from a consumerism study examining the relationship between death anxiety, flight anxiety, and consumerism at Las Vegas McCarran International Airport.

Abstract
This presentation will feature results from a consumerism study examining the relationship between death anxiety, flight anxiety, and consumerism at Las Vegas McCarran International Airport.

Co Presenter(s) / Group/Ensemble Participants
Kyle Cranney SUU
Tyler Stillman Ph.D.
Gwendelyn S. Nisbett UNT
Amber Marabella SUU
Title:
The Moderating Role of Mortality Salience: An examination of political ideology, emotion, and political advertisements

Presentation Description
The purpose of this study is to examine terror management theory in conjunction with immigration and economy political issue advertisements.

Abstract
The purpose of this study is to examine terror management theory in conjunction with immigration and economy political issue advertisements. Specifically, this study examines how voters’ emotions (positive and negative) are affected when their mortality is made salient before viewing an issue advertisement (either immigration or economy). To test the hypotheses, linear regression models were used. Results show a significant two-way interaction suggesting death-salient participants viewing a pro-attitudinal advertisement have more positive emotion than non-death-aware participants viewing the same advertisement. However, results also show no differences between the experimental and control groups for negative emotion. The theoretical and practical implications are discussed.

Co Presenter(s) / Group/Ensemble Participants
Glenn J. Hansen UO
**Title:**
Entrepreneurial Litigation and Venture Capital Finance

**Presentation Description**
We examine the impact corporate litigation has on the ability of small, entrepreneurial firms to attract venture capital financing.

**Abstract**
This paper empirically examines the interaction between entrepreneurial plaintiff firm litigation and venture capital (VC). The data indicate that relative to non-plaintiffs, firms that litigate prior to (after) obtaining VC, (1) receive financing by less (more) reputable VCs, (2) receive more (similar) oversight by VCs, (3) receive less (more) VC funding, (4) are more likely to exit by an IPO (than an acquisition), and (4) are more (less) likely to be liquidated than non-plaintiff firms. Results are robust to different specifications, methodologies and checks for endogeneity.

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**Co Presenter (s) / Group/Ensemble Participants**
Title: Decompositions of lambda K_n into S(4, 3)'s

Presentation Description
I will describe mathematical research results in the area of combinatorial graph theory. These results were obtained through collaboration with a colleague at the College of Charleston.

Abstract
A Stanton-type graph S(n, m) is a connected multigraph on n vertices such that for a fixed m with n-1 <= m <= nC2, there is exactly one edge of multiplicity “i” (and no others) for each “i”= 1, 2, ... , m. In a recent paper, the authors decomposed lambda K_n (for the appropriate minimal values of lambda) into two of the four possible types of S(4, 3)'s. In this note, decompositions of lambda K_n(for the appropriate minimal values of lambda) into the remaining two types of S(4, 3)'s are given.
Title:
Guidelines for Group Work in CS1

Presentation Description
I describe guidelines for selecting group work projects and problems, suggestions for forming groups and assigning roles, and four projects appropriate for group work in CS1.

Abstract
In CS1, students have a limited set of programming skills and they often represent a wide range of experience levels; this combination can make group work especially challenging. I describe guidelines for selecting group work projects and problems, suggestions for forming groups and assigning roles, and four projects appropriate for group work in CS1.
The Process and Possibilities of Adaptation

Presentation Description
This presentation illustrates the process and educated critique of adaptation by looking at an example of a radio-show adaptation of Edith Wharton's short story "The Lady's Maid's Bell."

Abstract
Modern audiences today love going to the theater to watch a film adaptation of their favorite book. They come with high expectations and more often than not, they leave disappointed saying something about how the book was so much better. Most people make these comments ignorantly, having little to no knowledge about what adaptation really is. According to the dictionary, the word “adapt” means to adjust to different conditions. This is exactly what adaptation does. It takes one thing, a book for example, and adjusts it to different conditions, like those of a full-length feature film. Because the conditions of a movie are different, it is impossible for the book to be exactly the same in film format. This is where adaptation allows for creative license within the medium of adaptation while still trying being true to the fidelity of the original piece. An example of adaptation illustrates this process well; Edith Wharton wrote a short ghost story titled “The Lady’s Maid’s Bell.” I took this short story and adapted it to a radio-show. This process of adaptation took a great deal of time and I knew the radio-show was not going to be an exact duplication of the short story, for many reasons. One condition that exists within the realm of radio is the absence of anything visual. Everything must be communicated by something audio. Because of this, certain adjustments were made to fill in the blanks. Time constrains forced me to cut out material that wasn’t essential and tie pieces of the narration together to fill in what had been cut out. However, the audio-only format afforded me a great deal of creativity in adding sound-effects that do not exist just from reading the short story. The very nature of adaptation forbids exact duplication. Adaptation must have some fidelity to the original work, but it is the differences between the antecedent and the adaptation that make it worthwhile. Audiences need to understand that any adaptation is going to be different than the original work. These differences are not bad; they are merely the result of any attempt at adaptation and they are what make that adaptation interesting and valuable. Bernadette Peters said that “You've got to be original, because if you’re just like someone else, what do they need you for?” The same applies to the study, criticism, and creation of adaptation: if it's just like the original, why have it at all?
Title:
3D Printers: The Future

Presentation Description
Imagine being able to build or buy a 3D printer for less than a computer. It’s possible! We’ve researched the designs and components of today’s expensive 3D printers to compile an inexpensive alternative.

Abstract
Since first developed, 3D printers have historically been very expensive to purchase and run. In the last few years there has been a great deal of progress in the field of 3D printers which has lowered the cost of purchasing one. This has also produced an influx of different designs. We saw the emerging field of 3D printers as an opportunity to research current designs and build a printer for ourselves. These 3D printers were not only affordable but was also expandable and incorporated the best of the designs currently available, designs that we created ourselves.
Title:
Could an Ombudsperson Be Our New Friend with Benefits?

Presentation Description
Ombuds programs on university campuses is increasing. Could such a program benefit SUU students, staff, faculty, administration and the Cedar City community?

Abstract
The functions that an ombuds office provides for an organization are often misunderstood. Learning about the different types of ombuds programs and the services they provide launches the question about the possibilities of such a program for SUU. Would such a program benefit SUU students, staff, faculty, administration and the Cedar City community? Problems are universal, and there are many avenues for solving those problems. An ombuds office is another way to resolve problems that is unlike all current options at SUU. This Pecha Kucha presentation offers a brief explanation of ombuds programs and how an ombuds office can work alongside existing problem solving routes and possibly enhance morale and culture for a university.
Voice Thread in the Elementary Classroom

Presentation Description
This is a practical look at elementary students from Cedar City, UT perceived feelings and perceived enjoyment of the use of iPads in the classroom in conjunction with the digital storytelling software Voice Thread.

Abstract
The integration of technology in the classroom serves numerous academic functions to the students that engage in it. This is a study of the practical application of implementing digital storytelling in a classroom in order to analyze students’ perceived learning and enjoyment. The researchers introduce Voice Thread to 28 fourth grade students in order to have them create their own digital stories using iPads. After the lessons are completed, the researchers distribute a survey to each student and analyze data. The study seeks to answer the following questions: How does digital storytelling through the use of Voice Thread affect students’ perceived enjoyment in an elementary classroom and instruction? Do students gain a perceived feeling that they are able to better learn instructional concepts through the development of digital stories using Voice Thread? The findings of the study and results of the surveys indicate that students expressed feelings of enjoyment in using the Voice Thread application and iPad technology in creating their projects. The general consensus being that students would welcome using Voice Thread in the future in order to help facilitate learning.

Co Presenter(s) / Group/Ensemble Participants
Alisha Sheely
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**Published Name of Group/Ensemble**

**Faculty Mentor Name**

Brian Ludlow Ed.D.

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**Title:**

**Hispanic Heritage in an American Culture**

**Presentation Description**

A look at how Hispanic heritage continues to play a role in development of American Culture. This presentation will include an authentic Mexican dish.

**Abstract**

A look at how Hispanic heritage continues to play a role in development of American Culture. As an American of Hispanic descent, Ryan Hernandez will show how influences in Hispanic culture have shaped the development in American schooling. The presentation will include an authentic Mexican dish.

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Co Presenter(s) / Group/Ensemble Participants
Title: Comfort Zone

Presentation Description
"Sometimes we have to step out of our comfort zones. We have to break the rules. And we have to discover the sensuality of fear. We need to face it, challenge it, dance with it." - Kyra Davis

Abstract
Comfort Zone portrays the human experience and intense feelings that result from uncomfortable situations. The dance explores how individuals handle those encounters and the consequences that follow. The audience takes a journey with the performers through the all too familiar experiences of awkward eye contact and not knowing what to say, to the more serious moments of facing and overcoming fears. Ultimately the dance reveals that, as people limit themselves to their comfort zones they inhibit their ability to grow, experience new things, and succeed. Kyra Davis said "Sometimes we have to step out of our comfort zones....And we have to discover the sensuality of fear. We need to face it, challenge it, dance with it." As the choreographer I want audience members and performers alike to ask themselves, “Will I let my comfort zone limit me? Or will I challenge myself to overcome it?”

Co Presenter(s) / Group/Ensemble Participants
Antimicrobial Properties and Composition of Essential Oils Isolated from Ericameria linearifolia (Asteraceae)

Plants produce myriad secondary metabolites (essential oil) that play a role in ecological interactions. We hypothesized E. linearifolia oil inhibits native soil bacteria with which it has evolved more than bacteria from non-root associated soils. Species evolve unique mixtures of organic compounds due to strong selective pressures that act on metabolic pathways. Few studies have investigated the antimicrobial properties of secondary metabolites that evolved against soil microbes associated with native plants. The essential oil of Mojave golden bush (Ericameria linearifolia), a shrub native to the Intermountain West, was characterized and its bacteriostatic abilities against root associated and non-root associated bacteria morphs were examined in this study. We hypothesized E. linearifolia oil would act as a greater growth inhibitor against native soil bacteria with which it has evolved than against bacteria from non-associated soils. Secondary metabolites were extracted using steam distillation and analyzed with gas chromatography mass spectroscopy. A Kirby-Bauer assay tested presence, size and retention of inhibition zones (IZ) produced against soil bacteria. The essential oil of E. linearifolia contained twenty secondary metabolites, two of which, limonene and sabinene, constituted greater than fifty percent of the oil. Presence and retention of IZ produced by E. linearifolia metabolites varied significantly by community association and bacteria morph. The hypothesis was supported by IZ that were largest against bacteria cultures isolated from soil that surrounded Mojave golden bush roots and least effective against cultures isolated from non-root associated soil. Our findings suggest that secondary metabolites of E. linearifolia have evolved too specifically to prevent negative interactions with bacteria most associated with the plant.
Title:
Too Quick to Flip?

Presentation Description
This talk will present the findings of a recent experiment in an introductory biology course, which suggest that a flipped classroom may be no better than a traditional lecture classroom in terms of student learning gains.

Abstract
The flipped classroom is a relatively new pedagogical technique where what was once considered "homework" is now done in the classroom, and what was once done in the classroom is now done during out-of-class time. The development of electronic technology, including the ability to digitally record lectures, has helped make this "flip" possible as students can now watch lectures at home so that class time may be spent involving students in more engaging activities. A quick review of the teaching and learning literature shows a rapid adoption of this technique among teaching professionals, with many espousing the virtues of this alternative pedagogy. In an attempt to better understand the use of this technique and evaluate its purported superiority in terms of student learning gains, I undertook my own experiment to compare a flipped classroom to a traditional lecture classroom. The results of my experiment suggest that the flipped classroom may not be all it is purported to be. Careful judgment must be applied when trying to decide what pedagogical techniques to use, and a quick move to the latest and greatest technique may not provide the dramatic learning gains purported.
Title:
How SUU Created One of the Most Productive College Student Group Therapy Programs in the Country

Presentation Description
Growing a remarkably successful group psychotherapy program from scratch. Successes achieved and lessons learned.

Abstract
Over the past twelve years Southern Utah University (SUU) has developed a robust and successful group therapy program for students. SUU has moved from essentially no group counseling available to successfully supporting up to nine groups each semester. It is believed this program provides a major contribution to the educational and developmental pursuits of students who attend. Further, it is believed these students produce positive changes across campus by applying the things they learned about themselves and others while attending these groups. This presentation will use a timeline format to report on the many challenges and successes SUU's Counseling and Psychological Services has experienced over the years in building the program. Topics include staff contributions, administrative support, recruiting participants, establishing a referral and orientation system, overcoming scheduling concerns, developing physical facilities, collaboration with other entities across campus and in the community, and training for group therapists. This program will be useful for anyone who hopes to create developmental programs for college students. It will also offer a venue to discuss the developmental needs of students.
Title:
American Public Education

Presentation Description
The U.S. PISA scores are stagnating. The key is to look at the similarities of the successful countries - success being countries that scored above the OECD average. What do we know about these high performing nations?

Abstract
The U.S. PISA averages in 2012 were not measurably different from average scores in previous PISA assessment, however several countries improved and jumped up the rankings. U.S. PISA are stagnating. That doesn't mean that U.S. students are not learning. The National Assessment of Educational Progress (NAEP) show a steady increase in reading and math for 4th and 8th grade students over the past several testing cycles. The difference - PISA is critical thinking, problem solving and NAEP is more multiple choices - different purposes. The key is to look at the similarities of the successful countries. There are several common characteristics the most successful education systems have. Can the U.S. adopt these characteristics?
Title:
Body Image Among Female Collegiate Athletes at Southern Utah University

Presentation Description
This study surveyed 168 female athletes in 12 sports about body perception and eating behaviors. Do they acquire increased negative views towards body image and food due to the pressures of being a collegiate athlete at Southern Utah University?

Abstract
Research indicates that collegiate athletes may be at risk of developing disordered eating and other distorted behavioral patterns. This may be due, in part, to the aesthetic and performance demands of their sports. The purpose of this study is to discover if female athletes acquire increased negative views towards their body image and food due to the pressures of being a collegiate athlete at Southern Utah University (SUU). An anonymous survey was given to 168 female athletes participating in 12 sports, inquiring about body perception and eating behaviors relative to their athletic involvement. The survey inquired about their personal perception of food, eating disorders, behaviors associated with eating, concern for weight loss/gain, satisfaction with their body image/composition, self-reported weight/height, and the athlete’s perception of how their teammates/coaches view weight. Athletic teams were chosen based on meeting two of the three following requirements: tryouts are held, scholarships are offered, and there are regular competitions or performances. Athletic teams involved in the survey include tennis, volleyball, track & field, cross country, softball, basketball, gymnastics, soccer, golf, modern dance, ballroom dance and cheer. Forty-eight percent of the athletes surveyed indicated they felt pressure to look a certain way in their sport. Sixty percent indicated an optimal weight lower than their current weight, while 9% desired weight gain. Sixteen percent indicated they had been asked by a collegiate coach to lose weight or drop body fat to improve performance. These desired weight changes in spite of the fact that the mean BMI of the athletes, 22.5 (+/-3.5), was in the healthy range. There was no significant difference found between teams relative to weight issues and body satisfaction. Overall, these athletes may have some insecurity about their weight and body image, but generally have a positive relationship with food behaviors and self-image.

Co Presenter (s) / Group/Ensemble Participants
Matt Schmidt MS
Trisha Matsuura
Ashley Ostler
Artis Grady M.Ed.
<table>
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<th>Title:</th>
<th>My Legacy of Learning</th>
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<tr>
<td><strong>Presentation Description</strong></td>
<td>Come to this presentation to see how education has changed throughout the years. You will see how depression affected schools and see how much a teacher’s salary used to be.</td>
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<tr>
<td><strong>Abstract</strong></td>
<td>This presentation will show you the changes that have been made to education. You will see how the depression affected schools, what teachers’ salaries were, and how much SUU has changed since the past.</td>
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Effects of Caffeine and Taurine on Heart Rate, Blood Pressure, Energy Expenditure, and Reaction Time

Presentation Description
Measuring the effects of ingredients of popular energy drink on certain aspects of physical performance. We will discuss if the energy drinks versus caffeinated soda had any effect on physical performance.

Abstract
Many recreationally active people consume energy drinks with the assumption that these drinks will aid with their athletic performance. Through our research project, we measured the effects of the ingredients (caffeine and taurine) of a popular energy drink on certain aspects of physical performance. Fifteen recreationally active college males were recruited to attend four laboratory sessions. Following baseline testing, each participant completed exercise regimens following consumption of an energy drink, a diet caffeinated soda and a diet non-caffeinated soda. Conditions were randomized and drink volumes were matched. Both aerobic and anaerobic functional capacities were evaluated. The results will help others understand the effects of energy drinks on the body during exercise. This knowledge will improve their awareness of how energy drinks and other caffeinated beverages may impact their athletic performance.
Title:
Synthesis of Monobactam Antibiotics by Visible Light Photocatalysis

Presentation Description
Organic compounds with antibiotic properties are a cornerstone of medicine and human health. This research is focused on the discovery of new expedient ways to synthesize antibiotic compounds from simple starting materials.

Abstract
Organic compounds with antibiotic properties are a cornerstone of medicine and human health. This research is focused on the discovery of new expedient ways to synthesize antibiotic compounds from simple starting materials. To accomplish this goal a visible light to photocatalyzed the [2+2] cycloaddition reaction. Initial work focused on the development of productive reaction conditions. Multiple new products were detected by analysis of reaction mixtures. We currently work to isolate and characterize these new products by 1H nuclear magnetic resonance, 13C nuclear magnetic resonance, mass spectrometry, and infrared spectroscopy.

Co Presenter(s) / Group/Ensemble Participants
Nathan Werner Ph.D.
Title:
Evaluation of the Bruker AXS SMARTBREEZE X-ray Diffraction System for Protein Crystallography

Presentation Description
This research project is aimed to evaluate whether the SMARTBREEZE system, designed for small-molecule crystals, can be used effectively for data collection from protein crystals.

Abstract
The SMARTBREEZE single-crystal X-ray diffract-o-meter manufactured by Bruker AXS is a system designed for the collection and analysis of small organic compounds. The system is significantly less expensive than those designed for data collection from crystals of macromolecules such as proteins and nucleic acids. This research project is aimed to evaluate whether the SMARTBREEZE system can be used effectively for data collection from protein crystals. If successful, it would dramatically expand the breadth of potential crystallographic projects on our campus utilizing the SMARTBREEZE system.
Title:
The Collages of Jonathan Talbot

Presentation Description
Comprehensive book design that celebrates collage artist Jonathan Talbot. The proof is shown, but the full project will be published and printed by the SUU Press.

Abstract
This project was a collaborative effort with professors Deborah Snider, Andrew Marvick, and Jeffery Hanson at SUU. I am Jeff Hanson's design intern, and have been developing my multi-page design skills on this project since August 2013. Under art direction from Jeff Hanson, I have laid out the entirety of the book making conscious design decisions, and aesthetic choices. The content celebrates the artwork of Jonathan Talbot, a collage artist currently living and working in New York. Designing this book has greatly increased my design ability, attention to detail, technical skills, conceptual thinking, layout and 2-d design, client relations, and has been a great opportunity to design for a real-world audience. The book will be printed and published through the SUU Press.
Serving Belize: Improving Healthcare Access for Belizean Families Through Community Clinics

Presentation Description
Belize provides free healthcare to its citizens but families living in rural communities have limited access to it and must travel long distances to the hospital to receive it. We provided free medical clinics to these remote neighborhoods.

Abstract
Belize provides free healthcare to its citizens. This free healthcare provides a great service to its countrymen, especially for those that live close to the hospitals in the big cities. For Belizean families living in rural communities their access to healthcare is limited and they must travel long distances to the hospital to receive it. Their journey involves taking the day off from work, traveling by bus, or multiple buses for hours at a time to get to the city where the hospital is located. They spend most of the day at the hospital, waiting to see a doctor. The doctor might recommend that they see a specialist or refer them to for specialized testing. This excursion to see a doctor is an all-day affair and comes as a great personal expense for those who have to make it. By providing medical clinics to the Belizean’s people in their own neighborhoods, they are able to get the general care they need without having to take the day off of work or incur the costs of traveling to the hospital. This is a great service provided to the remote Belizean communities and the people who live there are very appreciative of this service.

Co Presenter (s) / Group/Ensemble Participants
Shelly Sanderson MSN
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<td>Shobha Gurung Ph.D.</td>
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**Title:**
**Healing the Effects of Domestic Violence on Families**

**Presentation Description**
Receive an introduction to the effects of domestic violence on families and society. Gain insight to the successes and challenges of one local organization as it works to fulfill its mission to bring healing to families suffering these effects.

**Abstract**
In every county within the United States one can find a family suffering from the effects of domestic violence. The local communities in Southern Utah are no exception. This is a pressing, critical social issue, although the resources to assist those facing it are strained to the limit and even disappearing. Resources, support, empowerment and healthy friendships are vital for women seeking to heal and re-grow their lives after suffering abuse. Children who are in various stages of development, all of which affect their capacity to contribute in healthy ways to society as an adult, also suffer greatly from domestic violence, even when they are only a witness to it. Their needs can be met through adequate resources such as mental health services, safe places and relationships for them to express and work through feelings, and healthy modeling of relationships and behaviors. There are many bureaucratic hurdles faced by non-profit organizations that, in spite of idealistic missions and visions, limit the nature and amount of service and support they are able to provide to these families in need. Widespread awareness is necessary in order to stimulate creativity and ingenuity in creating solutions for how to bring the needed resources to the families in need, healing not just individuals and families but communities and society at large.
Title:
Getting Married While You're Young?

Presentation Description
A study examining reasons for getting married at a young age.

Abstract
A study examining reasons for getting married at a young age.
Title:
Translating Alfieri’s "Bruto primo"

Presentation Description
Dr. Ipson will argue the need for new English translations of Vittorio Alfieri’s seminal Italian tragedies, discuss the process by which he created a verse translation of "Bruto primo" (1788), and present excerpts from his translation.

Abstract
Although considered the father of modern Italian tragedy, Vittorio Alfieri (1749–1803) remains virtually unknown in the English-speaking world. His twenty-two plays, which occupy a historical and stylistic space between the neoclassicism of Voltaire and the romanticism of Schiller, have been badly served in translation: there have been no major English versions in nearly 150 years, and the few earlier translations, long out of print, are too dauntingly high-flown to interest modern performers, audiences, and readers. This situation is lamentable, not only because Alfieri’s tragedies are works of dramatic immediacy and poetic fire, but because they frequently intersect in fascinating ways with their tumultuous late-eighteenth-century context. “Il Bruto primo” (The First Brutus, 1788) is a case in point. Dedicated to George Washington and first published in Paris a month after the storming of the Bastille, the tragedy boldly confronts both the evils of tyranny and the challenges of popular government in its depiction of Lucius Junius Brutus’s founding of the ancient Roman republic. Throughout the play Alfieri reveals himself a student of political philosophers from Machiavelli to Montesquieu, and the work may be understood as a theatrical realization of the revolutionary program he put forward in his own essay _Della tirannide_ (On Tyranny, 1777–90), which earned him a place in the Index of Prohibited Books. Little wonder that _Bruto primo_ would run afoul of censors in pre-Unification Italy or that the only documentable public performances of the play during this period would coincide with the short-lived Roman republics of 1798 and 1849. After arguing the need for a new English version of _Bruto primo_, I will discuss how I confronted the difficulties of creating a modern verse translation of the play and will conclude by presenting excerpts from my translation, which I hope will prove both accessible on the page and plausible on the stage.
Title: Just Delete Me!

Presentation Description
In search of how to escape the internet and become an anonymous bystander? Are you growing weary of being tethered to the internet and social media? It might be time to scrub your persona from the social media/online sphere.

Abstract
Ever wondered how you might escape the Internet and become an anonymous bystander? Growing weary of all your personal data being “out there” for seemingly anyone to access? In this session we’ll explore ways you can minimize and/or remove yourself from websites, social media portals, and more. We’ll also look at what data is being gathered from your online profile, why and by whom, and what you can do to minimize your presence in the future.
Title: “There’s a Place for Us”

Presentation Description
"Romeo & Juliet" and "Antony & Cleopatra" share suicidal endings. Applying Althusser, both are explained.

Abstract
Shakespeare’s tragedies Romeo and Juliet and Antony and Cleopatra share the common suicidal ending of both couples. When faced with tumultuous times, many couples consider counseling to alleviate tension. However, what if the problem could be more effectively understood by a French Marxist philosopher rather than the Austrian founding father of psychoanalysis? By applying Louis Althusser’s idea of Ideological and Repressive State Apparatuses, the suicides of each character are explained. Neither Romeo and Juliet’s nor Antony and Cleopatra’s relationships are allowed to thrive due to their surroundings. Romeo and Juliet suffer from challenges presented by Ideological State Apparatuses, such as family and religion; whereas Antony and Cleopatra battle primarily with Repressive State Apparatuses, such as the military rule of Caesar. While their opposition originates from different sources, both couples fail to find a place in their worlds for their unique love. Because of this, Antony and Cleopatra and Romeo and Juliet choose to exit their respective worlds in a final rejection of their respective state apparatuses.
Title: The Internet and Child Pornography

Presentation Description
This study project description analyzes if the advent of the internet has caused child sexual abuse to increase or decrease. I also compares the characteristics of internet child sex offenders.

Abstract
In our globalized world, new technological resources have increased, that enable millions of people to websites every day. They may download their favorite music, movies, pictures, or all in a click, however in the same way that internet connects people in beneficial ways and it connects others that use the internet to contact under age children, with the purpose of getting sexual gratification online. Some contact their victims for offline sexual intercourse and others use the web to contact other offenders. This study aims to examine past research and to analyze if the advent of the internet has caused child sexual abuse to increase or decrease. Another goal is to compare the characteristics of internet child sex offenders with the characteristics of child sex offenders that use other means to contact their victims.
Title:
The Stability of the Steady-State Solutions of a Predator-Prey model having Holling Type II Response

Presentation Description
In this presentation, we will study a Predator-Prey model having Holling type II response. We will analyze the stability of the steady-state solutions for this system.

Abstract
We study a Predator-Prey model having Holling type II response arising in Math Biology. The stability of the steady-state solutions of this system will be analyzed. Also we give some numerical experiments that verify the theoretical results for those steady state solutions.

Co Presenter(s) / Group/Ensemble Participants
Jason Adams
Title:
Heritage Presentation

Presentation Description
I will present my heritage fair project.

Abstract
I will present my heritage fair project.
Title:
Retaining More Students at Southern Utah University

Presentation Description
Students report various reasons for departing the University before completing a degree. The presenters will discuss those reasons and how the University is and will continue to intervene to keep them pursuing their educational goals.

Abstract
Throughout the 2013-14 school year, staff within the Division of Student Services have been exploring the reasons students give for departing the University before they have completed a degree. The intent of these studies is to identify the most common reasons for early departure and then create strategies to assist students in persisting at SUU. An explanation and discussion of existing retention strategies and proposed retention strategies will follow a presentation of survey results describing the most common reasons students give for leaving.

Co Presenter(s) / Group/Ensemble Participants
Stephen Allen
The purpose of this project is to examine the structural and institutionalized influences on the program, the Teddy Bear Den.

Abstract
The purpose of this project is to examine the structural and institutionalized influences on the program, the Teddy Bear Den. The Teddy Bear Den is a program geared towards helping low-income pregnant women have access to infant care products through incentive. There appears to be an underlying focus of this program that seems directed towards conventional and traditional ideals and gender normatively. From observation, there is a large focus on gender and other sociological concepts. It appears it is adhering to the structural and institutionalized ideals in our society. The method that will be used to procure this tentative data will be through service learning.
Title:
**More Than Meets the Eye**

Presentation Description
I am digging deep in my heritage to find out what else is there and ask the age old question of where did I come from. It’s a decorative and tasty look into my heritage and what happened hundreds of years ago.

Abstract
People can look at me and guess my heritage. A ginger with Irish heritage. Although that may be true, I am so much more. I’ve got stories from pioneers, and many more. Come find out what I have to offer.
Monocyclic beta-lactam compounds are a class of small organic molecules that possesses the ability to treat penicillin-resistant Gram negative pathogens.

Title:
Discovery of New Reactions for Antibiotic Synthesis

Presentation Description
Monocyclic beta-lactam compounds are a class of small organic molecules that possesses the ability to treat penicillin-resistant Gram negative pathogens. We envision a visible light photocatalyzed [2+2] cycloaddition reaction to prepare these potentially therapeutic molecules. Reactions will be analyzed by thin-layer silica gel chromatography and gas chromatography coupled with mass spectrometry. In future experiments, the products of our synthetic efforts will be tested for biological activity using the Kirby-Bauer antibiotic testing method. The minimum concentration required to inhibit bacterial growth will also be found for active molecules.

Co Presenter (s) / Group/Ensemble Participants
Nathan Werner Ph.D.
Title:
The Art of "Mein Kampf"

Presentation Description
Throughout history, political figures have come and gone. In this presentation we will look at the art of one of the most famous and influential men of all time.

Abstract
History is full of interesting and unique individuals. Sometimes we don’t see everything about a person of influence. Looking back one of the most infamous men of all time is none other than Adolf Hitler. We all know about the third reich and the countless war crimes committed by Hitler but what we don’t often acknowledge is the talent Adolf had in the creation of art. We will look at Hitler’s youth and the work he did in painting and art as well as his rejection from art school.
Title:
Education Students with Disabilities in Youth Correctional Facilities

Presentation Description
I will be presenting on special education in youth correctional facilities (YCF) and discuss how YCF are falling short in certain areas of the IDEIA and suggest solutions that will help these students in YCF get the FAPE they deserve.

Abstract
Education for students with disabilities has come a long way. Since the beginning, teachers, parents, and advocates of students with disabilities have fought for these students and established that they are entitled to free and appropriate public education (FAPE) just like their nondisabled peers. There has been case after case where students with disabilities have received less than appropriate education in public schools. The message is clear in these cases; all students with disabilities must be provided with appropriate educational services. In all of this, there are still student with disabilities that are not receiving FAPE, these students are the youths that are incarcerated in youth correctional facilities (YCF). These students have been forgotten and many people have given up on these students. Congress has made it clear that responsibility of education students with disabilities does not end when these students are incarcerated. It moves from the public schools responsibility to that of the YCF where the student is placed. Being incarcerated does not take away a student’s right to FAPE which is guaranteed under state and federal laws. In fact, education is an essential component of treatment for students with disabilities who are incarcerated and should be the foundation for programming in correctional facilities. Appropriate services in YCFs can help students with disabilities become academically competent, provide possibilities for the future, or have the potential of preventing these students from returning. I will be presenting on special education in YCF. If providing FAPE to a student with disabilities can help the student move forward and possibly help that student not return to the YCF, why is education for students with disabilities a low priority for most correctional facilities? The government has passed the Individuals with Disabilities Improvement Act (IDEIA) to ensure that students with disabilities aren’t discriminated against. Regulations such as the Least Restrictive Environment (LRE), Individual Education Plan (IEP), and obtaining records for each student were made within the IDEIA to ensure that students get FAPE. YCF are falling short. Not only is there a lack of not following correct LRE and IEP procedures, there is a lack of responsibility as well. There is a passing of the buck and no one seems to take on the responsibility and funding for the students with disabilities in YCF. I will discuss how YCF are falling short in each area and suggest solutions that will help these students in YCF get the FAPE that they deserve.
Title:
The Bone Collector

Presentation Description
This presentation shares how one industrious student has helped finance education through shed hunting.

Abstract
The presenter offers insight into how shed hunting has benefited individuals and the fun things that can be done with the sheds they find.
Antimicrobial Properties of Hydrosols Isolated from Anthoxanthum (Poaceae) Against Soil Bacteria

Presentation Description
Secondary metabolites of Anthoxanthum (sweet grass) were analyzed and tested against root and non-root associated bacteria to determine their antimicrobial properties. Two A. odoratum strains were also examined to determine

Abstract
Members of Anthoxanthum (sweet grass) have a history of ceremonial and medicinal use. Coumarin, a secondary metabolite produced by the grass, is an anticoagulant and antimicrobial agent. Antimicrobial properties of commercially available European A. odoratum metabolites have been nominally investigated, but no North American species have been studied. Additionally, European sweet grass is purported to be available in both diploid and polyploid strains. Our research objectives were to: 1) determine if ploidy level strains do exist, and 2) investigate secondary metabolite production and evolution in commercial strains and A. hirtum, a Great Basin native. Using epidermal casts and fuschin staining, differences in guard cells and nuclei were surveyed. Secondary metabolites from the A. odoratum strains and A. hirtum were obtained through steam distillation and a vacufugation protocol that concentrated hydrosols. GC/MS analyses characterized and quantified secondary metabolites. The secondary metabolites coumarin, dihydrobenzofuron, and dihydroactinidiolide were identified, with the first and latter greatest in A. hirtum. Significant guard cell differences between strains, as well as species, were observed. Two ploidy strains of A. odoratum were suggested. A Kirby-Bauer assay tested presence, size and retention of inhibition zones (IZ) produced against soil bacteria. Gram-staining initially characterized bacterial morphs. Secondary metabolites from the diploid strain were most effective against all bacterial morphs, but polyploid metabolites also generated and retained IZ against diploid root associated and non-root associated morphs. The native sweet grass produced IZ only against root associated bacteria with which it had evolved. Future work will include similar studies of other North American Anthoxanthum species.
Gas-Chromatography Mass-Spectroscopic Analysis of Umbellularia Californica

Presentation Description
We used Gas Chromatography to separate the metabolites in the gas phase and then determined their molecular weights using mass spectrometry.

Abstract
Essential oils are made up of plants' natural secondary metabolites that are frequently used as antimicrobial agents which protect the plant. The sole species of genus Umbellularia, Umbellularia californica is known to have an active compound, Umbellulone which is acknowledged to induce headaches if ingested in heavy doses. Therefore, it has been dubbed the “head-ache” tree. Some researchers have promoted that Umbellulone diffuses through the nasal mucosa to perivascular nerve terminals in meningeal vessels to activate transient receptor potential ankyrin 1 (Nassini, et al., 2012). This plant, however, also has history of therapeutic uses in bathing warm water to comfort arthritic joints. Umbellularia Californica, besides having Umbellulone is also known to have Safrole, a carcinogen and a hallucinogen. In this study we used Gas Chromatography to separate the metabolites in the gas phase and then determined their molecular weights using mass spectrometry. Different molecular databases were used to classify the metabolites that were identified in the essential oil.
Title: Undecided

Presentation Description
"Undecided" is a piece about conflicts throughout life. Everyone experiences struggle and is affected by it differently. Through this piece, we see those struggles.

Abstract
"Undecided" is a piece about conflicts throughout life. Everyone experiences struggle and is affected by it differently. Through this piece, we see those struggles.

Co Presenter(s) / Group/Ensemble Participants
Emily O'Donnell
Danyel Rosewood
Cameo Coburn

Danikka Johnson
Taylor Steinbeck
Title:
Public Administrators in Action

Presentation Description
Government is awesome! Are you surprised to hear this? Join 7 MPA students as they demonstrate public administrators in action. We cover everything from axes to firearms. Don’t overlook this opportunity to hear about your

Abstract
Dawson: A short review of drug testing in the US and the laws that govern the distribution of employee information. The controlled status prevents agencies from reporting positive drug tests to other agencies. This causes numerous concerns for human resource managers and needs legislation to address these issues. Garcia: Cultural factors greatly influence service deliver to Hispanic communities. Training should be provided to those that deliver services to Hispanics in southern Utah. Trust and language issues sometimes create barriers to service delivery and these barriers need to be addressed. Gubler: City Youth Councils provide teenagers with an opportunity to become involved in city government. Unfortunately, local governments tend to ignore and under fund youth programs that could benefit at-risk youth. This qualitative study compares various youth councils throughout southern Utah. Humes: Can SUU reduce risks and lower potential insurance claims? This study evaluates the potential for privatizing Utah's risk management prevention and evaluates potential improvements in service quality and costs. Jones: The current concealed firearm laws in Utah do not require the individuals to prove they can shoot a firearm. Is this a safe or smart law? This study proposes that applicants for a concealed weapon permit should be required to pass a firearms shooting course before receiving their permit. Roy: Creating a vision for the future can be challenging for local governments. This paper presents six components necessary to ensure a successful planning process. This paper suggests how these six components can be intertwined with the needs of the community for effective city planning. Taylor: Has the ax that shuffled between Dixie and SUU been buried? The history of the two institutions, including the story of the ax, will be presented. Photos and the ax will be displayed to enhance the presentation of the research.

Co Presenter (s) / Group/Ensemble Participants
Mike Humes
Kent Jones, Austin Roy and Erin Taylor

Chip Dawson
Patricia Garcia
Miranda Gubler
Title:
Turning Point Family Services

Presentation Description
My presentation will outline my service work done at Turning Point Family Services dealing with adolescents whom have behavioral problems, mental disabilities, etc.

Abstract
Turning Point Family Services is a professional foster care agency that works with youth and adolescents dealing with behavioral problems, mental delays, alcohol and drug dependencies, etc. Through working with these abused, neglected, or dependent individuals, I will incorporate my sociological research regarding what these adolescents are experiencing. Previous research done on adolescents in other areas of the country or even the world will be looked at to analyze the sociological and psychological reasoning for how these youth have come to the point of having these behavioral issues. Through doing this, possible solutions will be drawn from completed research and time spent at the facility, and may be applicable to the youth and adolescents experiencing these problems outside of Turning Point as well.
Title: Information Security Awareness

Presentation Description
This presentation reflects on the feedback received from a conference presentation in June 2013. The presenter discusses the area of information security and the importance of enhancing awareness about this area.

Abstract
Taking into account various studies on the increasing problem of computer crime within organizations, the researcher argues that management of such crimes requires an equal focus on technical, formal and, informal (social) issues associated with Information Technology (IT). This is because focusing on the technical issues only provides a partial solution while managing such crimes. Consequently, the complexity associated with such crimes within organizations can be fully understood when the context of the work place is also taken into account. Computer crimes involving theft are very diverse. The gaining of access and removal of property through the use of electronic resources generally defines computer crimes. The U.S. Department of Justice (DOJ) broadly defines computer crimes as "any violations of criminal law that involves knowledge of computer technology for their perpetration, investigation, or prosecution". While understanding management of computer crime, this paper contributes to provide a different perspective by using the organizational theory. An important aspect of such theories is the distinction between an individual's espoused theory (organizational goals and mission, formal documents, such as policy statements) and their "theory-in-use" (what is done in practice). The argument presented in this paper is that awareness and training is a key ingredient of management of computer crime that needs to take into account technical, formal, and informal aspects of information security. Given the ever changing nature of organizations today, “suitable opportunities” for the occurrence of computer crime is increasing within the working environment.
Title:
Martian Plate Motions in the Vicinity of Valles Marineris and Tharsis Rise

Presentation Description
New satellite images of Mars challenge the current theories about the tectonic system on Mars. Using geological analogs from Earth and large scale structural maps of Mars, evidence for a multiple plate system on Mars can be seen.

Abstract
Previous researchers have proposed a two-plate tectonic regime on Mars based on left-lateral transform displacement along Valles Marineris. Using technologies such as Thermal Emission Imaging System (THEMIS) satellite imagery, High Resolution Imaging Science Experiment (HiRISE) satellite imagery, and interactive software (e.g. Google Mars), we have identified additional large-scale surface features in the vicinity of Valles Marineris and Tharsis Rise. Despite the much slower rates of tectonism on Mars, we can compare Martian lineations, folds, and conjugate joints to similar structures on Earth to interpret potential plate boundaries. For example, a northeast-trending set of lineations with significant left-lateral strike-slip displacement and conjugate jointing located to the northeast of Tharsis Rise could accommodate transform motion between two plates. Our observations allow the designation of at least two additional potential plate margins in the region. We propose a tectonic model showing relative motions along plate boundaries that shows a multiple-plate system on Mars.
Average Institution Lead Plaintiffs Value Adding? The Market Casts Its Votes

A look at the announcement of a lead plaintiff during litigation and the market reaction of the announcement.

Abstract
Prior research has found that having an institution as a lead plaintiff in shareholder litigation results in greater corporate governance improvements. However, these papers also find that institutional lead plaintiffs are associated with higher settlement payouts, which raises the question as to whether investors view the improved governance as being worth the cost. We examine the market response to the announcement of institutional lead plaintiffs to find how shareholders answer this question, and investigate how their response is affected by the quality of ex-ante corporate governance leading up to the litigation.
Title:
Professor Murphy’s Guide to Endless Possibilities: S.T.E.A.M. Activities to Enrich Elementary Instruction

Presentation Description
This year I published this book to promote Elementary S.T.E.A.M. activities and encourage creative teaching. This presentation will provide an overview of this book and the activities and explorations it contains.

Abstract
This year I published the book “Professor Murphy’s Guide to Endless Possibilities: Dedicated to Promoting Creativity, Inventiveness, and Active Learning Using BOINKS” to promote Elementary S.T.E.A.M. activities and encourage creative teaching. This presentation will provide an overview of this book and the activities and explorations it contains. Curriculum areas that our highlighted include Mathematics, Physics, Engineering, Art, Creativity, Thinking and Problem Solving, and Inventiveness. Activities and instruction are designed for students in Kindergarten through 8th grade and align to State and National Standards.
Title:
How a University - School District Partnership School Served as a Catalyst for Educational Innovation and Renewal

Presentation Description
I review the data and findings that have been collected following North Elementary Partnership School’s first year of operation. Initial data has indicated that the implementation of key programs has impacted several areas.

Abstract
Over the course of the past 3 years Southern Utah University, in collaboration with the College of Education and Human Development and the Iron County School District, has worked collaboratively to open a unique learning laboratory and professional development center (North Elementary Partnership School) that is committed to educational innovation and renewal. Opening in the fall of 2012, this distinctive Partnership School merged the best elements of Professional Development Schools, Laboratory Schools, and Public/Charter Schools into an organization that uniquely met the needs of students, teachers, parents, and the extended school community. The key goals of this Partnership School are to:• Promote student achievement• Engage in collaborative research experiences• Provide professional development and growth• Encourage family and community collaboration. This presentation will review the data and findings that have been collected following the school’s first year of operation. While still in its infancy, initial data has indicated that the school’s organization, structure, curriculum, and programs have significantly impacted several areas. These include:• Teacher Professional Development and Performance• Student Motivation and Academic Performance• Parent and Community Motivation and Support• School Renewal and Collaborative Opportunities. This presentation will review the successes and challenges that were faced by the Partnership School during its first year of operations. It will also explore upcoming plans and steps for ongoing renewal and growth.
Title:
Using Web 2.0 in Online Learning: What Students Said About Voice Thread

Presentation Description
Voice Thread is an asynchronous online discussion board with audio/video capabilities. Thirty-five online students engaged in different activities using Voice Thread. The author presents the pedagogical value of Voice Thread in online learning.

Abstract
Voice Thread has been a popular social networking program among educators because of its ease of use and free of cost. It allows students to share information with their classmates or discuss an assigned topic in and outside classrooms. Voice Thread promotes students' engagement and collaboration in different subject areas at all grade levels (Byrd & Brunvand, 2011; Campbell & Williams-Rossi, 2012). Students can participate in discussions with Voice Thread through the website or mobile apps, such as iPad and iPhone. Teachers also can embed Voice Thread in most Learning Management System easily. The purpose of presentation is to share the author's recent experience with Voice Thread in an online course. Thirty-five students engaged in Voice Thread activities throughout the semester. Voice Thread was embedded in a course page on Canvas. After all activities were completed, students responded to a survey and evaluated the pedagogical value of Voice Thread. Their responses were mostly positive. The author discusses the results of the survey and provides suggestions for how to incorporate Voice Thread in online learning.
Title:
Microfluidic Device Fabrication Made Simple

Presentation Description
Microfluidic devices are common in many applications, particularly medical testing. We have developed an inexpensive way to create microfluidics that may be applicable to other applications, such as chemistry research and

Abstract
We are developing a new method to create microfluidic devices using metallic wires as templates. Microfluidic devices are commonly used in medical and other routine testing, but high prototyping costs limit their use in less generalizable settings such as organic chemistry. Our method uses inexpensive materials (magnesium wire, PDMS, and HCl) to pattern and create microfluidic devices. We have tested the behavior of our microfluidic devices and found that they function quite well. We are now trying to move into testing organic reactions and developing further functionalities, such as extractions, with our microfluidic devices.

Co Presenter (s) / Group/Ensemble Participants
Jonathan Wickes
Tyson Torgersen
Sacha Toussaint
Title:
Determinants of Success in an Online Information Literacy Course

Presentation Description
This presentation examines external and internal factors that contribute to success or failure in a web-based course. Data was gathered from LM 1010 classes to determine what, if any, variables contributed to the student's success or failure.

Abstract
Both external and internal factors that contribute to the success or failure of students in a Web-based information literacy course were examined. Data was gathered from two years of LM 1010 classes, and examined with statistical software to determine what if any variables, including ACT scores, average income, pupil to librarian ratio, number of sessions in the course, and amount of time spent in the course, contributed to the student's success or failure.

Co Presenter(s) / Group/Ensemble Participants
Phil Roche MLIS
Title:
Utah Teachers and the New Utah Mathematics Core Curriculum

Presentation Description
The New 2010 Utah Mathematics Core realigns the concepts from Algebra I, Geometry, and Algebra II and emphasizes the Mathematical Teaching Practices to actively involve students to discover concepts in depth.

Abstract
Every 10 years, the Utah State Office of Curriculum revises the Core Curriculum in Mathematics. For the fall of 2010, the Common Core Standards for School Mathematics was adopted as the new Core. Utah chose to change the required secondary courses from the traditional path of Algebra I, Geometry, and Algebra II to the integrated path and titled the new courses Secondary I, Secondary II, and Secondary III. The new courses include the same concepts as the traditional courses but the concepts are realigned and threads of concepts, such as functions, have increased emphasis. Also emphasized are Mathematical Teaching Practices encouraging teachers to involve the students in their learning process. During her 2012-2013 sabbatical year, Dr. Larkin worked with teachers in Grades K-12 as they implemented the new Core. An important document she created correlated the concepts now in Secondary I, II, and III with the SUU courses of Math 1010 and Math 1050.

Co Presenter (s) / Group/Ensemble Participants
Title:
Experiential Learning Using Blood Lactate Analyzers to Understand Bioenergetics

Presentation Description
The Department of PEHP recently obtained three portable blood lactate analyzers. This presentation will highlight how these new analyzers are used to teach bioenergetics in our department's strength and conditioning classes.

Abstract
Using a blood lactate threshold field test as a bioenergetics teaching tool for many students understanding exercise metabolism and bioenergetics can be difficult and somewhat intangible. Concepts such as blood lactate threshold (BLT) are often taught theoretically but less often explored using experiential methods. Our department recently obtained three blood lactate analyzers in order to place more emphasis on application of this important material. Blood lactate threshold (BLT) is commonly assessed to predict endurance performance as well as to design heart rate-based aerobic training programs. Blood lactate threshold generally occurs anywhere from 70% maximal heart rate (HR MAX) to 95% HR MAX and is hallmarked by a rapid increase blood lactate (BLA) levels. Maximum heart rate can be estimated by using the common equation 220 – age. The closer the BLT is to HR MAX, generally the more well trained the individual; however, VO2 max must also be taken into account. Ramped treadmill protocols are generally used to assess BLT however, when limited stationary equipment is available, this limits participation in the classroom setting. Therefore, the purpose of this field-test is to assess BLT in a larger number of subjects, athletes, or students than what could commonly be assessed in the laboratory setting. This laboratory session gives students the opportunity to measure and interpret their personal blood lactate threshold results and is a useful platform to discuss metabolic pathways, how to use results to improve aerobic exercise performance, and how to graphically represent results.

Co Presenter (s) / Group/Ensemble Participants
Camille Thomas Ph.D.
Title:
A New Mathematical Value for Establishing the Semiarid/Humid Climate Frontier

Presentation Description
Describes a new method of defining the semiarid-humid climatic frontier.

Abstract
The definition of the Semiarid – Humid climate frontier in Köppen’s Climatic Classification is potential evapotranspiration exceeds precipitation. However, he did not provide a method of determining such a value. To solve this discrepancy and provide a mathematical means of making this description, we introduce the Potential Excess Precipitation (PEP) Value. The PEP Value is calculated by subtracting Köppen’s Potential Evapotranspiration (POTET) Value from the Annual Precipitation. If the value is positive, it is a humid climate A, C, or D, but if the value is negative, it is Semiarid or AridBW or BS. Application of the PEP Value gives each station a numerical value that can be easily contoured. The PEP Value equal zero is the semiarid/humid frontier.
Title:
The Beehive Home

Presentation Description
This project will inform you of the wonderful opportunities and extraordinary care The Beehive Home brings to Iron County’s Elderly.

Abstract
While doing my service at The Beehive Home I was able to better understand the effects of dementia on elderly individuals in Iron County, and their families as well. I experienced firsthand behavioral disorders such as hoarding, verbal and physical agitation, hallucinations, memory loss, and many more. By experiencing these things I was able to understand the backgrounds of these elderly individuals and why they were put in The Beehive Home. From this understand I was then able to help them through dancing, singing, walking, painting nails, doing hair, playing bingo and engaging in other countless opportunities that would help them feel more at home and loved.
Title:
Worlds Healthiest Foods

Presentation Description
Enhance your life! Learn about the worlds' healthiest foods and the benefit that each food has to your health. See pictures of various foods and possibly learn the ten healthiest foods.

Abstract
As consumers we all want the food that tastes the best. A lot of us do not think about each food and how it effects our body we just want what tastes good. I plan to let everyone know the healthiest foods and talk about how to involve them in our daily diet. I want consumers to realize that it is very important for our bodies to get the right nutrients and make sure we are eating healthy. I plan to say the health benefit of each food and explain why it is so healthy for our bodies.
Title:
Cultural Competence Simulation in a BSN Program

Presentation Description
This poster presentation describes four cultural competence simulations utilizing a high fidelity mannequin, given to third and fourth level SUU nursing students, how the simulations are set up, and implications.

Abstract
The purpose of this project has been to determine if a high fidelity cultural competence simulation, presented in conjunction with didactic instruction, will increase SUU nursing students’ cultural competency. The results of the project will provide usable and supportive data to faculty and administrators, to determine if the cultural competence simulation should be incorporated into the SUU nursing cultural competence curriculum throughout the SUU nursing program. This project recruited SUU third and fourth semester BSN nursing students as volunteers to participate in four cultural competence simulations. The SUU BSN program, consists of twenty students per level/semester, and includes four semesters. Students will assess their cultural competence through a tool using a Likert scale rating after the completion of a cultural competence simulations using a high fidelity simulation mannequin. The simulations will correspond to didactic lecture currently presented throughout the SUU nursing program's courses. Student participants will also be assessed in their fourth semester by their RN clinical preceptors using the evaluation instrument with some modifications. The potential benefit of a cultural competence simulation presented simultaneously with didactic instruction will be the development of a tool that enhances cultural competence skills needed in a culturally diverse nursing practice.
Title:
Heritage Fair

Presentation Description
My Irish and Italian heritage geared toward a younger audience.

Abstract
How Ireland and Italy came together as I describe how to present to a younger audience.
Title:
A Millennium Problem Solved?

Presentation Description
An interesting way to present numerical solutions to Navier-Stokes equations of an incompressible fluid.

Abstract
We are approaching one of the Millennium Mathematical problems from numerical perspective. We are using a finite element method to compute the solutions to the Navier-Stokes equations of incompressible fluid. We create a platform to introduce audience to one of the crucial topics in Engineering. We perform a numerical scheme on the equations and we present the results.

Co Presenter (s) / Group/Ensemble Participants
Cecilia Weingartner MS
Title:
Mathemagic

Presentation Description
Mathematics used in magic tricks.

Abstract
Mathematics has more applications than any other science. It can also be used in magic’s tricks. I am using the branches of linear algebra, number theory and more to guess a number a student thought of, or a card student picked. This is hands-on mathematics at its most attractive setup.
Title:
SUU Department of Nursing 2004-2014

Presentation Description
This presentation will chronicle the development and progress of the Southern Utah University Department of Nursing which will celebrate 10 years as a program fall of 2014.

Abstract
The Southern Utah University Department of Nursing will celebrate 10 years as an independent nursing program fall of 2014. This presentation will review the history of the development of the program, highlight graduates, and share the impact that the Nursing Department has had in the southern Utah community and beyond.
Set the Date

Presentation Description
When was the last time you went on a date? Was it a fun and memorable date? We will give tips on dating, flirting, and making the dating experience better. Date ideas, cost effective, and getting rid of "hanging out".

Abstract
Set the Date presentation was created to facilitate a workshop among peers. Gaining real life experience in creating, utilizing and executing a workshop style presentation. Including audience participation and visuals, the workshop is used to create a better dating experience and a new perspective when engaging in the first steps of relationships. Students in a relationship, single or wanting to go on more dates can take away from this presentation.

Co Presenter (s) / Group/Ensemble Participants
McKay West
Title:
Student Course Evaluation Differences; Comparing Adjunct and Full-Time Faculty at SUU

Presentation Description
I will discuss what questions I hoped to answer by conducting this research, how I conducted the analysis, and what my findings were.

Abstract
The goal of this research is to understand the relationship between student course evaluations and an instructor’s employment status when defined as full-time or adjunct. By using a t test and a multivariate regression analysis to compare the data from more than 600 Idea Student Course Evaluation Surveys from one semester, taken from the colleges of both Sciences and Engineering and Humanities and Social Sciences, this research will explore the relationship between student course evaluations and an instructor’s employment status, as well as relationships between student course evaluations and basic course characteristics (number of students in the class, time and day of the class, etc.). Results of the data analysis will be presented on the poster and discussed during the dialogue session.
Terrestrial Gastropods in the Pine Valley Mountains

Presentation Description
An examination of the species of snails found in the Pine Valley Mountains and the implications of finding endemic species.

Abstract
Identification and cataloging of species is important when measuring the overall health of ecosystems, classifying interactions between populations within communities and in conservation efforts. The purpose of the current study is to conduct an exploratory survey of terrestrial gastropods located in the Pine Valley and surrounding mountains. Gastropods are primary consumers and play a crucial role in ecosystems as prey for other organisms, but are imperiled as a group. To date, this is the first research conducted to identify which species of gastropods live in this region. Thus far nine separate soil collections, from locations within the survey area - selected for prime snail habitat, have been made. Subsequent sorting and classification of the shells has commenced. A sieve series is being used to sift away soil and leave behind the shells. The collected shells will then be identified using dichotomous keys. Final products will include a list of terrestrial gastropod species for use by personnel from Dixie National Forest, Utah Division of Wildlife Resources, and the malacological community.
Title:
The Heroic Athletes of Ancient Greece

Presentation Description
In ancient Greece, successful athletes sought immortality through their mighty victories. A handful of athletes made the transition, in Greek minds, from athlete to hero and received religious cults for many years after their deaths.

Abstract
Victory in an athletic contest in ancient Greece, especially in a prestigious panhellenic festival, brought great status and acclaim to the athlete. Moreover, extraordinary victories by exceptional athletes brought superhuman status, a condition comparable to that of the heroes of myth. Ancient Greek myth emphasized the athletic nature of many heroic figures, imparting to them excellence in sporting contests as well as achievements in battle or other endeavors. This athletic component of a hero’s identity allowed for ready comparisons between the accomplishments of the ancient heroes and the achievements of historical athletes. The most attractive heroic model for a powerful athlete was Herakles. Milo of Croton, a famed wrestler from antiquity, clearly styled himself after Herakles and imitated him in battle. In addition, three athletes from the fifth century BCE, Theagenes, Euthymos, and Kleomedes, made the transition, in Greek minds, from athlete to hero. The power, might, and arête (or virtue) of their athletic victories provided the justification for their claims to immortality the athletic heroes are generally limited to a period in the late Archaic and early Classical periods, when large portions of ancient Greece were struggling with social and political upheaval. As glorified individuals, athletic victors embodied the ideals of the aristocratic elite but also could impart the prestige and power of their accomplishments to their communities as civic heroes. This is especially apparent in the career, cult, and afterlife of the accomplished athlete Theagenes of Thasos. The memory and cult of Theagenes acted as a focal point for the community of Thasos for hundreds of years after his death, providing an important touchstone for the island-city’s collective memory and identity.
Title:
Environmental Psychological Research in the National Parks

Presentation Description
Soundscape, night skies, and transportation systems are three important issues facing many national parks, including Bryce Canyon and Zion. Environmental psychological research provides valuable data to support park management.

Abstract
National Park managers are mandated to protect natural resources and provide opportunities for visitor enjoyment. Natural resources include the flora and fauna, geologic formations, air quality (including night sky visibility), and the ambient soundscape. Visitors have expectations experiencing phenomena associated with the natural environment, including viewing the scenery and listening to the sounds of nature. Park managers provide interpretive opportunities to educate visitors about natural resources. In several of the busiest parks, managers must develop innovative strategies to transport millions of annual visitors. This presentation will detail how environmental psychological research contributes to park managers understanding of ambient soundscapes, night sky interpretation, and transportation systems in Bryce Canyon and Zion National Parks.

Anthropogenic noise from a variety of sources often taints the ambient soundscape of national parks. One of the more prevalent sources of human caused noise emanates from aircraft, including scenic overflights and passenger jets. Research has shown helicopter noise (at 40-80 dB(A)) has a negative effect on several indicators of a quality experience in numerous parks. Air tours are also flown in propeller planes and small jets, and the flight paths of high altitude commercial jets routinely crisscross parks and are noticed by visitors. Two-hundred sixty-eight participants rated 40 natural landscapes synchronized with natural sounds or aircraft overflight noise in a between-subjects design. Overflight noise was presented at a maximum of 50 dB(A) with a 25 percent audibility rate. Participants rated each scene on several psychological dimensions related to a national park experience. Specifically, annoyance, scenic beauty, tranquility, solitude, naturalness, and overall preference were rated. Results revealed significant differences between the three aircraft noise conditions and natural sounds on all psychological dimensions except scenic beauty. Helicopter noise was perceived as the most disruptive to the national park experience, followed closely by propeller plane noise, with jet airplanes being the least negative of the three noise conditions. All three types of aircraft noise were perceived as aversive when compared with natural sounds. Results show the importance of natural sounds, and the negative psychological consequences associated with exposure to aircraft noise, especially when the noise emanates from helicopters and propeller planes.

Like soundscapes, natural lights capes are an important resource for parks and protected areas, including Bryce Canyon National Park and Cedar Breaks National Monument. Both locations offer night sky interpretive programs, attracting over 27,000 visitors annually, equaling all other interpretive programs combined. Managers need to understand what drives visitor interest and assess if night sky interpretation is meeting expectations. A total of 1179 night and day visitors to Bryce Canyon National Park and Cedar Breaks National Monument served as participants and completed a 36-item survey measuring knowledge, attitudes, benefits, and behaviors related to the night sky. Results show those who attended a night sky interpretive program gained a significant amount of knowledge about night sky issues. Both day and night visitors have strongly held attitudes about light pollution and the protection of the night sky in national parks.

For park visitors to experience and appreciate the natural resources and interpretive activities, they must have an efficient means of travelling to park attractions. Many national parks have implemented optional shuttle systems, but relatively few have completely closed roads to vehicles, transporting visitors on mandatory shuttles. Zion National Park instituted a mandatory shuttle system in May of 2000 to relieve crowding and congestion in the main canyon and to protect natural resources. Taking a longitudinal approach, attributes of the shuttle (e.g., crowding, accessibility,
Title: Dungeons & Dragons in the Classroom: A Role-Playing Approach to Teaching and Learning History and Culture

Presentation Description
SPAN 3510 class describes how this semester they have leveraged theories of games and gaming in class in order to more fully engage students in and excite them about their study of Spanish history and culture.

Abstract
Imagination plays a vital role in the study of history. Game developer Jane McGonigal has argued persuasively in favor of the power of games to motivate those who play them. In our SPAN 3510 class we have put McGonigal's theory to the test by engaging in the study of Iberian history and culture through a game framework. Students began the semester by developing a character from either the 6th, the 15th, the 17th, or the 20th centuries in Iberia. During the first half of the semester the students researched and collaborated to create a core rulebook that we then used to play a historically-based multiplayer Role Playing Game over the second half of the semester. In this presentation Dr. Mack and some of his students will discuss the results of this pedagogical experiment and discuss how game theory might hold some keys to getting students more involved in and excited about education.

Co Presenter (s) / Group/Ensemble Participants
Gordon Garrett
Scott Jeppson
Matthew Jeppson
Kasen Lisonbee
Climbing the Mountain of Assessment: Academic Rigor in Outdoor Experiential Education

Presentation Description
The Harry Reid Outdoor Engagement Center has developed a preliminary model to assess academic rigor in outdoor experiential education using rubrics for the Problem Solving and Integrative Learning ELOs.

Abstract
The Harry Reid Outdoor Engagement Center (HROEC) has been working to define academic rigor in experiential education as one step toward Southern Utah University’s goal of successfully implementing the EDGE Program. Academic rigor can be defined in many ways according to specific disciplines and types of intelligence, which presents a challenge when considering multi- and interdisciplinary activities. Likewise, several combinations of SUU’s Essential Learning Outcomes (ELOs) can be applied to specific outdoor academic experiences. However, engaging in the outdoors always requires competency in at least two of SUU’s ELOs. First, outdoor engagement requires students to design, evaluate, and implement strategies to achieve desired goals or answer open-ended questions. Second, students are required to connect ideas and experiences from their classes and their past to new complex situations away from campus. By measuring students’ ability to meet the Problem Solving and Integrative Learning ELOs, the HROEC can assess the level of academic rigor accomplished during outdoor academic experiences. Preliminary rubrics drafted by the General Education Committee can now be piloted to aid in these assessments. Results can be used to report on the efficacy and rigor of experiential education at SUU and to improve opportunities for students in the future. We encourage other engagement centers to follow this model of defining academic rigor through SUU’s ELOs and assessing those ELOs with rubrics already drafted by the General Education Committee.

Co Presenter (s) / Group/Ensemble Participants
Briget Eastep Ph.D.
Reactivation of the Ruby's Inn Fault Near Bryce Canyon

Presentation Description
New observations of fault planes exposed near Bryce Canyon reveal at least two periods and styles of deformation. Such deformation could help control the development of hoodoos in the area.

Abstract
Conjugate faults exposed in the Eocene Claron Formation's hoodoos in and around Bryce Canyon National Park likely were formed under a north-south principal axis of compression, based on the conjugate faults' acute angle bisector. Researchers have related these conjugate faults to the south-directed Ruby's Inn thrust fault (Oligocene), the fault trace of which stretches from the Paunsaugunt normal fault on the eastern side of Bryce Canyon to the Sevier normal fault approximately 20 km to the west (both late Miocene to recent). The Paunsaugunt and Sevier normal faults are the easternmost faults related to Basin and Range extension. Southern Utah University undergraduate researchers working near Tropic Reservoir discovered Claron Formation outcrops in the footwall of the Ruby's Inn thrust fault that display multiple orientations of slickensides with chatter marks. A detailed structural analysis of the slickensides revealed evidence for primarily normal dip-slip faults, indicating a change in the orientation of the principal axis of compression from north-south to vertical. One logical sequence of events involves the production of reverse conjugate faults during Ruby’s Inn thrust contraction, followed by normal fault slicken line production along pre-existing weaknesses during Basin and Range extension. Recent and potentially future movement along these pre-existing weaknesses could contribute to hoodoo development and rock fall hazards in and around Bryce Canyon National Park.
### Title:
Heritage Fair Presentation

### Presentation Description
Learn about my heritage and where my family comes from along with why teaching social studies in school is important.

### Abstract
Heritage is an important part of who we are as individuals. Learning who you are and where you come from has great power in giving a sense of “self” and how we are a part of something more than ourselves. Teaching students to look into their heritage and learn where they come from empowers them with an “identity” and connects them with history. In this presentation I will talk about my heritage and why teaching social studies in schools is important because the study of social studies and history is the study of our ancestor’s lives.
Title:
The Effect of Essential Oil Derived from Umbellularia Californica on Frog Tongue Vasculature

Presentation Description
This study looks at the effect of essential oil derived from umbellularia californica on frog tongue vasculature. Previous studies link the oil to cluster headaches, which may be caused by vasospasms.

Abstract
Many plants produce chemicals called secondary metabolites that act as defense mechanisms against herbivores. These chemicals may be toxic or may alter normal physiological function of the organism that consumes them. In addition, many secondary metabolites have an unpleasant taste, making the plant unpalatable as a food source. The tree Umbellularia californica produces a secondary metabolite within its leaves called umbellulone, a monoterpene ketone, which is reported to be a toxic compound with mild, irritating properties. U. californica is often called “the headache tree” due to the fact that its leaves give off a scent that reportedly causes headaches. Although the mechanisms responsible for cluster headache development are poorly understood, it has been hypothesized that intense cluster headaches arise due to intracranial vasospasm. Therefore, we hypothesize that umbellulone is a potent vasoactive compound, which alters blood vessel diameter through its effects on vascular smooth muscle contraction. To test this hypothesis, we will apply U. californica essential oil onto frog tongues while monitoring the diameter of arterioles in the tongue. We predict that the diameter of the arterioles will decrease due to vasoconstriction caused by umbellulone that is contained within the essential oil. We have successfully extracted the essential oil from U. californica leaves using a steam distillation apparatus, and the oil will be characterized by mass spectrometry to ensure umbellulone is present. We will test the activity of the oil by applying a small amount of it to a flattened frog tongue. A frog tongue will be used because it is highly vascularized, making it easy to locate and observe small arteriolar changes using a light microscope. A video camera mounted to the microscope will be used to record changes in vascular diameter for subsequent data analysis. We will use imaging software to measure the diameter of the blood vessels before and after application of umbellulone-containing oil extract. If shown to induce vasoactivity, umbellulone could help us understand the mechanism behind the onset of cluster headaches, which could ultimately lead to the discovery of therapies that reduce the onset or duration of cluster headaches.

Co Presenter(s) / Group/Ensemble Participants
Holden Wagstaff
Matthew S. Weeg Ph.D.
Mary Jo Tufte M.Ed.
Title:
Rafting the Colorado River Again

Presentation Description
Join us on our trip down one of the world’s most spectacular river corridors the Colorado River.

Abstract
In partnership with the Outdoor Engagement Center, 3 Outdoor Recreation in Parks and Tourism students and an ORPT faculty adviser were able to lead a trip for SUU students down a portion of the Colorado River in the Grand Canyon. The students put together all the logistics of for this once in a lifetime trip from transportation to equipment.

Co Presenter (s) / Group/Ensemble Participants
Scott Jones
Brittney Worthen
Kelsie Davies
Cardiovascular and Perceived Exertion Comparison of Uphill Versus Downhill Portions of a Trail Hike

Abstract
Research undergone in laboratory settings provides evidence that walking downhill takes less cardiovascular exertion as well as lower rates of perceived exertion (RPE) among participants when compared against walking uphill. The purpose of this study was to determine if these laboratory results can be applied in a natural environment during uphill and downhill trail hiking. Seven participants hiked a 1.13 mile portion of uphill trail maintaining a 2.0 mph pace on the "C" trail with an average grade of 17.6% (10 degrees) to an elevation of 7000 feet in Iron County, Utah. After resting 15 minutes the participants hiked the same route back downhill to the original starting point. Heart rate (HR), systolic blood pressure (SBP), and ratings of perceived exertion (PRE) were measured at rest before the hike, at the hikes mid point prior to the 15 minute rest, at the mid-point prior to beginning the downhill portion of the hike after a 15 minute rest, and at the completion of the hike. Data were analyzed using a (trail: up, down) x 3 (time: start, mid, end) repeated measures ANOVA with significance at p <.05. A significant trail x time interaction was observed for RPE (p= 0.03), with greater exertion at the mid and end of the uphill hike compared to the downhill. Significant main effects were noted for HR and trail (p=0.006), and over time (p=0.001). With regards to SBP, the only main effect observed was for trial, with positive grade hiking eliciting significantly greater response than downhill hiking (p=0.01). The trail hikes are rated according to difficulty level, with those containing more elevation gain and steeper inclines categorized as strenuous. These results provide evidence that the uphill portion of a trail hike is more strenuous than the downhill for both cardiovascular and perceived exertion. Individuals wishing to utilize trail ratings as a guide for exercise could consider these factors when determining a suitable hike for their needs.
Cloning and Expression of β-Caryophyllene Synthase From Ericameria Linearifolia

Abstract
Plants produce compounds, secondary metabolites, which can be harnessed for medicinal uses. Caryophyllene, a secondary metabolite produced by a variety of higher plants, has shown promise as an analgesic and anti-inflammatory. Caryophyllene synthase is the final enzyme in the biosynthetic pathway that produces caryophyllene. The gene and enzyme responsible for caryophyllene production have been observed in crop plants and model organisms, but few studies have investigated caryophyllene production in indigenous plants. We investigated the production of caryophyllene in Ericameria linearifolia (Narrowleaf golden bush) because it is a shrub native to southwest North America. The first portion of this research examined sequence similarities between caryophyllene synthase gene orthologs in E. linearifolia and other plant genera. Genomic DNA was isolated from E. linearifolia leaves collected from plants growing in southern Utah. Literature reviews and database inquiries have provided DNA sequences for similar synthases, from which primers will be designed to copy and sequence the E. linearifolia caryophyllene synthase gene, confirming the orthologs presence. Following confirmation of the gene, mRNA will be extracted from leaf material and oligo (dT) primers used to synthesize cDNA. Subsequent cDNA amplification and cloning of products into a vector will allow for transformation into a protein-producing bacterium. These final steps make the downstream procedures of protein production, structure determination, and functional characterization of the protein possible. Comparison with enzymes that produce similar organic compounds may result as well, and would provide insight that could improve the biosynthesis of medicinal compounds.
Title: “Measure for Measure – Balancing the Scales of Justice”

Presentation Description
An essay discussing the relationship between William Shakespeare’s "Measure for Measure" and the opportunities for political reform under the new monarchy of James I.

Abstract
This essay examines the correlation between William Shakespeare’s play, Measure for Measure, and the challenge of the newly empowered monarchy of James I to balance common law with equity. By illustrating the accurate presentation of England’s judicial system and hierarchy of judicial authority in the play, Shakespeare’s representations establish a vehicle through which the problems of judicial abuse, arbitrary punishment and other legal issues in his time may be addressed by the new monarchy. Specifically, the characters of Angelo, Isabella and the Duke function as the legal representations of justice, mercy, and the balance between them - a necessary component in establishing greater equality in the new government of England. Whether driven by intent or simply gifted perception, Shakespeare’s brilliant portrayal of the judicial system during the time he penned Measure for Measure, provided an undercurrent of hope that the new King would take heed to the play’s representations and make positive changes within England’s legal system, thereby resolving the historical conflict between justice and mercy and providing her subjects with balance in governmental and judicial authority.
Title: Angel Mothers

Presentation Description
"All that I am and all that I will be I owe to my angel mother" Abraham Lincoln. This piece exhibits our connection with our mothers, grandmothers, and great grandmothers, their compassion and sacrifices.

Abstract
The theme for this piece is motivated through my deep connection with my feminine ancestors. I have known many of my great grandmothers and grew up hearing stories of their strength. My connection with them has inspired me to live a life full of ambition and love. I credit those who have come before me and strive to live my life in a way that makes them proud. The piece is created in celebration of their lives and in respect to their influences on my life. As I have been working on this piece I have been doing some family history and reviewing stories of my feminine ancestor’s lives. Their stories have provided me with my movement and emotions for each of my dancers. Each dancer represents a different mother in my life. My dancers are able to learn about my ancestor’s and myself through their stories. By introducing them to my mother’s I am giving them a part of myself. This also connects my dancers to the piece because they can portray these women in a way that embodies who they were.

Co Presenter (s) / Group/Ensemble Participants
Liesl Whitaker
Maria Lee, Jorden Bavles, Kristen Stringham, Heather Robbins, Ashelyn Tait, Taylor Steinbeck

Group/Ensemble Participants
Liesl Whitaker
Maria Lee, Jorden Bavles, Kristen Stringham, Heather Robbins, Ashelyn Tait, Taylor Steinbeck
Title:
Hot Wheels: A Digital Analysis

Presentation Description
Remember back to your childhood and come race hot wheels. Hot wheels racing like you have never seen before!

Abstract
My project is designed to introduce people to the power of Solidworks. Solidworks is a program designed for modeling and more importantly analyzing the model for real world application. Barely scratching the surface of the Solidworks program, we are able to see the use it has for the world. By recreating hot wheels cars, I was able to show how they would work with gravity. Each car would have a different weight and aerodynamic properties allowing me to test which car would win the race. I will also set up a track and perform a physical test and compare the results with the Solidworks analysis. Hand calculations will also be used in the comparison. It took a little effort to recreate the first car, and then it sped up after that completing each car faster than the last. Each model will more or less look like the actual hot wheels car. By doing this, we can apply it to the real world. The knowledge that I have learned allows me to go into the real world and recreate something, test it, analyze it, then make the changes necessary for improvement.

While this project is not 100% accurate, it is very useful in learning the capabilities of programs like Solidworks. That is the whole purpose of this project. Students who are unsure of a major can take part in this project and see the many capabilities that integrated engineering has to offer them as a potential major.
Understanding Strain Theory as Adaptive, Dynamic, and Fluid

Presentation Description
Fluidity of sociological theory of crime and deviance has long reaching impacts in fields of rehabilitation, criminology and criminal justice. Strain theory is more dynamic than previously understood.

Abstract
Strain Theory is one of the major sociological explanations of criminal behavior. With so much pressure from society to have the best things, be the best provider, or have the most respect, not having any socially acceptable way to get these things or goals leads to high levels of social strain. This is thought to be one reason that people turn to crime; to reduce this strain and get what society says we should have, but will not provide the socially acceptable means to achieve these goals. Often the categories of deviance associated with strain theory are considered to be static and unchanging. The reality is that these classifications of strain are much more fluid and dynamic than previously assumed. The purpose of this study is to obtain a better understanding of this complicated dynamic so that in the future, sociologists can find better ways to keep people from committing crimes and becoming involved with the criminal justice system. Using a mixed methods approach of qualitative and quantitative participant survey, information has been gathered to help with better understanding the complex nature of developing and reducing social strain. In doing so targeted therapeutic and social approaches can be generated to assist with reducing crime and recidivism rates among the criminal population.

Co Presenter(s) / Group/Ensemble Participants
Title:
Gene Flow Between Crocodylus Acutus Populations in Pacific Costa Rica

Presentation Description
American crocodile’s populations in Pacific Costa Rica are connected through migration

Abstract
Maintaining genetic diversity and effective gene flow is crucial to the survival and management of threatened and endangered species. In this study we analyzed the genetic diversity and population genetic structure of four American crocodile, Crocodylus acutus, populations (Las Baulas, Santa Rosa and Palo Verde National Parks, and Osa Conservation Area) in Pacific Costa Rica. We genotyped 183 individuals at nine microsatellite loci to investigate genetic diversity and gene flow between and among populations. Additionally, 2 areas of the mitochondrial DNA, a portion of the cyt-b gene, and the d-loop were sequenced. A model-based clustering analysis indicated that crocodiles were segregated into three main clusters along the coast; (1) Las Baulas National Park, (2) Osa Conservation Area and (3) Santa Rosa and Palo Verde National Parks. The level of population subdivision supports the presence of metapopulations along the Pacific coast of Costa Rica and not one panmictic population. An effective management plan that maintains the connectivity between clusters is critical to the continued success of Crocodylus acutus in Pacific Costa Rica.
Title:
Mitochondrial Sequence Variation in American Crocodile, Populations on the Pacific coast of Costa Rica

Presentation Description
American crocodile populations in Pacific Costa Rica show similarities in mitochondrial genes.

Abstract
Mitochondrial DNA can be used to delineate population structure for the conservation of threatened and endangered species. We determined the genetic structure of American crocodile, Crocodylus acutus, populations along the Pacific coast of Costa Rica with two mitochondrial genes, the tRNAPro–tRNAPhe region of the D-loop and the cyt b gene. Crocodiles were collected from 11 localities along the Pacific coast. Neighbor-joining (NJ) and maximum likelihood (ML) trees were constructed for the D-loop and cyt b respectively. Populations showed little divergence from each other at these mitochondrial genes. Crocodile populations within Costa Rica should be managed across SINAC conservation areas due to the effective gene flow occurring between populations along the coast.
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**Title:**
Heritage project

**Presentation Description**
Heritage presentation.

**Abstract**
TBA

**Co Presenter(s) / Group/Ensemble Participants**
Title:
A Test of Nicotine Addiction in Madagascar Hissing Cockroaches (Gromphadorhina Portentosa)

Presentation Description
The experiment shows the addictiveness of nicotine on the Madagascar Hissing Cockroach. Nicotine is added to the food of the experimental group of cockroaches. If the cockroach becomes addicted to nicotine, it will eat more food and

Abstract
Nicotine is the addictive substance in most tobacco products. Addiction in animals involves the dopamine system which helps to process rewarding stimuli in the brain (De Biasi & Dani 2011). This concept has been studied in rodents and other insects over time, and we wanted to study these effects in Madagascar hissing cockroaches (Gromphadorhina portentosa). A study conducted by Hori et al. (2011) found that nicotine inhibits feeding in ladybeetles, and in this experiment we examined the addictiveness of nicotine on the Madagascar hissing cockroach. We hypothesized that adding nicotine in low doses to the diet of the cockroach will cause it to become addicted to the nicotine. We conducted this study on 24 cockroaches, half of which were given water and dog food and half that we gave water, dog food, and a small amount of nicotine (.03 g per container applied to their food). We recorded weights of each cockroach over six weeks, and will discuss our final results in this presentation. This study is important because nicotine has been used in the past as an insecticide. However, the effectiveness of nicotine as an insecticide agent may be in question if it instead causes the cockroaches to become addicted to this compound. Sources De Biasi, M., & Dani, J. A. (2011). Reward, Addiction, Withdrawal to Nicotine. Annual Review Of Neuroscience, 34(1), 105-130. Hori, M. M., Nakamura, H. H., Fujii, Y. Y., Suzuki, Y. Y., & Matsuda, K. K. (2011). Chemicals affecting the feeding preference of the Solanaceae-feeding lady beetle Henosepilachna vigintioctomaculata (Coleoptera: Coccinellidae). Journal Of Applied Entomology, 135(1/2), 121-131.
Title: Internet in America

Presentation Description

The Internet has the chance to create a revolution in the United States, but that means less cash for internet cash cows.

Abstract

This presentation will focus on the Internet in American culture and how it has the potential to change the world. If the Internet were as accessible as electricity, America could experience a revolutionary boom that would create a more fostering environment of creativity and innovation.
Title:
Using Essential Questions to Extend Student Learning

Presentation Description
Essential Questions are believed to be essential to meaningful and engaged learning according to researchers Grant Wiggins and Jay McTighe. Come and see why!

Abstract
Essential Questions are believed to be essential to meaningful and engaged learning according to researchers Grant Wiggins and Jay McTighe. Quality instruction must be built around questions that promote enduring understanding and transferable skills. Professors Jim McCoy and Ray Brooks will introduce the concept of essential questions in lesson design, and demonstrate how they are created and implemented in the instructional lesson.

Co Presenter (s) / Group/Ensemble Participants
Ray Brooks M.Ed.
Title:
The SUMA Education Model

Presentation Description
Dedicated to experiential learning, The Southern Utah Museum of Art is a laboratory where students, faculty and the community learn together through creative projects. Come to see innovation through collaboration.

Abstract
The Southern Utah Museum of Art is an experiential learning center for future arts leaders who serve the community through exhibitions, collections, preservation, and educational programming. Join us as we explore the connections between creativity and scholarship. This model, which brings disciplines together through creative research, has already produced exciting exhibitions and programming. The future of SUMA will lie in the exciting new intersections between diverse areas of knowledge.
Title: How Morocco Avoided Arab Spring

Presentation Description
Morocco has a complex political topography. Emphasis will be placed on the current king's reforms, the role of Islamic political parties, and the importance of an informal economy that largely deflected Arab Spring.

Abstract
This presentation explores the complex sociopolitical topography of contemporary Morocco, which is both a kingdom and a constitutionally constituted Islamic state. It begins with a brief history of the Moroccan state; an overview of its cultural and linguistic complexity; its role as a crossroads connecting sub-Saharan Africa-North Africa-Europe (and beyond); and the diasporic qualities of Moroccans. This sets the stage to explore in greater detail its post-colonial history and efforts to forge a modern nation-state. Emphasis will be placed on the current king's reforms, the role of Islamic political parties, and, improbably, the importance of a robust informal economy that together helped deflect the Arab Spring wave that swept across the Middle East and North Africa starting in December 2010. Against this unique political backdrop lays a police and surveillance state that also figures into this complex and nuanced mix.
Title: Incredible HDR Photos: Making Images with Very High Dynamic Range

Presentation Description
“Bizarre”, “Vibrant”, and “Alive” are words used to describe a new class of photos, known as HDR (high-dynamic-range) images. This presentation spotlights exceptional HDR images, giving step-by-step instructions for how they were created.

Abstract
Recent advances in digital photography allow the photographer to create astounding images that vastly exceed the tonal characteristics of conventional film. The results can range from a new class of surrealism to images that closely match the human experience of reality! This presentation examines the recent history and popularity of HDR images. It covers a number of related topics, such as human sensory perception, astrophotography, light and optics, digital photo imaging, and data analysis. The emergence of this technique will be discussed along with its use in several modern fields. A set of significant HDR images will be examined, along with an explanation of the various techniques and controls used to create the desired results. A photographer’s toolkit of the necessary hardware and software used to create HDR images will be discussed and demonstrated. Finally, during the presentation, an example HDR image will be created to show specific techniques with exact step-by-step instructions along with guidelines for success.
Coaching College Football from a Sociological Perspective

Presentation Description
Experiences from my service as a football coach at Snow College will be shared and also compared with scholarly journal articles within the field of sociology, which cover a variety of topics that directly relate to both my service and academic status.

Abstract
College football coaches are often times one of the highest paid faculty members at a University, which causes many people to question why coaches are paid so much money. I examine different aspects and dynamics of college football coaches both through my experience as a recently hired coach at Snow College and also through contemporary and scholarly research carried out by sociologists.
Title:
Study Abroad Trends at SUU

Presentation Description
This presentation will discuss a recent survey taken at SUU. We will describe the trends relating to the students’ understanding of study abroad programs.

Abstract
The Global Engagement Center created the survey with intentions of better understanding what the students of Southern Utah University know about available alternative study programs. The results of the survey will help the Center to address the concerns of study abroad and improve marketing strategies. The Center hopes that through the information analysis, changes can be made; and through those changes students may be better informed of the opportunities available during their time at SUU.

Co Presenter(s) / Group/Ensemble Participants
Melanee Mariner
Alecia Hunter
SMEAD Intern Solves Corporate Machine Design Problem; 3D Solid Modeling and Analysis in Industry

Presentation Description
An Integrated Engineering student, minoring in CAD/CAM Technologies, discusses the advantages of using computer software to analyze the structural integrity of modifications made to SMEAD Manufacturing production equipment.

Abstract
SMEAD Manufacturing Company, a local file folder manufacturer, has partnered with SUU’s Engineering and Technology Programs to solve problems in their machine design process. Hiring SUU’s engineering students as interns in their production support team, SMEAD’s local facility has led the way in making modifications that increase the efficiency and accuracy of their production process. As proponents of lean manufacturing, a philosophical shift towards doing less with more, SMEAD’s local team of engineers and mechanics set forth to double the output of a piece of stamping equipment. The required modifications brought strong concerns about the integrity of the machines frame, and the project was nearly scrapped. Josh Meacham, an engineering intern from SUU, suggested that the machine be modeled entirely in SolidWorks 3d solid modeling software, where it could be virtually tested for strength and longevity. This powerful software, available through SUU’s Engineering Technologies lab, exposed the model to rigorous testing for stress, deflection, and fatigue. Confidently, a report was submitted to SMEAD’s head engineering team. The evidence of a sustainable design led to the approval and subsequent production of the machines components. New interest from SMEAD’s corporate design team led to cooperative effort in developing the electronics that would run the new equipment. The project is nearing completion; the modifications are expected to dramatically reduce the machines processing time and increase the amount of produced each shift. The confidence in SUU’s intern’s capabilities has provided SMEAD’s local facility with the opportunity to play a greater role in machine design and modification. Continuously improvement and innovative solutions like this is what makes SMEAD Manufacturing a sustainable player in industry.
Title:
The Effectiveness of Imagine Learning Literacy Program with English Language Learners

Presentation Description
This program addresses the effectiveness of the Imagine Learning Literacy Program for English-language learners.

Abstract
This poster presentation addresses a literature review of the Imagine Learning Literacy Program and its effectiveness for English Language Learners (ELLs). Data will be presented from the 2013 UALPA (Utah Academic Language Proficiency Assessment) scores of 1st grade students in a rural school. This data suggests the need for language supports that are addressed in programs such as Imagine Learning. Recommendations for future research is also addressed.
Title:
My Heritage - Who Are You Related To?

Presentation Description
What is the best way to spark student's interest in history? Let's learn about our own! Instructing elementary students on how to learn about their families history.

Abstract
How much do we really know about our ancestors? We can learn so much about the history of the world by the people that we are decedents of. How to instruct elementary student's on finding their own family history and incorporating ancestor’s history into lesson plans.
Title:
The Power of Personal Investment

Presentation Description
Motivating, experiencing, discovering, and embracing a lifestyle of personal development and growth. Learn three key habits to achieve this for yourself.

Abstract
This presentation encourages its audience to invest in themselves to enhance their quality of life. The presentation goes on to explain three key habits of people who continually invest in themselves and how and why they can benefit from applying them to their own lives.
Title:
A Microfluidic Device for Oxygen Quantitation in Anoxic Environments

Presentation Description
We are attempting to create a microfluidic device to measure low oxygen levels that will be less expensive and more sensitive than current STOX techniques.

Abstract
Measuring the amount of oxygen present in “anoxic” water (<1% of oxygen saturation) is both challenging and important. Low oxygen levels occur both naturally and experimentally in many different settings, and measuring the actual oxygen level can be important in determining what types of chemical processes can occur. Currently, the method for measuring low oxygen concentration is to use an STOX electrode, which is expensive and relies on a diffusion-limited current to measure dissolved oxygen. We are attempting to create a microfluidic-based STOX-like device employing active (magnetohydrodynamic) transport. This should be much less expensive than an STOX electrode and it should produce a greater current for a given oxygen level, giving our device an overall better oxygen detection limit. We will report on our work towards making such a device.
Title:
Claiming Cherokee: Identity Appropriation and Tribal Recognition

Presentation Description
This presentation explores the efforts of the Cherokee Nation of Oklahoma, the nation's largest Indian nation, to combat individuals and groups that claim their identity yet are not recognized by the nation itself.

Abstract
This presentation is part of my new book, Claiming Tribal Identity, with the University of Oklahoma Press. It explores the efforts of the Cherokee Nation of Oklahoma, the nation's largest Indian nation, to combat individuals and groups that claim their identity in various social, political and economic contexts, yet are not recognized by the nation. It argues that unauthorized identity-appropriation affects diverse issues in Indian Country today, including protecting tribal identity, economic development such as Indian casinos, and cultural survival in modern America.
Title:
My Heritage Fair

Presentation Description
Through the inquiry of my heritage, my presentation will provide the opportunity to explore a display designed for elementary school children and how it appeals to their interest and inquiry in the own.

Abstract
I have inquired about my family history, searching for where my family came from along with the reasons to why my family found themselves in several different countries. Being very proud of my heritage, I have celebrated my families native countries’ independence days, with the different ethnic foods and traditions. I have celebrated traditions from my culture that have been passed down from generations before. Understanding where my heritage came from and the customs that developed in these countries has enabled me to answer questions about my own family traditions in addition to how my family made an impact in history, whether it was within a war setting or being influential in a country's politics. As I accomplish my goal of answering my questions about my heritage, I hope to instill a sense of inquiry into my students I teach. The layout and appeal of my poster is designed to attract the elementary age audience, engaging them to see how history can play a large role into our own family's lives as well as to inquire about their own family history and heritage. As I model my own research into my heritage, my hope is for students to become involved in the poster and the information it can offer. As they learn more about my history and culture, I aim to inspire them to seek information and ask questions about their heritage, conversing with family members, old and young.

Co Presenter (s) / Group/Ensemble Participants
Title:
Asthma and Omega-3

Presentation Description
The anti-inflammatory effects of omega-3 fatty acids (n3) and their possible role in the regulation of inflammation are promising for asthma sufferers. This study tested the effectiveness of n3 in individuals with varying severities of asthma.

Abstract
The anti-inflammatory effects of omega-3 fatty acids (n-3) and their possible role in the regulation of asthma are promising for those suffering from the disease. Omega-3 fatty acids have been linked to the reduction of eicosanoids, which are signaling molecules that participate in the regulation of the inflammatory response. Inflammation in the respiratory system is one of the most widespread symptoms of asthma and therefore poses the most risk to asthmatic individuals. This two phase study tested the effectiveness of n-3 in individuals with varying severities of asthma. In both stages of this study, a placebo or n-3 in the form of a krill oil capsule containing the omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) was administered, lung volumes and capacities were measured weekly, and the frequency/severity of asthma attacks were also recorded. Phase one of the study tested whether n-3 reduces asthma symptoms with no activity modifications, while phase two tested whether n-3 is effective in reducing asthma symptoms associated with exercise. The two phases of the study were separated by seven weeks in order to isolate the duration of n-3 ingestion as a variable in the experiment. If n-3 is effective, we expect to see an increase in lung volume and a decrease in the frequency and severity of asthma attacks in individuals. These results would suggest that n-3 could be an effective and simple treatment that, when taken daily, could reduce the frequency/severity of asthma attacks and help improve quality of life for asthma sufferers.
Title:
Supported Lipid Bilayers and Microfluidics: Tools for the Future

Presentation Description
Supported lipid bilayers and microfluidics offer possibilities to make substantial advances in biological/medical fields and chemistry in general. I will discuss the research being done by my research students and I in these fields.

Abstract
Of the multitude of scientific problems that face society, a number can be addressed at least in part using tools being developed at SUU. First, many aspects of modern medicine are hindered by a lack of understanding of membrane protein function and interactions. Supported lipid bilayers offer an extraordinarily valuable tool for isolating and working with membrane proteins. My research students and I are developing and using many supported lipid bilayer-based techniques, and I will discuss their progress. Second, scientific development is very resource intensive, in terms of time, money, and materials. Microfluidics offer a means to make this process more efficient and rapid. A new method has been developed to create microfluidics that is inexpensive and simple. I will discuss our progress with this method.
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**Title:**
My Heritage

**Presentation Description**
Tbd

**Abstract**
Tbd

**Co Presenter(s) / Group/Ensemble Participants**

**Faculty Mentor Name**
Brian Ludlow Ed.D.
Title:
Procedural Control: Effect on Anticipatory and Post-Stimulus Anxiety and Pain Responses

Presentation Description
Physical pain is something we all experience in life. We tested procedural control and no procedural control by inducing pain with a finger prick to test our hypothesis that procedural control would reduce anticipatory and post-stimulus anxiety.

Abstract
Physical pain is something we all experience in our lives. We tested procedural control and no procedural control by inducing pain with a finger prick to test our hypothesis that procedural control would reduce anticipatory and post-stimulus anxiety.
Acceptability, Usage, and Knowledge of Resistant Starch

Presentation Description
Resistant starch (RS) is a type of fiber that increases insulin sensitivity, which is advantageous for type 2 diabetics. Our research developed baked goods containing RS and presented them to a faculty/staff population to determine

Abstract
Type 2 diabetes affects 8% of adults (approximately 23.6 million people) and is the 7th leading cause of death in the United States. Although many medical treatments are established to alleviate diabetic complications, it is advantageous long-term to increase tissue insulin sensitivity and reduce the development of type 2 diabetes. One fiber shown to retard glucose absorption and increase insulin sensitivity is resistant starch (RS). Several companies tout RS as capable of replacing a portion of flour in home baking without altering the texture or taste of the final product. If these claims are true, RS could be a beneficial addition to diets of those coping with the onset of type 2 diabetes. This study developed three recipes (biscuit, cookie, muffin) that replaced varying percentages of flour with RS. A triangle test was conducted with 17 subjects, mean age 43.8 years (± 10.6), to determine if participants could correctly identify the presence of RS in products. Results indicated that 65%, 71%, and 76% of participants could not identify which sample contained RS in biscuit, cookie, and muffin products respectively. A subsequent survey explored acceptability of each baked good containing RS and subjects’ prior knowledge regarding RS. The acceptability was 52%, 100%, and 82% for the biscuit, cookie, and muffin recipes. The acceptability of each product containing RS was similar to the acceptability of the unmodified versions of those products. Prior to the study, 88% of this population had not heard of RS. This study showed that RS is not a commonly known product in the population, can replace a percentage of flour in recipes, and can produce an acceptable result in these baked goods.

Co Presenter(s) / Group/Ensemble Participants
Shannon Vaughan
Title:
R: The Free Language and Programming Environment for Statistical Computing

Presentation Description
A demonstration and information on how to get started with R, the free alternative to commercial statistical packages like SAS, SPSS or Stata.

Abstract
R is free, and in the opinion of many, a vastly superior alternative to commercial statistical packages like SPSS, SAS or Stata. This presentation provides an introduction to this free language and programming environment for statistical computing. A demonstration of R will be provided along with information on how to get started using R.
Title:
Beyond the ESL Classroom: How Learning About Challenges and Resolutions Enhances the ESL Learning Experience

Presentation Description
Many people assume that the sole purpose of an ESL program is to teach students new linguistic structures and communication methods. In this presentation we would like to reflect on how ESL goes beyond this perception.

Abstract
The ESL classroom is not only designed for learning about linguistic elements. It also introduces students to themes related to daily challenges, social adversity, and resolutions in host and international cultures. While students are engaging in listening, speaking, and writing tasks related to current events and themes, they are internalizing linguistic and communicative elements of English. This presentation will show how the ESL program can achieve the dual purpose of developing sociocultural and linguistic knowledge for students planning to matriculate into college.

Co Presenter (s) / Group/Ensemble Participants
Lark Hovey
Title: America’s Civil War: Hollywood vs. History

Presentation Description
This presentation is a reprise of the 2013 Grace A. Tanner Distinguished Faculty Lecture. Using a multimedia format, Professor Mulderink discusses how Hollywood filmmakers have depicted the American Civil War.

Abstract
As Americans continue to commemorate the sesquicentennial of the Civil War (1861-1865), many wrestle with controversies over the meaning and memories of that war. This presentation explores Hollywood’s versions of the Civil War that stretch back to the early twentieth century. While hundreds of films have been made about the war, this presentation focuses on four famous and significant films: The Birth of a Nation (1915), Gone With the Wind (1939), Glory (1989), and Lincoln (2012). In assessing the context, accuracy and impact of these films, my principal arguments are: 1) as purveyors of commercial products in a profitable industry, Hollywood’s moviemakers have few incentives to offer truthful or accurate historical dramas; 2) Hollywood filmmakers and historians continue to fight their own “civil war” over their right to offer historical interpretations; and 3) Hollywood’s Civil War movies have perpetuated myths about the Civil War that include the “Lost Cause” while also upholding notions of white supremacy. In sharing scholar’s perspectives, visual materials, and my own commentary about the Civil War and movies, my primary aim is to urge everyone to learn more about the Civil War, to celebrate its sesquicentennial, and to view Hollywood’s “historical dramas” with a more critical eye.
Title:
The Process that is Due: Rape and Sexual Assault Victims Re-victimized at Utah Universities

Presentation Description
What is being done for rape and sexual assault victims on college campuses and how are federal laws contributing to the rampant re-victimization? Come listen to see why this affects you and your peers.

Abstract
This presentation will be an exploration of Title IX, FERPA, the Dear Colleague Letter, and several other laws and Acts that affect the required Due Process Policies for sexual assault and rape on college campuses, specifically in Utah. The main scope will be the flaws that are in the system and how they cause re-victimization of the victims and often provide them with inadequate justice. We will look at nationwide statistics compared with numbers provided by universities, and we will also explore rape myths and what causes them on college campuses to emphasize the relevance of this issue.
Title:
The Beehive Home

Presentation Description
Getting a sociological perspective at The Beehive Home which gives a better understanding of people and the current setting.

Abstract
For my senior capstone I must complete 40-50 hours at a service site, while doing this service one must put in detail sociological aspects that occur within the setting and format them to the public so we can get a better understanding in what happens around us on a daily basis. In my service I chose the Beehive home which is an assisted living home that features a family style living setting while focusing on creating a healthy and conformable service to the elderly with 24 hour staffing. In my study I include details about living, privacy, mental illness, personalities and other attributes or details which occur in this specific home.
Title:
The Design and Construction of a Tiny House: Small is Beautiful

Presentation Description
The design & construction of 'Vagabond House,' a sustainable, solar-powered, 160 sqft residence, permanently installed on a flat-bed trailer for a client requiring a mobile base of operations, will be reviewed in this presentation.

Abstract
The Danish scientist and poet, Piet Hein said, “Art is solving problems that cannot be formulated before they have been solved. The shaping of the solution is part of the answer.” Hein’s statement forms the framework for a senior capstone project involving two Southern Utah University (SUU) engineering students and their undaunted roving among the disciplines to create a sustainable, esthetically pleasing, 160 square foot ‘Tiny House’ for a client. The off-grid, solar-powered, 20’ L x 8’ W x 13.5’ H compact residence, permanently installed on a flat-bed trailer, was recently renamed ‘Vagabond House, a name reflecting the client's lifestyle. Viewed from afar, the house is evocative of a miniature, ocean-going yacht sailing leisurely into port at sunset, yet sturdily equipped for unforeseen gale-force winds. The designers operated within severe budget constraints, an aggressive schedule, evolving codes and specifications, a network of volunteers, and lofty sustainability goals. This design/build project illuminates the grace of great things, the enthusiasm that drives us to embark on uncharted waters in pursuit of grand challenges such as discovering new continents, purchasing a home of less than 2000 square feet, or taking time for coffee, croissants, and a good book in a clean, well-lighted place. The project required a radical spirit, and a willingness to traverse unfamiliar cultural terrain to communicate with donors, scientific and technical experts, executives, and diverse community members. The students, case-hardened, relatively unscathed, and still inspired, are no longer strangers in the strange land of the arts, and are more deeply enmeshed in the sciences. Paraphrasing educator Jerome Bruner, the students, eclectically coached, constructed their own world. Why challenge current housing norms? The organization Architecture 2030, faced with the fact that 48% of the energy consumed in the United States is used in the operation and construction of buildings, is encouraging new buildings, developments, and renovations to be designed to be carbon-neutral by 2030, using no fossil fuel, greenhouse gas emitting energy to operate. Quantitative connections between energy, ecology, and economics revealed by systems ecologists Howard & Eugene Odum also indicate the desirability of smaller buildings, accessible via local transportation, that minimize energy use, maximize efficiency, employ solar technologies, and reduce or recycle materials. Vagabond House constitutes a small step in the direction of these goals. Periodic design reviews, selective design iterations, management by walking around, and systematic performance monitoring constituted effective assessment methods. We have endeavored to capture the gestalt of the project in this presentation.
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**Title:**

**Myers Heritage**

**Presentation Description**

My study and findings from my personal family history and heritage.

**Abstract**

My study of the generations in my family who have gone before me and what makes my family who it is. My project looks back to discover truth, what’s important, and how I came to be.

**Co Presenter (s) / Group/Ensemble Participants**
Title:
Imines Derived from Amino Acids, and Their Transition Metal Complexes

Presentation Description
This project proposes the synthesis of imines derived from amino acids and their complexation with transition metals. This work also aims at studying the potential biological activity of both uncoordinated Schiff bases and their metal complexes.

Abstract
Schiff bases (imines) containing –CH=N– functionality have been extensively studied for more than a century and find applications in areas including medicinal, pharmaceutical and coordination chemistry. They are condensation products of aldehydes or ketones with primary amines. These compounds exhibit a wide range of biological activities including antifungal, antibacterial, anti-HIV, anticancer, etc. Transition metal complexes of Schiff bases have been reported to be more biologically active than the uncoordinated Schiff bases. Schiff bases are called “privileged ligands” as they are able to stabilize transition metals in various oxidation states, and modifying the structure of the Schiff bases can easily control the steric and electronic properties around the metal center. Schiff bases containing an additional donor atom (from an –OH or –SH functional group) close to the imine nitrogen serve as excellent chelating ligands forming five or six membered rings with the metal ions. Schiff bases derived from amino acids have gained importance due to their physiological and pharmacological activities. Moreover, they serve as intermediates in a variety of biochemical processes such as transamination, racemization, and carboxylatation reactions. For example, the condensation of a primary amine in an enzyme with a carbonyl group of the substrate results in the formation of Schiff base. This project will involve synthesis of novel imines derived from different amino acids, their complexation with transition metals, and studying the potential biological activity of both uncoordinated imines and their metal complexes. This project has been funded by FSSF 2014.
Making a Difference

Presentation Description
Come and learn how Action Research can help you make a difference, complete your EDGE project, and give you tips on how to be a life-long action researcher.

Abstract
Action Research implies "ACTION". That was the goal of this research project - to initiate an action that would not only change the way we view teaching, and the way we view students; but also change how we view research, and how we view making a difference.

DIFFERENTIATION AND DIVERSITY PEDAGOGIES TOGETHER: A MIXED METHODS LOOK AT TEACHING READING TO 4TH GRADE STUDENTS IN HAWAII Increased diversity in our schools and changes in legislation have prompted educators to address the needs of all students (U.S. Department of Education, 2003, 2008, 2009; State of Hawaii Department of Education, 2009). Two major responses have emerged to do this. One is to deliver the same curricula in the same way to all students (Cooper, Madden, & Slavin, 1998; Madden, Slavin, Karweit, Dolan, & Wasik, 1991). The other is to deliver curricula in ways that address diversity (Gardner, 1993, 1995, 1999, 2003; Sheets, 2005; Tomlinson, 2004). Leaders in Differentiation and Diversity Pedagogies suggest that educators need to do more action research and practical inquiry into classroom procedures and practices to begin to better understand how to meet the learning needs of diverse students (Sheets, 2005; Tomlinson, 2004). Students participating in a Success for All reading environment during their kindergarten through third grade years, and then participating in a fourth grade Differentiated Culturally Responsive reading environment provided a unique research opportunity. The first purpose of this mixed methods study was to evaluate the effects of the Differentiated Culturally Responsive fourth grade classroom environment on the reading comprehension and fluency levels of seven Hawaiian or part Hawaiian students on common school-wide assessments. The second purpose of this study was to determine the effects of the Differentiated Culturally Responsive environment’s influence on the Dimensions that Link Culture and Cognition (Sheets, 2005) of the same participants. The results showed that the majority of the participants experienced growth above what was expected on the common school-wide assessments; and that all of the participants increased the number of times they displayed the Dimensions that Link Culture and Cognition in their reading response and observation journals, and during teacher observations by the end of the study.
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Title: My Personal Heritage

Presentation Description
A report about the Newbold name, where my ancestors came from, and what makes my family special and unique.

Abstract
I will present information about my personal heritage and anything else that I have discovered about my family.

Co Presenter (s) / Group/Ensemble Participants
Title:
S. National Parks in Outdoor Learning: A Long-term Look Partnering with U.

Presentation Description
After taking over 400 students to 34 national parks over the last 7 years, how do our participants feel about their Partners in the Parks excursion 3-5 years after their original immersive park experience?

Abstract
Partners in the Parks (PITP) is a university-based program that annually organizes 8-10 week-long experiential learning projects for collegiate honors students in U.S. national parks. Projects provide educational experiences lead by university faculty and National Park Service (NPS) rangers focusing on education, recreation and stewardship. We encourage student/faculty participants and university/park partnerships to continue to enjoy and develop important program outcomes well beyond their initial participation. Since our inaugural excursion in 2007 we have hosted projects in over 30 different parks and have involved over 300 students from over 80 different institutions. During our six years of successful programming we have gathered a significant amount of data regarding our program including responses from participant exit surveys. After 5 full summers of programming we surveyed past participants and compared their current feelings and understanding with regards to their outdoor learning experience with their initial responses recorded soon after their original week-long excursion with us. Results from the follow-up survey provided useful information about our own program as well as making a contribution to the ongoing body of knowledge addressing the long-term learning advantages enjoyed by other outdoor experiential learning programs.
Title:
My Club Experience

Presentation Description
The brief history of my involvement here and how the clubs that I have been in have had an impact on me.

Abstract
My experience here with the different organizations I have been part of ranging from Sigma Chi, Orientation Leader and a member of SUUSA
Digital America: Southern Utah University During WWI

Presentation Description
The Council of Public Liberal Arts Colleges (COPLAC) has pursued a project to tell the stories of U.S. colleges during WWI. SUU student Colin Nimer has worked with COPLAC to tell the story of SUU during WWI.

Abstract
The Council of Public Liberal Arts Colleges has undertaken its latest project. Member colleges have selected students to research their respective colleges and tell their stories during WWI. The students' research will be shared through a collaborative website; a website created, designed, and managed by those students under supervision of Dr. McClurken of Mary Washington University, and Dr. Pearson from the University of North Carolina. Colin Nimer, graduating senior of SUU, is researching Southern Utah University during WWI. In his research, Colin has traced the first steps as a college the institution of SUU took as the Branch Agricultural College. Colin Nimer has researched the impact of the war on the BAC, student participation in the war effort, developments of the school during WWI, and the catastrophe of the Influenza Epidemic in Cedar City. Colin will publish the website documenting his findings and share them with the public during April, 2014.
Co Presenter (s) / Group/Ensemble Participants
Learning Styles vs Media Presentation in Secondary Education

How do You learn? Does it matter how the information is presented in the classroom or do we put more responsibility on the student to learn at home by the learning style that works best for them?

Abstract
In secondary education there is a growing need to figure out what is the best way children learn the subjects being taught. There are two schools of thought, one being the media used to present the lessons in the classroom and the other is implementing how kids learn, specifically what learning style works best for the majority. There are many types of media that can be used in the classroom. They are things such as power point, textbooks, paper handouts, lectures and more recently podcasts, personal response devices and interactive Web sites. On the other side of the coin is figuring out the learning styles that work best for the majority of kids. But then there is a third way of thinking and that is, do we only worry about the media presentations and not the learning styles? Do we let the student figure out their learning style and put it to use outside of the classroom?
Title:
My Journey into Medical Anthropology

Presentation Description
Adventures of a would be researcher. As a student of the hard sciences I decided to do an ethnographic research internship on the maternal health care in Utah with a special look into midwives and doulas.

Abstract
Infant mortality rates are a standard indicator of the quality, efficiency and availability of maternity health care in a country. In a survey done in 2004, the "United States ranked 29th in the world in infant mortality, tied with Poland and Slovakia." (National Center for Health Statistics, 2007). The United States is considered an affluent nation. This social position indicates a disconnect between the USA's rank in infant mortality rates and level of resources. The traditional maternity health care tends to medicalize pregnancy and labor, turning a natural part of life into a risk factor and an ailment. Midwives take a completely different perspective on pregnancy, they tend to educate and empower women and their families making the experience a joyful one. This inspired me to learn how to understand these social and medical systems and why they are the way they are and how people feel about the way things are run.
Title:
The War Against Monarchy in 1790s America

Presentation Description
This paper explores the anti-monarchical rhetoric that pervaded newspapers in 1790s America.

Abstract
Inspired by the French Revolution, the Democratic-Republican Societies began forming in the United States in spring 1793. I consider those clubs as experiments in the creation of radical republican communities. They feared that the Washington administration was threatening to resurrect monarchy, especially the hierarchical and deferential social values that supported monarchical governments. By contrast, the democratic clubs sought to cultivate egalitarian relationships among the citizens of the new republic.
Title:
Sports Fans, Alcohol Use, and Violent Behavior

Presentation Description
Alcohol use and violence among sports spectators is a worldwide social problem, yet it is seriously under-studied. In an attempt to fill this void, this paper organizes and reviews the literature on alcohol use and violence among sports spectators.

Abstract
This review makes four contributions to the sociological study of sports, alcohol use, and violent behavior. First, this paper focuses explicitly on the relationship between alcohol use and violent behavior among sports spectators. This is a worldwide social problem, yet it is seriously under studied. Second, this paper organizes and reviews the fragmented literature on alcohol use and violent behavior among sports spectators. Third, this paper identifies four broad sets of risk factors that appear to be closely related to violent behavior among sports spectators. Finally, this paper applies the insights from the literature on alcohol use and violent behavior in the general population to help explain the possible link between alcohol use and violent behavior among sports spectators.
Title: Heritage Project

Presentation Description
The project is on my personal heritage.

Abstract
A family recipe, my name's meaning, and family heritage will be told.
Title:
My Heritage

Presentation Description
Fascinating presentation about my family heritage.

Abstract
During the Battle of Hastings my ancestor True Love saved the life of a knight, and was knighted himself. This is just one of the fascinating stories of my families heritage. To hear this and other stories come to my presentation during the Festival of Excellence.
Title:
Rapid 3D Scanning and Prototyping

Presentation Description
Using revolutionary hardware and software, we have designed a handheld, wireless 3D scanner capable of scanning any object and importing the object as a digital model. With this, the physical world and digital frontier move ever closer.

Abstract
We, as an elite team of students, have designed and built a handheld, wireless 3D scanner using the revolutionary Xbox Kinect hardware as the backbone of the scanner. This idea is not new. However, we have three foundational objectives to make this project unique: the scanner should be a portable, handheld device; the device should have cutting edge technology with quality comparable to scanners currently on the market; and the processes used between scanning the model and the final 3D printing should be seamless. In order to accomplish these objectives, we will be required to work with many different scientific disciplines. We are working closely with students from the Computer Science and Information Systems as they build a state of the art computer and a professional engineer from Lockheed Martin that will help create the software needed for the solid modeling. We will also work jointly with Electronics Technology with converting the Kinect to wireless data transfer and an internal power supply. As part of our research, we have been invited to be a part of the Kinect for Windows Development Circle which will allow us to receive leading edge technology from Microsoft before it has been released. In order to make the scanner more user-friendly and easier to operate, we designed a unique housing to hold the Kinect that would allow for maneuverability. The housing must support the Kinect while also incorporating an internal power source and wireless data transfer. By having this device be handheld, the items that it can scan are virtually limitless. While others are limited to what is able to fit on a turntable, our scanner can be taken anywhere, from room to room, and scan essentially anything. Current handheld 3D scanners that are on the market cost thousands of dollars. Our goal is to create a scanner that has the same quality as these scanners, but at a less expensive price. This is attainable by using a household Kinect as the heart of the integration system. Supplementary components will be able to be found reasonably priced while the handle portion will be designed and manufactured in house. In addition, instead of using expensive, custom software to interpret the data, we will use a software kernel available from Kinect to the public and standard CAD software. Using a state of the art computer, we are able to literally scan thousands of points seamlessly into a solid. We will use the software already provided by Microsoft to integrate the information from the Kinect to create a solid which can then be imported into a conventional CAD software. While in the CAD software, the solid can be cleaned up and/or manipulated as the designer sees fit and then saved to be sent to manufacturing or simply sent to a 3D printer. This software customization will require us to work closely with other scientific disciplines to develop the scaffolding that will hold all the necessary software together. This technology can span across many fields of industry ranging from the medical field to fashion design. A prosthetist can now simply scan a patient’s amputation with our easily maneuverable scanner and have an exact digital replica from which a plethora of prosthetics can be created. The designer can save hours of time taking measurements and simply scan their part into the computer. An archeologist can preserve precious archeological artifacts as a digital model from which replicas can be created. The fashion designer can now scan in a model and create a costume with measurements taken digitally. The versatility of our device is invaluable to the growing technological world we live in. Our device is portable and easy to use with cutting edge technology comparable to other scanners while keeping the cost at a minimum by using seamless computer processes to create, render, and print the 3D model. With this technology, the physical world and digital frontier move ever closer.
Title:
The Fracas Over Fracking: Colorado Communities Contest the "Risk" of New Technologies

Presentation Description
Using editorial cartoons to focus on the clash of science and politics in battles over the riskiness of "fracking" shale deposits for oil and natural gas, this presentation examines the advocacy strategies of supporters and opponents in

Abstract
This research uses the "Dueling Definitions of Uncertain Risk Model" for a case study examination of recent developments in the battle over "fracking" for oil and natural gas in the shale deposits of Colorado. This interdisciplinary model incorporates theories from the Advocacy Coalition Framework, popular in research in the policy sciences, and findings from the evolving field of risk communication to focus on how communities and industries approach both debating about risk assessment and making public policy decisions about natural resource extraction or development. This case study analysis examines how industry and opposing citizen groups strategically use their persuasive and political resources in these battles.
Title:
Student Engagement

Presentation Description
Dream Big! Student involvement in career exploration and their future. What I have learned from international teaching opportunities.

Abstract
The purpose of my presentation is to demonstrate how student involvement in career exploration should be an integral part of the education process. Through providing information and opportunity to examine how a chosen degree will fit into their career goals, students are better equipped to make decisions regarding the types of undergraduate courses they should complete, what internship fits best into their desired career, and what graduate program best aligns with their future goals. The San Francisco Career Exploration Trip provided a variety of opportunities for students to expand their view on where they can live and what they can become.
Title:
The Greatest Public Speakers of All Time

Presentation Description
Hear about the greatest public speakers of all time, including their strengths, what made them the best public speakers, and what they used their skills for.

Abstract
The greatest public speakers had a gift they knew what the crowd wanted to hear and how they wanted to hear it. They developed this gift and made people do what they wanted them to do. They persuaded them, they made them feel good about themselves and they encouraged them.
Title:
Leadership Lessons - Michealangelo and Leonardo - 1504

Presentation Description
Leadership lessons we can learn from the artistic duel between Michealangelo Buonarotti and Leonardo da Vinci in 1504 in Florence, Italy.

Abstract
This is a Pecha Kucha presentation with the Leadership Engagement Center regarding the leadership lessons we can learn from the artistic duel between Michealangelo Buonarotti and Leonardo da Vinci in 1504 in Florence, Italy. Rebels of the Renaissance is a study abroad opportunity in Venice, Florence and Rome, Italy.
Title:
Collaboration Between School District and College Classes

Presentation Description
A continuum of teaching experiences from high school through graduate school.

Abstract
EDUC 2000 is a general education course that provides general education credit for the Social and Behavioral strand of SUU’s General Education program. Additionally, it is a required course for Elementary Education students who are pursuing certification. In November of 2013, the Utah System of Higher Education approved EDUC 2000 to be offered as a Concurrent Enrollment course for high school Juniors and Seniors in the state. This course will be offered in an online format through Canvas starting in the Fall of 2014 to high school students who are interested in earning 3 credit hours of Social and Behavioral general education credit and to those who desire to start their journey on a career of teaching. Future research is planned to compare the cost benefit ratio of this approach at recruitment, to more traditional models of recruiting students to higher education. The course additionally engages its participants not only in the delivery of knowledge of what it takes to be a teacher in a multicultural and pluralistic society; but requires of its participants the real world application of tutoring individual students. The course is designed to be an extension of our University's mission statement..."SUU engages students in a personalized and rigorous experiential education, empowering them to be productive citizens, socially responsible leaders, high achievers and lifelong learners. “It’s participants have created virtual and F2F tutoring activities for K-12 students in the Iron County and San Juan School Districts in Utah and in the Red Mesa School District in Teec Nos Pos, AZ. Participants have enjoyed leadership development and public service in initiating and maintaining the K-12 Tutoring Club at SUU. These cooperative experiences between students, class, and school districts in and out of Utah have provided our learners with real-world, multicultural experiences, while affording individual K-12 students and the districts who serve them; value added learning opportunities, while creating a professional network in education to support our learners as they enter the teaching profession.
Title:
Testing For Coliforms In Drinking Water

Presentation Description
Just how pure is the tap water from your home? How about that bottled water you have there? Well, we are here to present to you the results we have obtained from our research on testing for coliforms in our everyday drinking water.

Abstract
Indicating the presence of Coliforms in each water sample will test the quality of bottled water and tap water. Coliforms are indicator organisms that come from the same sources of bacteria and will determine whether a number of pathogens will be present. Other microbial organisms are recommended to not monitor other dangerous pathogens because of their differentiated locations. (Byamukama and Kansiime et.al., 1999). E. coli can survive in drinking water between four to twelve weeks depending on the environmental conditions (Rice, Karlin, Allen, 2012). Ten different brands of bottled water will be used to test for coliforms as well as tap water from ten different households. Each brand of bottled water and household tap water will have three replicates of water samples. A good amount of water samples will each be placed one batch at a time in an incubator to analyze and promote the growth of bacteria. This will determine the purity of each sample. The samples will be taken to a dark room where a U.V. light will be utilized to illuminate the samples to detect the presence of E. coli. (Rice, Karlin, Allen, 2012).

Co Presenter (s) / Group/Ensemble Participants
Joshua Sagisi
Emanuel Williams
Jan-Andro Acob
Title:
Récits de Juifs algériens en Métropole: Parcours Personnel, Histoire Commune

Presentation Description
Many French Jewish writers from Algeria belong to a generation affected by the trauma of exile following the Algerian declaration of independence in 1962. In their narratives, memory and identity are central to the literary endeavor.

Abstract
There are numerous narratives written by French Jewish writers from Algeria in which the work of memory and the identity quest are central to the literary endeavor. In these narratives, the individual path of the writer is often closely linked to that of their community and expresses the difficulty of taking root in France after the tragedy of exile following the Algerian declaration of independence in 1962. Jean-Luc Allouche and Yannick Alimi are representative of a generation affected by the trauma of that exile. While Allouche tries to revive his memory in order to understand his malaise, Alimi, on the contrary, blames the obsessive way in which the exiled continue to preserve and transmit the collective memory.
Title:
The "Swayback Maru" and the "Gray Ghost": Utah Naval Veterans Recall Iwo Jima

Presentation Description
My presentation is a lecture/power point presentation based on oral history interviews with a number of Utah naval veterans of two noted US Navy warships of the Pacific War: The USS Salt Lake City and the USS Pensacola.

Abstract
The stories of two sister ships the USS Salt Lake City (CA-25) and the USS Pensacola (CA-24) are emblematic of the experience of the US Navy in the war against Japan in the Pacific. Both ships survived surface engagements with Japanese warships, carried out extended shore bombardments of Japanese-held islands in support of the US Marine Corps, and served as escort vessels for the great navy aircraft carriers groups that finally won victory. The stories of the members of the greatest generation who were kind enough to share their experiences with me are fascinating, inspirational, and ultimately invaluable for all of us. My presentation will focus upon life at sea for ordinary sailors with emphasis upon the famous battles of Iwo Jima and Okinawa. Since my father served on board the USS Pensacola from early 1943 to the end of the war, I will include family reminiscences alongside the accounts I gathered from interviews with crew members.
Always Spoken About, Never Heard: Voices of North American Muslimah Bloggers

Presentation Description
Muslim women in North America are often discussed in the mainstream media. However, usually Muslimah's opinions and voices are not represented in dialogue about them. Muslimah are resisting this by publishing their voices.

Abstract
In my research I explore the blogs of five Muslim women bloggers in North America. I explore the topics they talk about, their opinions, and their demographics. I will compare and contrast the blogs with each other and with mainstream representations of Muslim Women.
We will be presenting about our experience with Alternative Spring Break. We spent a week in Tacoma, Washington helping to build houses for people who are having a difficult time.

Our presentation will be about the spring break we spent in Tacoma, Washington working for Habitat for Humanity. We spent money to go and help build houses for those who were not living in good conditions. The idea is for families to be able to live in good affordable houses. The majority of the time Habitat for Humanity is able to work with families financially for them to be able to pay for their house. Also the family can be employed by habitat for Humanity to help they pay off the initial costs.
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**Title:**
Heritage Fair

**Presentation Description:**
Visual of my family tree and genealogy

**Abstract**
My family history will be displayed in the form of a visual aid going back many generations and describing important people.
Title:
Synthesis of Amines Through an Alkyl Borane Intermediate

Presentation Description
Alkylamines (RNH2) represent an important class of organic molecules that include biologically active natural products and pharmaceuticals. Our research focuses on the discovery of new reactions to produce alkylamines.

Abstract
Alkylamines (RNH2) represent an important class of organic molecules that include biologically active natural products and pharmaceuticals. They are found in important compounds such as morphine, dopamine, DNA, and all proteins. Therefore, the preparation of alkylamines is crucial for the production of new and better medicines. This work focuses on the use of an alkyl borane intermediate in order to make the nitrogen-carbon bond of the alkylamine. The hydroboration of alkenes with borane (BH3) followed by oxidation with hydrogen peroxide (H2O2) is well known. We propose to harness this alkylborane intermediate and then use a nitrogen equivalent of hydrogen peroxide to provide access to alkylamines from alkenes. Anti-Markovnikov site-selectivity is expected from analogy with the hydroboration oxidation reaction. The hydroboration oxidation control reaction has been successfully performed on trans-stilbene. The development of productive experimental conditions for the desired reaction is currently underway.

Co Presenter (s) / Group/Ensemble Participants
Nathan Werner Ph.D.
Title:
Financial Incentives for Weight Loss

Presentation Description
Ever want to lose weight? Have you ever failed? What if I told you it was as simple as you get paid to lose weight? Think that will work? I will discuss research that seeks to answer these very questions.

Abstract
Employers are increasingly adopting workplace wellness programs designed to improve employee health and decrease employer costs associated with health insurance and job absenteeism. This paper examines the outcomes of 2635 workers across 24 worksites who were offered financial incentives for weight loss that took various forms, including fixed payments and forfeitable bonds. We document extremely high attrition and modest weight loss associated with the financial incentives in this program, which contrasts with the better outcomes associated with pilot programs. We conclude by offering suggestions, motivated by behavioral economics, for increasing the effectiveness of financial incentives for weight loss.
Title:
Engaging Interpersonal and Intrapersonal Intelligence in the High School Dance Technique Class

Presentation Description
Denise Purvis will share the highlights of her presentation at the International Conference on Somatics in Dance Education, where she explored methodologies designed to engage multiple intelligences in the dance classroom.

Abstract
Through this session, Denise Purvis will share methodologies specifically geared toward blending somatic practices such as Barteneiff Fundamentals and Ideokinesis with practices engaging interpersonal and intrapersonal intelligences in the high school dance technique class. Purvis will incorporate Laban Movement Analysis language to increase clarity of instruction and highlight the connection between LMA concepts and somatic pedagogy. Session participants will witness examples of student work illustrating a high level of student engagement and rich learning experiences. The latter portion of the session will be dedicated to a question and answer/sharing session allowing all participants to articulate their perceptions regarding the methodologies presented.
American Crocodile Minimum Breeding Adults in National Parks, Costa Rica

Abstract
The American crocodile, Crocodylus acutus, is widely distributed in the American neotropics. It is endangered throughout most of its range and is listed as vulnerable by the International Union for the Conservation of Natural Fauna and Flora (IUCN) and on Appendix I of the Convention for the International Trade in Endangered Species of Wild Flora and Fauna (CITES). Despite this listing, there are few published reports on the reproductive biology throughout the species range. Previous work has indicated that multiple paternity exists in C. acutus, but this phenomenon has been studied in few wild populations. Genetics samples were collected from hatchlings in Santa Rosa, Las Baulas, and Palo Verde National Parks, Costa Rica. The mother crocodile could not be identified. Crocodile encounter rates range from 1.3 crocodiles/km (Santa Rosa) to 4.1 crocodiles/km (Palo Verde). Preliminary results indicate that hatchlings from the smaller populations were more related, suggesting fewer breeding adults in these areas. We used a genetic analysis to estimate the minimum number of breeding adults (males and females) in Santa Rosa, Las Baulas, and Palo Verde National Parks. This study will provide important information on reproductive biology in naturally fragmented populations and could enhance management practices of crocodiles worldwide.
Title:
Heritage Fair

Presentation Description
This presentation will be a fun filled explanation of my heritage, and how I would use it to excited future students about their heritage. This will be done through a visual display, and a presentation.

Abstract
Throughout the time where I present there will be a chance to learn about traditions, and other things that have combined to create my heritage. There will also be an explanation as to why it is important for students to learn about their heritage.
Needles and Ice

Presentation Description
Change can be hard and painful. However, after the change has happened we realize that we are better because of it. This powerful message comes across in the poem that gave life and inspiration to this dance collaboration.

Abstract
Needles and Ice is a poem written by SUU student Trinity Fletcher. As part of a choreography class I was assigned this poem and asked to create a dance to accompany it. I worked alongside Trinity and other dancers to create a dance that would share and enhance the message of the poem. We wanted to show the pain that comes with change, and the relief one feels after we have changed for the better.

Co Presenter (s) / Group/Ensemble Participants
Kaitlyn Katter
Danyel Rosewood, Sara Harward, Amylia Ruybal

Trinity Fletcher
Holly Barrick
Shannon Marshall
Title:
Organic Macrocycles

Presentation Description
For 24 years research at SUU on organic macrocycles has helped demonstrate their excellent host-guest properties. These systems may be exploited to yield valuable insights into molecular recognition, separation science, and biomimetics.

Abstract
For the past 24 years, research on macrocyclic compounds has occurred at Southern Utah University. Macrocycles comprise a large group of heterocyclic organic compounds that can bind cationic, anionic, or neutral substrates by entrapment within the cavity created by the macrocyclic structure. The selectivity of the macrocycle for certain chemical species is a function of many parameters, an important one being the match between substrate size and macrocycle cavity size. These host-guest systems may be exploited to yield valuable insights into molecular recognition, separation science, and biomimetics. Macrocyclic compounds constitute the building blocks for constructing supramolecular systems for the study of noncovalent molecular interactions.
Title:
The Changing Face of SUU?

Presentation Description
To what degree and in what ways, if any, has SUU changed in its more recent history? This question will be examined in light of trend data, beginning with 2005, on various aspects of SUU.

Abstract
The purpose of this presentation is to examine to what degree and in what ways, if any, SUU has changed in its more recent history. This will be done by examining trend data, beginning with 2005, on various aspects of SUU.
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Title: Corn

Presentation Description
A lot of items being consumed contain corn, and most people may not be aware of this. Corn is not only being used as fillers, but also being fed to the cattle which, in turn, humans consume.

Abstract
A lot of items being consumed contain corn, and most people may not be aware of this. Corn is not only being used as fillers, but also being fed to the cattle which, in turn, humans consume. This presentation will explore the different items that contain corn and will help the audience become aware of it.
Title:
6 Practices of Exemplary Leadership

Presentation Description
Accomplishing great things in organizations is hard work. To keep hope alive, leaders recognize the contributions that individuals make. In every winning team, the members need to share in the rewards of their efforts.

Abstract
Over the past 25 years scholars have conducted thousands of studies in an attempt to determine the definitive styles, characteristics, or personality traits of great leaders. Few of these studies has produced a clear profile of the ideal leader. If scholars could have produced a one size fits all leadership style, no doubt others would be forever trying to replicate what it was. They would try to transform themselves into façades, not people, and others would see through them immediately. No one can be authentic by trying to imitate someone else. You can learn from others’ experiences, but there is no way you can be successful if you are trying to be like them. People trust you when you are genuine and authentic, not a replica of someone else.
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**Title:**

**My Heritage**

**Presentation Description**

I will be doing a short presentation about a recipe that has been handed down my family line for generations. This presentation will illustrate how this recipe came about, as well as the important role that it played in my family's history.

**Abstract**

I will be doing a short presentation about a recipe that has been handed down my family line for generations. This presentation will illustrate how this recipe came about, as well as the important role that it played in my family's history.
Title:
Habitat For Humanity Alternative Spring Break

Presentation Description
Want to find a fun way to spend your spring break while helping others? Working with Habitat for Humanity and by doing an Alternative Spring Break is the perfect way to accomplish this!

Abstract
By working with Habitat for Humanity we were able to work in the process of building foundations. Not only were we able to build housing foundations for others, but we were able to create a strong foundation of caring and service in our lives.

Co Presenter (s) / Group/Ensemble Participants
Ben Pixton
Title: Vexation

Presentation Description
Vexation is a piece based on a moment in life where your innocence of trust is broken and you realized life is not perfect and that makes you feel irritated not only with the situation you're in, but with yourself for being fooled in the first

Abstract
Five dancers represent irritation, despair, longing for a new beginning. The Music is by Joe Hisaishi and the title is called, "View of Silence". I felt this music perfectly described the overall purpose of this piece and made it complete.
Title:
Heritage Fair

Presentation Description
This presentation will explain the importance of the art of crochet and how it has been taught throughout the generations of our family.

Abstract
This presentation will show and tell the significance of handmade items to our family. What amazing things we can learn when we attempt to weave our past and present together.
The Study of Chemical Environment Inside Free Volume Holes

Abstract
Chemical environment inside free volume holes in a series of halogenated polystyrenes (p-position), −[CH2CHC6H5X]n− (X = F, Cl, Br, I), is studied using positron annihilation spectroscopy. In such polymers it was determined that the chemical environment has the major effect on Doppler broadening of two 511 keV γ photons from positron–electron annihilation. Doppler Broadening Energy Spectroscopy (DBES) and Positron Annihilation Lifetime Spectroscopy (PALS) were combined in a novel approach to study the chemical environment in a polymer system. A linear relationship between Doppler broadenings caused by electron kinetic energies of valence electrons and the ionization potentials of halogen elements was obtained, as well as a similar correlation with the results from ab initio molecular orbital (MO) calculations for monohalogenobenzenes, C6H5X (X = F, Cl, Br, I). The results demonstrate that the combination of DBES and PALS may provide an effective way to study the chemical environment inside free volume holes in polymers.
Presentation Description
We've all heard about Marijuana, and we have all heard about the possibility of legalizing it, but what does that mean?
Do we really know what Marijuana is all about? Possibly, Marijuana is not as bad as we perceive it to be.

Abstract
Marijuana is currently illegal in many states, but is rapidly being accepted amongst society and several states in America. Why? The preconceived notions that we have about marijuana are largely inaccurate. Many drugs are legal, the problem is determining which ones are too detrimental to society. We have deemed alcohol and tobacco products legal, and they are both drugs. Consequently, these lead to addictions and alcohol causes nearly 100,000 deaths in America each year, whereas marijuana has had no reports of overdose! If these two murder titans are complacent and legal, marijuana should be as well.
Title:
The Re-Education of Administration: Why Every School Administrator Should Be Library Certified

Presentation Description
School librarians and information literacy are vital to academic success. This presentation looks at roles administrators should appreciate in order for the library to be used effectively, and for information literacy to be a part of the regular school curriculum as well as a lifelong skill.

Abstract
Library media programs can sometime be undervalued by administration because they don’t understand the many roles librarians fill as well as the importance of information literacy in academic success and in the role of being a lifelong learner who uses information wisely. Using Southern Utah University’s LM Program curriculum as a framework a review of each course will highlight the roles that librarians fill that administrators need to know about, and appreciate in order for the library to be properly staffed, the space used effectively, and for information literacy to be a part of the regular school curriculum as well as a lifelong skill.
Title:
Growth of Domestic Violence in Eastern Washington County

Presentation Description
The presentation will focus on the increase of domestic violence within the eastern side of the Washington County, and also focus on the trials victims face and the aftermath of every domestic violence incidents.

Abstract
The whole capstone focuses on working with victims of Domestic violence and seeing if there is a pattern in victims. It also helps me understand the trauma they go through and why victims are so dependent on their partners or perpetrators.
The Effect of Anthropogenic Nitrogen and Sedimentation on Primary Producers: Do Tadpoles Matter?

Humans alter habitat in multiple ways. How do tadpoles influence the response of natural systems to human-caused change?

Abstract

Freshwater habitats comprise some of the most altered ecosystems on Earth, primarily due to anthropogenic changes in hydrology and nutrient cycling. Many freshwater systems in North America are limited by nitrogen and phosphorus, so the addition of these nutrients can cause harmful algal blooms. Along with nutrient addition, sediment loading due to dust storms and erosion can result in alterations to community structure, biomass, and primary productivity in freshwater systems. Several groups of animals have been shown to directly influence sediment accrual rate, including shrimp, fish, crayfish, and stoneflies. Larval amphibians (tadpoles) could also directly influence sediment accrual and nitrogen cycling. Sediment clearing and grazing by amphibians could affect growth of primary producers in three ways: 1) tadpoles could increase the amount of nitrogen suspended in the water column, increasing the growth of suspended primary producers (phytoplankton); 2) tadpoles can clear sediment from surfaces, thereby increasing light available for primary producers attached to surfaces (periphyton); 3) tadpole grazing on primary producers (phytoplankton and periphyton) could reduce biomass of these primary producers. We used a fully factorial experimental design to test the effects of tadpole grazing and sediment clearing on photosynthetic organisms. Understanding the connections among species and how those connections influence the response of functional groups in the community (i.e. primary producers) is increasingly important in the face of local and global environmental changes.
Title:
SUU Dermestarium Research Project

Presentation Description
Establish a dermestid beetle box for SUU to establish a quality collection of skulls and other skeletal structures for students and faculty alike.

Abstract
Dermestid beetles and their larvae have been used historically to clean and prepare bones of vertebrates for many years. The use of beetles has been shown to shorten the time required to prepare a specimen, makes preparation less monotonous, and if used correctly can be cost-effective. Dermestid beetles are more effective to use than other methods of preparation such as boiling and bleaching (Preston, 1980, p. 90). Beetle preparation does not compromise skull and bone integrity in the way that boiling or bleaching can (Conner, 1994, p. 48).
Quantification of Tetrodotoxin

Presentation Description
We have been performing research involving the quantification of tetrodotoxin (TTX) in newts during their different life stages. The methods we are using to quantify the TTX using a gas chromatography together with mass spectrometry.

Abstract
Taricha granulosa, a species of newt, excretes Tetrodotoxin (TTX), a neurotoxin, from their skin. Tetrodotoxin is used by the newts as a means of protection from predators. It has been shown that adult, larvae and embryos of Taricha torosa contain TTX. We would like to quantify the amount of TTX excreted from the newts at their different stages of life, including embryos, larvae (pre and post hind leg emergence) and adult newts. We will employ gas chromatograph coupled to mass spectrometry (GCMS) as well as capillary zone electrophoresis (CZE) with fluorescence detection on a microchip to determine the concentrations of TTX. The purpose behind our research is to confirm that capillary zone electrophoresis is a suitable platform for quantifying Tetrodotoxin. The application of this research is to obtain a baseline of Tetrodotoxin levels to aid in further research.
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**Title:**

Twentieth-Century Take On Folk Music

**Presentation Description**

In 1910, composer Maurice Ravel composed his interpretation of several popular songs from different cultures including Scottish, Spanish, Italian, French, and Hebrew.

**Abstract**

In 1910, composer Maurice Ravel composed his interpretation of several popular songs from different cultures including Scottish, Spanish, Italian, French, and Hebrew. For me, these pieces have been a hidden treasure. This is an exciting presentation of an obscure work from a well-known composer. Maurice Ravel (1875-1937)

Ravel started to study the piano at the young age of six, and his parents encouraged his pursuit of music by sending him to the Conservatoire de Paris to further his studies. In 1910, Ravel contributed seven Chants Populaires (Spanish, French, Italian, Hebraic, Scottish, Flemish, and Russian) to the “Concours de la Maison du Lied”, a contest for song. Four of the seven were published and display Ravel’s ability to adapt culture to music. Each is a setting of a nationalistic poem. A fifth, Chanson écossaise, is a familiar Scottish folk-tune that was published later.

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Co Presenter (s) / Group/Ensemble Participants
Title:
Stadium Seats vs The Couch

Presentation Description
This research was designed to answer one question. Is the cost of attending an NFL game becoming too expensive? I take a look at NFL attendance and compare it to a number of goods that could be used to replace the purchase of NFL tickets.

Abstract
Some previous attempts to explain NFL attendance have used television ratings as a variable to explain how attendance fluctuates. This design for this research is to explain attendance not with television ratings, but with television sales. There are also other variables considered in this research; such as video game consoles, grills, and lawn mowers. The thought is that the market shifts days, maybe even hours, before game day and decides to spend their money elsewhere instead of game tickets. When comparing these a linear regression is used to determine if there is a correlation between attendance and the variables selected, some discussed above.
Psychological Well-Being & Distress in Marriage: A Support Group for Spouses of Adult Survivors of Abuse

Presentation Description
This study evaluates the effects of a support group that is focused on developing meaning and problem-focused coping for spouses who are married to an adult survivor of abuse. Psychological well-being and distress in marriage will be evaluated.

Abstract
Attending to Secondary Trauma: Evaluation of the Psychological Well-being and Distress in Marriage of a Support Group for Spouses of Adult Survivors of Abuse Men who are married to a Survivor of Abuse (SOA) may have difficulty in coping with the consequences their wife may develop from the abuse of another person (Hunt-Amos, Bischoff, & Pretorius 2004). Helplessness is a common feeling of Non-Violent Partners (NVP) of a Survivor of Abuse (Hunt-Amos et al., 2004). To help NVPs to overcome this feeling of helplessness, a support group for NVP has been developed with a theoretical bases of enhancing meaning-focused coping. Men usually develop a high level of problem-focused coping. However, in an intimate relationship with a SOA, problem-focused coping is detrimental to the SOA and their relationship (Oz, 2001).

The feeling of helplessness may develop as the NVP realizes the ineffectiveness of problem-focused coping and the emotion-focused coping of distancing and denial will become prominent (Hunt-Amos et al., 2004). Even if the NVP has a high level of social support, the frequent use of distancing and emotional-focused coping will decrease psychological well-being (Chao, 2011). A support group can be used to help the NVP understand and support the SOA especially during the trauma recovery process. The support group for this study is a didactic support group that educates the NVPs on abuse sequelae then helps them to apply this education to their own situation so the NVP can learn how to support their loved one and cope with the stress of the situation. A high level of psychological well-being of the NVP may not only benefit themselves, but, may have a large influence on the recovery and psychological well-being of the SOA. Our study seeks to evaluate the outcome of a support group for NVPs has on the NVP’s psychological well-being and distress in marriage.

Participants: There will be approximately 10 men recruited from a support group facilitated by a licensed mental health clinician. The attendees of the support group will have been determined as having an altruistic motivation to support their partner through the process of trauma recovery by a licensed mental health clinician.

Materials: Ryff’s Psychological Well-Being Scales (RPWB; Ryff, 1989) and Revised Dyadic Adjustment Scale (RDAS; Crane, Middleton, & Bean, 2000) Procedure: The attendees of the support group will be invited to participate in the study during the first day of the support group. Participation will involve filling out a questionnaire on the first day of the support group, the last day of the support group, and at the 4 week follow up meeting of the support group.

Enhancing E-Business Marketing Strategies

Presentation Description
Part of the E-Business upper division class which includes three group projects conducted in the class for the Spring 2014 semester. Each project involves a team working with local businesses to develop and/or enhance their websites.

Abstract
This website study and participation serves to enlighten students and business owners alike as to the benefits that can be gained through team effort and electronic development. Group 1: update an existing website for Depot Grill. Group 2: create a website for World Class Pawn. Group 3: create a website for Castro & Co. Jewelers Through this poster I am going to share the various projects, background, and the students (including myself) experiential learning of a hands on project. In addition to being part of a group that created a website, my undergraduate research involved discussing the challenges, lessons learned, and personal experience of working with local businesses. My reflection of hands on projects for this class will also be shared in the poster. Other group members include: Candyse Cotner, Miklyn Labrum, Estella Carpenter, Khaled Alebi, Fahad Alkhthilah, Preston Barker, Edward Bennett, Kyle Broadhead, Mark Broadhead, Gregory Davis, Gabrel Mouritsen, Michael Nelson, Casen Van Houten.

Co Presenter(s) / Group/Ensemble Participants
Title:
Minerals of Coal Creek

Presentation Description
Evaluate the mineral content of Coal Creek Canyon from the recent canyon landslide to Bicentennial Park. We will compare these results with years past, which there is no input into the waterway and the mineral content has raised.

Abstract
We measured for mineral content (Na, Mg, Ca, and K) in Coal Creek Canyon to determine if there are any differences in mineral concentration determined by years past. The determination of mineral content is important to know because in this region there is no water input, but there is higher mineral content in lower regions in Coal Creek. We collected environmental water samples in 8 locations 1.4 miles apart from the recent canyon landslide to Bicentennial Park. Water samples were collected every 7 days for 5 consecutive weeks and the water samples were tested using Ion Chromatography and Atomic Absorption to determine the mineral concentrations. We hypothesize that due to the low snow and water levels this winter season, and being that there is no water input into that region, mineral concentrations are increasing due to sheet flow.

Co Presenter(s) / Group/Ensemble Participants
Julio Mendez
Lynelle Dennis
Adam Duncun
Title:
Works in Progress

Presentation Description
What are you working on? Writers ask each other, knowing works in progress always hum in the background of their busy days. SUU Professors review current projects and discuss creative work done.

Abstract
What are you working on? That's the question writers ask each other, knowing works in progress always hum in the background of their busy days. Five writers/professors will read from current projects and discuss ideas for getting creative work done.

Co Presenter (s) / Group/Ensemble Participants
Patricia Eagan MFA
Bryce Christensen Ph.D.
Danielle Dubrasky Ph.D.
Jennifer Sorensen MA
A Case for Eumops Perotis in Utah

Presentation Description
We propose that Eumops Perotis, bat species, has been documented within Utah and should be added to the list of known bat species found in the state of Utah.

Abstract
Previous bat studies (Bradley and O'Farrell 1967) have indicated that E. perotis has been found in surrounding geographical areas of Las Vegas, along the Grand Canyon, and in other locations within northern Arizona (Bradley and O'Farrell 1976, Hall 1981, O'Farrell, pers. comm.). The range when compared to published findings, has at best indicated that Eumops is found near the boundaries of Utah and its neighboring states. This observation has lead us to further investigation of whether or not the species (Eumops perotis) is located within the borders of Utah. With recent acoustical analysis improvements in way of Sonobat technology and computers, identification of bats via sonograms are more accurate than when used in previous studies. These improvements allow closer comparison of bat species with potentially overlapping frequency characteristics to provide a clearer indication of the presence of bats previously thought to be absent. We propose that Eumops perotis has been documented within Utah and should be added to the list of known bat species found in the state of Utah.

Co Presenter (s) / Group/Ensemble Participants
John Taylor Ph.D.
Title:
Festival of Excellence Video Screenings

Presentation Description
Students in the COMM 4760 Television Field Production class will present their creative work. Students from other departments may also screen projects.

Abstract
Student filmmakers will screen short films, documentaries, music videos and other creative work.

Co Presenter(s) / Group/Ensemble Participants
COMM 4760 Television
Field Production Class
Title:
An Unsuspecting Leader

Presentation Description
We will examine attributes of leaders who move and shape our world in visionary and exciting ways.

Abstract
How would you react if leadership opportunities found you? Are you intrinsically a leader, or would you need some skill-building to be successful? Through anecdotal stories, we will examine the attributes that motivate the leaders who move and shape our world in visionary and exciting ways. An accompanying PowerPoint presentation is available upon request.
Title:
Personal Phatness: Image Manipulation in Social Media

Presentation Description
By choosing what to show and what not to show, as well as the technical ability to doctor images, we shape our life narrative for a “friendly” audience.

Abstract
Personal Phatness: Image Manipulation in Social Media This presentation will look at Facebook in particular and use examples to demonstrate different ways in which image manipulation assists Baby Boomers in their quest to look thinner and younger, as well as the ways Millennial’s try to maximize their personal exposure. Other types of image narratives will include those used by minimalists, kitchen-sinkers, narcissists, banalists, scrapbookers, lurkers, etc. to shape the way we see their shapes and the way they shape their images. Finally, we will try to predict ways image manipulation may be used in the future.
Title:
NSF’s iUTAH: A Funding Opportunity for SUU Students and Faculty Working on Water Resources and Sustainability

Presentation Description
In this presentation, I will provide some suggestions for successful applications for iUTAH scholarships and grants, including an example of a recently successful grant.

Abstract
In August 2012, the state of Utah received a $20 million award from the National Science Foundation’s Experimental Program to Stimulate Competitive Research (EPSCoR). The focus of this interdisciplinary effort is to better understand how changing climates and altered land use will affect water resources and sustainability. Southern Utah University (SUU) is a participating institution in this grant and as such, SUU students and faculty have numerous opportunities to participate in this grant. Students can participate in a paid summer research opportunity at one Utah’s research-focused universities. In addition, a weeklong summer workshop is also offered for students planning a career in K-12 education. Faculty have several opportunities to request funding in amounts up to $20,000 annually to facilitate research or projects focused on education and outreach. As a member of the iUTAH management team, I am very familiar with these opportunities and the processes by which students and faculty can take advantage of this resource. In this presentation, I will provide some suggestions for successful applications for iUTAH scholarships and grants, including an example of a recently successful grant. I will also highlight individuals and resources on the SUU campus that can assist students and faculty hoping to receive funding from the iUTAH project.
Title:
Thucydides, a Handbook for Modern Statecraft?

Presentation Description
Handbooks on practical politics have been around since ancient times, and Thucydides' Inquiry could well have been the first and perhaps one of the most significant.

Abstract
Handbooks on practical politics have been around since ancient times, conceivably from Thucydides and Aristotle to Karl Rove. The custom of writing “mirrors for princes” became common and rather exquisite in the Islamic world and certainly The Prince, according to general tradition at least, was intended by Niccolò Machiavelli as something of a “how to” monograph for the Medici family in sixteenth century Florence. Thucydides could well belong in this classification as well, of course he has famously been claimed as historian, international relations theorist, father of modern political realism, and even as the first socio-psychologist, so why not one of the first to offer a manual on the proper conduct of statecraft? The primary questions would certainly include who he was advising, and what was his most valuable lesson? The answer to the first question seems easy enough, he intended his work to be lasting for all time and we would assume for any statesman wise enough to read his work, which today sadly enough would number few indeed. The message too is not all that difficult, the vital requisite of foresight and action based on what has been anticipated, which again seems in rather short supply these days.

Co Presenter (s) / Group/Ensemble Participants
Title:
Seasonal Differences in Origin, Destinations, Activities and Expenditures of Central/Southern Utah Visitors

Presentation Description
Seasonal differences in origin, destinations, activities, and expenditures of central/southern Utah visitors.

Abstract
In 2010-11, the Southern Utah University Hospitality Research Center joined with the Utah Office of Tourism to explore various characteristics of visitors to Central/Southern Utah. There were 1,113 useable surveys collected in four seasons. This paper focuses on one of the study’s research questions, which was the seasonal differences of visitor origin, destinations visited, activities selected and expenditures. Chi-square and ANOVA tests were conducted to determine differences. Many significant differences were detected, and many similarities were discovered.
Title: Heritage Fair

Presentation Description
This is a presentation on my heritage. I will go over my family and the family that I married into.

Abstract
This is a presentation on my heritage. I will use both my parents family heritage and my husband family heritage, because I recently married into the family. The family names are Stenquist and Zeyer. One is of German descent and the other is Swedish.
Title:
It's Dangerous to Learn Alone- Play This: Video Games in Higher Education

Presentation Description

68% of people 18+ play video games; almost half of these are women. Consequently, professors need to use more video games as teaching tools as well as look to game structures as one of the best methods for learning and retaining information.

Abstract

We think of games as something for kids, but 68% of people 18+ play video games (45% of these are female). And 77% are playing at least one hour a week. Video games are part of most people's discourse, so I find it odd that they are virtually ignored as a learning method once students hit middle or high school, and it certainly is not considered as a viable learning method in college. What I want to discuss is not just about how we're drawn to video games. It's also about how we learn best and how the video game model serves what the university wants students to learn.

Two ideas will contextualize the connection between composition studies and video games. First is part of the Southern Utah University Mission Statement (which is similar to most university mission statements):

1) Southern Utah University is a comprehensive, regional institution offering graduate, baccalaureate, associate, and technical programs. SUU is committed to providing an excellent education through a diverse, dynamic and personalized learning environment.

2) David Bartholomae's “Inventing the University,” in which he explains what students are typically facing in college: “[Students] have to invent the university... They must learn to speak our language. Or they must... carry off the bluff, since speaking and writing will most certainly be required long before the skill is "learned."

Along similar lines, the Executive Committee of the Conference on College Composition and Communication said in 1972 (so 14 years earlier): “We affirm the students' right to their own patterns and varieties of language ...The claim that anyone dialect is unacceptable amounts to an attempt of one social group to exert its dominance over another... We affirm strongly that teachers must have the experiences and training that will enable them to respect diversity and uphold the right of students to their own language.”

I propose that video games have their own dialects, although they are ones in which most educators are not well-versed and are ones which society is in the habit of dismissing as childish and a “waste of time”.

However, as educators, we also acknowledge the need to teach in ways that students learn. This doesn’t mean that they don’t need to learn academic language and conventions, but if we can make learning them easier for them to students by translating the new academic language through the familiar video game dialect, then we ought to do it.

Kurt Squire, who studies the learning aspect of games, says that games are more than spitting ideas of what is supposed to have been learned back to a teacher (a traditional classroom practice), but games allow a player to step inside and explore and experience new kinds of things, test hypotheses, and develop new kinds of knowledge, all to become a new person.”

According to Jane McGonigal, there are four defining traits of a game, no matter the type or genre: 1. A goal, 2. rules (how to achieve the goal), 3. a feedback system, and 4. voluntary participation. She adds, “[These traits of goals, rules, feedback, and voluntary participation] may surprise you for what it lacks: interactivity, graphics, narrative, rewards, competition, virtual environments, or the idea of “winning” - [these are] common but not defining features of games.”

Because games don’t require these “extras” that most assume are essential to games to be engaging to the player, the structure transfers so easily into the classroom. There is an intrinsic reward in leveling up that players get that makes them want to do it again and again, even when a task or level is hard.
Title:
The Modern Hero Abides: Heroic Paralysis in "Jacob's Room"

Presentation Description
In "Jacob's Room", Virginia Woolf presents protagonist Jacob Flanders to the modern world as a perfectly fitting, yet largely deficient, scion to the heroic tradition.

Abstract
In Jacob's Room, Virginia Woolf presents protagonist Jacob Flanders to the modern world as a fresh and perfectly fitting scion to the heroic tradition. With the help of a dispassionate and limited narrator, Woolf chronicles Jacob's life as a fragmented, decentered, and visionless pseudo-reenactment of the traditional heroic journey. Jacob's life is mottled with stimuli and signposts familiar to heroic journeys: He is fatherless like so many other heroes, from Diomedes to Hamlet to Huckleberry Finn; he is routinely distracted, like Odysseus, by the allure of the opposite sex; and, like Achilles, he dies a soldier's death. However, Jacob's course is frustrated by his own spiritual paralysis and the moral vapidity of the early 20th century he is frozen between destiny and achievement. Jacob desires a sense of purpose, but wanders idly. He reveres the virtue of past ages, but is unable to attain it. His journey is a confused one and his death in World War I is without consequence. What makes Jacob Flanders a modern hero isn't courage or faith or strength, but rather his flawed humanity, and his audacity in facing the brute apathy of the modern world. Jacob's heroism endures both the disillusionment and scrutiny of modern thought in paradoxically fulfilling the hero's chief mythic duty: of mirroring the course of human life, through his deficiency in other long-established heroic characteristics such as moral fortitude, intrepidity, and conviction of purpose.
Title:
Margin Theory

Presentation Description
Students have burdens in life to contend with (load). They also have resources (power). Margin Theory can help us understand how we can help reduce students’ load or increase their power.

Abstract
As an institution of higher education, we often analyze our competition, both internal and external. How often do we consider other competitors such as the grocery store or the insurance company, the doctor’s office or the auto repair shop? Do we consider the graveyard shift or an aging parent as competition? We are competing against everything in our students’ lives for their time and money. We often worry about operating effectively with scarce resources. Do we consider the resources our student have to work with? Students have burdens in life to contend with. This is their “load.” They also have resources. This is their “power.” What can we do to reduce students’ load or increase their power? Margin Theory can help us understand how and where our programs and services fit in our students lives. We each have our individual capacity (100%). Our reality is determined by our load and the power we have to manage that load. Our capacity minus our reality is the margin in life we have remaining to accept additional responsibility. When our reality approaches our capacity, we must either increase our power or reduce our load. Power is much less flexible, so load is typically cast off, with that of least importance being the first to go - a sort of reverse order of Maslow's Hierarchy of Needs. Where do our programs and services lie along the hierarchy of our students' needs? What can we do to mitigate the load of our students, or even better, increase their power?
Title:
Push Rod Suspension

Presentation Description
Scott Hansen and I designed new aluminum downhill mountain bike frame that utilizes a system of push rods that rotate a pair of cams to actuate the rear suspension as the rear wheel moves up and down within its 8” range of travel.

Abstract
The industry of mountain biking is growing larger every year and with that growth demands new technology. Downhill mountain biking has been at the pinnacle of new innovations of material strength, lightweight components, frame geometry, and suspension performance. Scott Hansen and I have designed a new downhill mountain bike frame that has exceptional suspension and handling performance. The design utilizes a simple system of push rods that rotate a pair of cams to actuate the rear suspension as the rear wheel moves up and down within its eight inch range of travel. This linkage design allows the rear shock to be mounted in the lowest position possible inside the frame, resulting in a very low center of gravity and superior handling. The prototype frame is constructed from 6061-T6 aluminum tubing, and the complete bike will be built with lightweight aluminum and carbon fiber components that are donated and purchased. The result is a strong, lightweight, fully functional downhill mountain bike built to similar specifications of bikes being raced on the UCI Downhill World Cup race circuit.

Co Presenter(s) / Group/Ensemble Participants
What Do They Do in ESL

Presentation Description
Many of you know that we have an ESL program on campus, but do you know what we do there? You might be jealous after you hear what our students and teachers are doing....!

Abstract
The English as a Second Language (ESL) program on campus is an academic preparation program whose primary objective is to ensure that students have the language skills necessary to be successful at the university. We accomplish this in two ways: (1) through our Intensive English Program (IEP), which provides 20 hours of language and culture instruction per week; and (2) our ESL workshop classes, which provide language support for matriculated students. We practice innovative, high-level linguistic instruction, including integration of information and communication technologies (ICTs); experiential learning; collaboration with other departments on campus; and challenging cultural assumptions and biases. We also have a robust extra-curricular activities program which supports students as they learn context-specific and culturally appropriate language and interactions. In this presentation, we will give examples of the types of linguistic and cultural lessons and activities that we practice as a program, and how those practices support students’ academic and cultural development. We will also discuss how you can become involved with our program’s activities.

Co Presenter (s) / Group/Ensemble Participants
Yasmin Motasim
Bob Goodman
Leman Uyuklu
Lark Hovey
The Existential Implications of Chrome Wheels: Meaning in Life Reduces Conspicuous Consumption

Three empirical studies assessed the relationship between the perception that life has meaning and product preferences. Using a variety of methods, results indicated that meaning in life is inimical to conspicuous consumption.

Abstract

The current work took a multi-method approach, using a variety of operationalizations of both meaning and conspicuous consumption. Participants in Study 1 completed The Meaning in Life Questionnaire (e.g., “I understand my life’s meaning”; α=.88; Steger et al., 2006). Next, they completed a measure of conspicuous consumption based on Griskevicius et al., 2007. Participants indicated how much they were willing to pay for five items (a watch, buying friends dinner, a cell phone, a vacation, and a car). Results indicated that a strong sense of meaning in life corresponded to a desire to spend little on conspicuous goods, β = -.29, p = .006. Study 2 sought to replicate the effects observed in Study 1, using alternate measures of meaning and conspicuous consumption. Additionally, we sought to determine whether differences in meaning led to a narrow preference for spending on conspicuous goods, or an undifferentiated preference for spending in general. Participants completed the No Meaning Scale (α=.90; Kunzendorf & McGuire, 1994), which assesses the degree of meaninglessness participants perceive in life (e.g., “Any perceived meaning in life is an illusion.”) They then viewed twelve different kinds of optional equipment for model year 2012 automobiles. Six options were primarily functional, whereas the other six were primarily for conspicuous display, as determined by pretesting. For instance, the Ford F-150 offered a reverse sensing system (functional) and chrome wheels (display). Participants indicated how much they would be willing to pay for each option on a scale from 1 (much less than the average student) to 7 (much more than the average student). Results revealed that meaninglessness predicted a greater willingness to spend on conspicuous items, β=.29, p=.004, but not functional items, β=.15, p=.16. Hence, the effect of perceived meaning on spending occurs primarily for conspicuous goods. For Study 3, the primary goal was to establish causality in the relationship between meaning and consumption preferences. We sought to manipulate meaning in life by indirectly suggesting to participants that their lives would be forgotten. Participants assigned to the low-meaning condition were asked three true-or-false questions about each of their 8 biological great-grandparents: “I know his/her name” “I know his/her personality” and “I can picture his/her face.” Participants answered “false” to the vast majority of these questions (88%). Our expectation was that knowing very little about one’s grandparents would suggest that one’s own life is likely to be forgotten someday, resulting in a reduced sense of meaning. Participants in the control condition were asked to name and describe 8 movies. To determine whether the experimental manipulate was successful, we measured state meaning with three items (e.g., “At this moment, my life feels meaningful”). Results indicated that participants in the low-meaning condition evinced lower perceived meaning than participants in the control condition, F(1,154)= 4.74, p = .03. We again changed our measure of conspicuous consumption. Participants were shown three pairs of spa products in a type of a forced-choice design. In each pair, one product was designed for visible results and the other designed for health (as confirmed by pretesting). The three pairs were as follows: tanning passes vs zumba classes, microderm abrasion vs. relaxation massage, clear skin treatment vs. health assessment. Participants indicated their relative preference on a 13-point scale. Choices were scored such that 1 indicated a strong preference for the healthy product and 13 indicated a strong preference for the visible-effects product (7 indicated no preference). The choices were summed to create an overall measure one’s preference for conspicuous goods. Results indicated that participants in the low-meaning condition evinced a stronger preference for visible-effect goods than control participants; F(1,154)= 5.04, p = .026. The current work has a high degree of ecological validity. In all cases, a greater sense of meaning in life corresponded to a reduced desire for visible, conspicuous products.
Presentation Description
A study was conducted to assess the rate of food insecurity on the Southern Utah University campus. Overall, food insecurity in 2013 was the highest for students since 2009. Faculty and staff’s food insecurity decreased over the past

Abstract
Food security is described as access by all people at all times to enough food for an active, healthy life. In 2007 the number of food secure households in the US was 89%. In 2009 the number of food secure households dropped to 85%. The number of food secure households in the U.S. rose slightly to 85.5% in 2012. The original decline in numbers presented an opportunity for research. The conducted research focused on the effects of food insecurity and the prominence of food insecurity on Southern Utah University campus. The research included data collected from staff, and faculty on the campus of SUU through a two page survey. The data was used to determine if food security on the SUU campus is increasing or decreasing. The survey used was developed by the United States Department of Agriculture for use in population studies. One thousand three surveys were returned and analyzed in 2013. In 2009 the percentage of food insecure students was 29%. That number increased to 31.1% in 2012. In 2013 the number of food insecure students increased by 0.4% to 31.8%. The slight increase in food insecurity shows the highest percentage of SUU students suffering from food insecurity since 2009. In 2009 the percent of food insecure faculty/staff was 14.1%. That number increased to 15.2% in 2012. Although food insecurity among SUU staff and faculty increased between 2009 to 2012, it decreased to 11.8% in 2013. Showing the trend of food insecurity among faculty and staff may be on the mend. With alternating trends in food insecurity between the faculty and staff along with the increase in students’ food insecurity, more research is suggested in order to determine the reason for change in food security among Southern Utah University’s population.
Assessing Perception of Exertion During Exercise

Are people able to accurately assess and maintain exercise at a given intensity level? The information I learned from engaging in this research is not only beneficial for myself, as a student athlete, but also for anyone who engages in exercise.

Abstract

Exercise physiologists often search for ways to measure exertion. Over the years, many scientists have developed scales which attempt to accurately measure exertion rates during exercise. In 1985, Gunnar Borg developed the Borg Scale of Rate of Perceived Exertion (RPE) which seeks to measure feelings of effort, strain, discomfort, and fatigue during both endurance and resistance training. The scale itself is a fifteen category scale ranging from 6-20, where 6 is “no exertion at all” and 20 is “maximal exertion.” For years, people have used this scale to evaluate levels of exertion during exercise. Much research has already been done with this use of the scale. I, though, seek to test how well the scale can be used to prescribe exercise. I seek to know if young adults are able to accurately engage in and maintain exercise at a value of 13, or “somewhat hard,” on the scale. I will be testing recreationally active adults ranging in age from 18-26 in three different modalities of exercise, including on a treadmill, on a cycle ergometer, and on a rower. Participants will be asked to maintain steady-state exercise at a value of 13 for 10:00 min. on each apparatus. I will then be measuring heart rate and VO2 throughout each exercise bout in order to determine whether or not participants were able to accurately evaluate their own exertion levels and maintain them throughout the study at a “somewhat hard” level. I hypothesize that while the participants may be able to assess and maintain their perception of exertion at a 13, their physiological responses will not be consistent with this value of 13 for each of the modalities of exercise. My results show that heart rate values were not different between each of the three modalities, while VO2 was higher on the treadmill compared to the bike (p<0.05). Based on these findings, I can conclude that while participants may feel as though they are working at the same exertion level, their physiological responses do indeed vary. This information can be applied to anyone who is interested in exercising for it can be shown that people will expend more energy, and thus more calories, while exercising on a treadmill than on a bike, even though they will feel the same amount of perceived exertion.
Title:
The Censored Cinderella: Incest, Punishment, and Redemption in the Cinderella Tale Types

Presentation Description
This paper explores the lesser known incestuous father Cinderella tales and the differences in how these tales punish the wicked. These tales require that Cinderella forgive, rather than punish, in an ancient display of “blaming the victim.”

Abstract
In response to the new television series GRIMM, a February 12, 2012 London Telegraph article claims that twenty percent of parents don’t read any fairy tales to their children anymore and “52 per cent of the parents said Cinderella didn’t send a good message to their children as it portrays a young woman doing housework all day” (“Fairy Tales Too Scary”). This parental censorship is primarily focused on the Cinderella most popular in the west where Cinderella is persecuted by an evil stepmother and step-sister(s). Most western readers are unfamiliar with the other Cinderella tale type – the tale where she must flee an incestuous father. Despite the fact that this tale type is little known in the west, especially the United States, according to Cinderella scholar Marian Roalfe Cox, “the versions that cast (step)mothers in the role of villain only slightly outnumber those that ascribe Cinderella’s misfortune to an importunate father” (qtd in Tatar). Despite the changing villains, however, both tale types are still Cinderella tales and demonstrate the functions common to that fairy tale – most often involving a quest for the girl who fits a certain shoe or ring. In the first tale type where Cinderella is tormented by her evil step-mother, and often by step-sisters as well, the step-mother and step-sisters are punished, often brutally, at the end of the story. In the famous Grimm’s version of the story, the step-sisters have their eyes pecked out by doves after cutting off parts of their own feet in a feeble attempt to fit the shoe. However, in the second tale type where Cinderella is pursued for marriage by her own father, no corresponding punishment occurs at the end of the story. Instead, he apologizes (sometimes) and is forgiven (always). For example, in Perrault’s “Donkeyskin,” the reader discovers that Cinderella’s father “had purged himself of all lawless desires and all that was left in his heart of that wicked flame had been transformed into paternal devotion.” Once this transformation has taken place, both Cinderella and her husband welcome him with tender embraces and “delight” (Perrault). Because fairy tales have long been associated with teaching children the rules for social expectation and morality, especially with authors like Charles Perrault and the Grimm brothers, the differences in how these tale types punish the wicked is important. Often these authors attach morals to their stories that support acknowledging/endorsing different rules for women than for men despite the fact that incest is a taboo in all cultures, a much stronger taboo, in fact, than female jealousy. Masculinity alone – and perhaps a willingness to apologize for past deeds – is enough to redeem Cinderella’s father whereas the transgressions of women can only be corrected with brutality and even death – which may be reason enough for British parents to forego reading fairy tales to their children altogether. However, as we see more modern interpretations of traditional fairy tales, especially those directed toward adults like GRIMM, Once Upon a Time, and film versions like Snow White and the Huntsman, the uncensored versions of these fairy tales are likely to resurface.
Title:
(E)valuating a Life Lost to Drug Cartel Violence

Presentation Description
In order to evaluate the low level of concern in the U.S. over Mexican cartel violence, participants assigned dollar amounts to American/Mexican lives and completed political orientation and moral values measures.

Abstract
In order to evaluate the lack of concern in the U.S. over Mexican cartel violence, two studies were conducted to address 1) why this issue creates limited concern, and 2) how moral foundations and political orientation relate to one’s concern about the issue. In a between-participants design, Study 1 had participants read a vignette describing the cartel violence and answer the question, “What would be a reasonable amount for the American (or Mexican) government to pay to save one American (or Mexican) life that would otherwise be lost in the drug trade conflict?” Results revealed that participants assigned higher dollar amounts to American than Mexican lives, whereas the paying government and the interaction of the two variables were not significant. Study 2 asked participants to compare their concern about and their knowledge of the Mexican cartel violence with various other current events that occurred within the past year. In addition, participants completed a moral foundations theory questionnaire (Graham, Haidt, & Nosek, 2009) to assess individual differences in moral values. The results indicate that knowledge of the cartel violence was relatively low and level concern about the issue was moderate relative to other current events. In addition, participants who rated the moral foundation of fairness as an important value also tended to be the same individuals who rated their level of concern with the cartel violence at a higher level.

Co Presenter(s) / Group/Ensemble Participants
Joel Cardenas
Ryan Cardenas
Alex Vittum-Jones
Title:
Teams Using Real World Projects in a Software Engineering Course

Presentation Description
This presentation discusses the advantages and disadvantages of using a practical approach with a real world project for a software engineering course in a computer science undergraduate program.

Abstract
The main objectives of a first course in Software Engineer should be to provide the students with the Knowledge and some level of comprehension through practical application within the ten knowledge areas (KAs) defined by ACM/IEEE – Computer Society in their 2004-SWEBOK (Software Engineering Body of Knowledge). However due to dynamic nature of Software Engineering discipline a new SWEBOK guide (V3) which includes the updated topics by adjustment of non-relevant and addition of new knowledge areas (KAs) is in the work. ACM/IEEE Computer Society have also provided a guideline within undergraduate degree program in Software Engineering SEEK (Software Engineering Education Knowledge) which defines “Core Material” as the minimal knowledge for a program in Software Engineering. However, for a Computer Science undergraduate degree programs the topics in software engineering is among the core topics recommended by the joint task force in computing curricula 2005. This paper explores and discusses the advantages and disadvantages of using a practical approach with a real world project for a software engineering course in a computer science undergraduate program.
Title:
Population Biology and Genetics of Invasive Turtles in the Virgin River Basin

Presentation Description
In Southern Utah we have alien species that are invading our waterways. We are looking at the spiny soft-shell turtle and the red eared slider to learn about them through genetic analysis.

Abstract
Invasive species cause extensive ecological damage and are considered major threats to the biodiversity of ecosystems. The mode that invasive species succeed ranges from out competing the native species to utilizing changing abiotic factors. The red-eared slider (Trachyemyo scripta) and the smooth soft-shell (Apalone spinifera) have been marked as invasive exotics throughout many areas of the world. They have the potential to cause deleterious effects on native species. There are no chelonian species native to southern Utah, with the exception of the endangered desert tortoise. However, both T. scripta and A. spinifera have been noted in abundance in the Virgin River drainage system.

We propose to quantify the effects these species have on this system and the endangered fish species found therein. We have two main objectives for this proposal. The first is to quantify the demographic characteristics of these invasive turtle species in the Virgin River System. Secondly, we will estimate the population genetic structure of these invasive turtles to determine effective population sizes and attempt to identify the source populations. Turtles will be trapped in several areas throughout the drainage system to estimate population size, analyze stomach contents, identify nesting areas, and collect genetic material. We will extract DNA and characterize several microsatellite loci in the invasive populations. This information will be used to assess the impact that these invasive species have on the Virgin River ecosystem.

Co Presenter(s) / Group/Ensemble Participants
Haley Taylor
Title: Who Will Win the 2014 World Cup in Brazil?

Presentation Description
This presentation will discuss statistical insights to who may win the World Cup in Brazil. A notational analysis of Division I women’s soccer games will be examined. Connections between technical skills and scoring will be

Abstract
The purpose of this study was to evaluate passing, first-touch passing, dribbling, and controlling touches as they relate to the probability of scoring and shots on goal during women’s soccer games. Sequences of skills in 22 games of a National Collegiate Athletic Association Division I intercollegiate women’s soccer teams were coded using a well-defined performance scores and outcomes. Using a fully Bayesian approach, we model play sequences as discrete absorbing Markov chains. Using posterior distributions, we estimate the probability of 35 distinct offensive skills leading to a shot during a single possession. Statistically, the strongest result is that successful passes into the mixer and corner kicks are associated with much higher probability of leading to a scoring opportunity than any other move. However, this comes with a strong qualification. Uncertain passes into the mixer not only have much lower probability of a scoring opportunity than successful passes into the mixer, but often have lower probability than other routine and non-aggressive moves. This discourages the strategy of risky passes into the mixer. It appears that passing direction, with exception of passing into the mixer, does not change the probability of leading to a scoring opportunity. However, direction is clearly important for touch moves, where forward plays increase that probability. When a team playing defense is forced to break up a play, it is far better to deflect the ball out of bounds than to commit a foul (of course, committing a foul is preferable to allowing the offensive team to successfully advance the ball into the mixer). The preference of deflecting the ball out of bounds is supported not only by its association with lower probability of leading to a scoring opportunity, but also an increased probability of leading to a bad turnover, of which the recovering team can take advantage. An interesting result from this analysis that is consistent across multiple types of moves is that conservative in-bounding passes are associated with a higher probability of leading to a scoring opportunity than the more aggressive forward in-bounding passes. This is true of free kicks, goal kicks, throw-ins, and kick-offs. One interesting special case is for goalie throw-ins, where we see a trade-off between scoring opportunities and bad turnovers. A goalie’s choice to instead punt the ball down field decreases the probability of leading to a scoring opportunity on the same play, but also decreases the probability of a bad turnover by moving the ball away from their goal. These results are mainly applicable to the NCAA Women’s Soccer teams analyzed. They identify association between offensive skills and the probability of a scoring opportunity, and can be used to distinguish skills by importance and aid in strategic planning and decision making.
Music: Let It Move You

Presentation Description
Learn about the effects of music physiologically on the body and human mind, and why our culture and generation are so moved by it. Its impact seems to be congruent with many cultures and time periods of our history.

Abstract
Picture yourself in the middle of the day, and all the stresses of the world around you. Emotionless, and heartless the weight of all your responsibilities often seem. Yet suddenly, a song begins to play, your heartbeat quickens, breath shortens and you begin to feel something entirely different. Physiological changes occur and your body truly reacts to what you now recognize as one of your favorite songs, and viola you now have a new outlook, a new attitude completely of your current position in life. Music can take us places, to past experiences, thoughts, and feelings. It has the power to change our mood our outlook on how the world associates with us and essentially our entire existence and effect and association on the world and others around us. But why? Is there an explainable reason? Maybe not, but I'd like to talk about it.

Co Presenter (s) / Group/Ensemble Participants
Title: To Be Influenced: Shedding Light On a Gray Area

Presentation Description

How often in dating do you know if you are being manipulated? Persuaded? Coerced? Can you tell the difference between these terms? This study focuses on student perception of influential messages as they pertain to dating.

Abstract

To determine perceivable differences through SUU students pertaining to the nature of an influential message particularly towards dating, i.e. persuasion, manipulation, and coercion. This qualitative research question will contribute simply to how college students view the nature of a persuasive message and why. During the college period, that is the young 20 and late teen years of an individual, dating is very prominent and therefore influential messages are created constantly. Many times these messages are poorly interpreted and can therefore lead to poor decisions and possible harassment and abuse. As we research simply how they are perceived rather than project to the public, we hope to find insight on how to better understand the nature of an influential message and help others then more clearly separate the given terms. As Robert Gass and John Seiter state in their text Persuasion: Social influence and compliance gaining; “Many authors endorse the view that there is a distinction between persuasion and coercion. This view is also receiver based, but it focuses on whether a person is aware that she or he is being persuaded and how much freedom the person has to accept or reject the message.” The study will go about by providing several different influential messages based on different strategies. Reading and/or observing said messages, participants will then provide detailed feedback as to whether they felt the message was persuasive or manipulative and why. This will allow for insight as to if there is a misunderstanding as well as where the misperception lies, opening the doors to a quantitative research helping to better define and project.
Title:
Exhibition of Braithwaite Gallery

Presentation Description
Protolus is a creative agency thought up and designed with the intention to be a prestigious competitor in the design world. A company that will always produce primal design that is clean, exact, and refreshing.

Abstract
Branding is something that all of us need in our lives, whether it's our personal style or an established look and feel for a company. There are so many factors to consider when branding a Company, and so many exciting decisions to make; by why make them on your own? Protolus Creative Agency is a marketing company that creates pieces that will connect with the client in a personal way.
Title: Extending Magnesium-wire Patterned Microfluidic Device Fabrication

Presentation Description
Microfluidics are commonly used in some applications. We have developed a simpler method to fabricate microfluidics, and are testing our microfluidics and attempting to extend them into biological applications.

Abstract
We have developed a new method to create microfluidic devices using metallic wires as templates. Microfluidic devices are commonly used in medical and other routine testing, but high prototyping costs limit their use in less generalizable settings such as organic chemistry. Our method uses inexpensive materials (magnesium wire, PDMS, and HCl) to pattern and create microfluidic devices. We will report on our work creating and characterizing microfluidic devices and discuss future work including a possible method to perform biological activity assays in collaboration with other researchers.

Co Presenter(s) / Group/Ensemble Participants
Jonathan Wickes
Christopher Lamb
Prevalence of Metabolic Syndrome Among Faculty, Staff, and Spouses at Southern Utah University

Presentation Description
According to the American Heart Association, 35% of American adults have metabolic syndrome. Assessing the presence of this and those who may be at risk for developing metabolic syndrome.

Abstract
Metabolic syndrome describes a group of risk factors that increase risk for developing cardiovascular disease, type 2 diabetes, or stroke. These risk factors include elevated blood pressure, elevated fasting blood glucose, elevated waist circumference, and abnormal cholesterol levels. Metabolic syndrome occurs when three or more of these conditions are present together. According to the American Heart Association, 35% of American adults have metabolic syndrome (Association, 2011). This study evaluated Southern Utah University (SUU) faculty, staff, and spouses to assess presence of metabolic syndrome (presence of three risk factors) or at risk for developing metabolic syndrome (presence of two risk factors). Through a partnership with SUU’s Wellness Program, T-fit, 189 participants were assessed. More than 33 percent of participants have metabolic syndrome, while an additional 21.7 percent are at risk for developing metabolic syndrome, as evidenced by presence of two risk factors. Furthermore, a survey was administered to evaluate lifestyle factors that may contribute to the development of metabolic syndrome. SPSS21.0 was used to analyze data which revealed that there are many lifestyle factors that contribute to increased risk of developing metabolic syndrome.
Title:
Metal Nanoparticle Synthesis with Microfluidic Devices

Presentation Description
We are using microfluidic devices to fabricate metallic nanoparticles, which potentially have broad applications ranging from industry to medicine. We will report on our progress in reproducibly fabricating and characterizing...

Abstract
Microfluidic devices have been of interest to many chemists of various fields because of the high level of control they offer with respect to reaction conditions. We previously developed the ability to fabricate simple microfluidic devices using an elastomer (PDMS) and magnesium wire. Currently, we are testing the ability of devices made using this method to reproducibly fabricate metal nanoparticles. Nanoparticles are of great scientific interest because of their potential applications in fields ranging from industrial catalysis to medicine. Our initial tests focused on forming silver nanoparticles, which appear to have been successfully created. Our current work is moving into gold nanoparticles. We will report on our efforts to produce and characterize these metallic nanoparticles.

Co Presenter(s) / Group/Ensemble Participants
Title:
Fused Glass: The Process

Presentation Description
This presentation describes the process of fusing glass from start to finish. You will learn about the range of materials such as crushed, powdered, and strings of glass used to create functional objects and sculptural artwork.

Abstract
This Pecha Kucha presentation describes the process of fusing glass from start to finish. You will learn about the range of materials such as crushed, powdered, and strings of glass used to create functional objects and sculptural artwork. The colorful images of this presentation include works by the presenter, Carrie Trenholm, and of others who have inspired her. She relates the story about how she became involved with this beautiful medium.
Title:
Chlorophyll Concentration by Fluorescence

Presentation Description
Water Chlorophyll concentrations were determined at different locations in Southern Utah. We compare this information and also show the correlation with life in the water sources.

Abstract
Water chlorophyll concentration was determined at various locations in southern Utah. Chlorophyll is a pigment found in plants that is essential for photosynthesis. The purpose of our project was to compare various locations and see how the chlorophyll concentration changed after one year. The amount of chlorophyll is a direct indication of the concentration of oxygen and therefore the amount of life that can be supported by the water. The concentration of chlorophyll was determined using fluorescence spectroscopy, as chlorophyll fluoresces strongly at low concentrations. Fluorescence is the emission of light from a molecule due to the relaxation of an electron from an excited state. In order for fluorescence to occur, the electron must initially be moved to an excited state by absorbing energy in the form of a photon. The method we used to measure the concentration of chlorophyll takes advantage of the fluorescence of chlorophyll. Since chlorophyll fluoresces at a specific wavelength, we simply measured the amount of light at that wavelength. The results are discussed here.

Co Presenter(s) / Group/Ensemble Participants
Amanda Robinson
Kim Bronson Weaver
Rebecca Stewart
Synthesis and Characterization of Imines Derived from Purines and Pyrimidines

Presentation Description
This project involves the synthesis, characterization, and fluorescence properties of imines derived from biologically important molecules: purines and pyrimidines. Compounds are characterized by NMR spectroscopy and X-ray crystallography.

Abstract
Schiff bases (imines) are considered an important class of organic compounds containing azomethine (−RC=N−) functionality. They are synthesized by the condensation of appropriate aldehydes and amines. They are versatile ligands capable of coordinating to almost all metal ions. Schiff bases and their metal complexes play an important role in the development of coordination chemistry. They have a wide variety of applications in biological, analytical and medicinal fields, and have gained much attention in recent years. However, less research has centered on the Schiff bases containing biologically important molecules: purines and pyrimidines. Purines and pyrimidines are the building blocks of nucleic acids – DNA and RNA. Synthetically produced purine and pyrimidine-based compounds are known to exhibit various biological activities. For example, Pyrimethamine (brand name: Daraprim) is a pyrimidine-based antimalarial drug, and Abacavir (brand name: Ziagen) is a purine-based anti-HIV drug. This research proposal focuses on the synthesis of Schiff bases containing purines and pyrimidines, and their complexation with transition metals such as cobalt, nickel, copper, and palladium and platinum. Schiff bases of 5-aminouracil with different N-heterocyclic aldehydes were synthesized and they exhibited fluorescent properties. Compounds were characterized by 1H-NMR spectroscopy and X-ray crystallography.

Co Presenter(s) / Group/Ensemble Participants
Amanda Robinson
Student Safety Handbook

Presentation Description
A guide to help the students on campus in case they encountered a situation that they might need assistance with.

Abstract
My Masters of Forensic Science Graduate Project is to bolster what Southern Utah University already has in place in regards to student safety, but making it more accessible and user friendly! Southern Utah University is a beautiful place to grow and branch out to who we want to be, but sometimes unfortunate things happen. This will be guide with helpful information to help the student to be a more successful and thriving student after they have gone through a traumatic experience. This handbook will give a step by step guide in what to do in certain situations plus enhancing the Southern Utah University smart app with current updates.
Equine Therapy at Discovery Ranch

Presentation Description
Discovery Ranch is an organization that uses equine therapy to help troubled teens overcome adversities that they have faced in their lives. This presentation focuses on how they accomplish this change through the use of the majestic animals.

Abstract
Animals have the ability to connect with us in a way that other people can't. They do not judge us based on our appearance, how much money we may have, where we grew up, or what we believe. They love us unconditionally and have the ability to bring about a change in us. Discovery Ranch focuses on helping teen girls overcome issues that they may face in their lives through introducing and having them work with horses. Through working with these horses, the girls are able to accomplish goals with each other and overcome personal trials within themselves. Each girl is different and has unique life circumstances and hardships that they have faced, which mirror many modern social problems we see in the world today. By watching how the girls, instructors and horses work together we can take the principles applied at the ranch and expand their results to help confront the issues we face in today’s society.
Title:
Drums & Animation in Motion

Presentation Description
SUU Percussion Studio & Motion Graphics Dept. have collaborated on Sweet Dreams, Elizabeth Lee & TinPlay. SUU music students will perform the music live in full synchronization with the animation produced by the motion graphics.

Abstract
The SUU Percussion Studio under the direction of Lynn Vartan and students from the SUU Motion Graphics Studio under the direction of Jeff Hansen have collaborated on musical numbers "Sweet Dreams, Elizabeth Lee" and "TinPlay." SUU percussion students will perform the music live in full synchronization with the film animation designed and produced by the motion graphics students. This cross-classroom collaboration has created a completely new version of the music that tells a new story in design and percussion music.

Co Presenter (s) / Group/Ensemble Participants
Jeffery Hanson MFA
SUU Percussion Ensemble Members
SUU Motion Graphics Studio Members
Title:
Effects of Social Interaction on Individual Creativity

Presentation Description
This study utilized Guilford’s Test of Alternate Uses (i.e., the listing of possible uses for a brick) to examine whether or not social contact made while in a group environment affected the creativity of an individual after the group had disbanded.

Abstract
Creativity has been a subject of ongoing research since the 1960s when Guilford first introduced his three tests of divergent thinking. During this time, the scientific research on creativity has evolved from viewing and testing creativity as a trait inherent in some individuals but not in others to a focus on the conditions that contribute to an increase of creative output from anyone. There has been research on how groups work together to produce creative solutions to given problems, and research on what environmental factors contribute to an individual’s creative output in the workplace. But to date there has been no research on the effects of the social exposure and interaction that comes with being in a group on an individual’s output after the group exposure is gone. This study will look at whether or not the social contact made while in a group environment affects the creativity of an individual after the group disbanded.
Presentation Description
Satisfied explores the struggle of making life decisions and recognizing the which is truly desirable in life. So, now I turn to you, "Open your eyes, look within. Are you satisfied with the life you are living?" -Bob Marley

Abstract
Satisfied was selected by Southern Utah University dance faculty to be performed in the student dance concert Breaking Bounds at the Randall Jones Theatre Fall 2013. In addition it was chosen to be produced at Snow College for their fall dance concert and for the American College Dance Festival (ACDFA) at the University of Montana April, 2014. Sharing my creative work at this festival will improve my knowledge and experience as a choreographer and dancer; as well as inspire a new audience, enhance their lives, and further the art of dance. In order to improve the world around us we must continue to share creative knowledge. It is an incredible joy to share life experiences and concepts of art through movement. As each of us experience our life journeys it is important to share with others as we reflect upon our desires and life paths. Every individual personifies a unique situation, and we all experience a time when we reflect on our lives and change a little according to our desires and needs. Satisfied explores the struggle of making life decisions and recognizing that which is truly desirable in life. Bob Marley states, "Open your eyes, look within. Are you satisfied with the life you are living?" Often times, in this fast paced world, we go along with the crowd not necessarily following our desires, pursuing our dreams. Satisfied was created to encourage others to "look within" and recognize if they are "satisfied" with their lives. Audience members are encouraged to reflect on their circumstances as the solo dancer briefly speaks to the audience and performs a movement journey on stage. There is not one specific example or story portrayed in Satisfied, but rather a universal understanding, a general emotion to enable the audience to step in tandem with the solo dancer as each unique journey is realized. As the choreographer, I was inspired to create this piece because of the many life decisions I face as a senior dance major preparing to graduate from college. Although it is a struggle for me, it is important to truly look inside and discover what it is I truly want in life. This piece was not only a therapeutic journey, but a fulfilling journey as well, being able to share my choreographic work with audience members. To share this piece at The Festival of Excellence will be another incredible journey, honor, and opportunity to represent SUU. Satisfied allows audience members to personalize the movement journey, the emotions felt inside, and to ask themselves, "Am I satisfied?" So, now I turn to you, "Open your eyes look within. Are you satisfied?"
Title:
The Tipping Point

Presentation Description
The Tipping Point is a dance performance examining the psychological pattern of human being on the verge of collapsing and final redemption.

Abstract
The Tipping Point is a world premiere modern dance choreography of Chien-Ying Wang. The dance investigates a fresh look of converging ideas of Eastern and Western philosophies. It takes the viewer to a deeper examination of conflicting truths and opposing realities. This dance piece is a collaboration between the masterful crafting of movements by the choreographer, the invigorating moves of the dancers, and the exquisite brush stroke (calligraphy) of SUU's Visiting Artist from China, Yi Dan Guo. The accompanying Chinese music of Ge Gan-Ru juxtaposed with Frederic Chopin's Prelude in D Flat Major Op. 28 No. 15 renders a riveting moment of calmness amidst chaos. Costume design of Keilani Gleave provides an interesting contrast of the whole environment. This creative research aspires to offer a deeper examination of human's psychological pattern experiencing the verge of collapsing and final redemption.

Co Presenter(s) / Group/Ensemble Participants
- Dustin Liechty
- Alexandria Wall
- Kaitlyn Katter
- Kathleen Fotheringham
Title:
Secondary School Teachers Perceptions of Collaborative Teams

Presentation Description
This poster presentation will provide findings from a qualitative study that examined the initial stages of collaborative teams. Findings and how to address challenges will also be discussed.

Abstract
In the process of implementing a Multi-Tier System of Support, secondary school collaborative teams are often faced with unique challenges and barriers. This poster presentation will provide findings from a qualitative study that examined the initial stages of collaborative teams. The researchers interviewed several special and general education teachers currently working in the schools. Findings and how to address challenges will also be discussed.

Co Presenter(s) / Group/Ensemble Participants
Kimberly Mendenhall Ph.D.
Title:
Sexualization of Violence in Comics

Presentation Description
Using the Harley Quinn submissions call as a framework, J.S. Wayne discusses the value of comic books and what they say about our society.

Abstract
Using the highly publicized outcry over DC Comics' September 2013 Harley Quinn franchise launch submissions call as a framework, romance author J.S. Wayne discusses mental health issues and gender and sexual politics in modern comic books. He begins with an analysis of the causes of the immediate controversy. Then he initiates a closer consideration of the character of Harley Quinn specifically to create a rubric for the larger societal and artistic issues DC's submissions call raise. By examining arguments posited by feminists, artists, and readers, Wayne creates a context for discussion of how the gender issues portrayed in comics reflect the larger world and what impact and effect the fantasy world of comics has on modern life.
Our focus is to make new compounds and test for future anticancer drugs. Organoarsenic compounds are chemicals with arsenic and carbon that, in small amounts have been found to fight cancer.

Abstract

Organoarsenic compounds are compounds containing carbon and arsenic. These compounds have been shown to have biological activity and pharmaceutical properties, and some organoarsenic compounds have even displayed potential for aiding in current medical problems up to and including possibilities as anticancer agents. Currently relatively little research is being done on organoarsenic compounds by the pharmaceutical community due to current views from the media based largely upon the toxicity of their inorganic arsenic counterparts (inorganic compounds are compounds not containing carbon). Organoarsenic compounds, however, have significantly lower toxicity. Also, like with any medicine, toxicity depends predominately upon concentration, and given a high enough concentration, organoarsenic compounds logically follow the same trend. Methods for synthesis of a large variety of novel organoarsenic compounds has been found via a reaction involving a variety of aldehydes or ketones (containing an alpha carbon with at least one proton) and 2-(Dichloroarsino)benzaminium chloride (Steffensen). Research will focus on synthesis, isolation, and characterization of a library of organoarsenic compounds and then determine their respective biological activities. Products will be isolated through modification of reaction methods to crystallize out product. It is also known that biological activity of arsenic compounds is often mediated by reactions with thiol containing groups (namely cysteine) within proteins. Research will also focus on thiol modification by organoarsenic compounds and characterization of modified thiol organoarsenic products. The structure of synthesized novel organoarsenic compounds will be determined through IR, NMR, and Gas Chromatography/Mass Spectrometry, and through X-ray crystallography. Biological activity will be tested via a Kirby-Bauer Disc treatment on E. coli. It is hypothesized that compounds will inhibit bacterial growth and either react with or bind small organic thiols (i.e. cysteine, glutathione), modifying said thiols.
Title:
SUU EET Exercycle

Presentation Description
The Exercycle measures the rider's voltage, amperage, wattage, number of cycles, and RPM. It shows how many watts it takes to power different kinds of bulbs. Finally, people can compete against one another in the competition mode.

Abstract
The SUU EET Exercycle is a machine that has been created out of an old exercise bike and a car's alternator. The rider pedals turning the rotor assembly of the alternator producing an AC Voltage. The voltage is used to turn on and off multiple bulbs. All of the bulbs can be controlled by the user allowing them total control over the amount of load they feel while pedaling. All of the software has been done in LabVIEW which is a graphical programming language created by National Instruments. Instead of using a character based system, LabVIEW is done by connecting multiple nodes, functions, and structures together to get a desired result. The program is capable of measuring Voltage, Wattage, Amperage, RPM, cadence, number of cycles pedaled, and even temperature. Everything being measured can even be put to a graph. It also has a mode that shows how many Watts it takes to run incandescent, CFL, or LED bulbs. In the competition mode, the rider can flip switches which control which bulbs turn on. The score can be saved so everyone can compete against each other. This machine shows just how much work it takes to power a light bulb.
The Neural Basis of Aggression in Siamese Fighting Fish

Abstract

Aggression plays an important role in the social interactions of most animals, including humans. Males in particular produce aggressive behaviors for a number of reasons, including acquisition and defense of resources, courtship of females during reproductive seasons, and establishing/maintaining social dominance hierarchies. The neural mechanisms underlying aggression have received a great deal of attention, especially as scientists attempt to discover the cause of pathologically aggressive behaviors in humans. Of particular interest is a link between levels of serotonin in the brain and aggression. Correlational studies have shown that males who show higher levels of aggression have lower levels of serotonin, while experimental studies have shown that artificially increasing serotonin levels causes a decrease in. These studies suggest that serotonin may serve as an important modulator of aggression levels by regulating the brain circuitry involved in producing aggressive behaviors. Some of the difficulties in understanding the neural basis of aggression are the complex neural circuitry and the range of aggressive behaviors exhibited by many animals, especially mammals. Different aggressive behaviors produced in a context-specific fashion may be mediated by different neural pathways and neuromodulators, making mechanistic studies difficult. The use of model species with simple, reflex-like aggressive behaviors is critical to understanding the role of serotonin and other neuromodulators in aggression. The Siamese fighting fish, Betta splendens, is a highly aggressive fish. Males produce stereotyped aggressive behaviors that consist of frontal displays (flaring of the gill covers, fins, and tail while facing the opponent) and broadside displays (flaring of the fins and tail while swimming with the side facing the opponent). These aggressive displays are elicited by visual cues, and are significantly reduced in males given selective serotonin reuptake inhibitors.

Betta therefore represents an excellent model system for investigating how serotonin mediates aggression. I hypothesize that the aggression pathway in Betta begins with visual regions in the midbrain, which in turn project to the hindbrain motor regions that control the muscles involved in producing aggressive displays. I further hypothesize that serotonin-producing neurons in the forebrain project to these visual and/or motor neurons, altering their activity and therefore altering aggressive displays. While the sensory and motor neurons of the aggression pathway have been identified, their connections with each other and with serotonin-producing neurons remain unknown. I am in the process of identifying the location of serotonin-producing neurons by applying a serotonin-binding antibody to frozen brain sections using standard immunohistochemical techniques. I will then use tract tracing techniques to identify the connections between sensory, motor, and serotonin-producing regions of the brain. Injecting neuronal dyes into sensory and motor areas of the aggression pathway will elucidate connections between these two areas, as well as connections between these areas and serotonin-producing neurons. Taken together, these experiments will provide a complete map of the aggression pathway in Betta, which will then allow further study of the functional aspects of how aggressive behaviors are mediated by the brain.
On the Distribution of Divisors

Presentation Description
We take a closer look at the sequence of positive divisors of an integer. We use tools from complex analysis to draw conclusions about the distribution of divisors, a fundamental property of the natural numbers.

Abstract
The maximum ratio of consecutive divisors of an integer is a measure for how dense the sequence of divisors is. This ratio can be viewed as a random variable whose distribution function tells us much about the distribution of divisors. A new asymptotic formula will be presented for the number of integers not exceeding $x$ whose maximum ratio of consecutive divisors is at most $y$. This result was made possible by the discovery of a functional equation, which led to the computation of a Laplace transform, whose inversion resulted in the new asymptotic formula.
Title:
Shakespeare and Original Practices

Presentation Description
An expanded version of this presentation will be published in "Shakespeare", the journal of the British Shakespeare Association.

Abstract
The “original-practices” movement in Shakespearean performance seeks to prepare and perform the works of William Shakespeare and other playwrights of his period in a manner akin to that practiced by Shakespeare and his theatrical contemporaries. The original-practices movement makes use of early modern playing spaces and reconstructions thereof, such as Shakespeare’s Globe in London and the Blackfriars Playhouse in Staunton, Virginia, unitary lighting between stage and audience areas, clothing similar to that of the early modern period, and a series of performance and preparatory techniques intended to recreate the material and experiential conditions of Shakespeare’s theatre. Akin to the “early music” movement, practitioners seek through their efforts to learn more about the practices of a bygone era. Some of the most crucial aspects of Shakespeare’s theatre, however, were determined by the nature of the repertory system Shakespeare and his fellows employed, which featured different plays performed on each of six days per week, long periods of time between repeated performances, perhaps 17 or so different plays performed during a 30-day period, and new plays being introduced to the repertory ever two or three weeks. A “season” at an Elizabethan/Jacobean theatre would encompass some 30 to 40 different plays, and only a single group rehearsal was allotted to any play before its opening. While present-day original practitioners attend to some of the material details, almost none are willing to work with only the amounts of rehearsal allotted in Shakespeare’s period, and none have been willing to attempt anything approaching an early modern repertory schedule. Practitioners today lavish significant amounts of rehearsal time even on so-called “original-practices” productions and perform them as part of seasons containing generally very few productions. The factors of preparation time and repertory schedule may be the most important in determining the nature of performance in the early modern theatre. Without attending to them, original-practices productions cannot hope to realize significant similarities in later modern performance.
Title:
Laws: Catch Me If You Can

Presentation Description
This presentation is part of a research topic for our class CSIS 2670. We will be discussing computer crime in the context of law.

Abstract
During this presentation we will discuss the findings of our research topic that examines various laws and their impact on current information security breaches. This is critical to bring attention to the general public because often laws are complicated and criticized for their legal jargon. To enhance awareness about various laws and their legal loopholes, we will illustrate various computer crime cases from different countries and reflect the impact of the laws of that country. The specific cases that we will look at about computer crime are from the United States (Utah, California, and Washington D.C.) and Canada (Ottawa and Montreal). Our goal is to enhance awareness to the audience regarding how laws are always playing catch up because they are often outdated when computer crime cases occur. Hence it is important that companies protect themselves from security breaches rather than relying on the laws alone.

Co Presenter (s) / Group/Ensemble Participants
Saad Alrowidan
Michael Nelson
Dave Christensen
Casen Van Houten
Secure Guns at Your Fingertips

Presentation Description
We have designed a biometric (fingerprint) lock box for your concealed weapons. In a community where it is common to have multiple guns, this lock box accessible gun without jeopardizing security.

Abstract
In a community where it is common to have multiple guns in almost any vehicle, we have developed a box to give you an accessible gun without jeopardizing security. We have designed a biometric (fingerprint) lock box for your concealed weapons. Added security for weapons should not be a luxury, it should be an option for all. We got the idea from The Gun Box, a small company in Lehi, UT. It is a design similar to this one made from aluminum, and uses an RFID chip as the key to open the Gun Box. Our design is built on the thought that it would be nice to have a similar application for use in a vehicle that uses the standard 12 volt electronic system. Our lock box is designed to hold one handgun and securely lock it away using a Biometric scanner and powered by the vehicles 12 volt system. This lock box is designed to mount anywhere and keep the gun secure even with the box open using a thermoplastic foam, which is moldable at temperatures above 200°F and retains the molded shape as it cools. Using this foam to secure the gun will allow it to be mounted on the wall while keeping the gun from falling when the box is opened. The design for the project was divided into three groups: electrical system, material science, and manufacturing process. Each group was led by one member of the design group. Each individual had the responsibility to oversee their portion of the design, with the other group members to be used as support for each aspect of the design. The electrical system included the Biometric scanner, the locking mechanism, the power source, the fail-safe unlocking mechanism, the power button, and the programming for the complete circuit. Included in the material science portion was selecting the material to be used for the structure of the box and all other hardware and materials needed for the construction and assembly of the box, excluding the electrical components. For the manufacturing process portion, a model was created using modeling software, a die was made from foam, the die was then used to sand cast the box, and finally the machining of each part was completed. Assembly was the final step in the process, and this took the effort of every person in the group.

Co Presenter(s) / Group/Ensemble Participants
Sean Getter
Mike Wood
Vitamin C Quantification by HPLC Method

Presentation Description
Have you ever wondered how much Vitamin C is in the food you eat? Are you really getting as much as you think you are? Using HPLC methods we were able to quantify exactly how much Vitamin C is present in different food sources.

Abstract
Vitamin C, also known as ascorbic acid, is a nutrient that can be found in many organic substances such as citrus fruits, potatoes, peppers, and other various foods. Vitamin C is an essential vitamin that has many functions in the body. These functions include antioxidant activity, the formation of scar tissue, and repairing and maintaining cartilage, bone and teeth. In addition to these functions, vitamin C also acts as a preventative of many complications and diseases. Some of these include brain hemorrhaging, cardiovascular disease, ischaemic heart disease, and scurvy. A method was developed using High Performance Liquid Chromatography (HPLC) to determine the concentration of vitamin C in certain foods. A method was developed for extraction of vitamin C from the following organic foods: oranges, limes, peppers, potatoes, spinach, and grapes. Each fruit and vegetable tested was of average size and appearance, and was obtained from a local grocery store. A method was developed for testing the concentration of vitamin C from the various food extractions using HPLC. Each fruit was tested three times to determine the average amount of vitamin C in a serving size of each fruit. Serving sizes were determined according to a previously compiled list created by the United States Department of Agriculture (USDA). The results of this experiment can be further used in comparison to standards published in USDA literature regarding the subject.

Co Presenter (s) / Group/Ensemble Participants
Diana Reese
Shelli Mogensen
Kacey Hutchinson
Maternal Fatigue and Sleep with Parenting and Child Outcomes in Mothers of Young Children

Maternal fatigue has many behavioral similarities to depression. This study explores this relationship with mothers of young children and the risks on fatigue with parenting practices and child development.

Abstract
Maternal depression has emerged as a major risk factor for children of all ages from prenatal development through early childhood and into adolescence. Fatigue, a subjective state that has been defined as a decreased capacity for physical or mental activity, has many behavioral similarities to depression (e.g., weariness, difficulty concentrating, diminished motivation). Possible explanations for fatigue may be a result of (a) inadequate or problematic sleep, (b) expending energy to care for a young child, or (c) a chronic illness. Effective parenting requires being supportive and sensitive to a child’s physical and emotional needs (Dix et al. 2004; Martin et al. 2002). It is likely more difficult to handle the physical and emotional demands of parenting when mothers are fatigued or sleep deprived. In addition, it could impair one’s ability to be a responsive and engaged parent. However, limited research has examined the role of fatigue and sleep problems in regards to parenting. A longitudinal study was conducted that followed mothers with multiple sclerosis (MS) and rheumatoid arthritis (RA) because fatigue is common in these illnesses. A total of 94 women responded at both Time 1 (T1) and Time 2 (T2), 58 women with MS and 36 women with RA. At T1, information about the mother’s fatigue (Modified Fatigue Impact Scale; MFIS; Fisk et al., 1994) and sleep (Sleep Scale from the Medical Outcomes Study; MOS-SS; Hays et al., 2005) were collected. At T2, information about the mother’s sleep and fatigue were collected again, in addition to several parenting measures (Self-Efficacy Parenting Scales Task Inventory; SEPTI; Coleman & Karraker, 2000; Parenting Stress Index; PSI; Abidin, 1995; Parenting Styles and Dimensions Questionnaire; PSDQ; Robinson et al., 1995) and child behaviors (Child Behavior Checklist; CBCL; Achenbach & Rescorla, 2000; Positive Behavior Scale; PBS; Epps et al., 2003). T1 fatigue was associated with several T2 parenting measures (SEPTI Recreation subscale r = -.39, p < .001; SEPTI Nurture subscale r = -.23, p < .05; PSI r = -.35, p < .001) and child outcomes (PBS r = -.25, p < .05; CBCL Externalizing subscale r = .27, p < .01). The overall sleep measure at T1 was also correlated with T2 outcomes (PSI r = -.22, p < .05; PBS r = -.21, p < .01; CBCL Total Problems scale r = -.21, p < .05). There were also significant concurrent correlations between sleep and fatigue with parenting measures and child outcomes. For fatigue, all of the previously mentioned variables were correlated, in addition to the PSDQ Permissive subscale (r = .22, p < .05), CBCL Internalizing scale (r = .40, p < .001), and CBCL Total Problems scale (r = .52, p < .001). For sleep at T2, a similar pattern as was found with fatigue in that previously correlated variables at T1 were also significant at T2. In addition, all of the CBCL scales were correlated with sleep (CBCL Internalizing scale r = .28, p < .01; CBCL Externalizing scale r = .29, p < .01; CBCL Total Problems scale r = .34, p < .01). Future research should continue to consider maternal fatigue as a possible risk factor for parenting and for children.
Title: Celebrating Ceramics

Presentation Description
In the “Celebrating Ceramics” exhibit, one will get to view SUU's potters and sculptors feature their ceramic work. These creative works showcases their imagination, skill, and passion for art.

Abstract
The Ceramic Show, "Celebrating Ceramics," at the Festival of Excellence is just a portion of Kayla Wiggin's EDGE project. In addition to displaying current best works of ceramic students and faculty in the festival, each participant will have the opportunity to have their work published online and in a catalog.
**Title:**
Evolution of the Modern Dessert

**Presentation Description**
Desserts haven't always been the way that they are now. We will take a look at where the modern delicious treats came from.

**Abstract**
The presentation will take a look at the evolution of the modern dessert.
Title:
Development of a Mobile App to Catalog Forensically Important Insects

Presentation Description
I am developing a mobile apps and a we system to house information in forensically important insects.

Abstract
I am developing a mobile app that will be used by biologists to upload information about forensically important insects collected in the field. Dr. Jacqueline Grant and Moriah Guy, are in the process of collecting data about forensically important insects in southern Utah. They need an interactive database system that will allow them to (1) upload data from their field sites in an organized way and (2) make the data publicly accessible. I am designing a mobile app that will fulfill these requirements and be available for public purchase or free download through the iTunes store. The system will include but is not limited to a photographic database that includes a biological history of the specimen. The system will include an app for Android and iOS as well as a web interface. Such a system will aid in the cataloging and identification of specimens in the field. I will work with Dr. Nathan Baker to determine how best to organize the information and make it readily available on the internet and on smart-phones to facilitate field research. The app and internet access will also be useful in criminal cases where information about forensically important insects is used as evidence. This collaboration between the biology department and the computer science department is needed to take research projects to the next level and to fully make the information available to scientists both in the local area and around the country.
Inquiring minds want to know! What made me who I am today? Motivate elementary age students to inquire and investigate their heritage and to display their findings by creating a heritage board.

Abstract
Digital Preview of a Modern Sports Complex

Abstract

As Southern Utah University’s sports teams continue to grow, improve, and produce world class athletes, there is a growing need for an indoor training facility. I am a decathlete currently competing on the SUU track team. This means I spend a large amount of time practicing. During the winter months of the year this becomes difficult to do because of the cold and snow. Many of the events the track and field athletes practice need to be done where it is warmer, or they risk injury. There is also the problem of damaging equipment in the cold. This can be the case with most outdoor sports. As it gets colder, the athletes need a warmer place to practice. This leads them to be inside the multipurpose building. Currently there are several sports that use this facility to practice, including softball, track, and men’s and women’s basketball. Due to the lack of space, there have been issues with the scheduling and usage of the multipurpose building.

It is my proposal that a new building be built to replace the current multipurpose building. A place is needed for the permanent placement of the track and field jumping pads indoors to specifically allow the jumps squad to continue to practice during the winter months without having to set up every day. This would greatly improve the quality of the training done by the athletes as well as free up time and space in the multipurpose building. This would also allow the storage space under and around the football stadium to be used for other purposes. The proposed building design will serve all the functions of the current building, but provide more classroom and office space and house an indoor track. Inside the track area will be turf that can be rolled out over the floor to provide a space for soccer or football. The main track will be set up in a way that would allow the turf to lay flat. Two new weight rooms would be included, one for the athletes, and another for the other students. The new facility would also be providing other athletic teams at SUU an alternative place to practice. The location of this new building would be located on campus, either where the current multipurpose building is, or on the former baseball fields. If this was to be built, it would be a great asset for the University. Using Revit I plan to design a building that may be a foundation for a future athletic building here at SUU.

Track and Field has been one of my passions for many years. During my time here I have come to the decision that an indoor track could greatly benefit the team, as well as me. It wasn’t apparent to me that this could be something that I could help with until this semester, where I am required to do a major project. This project gives me the chance to learn more about 3D rendering, structural engineering, and the opportunity to explore tools in Revit not normally used in residential drafting. In order to become certified in the Revit program, an exam is required that tests one’s ability to use those tools. So far I have gained a substantial amount of knowledge about Revit from my research, and from the time I have spent designing the track portion of this assignment. I chose to do an indoor athletic facility because it will be challenging, but will help me understand more about the designing process. I believe the experience gained from this project will be a benefit to my future career, while giving me the chance to potentially help out the track team. My objective for this project is to better understand programs used in architectural design by designing a state of the art 200 meter indoor track and training facility complete with field event and storage areas for the Track and Field Program. This would allow the athletic teams at SUU to practice without the scheduling conflicts as well as provide the opportunity to host indoor track meets, which would let the students support their athletes and morally boost the track team by giving them the chance to compete at home.
Title:
Does Phosphatidylserine-Cu 2+ Binding Cause Flipping?

Presentation Description
This project is helpful to explain some of the symptoms of Copper poisoning due to an indicator lipid in cells flipping to the outside.

Abstract
We are investigating the behavior of phosphatidylserine (PS) lipids in the presence of copper. PS is present in the cell membrane of most living things, and has been linked to as important and diverse cellular processes as apoptosis, clotting, and disease transmission. Previous studies have demonstrated that copper (II) ions bind PS, and suggest that the copper-PS complex can "flip" across membrane bi-layers. We have used electrophoresis and microfluidics and are currently using a copper-catalyzed reaction to attempt to demonstrate whether or not flipping of the complex actually occurs.
Title:
Migration of Lipids in a Supported Lipid Bilayer

Presentation Description
Membranes and membrane proteins are crucial to life and important in biology and medicine. We are simulating the motion of membrane components during a newly-developed focusing technique (EEF) in an attempt to improve the

Abstract
Cell membranes and their proteins play an essential role in everyday life and are of a particular interest to those studying life. There has been an increase in studies that look at the role of these proteins and membranes along with their interactions in drug and theoretical research. Recently, supported lipid bilayers (SLBs) have been used to purify membrane proteins using a technique called electrophoretic/electroosmotic focusing (EEF). While this technique is well-understood at the beginning and end of lipid/protein separation, the behavior of these lipids/proteins is not well understood in-between. We are attempting to create a computer simulation that will allow us to model the behavior of lipids and proteins in all stages of the separation. This is meant to help understand the interactions of proteins and lipids for future studies.

Co Presenter (s) / Group/Ensemble Participants
Rulon J. Corry
Bruce Smalley
Cody Hilton
Title:
Heritage Presentation

Presentation Description
A presentation of the heritage of my family.

Abstract
A presentation of the heritage of my family.
Title:
Service Learning in Nepal

Presentation Description
Join Shaun as he shares his service learning capstone based on the SUU study abroad this past year to Nepal. Hear some experiences and learn about the people he met and some comparisons to the United States experiences.

Abstract
Service learning is an integral part of the education at Southern Utah University. During the study abroad to Nepal, SUU students were able to make connections from the classroom instruction to real life applications. As students get out of their comfort zone, that is when education truly begins and starts to flourish.
Title:
The Role of Content and Interface Design in Mobile Tablet Training

Presentation Description
This research explores the potential affordances of using mobile tablets in training. Using field experiments with real users, the study results highlight the importance of content relevance and interface aesthetics in mobile tablet training.

Abstract
Tablets are playing an increasingly important role in today’s education and training programs. This study explores the potential affordances of using tablets in a road safety training program. We examined how multimedia content and interface design components of a mobile tablet training program impacted the system usability and usefulness, and further how these factors influenced users’ perceived and actual training outcomes. A field experiment was designed and carried out with about two hundred real-world road users while taking their mobile tablet training on site. We used a questionnaire to collect the majority of field data, and also conducted a series of pre- and post-actual training assessments with individual users in order to examine their actual training outcomes. The study results highlight the importance of content relevance and interface aesthetics in achieving mobile system usability goals and perceived usefulness, which significantly impact the training outcomes.
Title:
100-day Listen Tour

Presentation Description
President Wyatt is going to share what it is like trying to get to know an entire campus and community in 100 days. He will also share how this listening tour will influence his term as president at SUU.

Abstract
President Wyatt gave an insight to how the 100-day Listening tour experience will affect and influence his term as president at SUU. He met with dozens of groups and thousands of people and took the opportunity to do a lot of listening along the way.
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**Title:**
American Food Culture: Food Service

**Presentation Description**
Interested in the food service industry? This project explores the different dimensions of food service such as: production, distribution, and consumption. Learn about America’s favorite restaurants.

**Abstract**
We live in a society that revolves around food and the act of eating food. Food is not only used as a means of nourishing one’s body. People all over the country consume food for pleasure. Fast food restaurants have made it quick, convenient and cheap for Americans to have a quick meal. Five minutes in the drive-thru and eight bucks later, one has something delicious to eat. My project will explore the different dimensions of the food service industry such as: production, distribution, and consumption.