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9TH ANNUAL
ACADEMIC EXCELLENCE SHOWCASE
Proceedings of the 2014 Academic Excellence Showcase

THURSDAY, MAY 29, 2014

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http://digitalcommons.wou.edu/aes_event/2014/

#WOUAES
WELCOME

A message from Mark Weiss, president, Western Oregon University

The Academic Excellence Showcase, now in its 9th year, is a true demonstration of what we mean when we say that Western Oregon University is, first, a teaching university. It is here that students are encouraged to explore the practical application of their learning, alongside senior professors, by engaging in professional-level research. Some of the students whose projects are abstracted in this publication will go on to present their work before state, regional or even national conferences. Some will be published in our PURE Insights, a competitive journal of student work. Still others will be presenting work that has become the basis of a lifetime pursuit and passion.

Whatever comes after the Academic Excellence Showcase, these students are today the embodiment of a thorough education that stimulates lifelong learning and exploration. I congratulate our faculty who motivate and engage our students to take their classroom experience on a journey into the “real” world.

The Academic Excellence Showcase is one of my personal highlights. I want to thank the students who have chosen to share their work with us, and the faculty for nurturing and guiding the pursuits of our students. Western Oregon University commends your dedication, and we are proud of all you do.

A message from Stephen Scheck, vice president of academic affairs, Western Oregon University

Today’s Academic Excellence Showcase provides a snapshot of the engagements of academic discovery that take place everyday at WOU. And this snapshot reveals an academic community very rich in diversity of scholarship. We are a community where faculty encourage students to view learning as a dynamic process that extends beyond the traditional classroom. Where students are urged to pursue their interests and to commit to a process in which questions are asked and researched, and artistic works are created and performed. Whether the scholarship is conducted on the stage, in the laboratory, in the library or in the field – there is a shared experience of intellectual and personal growth. And this growth prepares one for a richer future.

It is a pleasure for me both to acknowledge the efforts of our students presenting their work today and to convey my appreciation to the faculty for their support of our students. I strongly encourage those students participating today as observers to become involved and to take advantage of the faculty’s eagerness to mentor you in your own engagement of discovery.

A message from the Western Oregon University Program for Undergraduate Research experiences – co-sponsor of the 2014 Academic Excellence Showcase

The Program for Undergraduate Research Experiences (PURE) began in 2004, when a group of faculty formed a task force to examine the state of undergraduate scholarship at Western Oregon University. We were impressed by what we saw happening across the campus. We recognized that the research experience takes many forms – academic papers, exhibits, posters, laboratory investigations, performances, and service learning projects, to name just a few. The PURE task force identified numerous ways to help facilitate and enhance undergraduate research experiences at WOU. One recommendation—to facilitate greater participation by the entire campus in celebrating our students’ accomplishments—resulted in Academic Excellence Day. The Honor Society of Phi Kappa Phi, which had organized an Academic Excellence event for a number of years, partnered with PURE to sponsor the annual Academic Excellence Showcase. With our combined resources and planning committee, we developed a campus-wide event that has become a hallmark of the outstanding undergraduate experience offered at WOU.

Again this year, the campus community has responded enthusiastically to the call for participation, as evidenced by this impressive Proceedings volume. The Faculty Senate has encouraged faculty to cancel classes so students may attend the Showcase. Nearly 90 faculty and staff members from across campus have volunteered their time and energy to serve as session chairs and faculty sponsors. As a result of their efforts, more than 375 students are scheduled to present at this year’s Showcase. This exciting event celebrates some of the most remarkable academic accomplishments made by WOU students. We are very proud of their success and are honored to be a part of the 2014 Academic Excellence Showcase. We hope you will join us in attending as many sessions as possible and congratulating students on their outstanding scholarship.
Traditional music notation is the means by which musicians turn aural information into visual information and vice-versa. It is very effective for communicating certain kinds of detail (i.e.: which particular pitches are occurring at which points in time), but not so good at illustrating relationships among those pitches. The relationships must be extracted through analysis of the score. Such analysis requires several layers of information chunking.

In order to make the top-level chunking of information more apparent and accessible to students, I have developed a tool I call “Tonal Mapping,” whereby higher-order relationships are illustrated in a sort of time-lapse photo of a chord progression. The maps allow one to see the “normal” progression from one chord to another — that is, the one that we would recognize as the most likely chord to succeed any particular chord — and how actual progressions adhere to and/or depart from expectations. The maps also provide a blueprint for all possible harmonic relationships to the chord that represents the tonal center — the “One”-chord, represented by the Roman numeral I.

The two maps provided here are examples of how an entire song can be reduced to a “photo” of its harmonic progression. The first illustrates Lennon & McCartney’s Golden Slumbers, the second illustrates Tom Jobim’s Once I Loved. In the first, one can observe the simple elegance of Lennon & McCartney’s architecture. In the second, one can observe the intricate web of expected and unexpected events that characterizes the writing of Jobim.

By studying these two examples, one can also observe how tonal mapping is a useful tool for comparative analysis of songs, genres, composers, and common-practice periods. Underlying all of this is my belief that to see relationships is to turn information into understanding.

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**Dr. Tom Bergeron**, professor of music at Western Oregon University, recipient of 2013 Pastega Award for Excellence in Scholarship and Creativity, delivered the keynote address during The Honor Society of Phi Kappa Phi’s Induction Ceremony on April 16, 2014. Bergeron, has graciously provided this abstract of his address for inclusion in this year’s Academic Excellence Showcase Proceedings.

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**THE HONOR SOCIETY OF PHI KAPPA PHI**

Induction ceremony keynote address

April 16, 2014

**Tonal Mapping: A Tool for Seeing Musical Relationships**

A large part of what is traditionally called “music theory” is the study of harmonic relationships over time. In music that has a tonal center (“Tonal” music), this progression of harmonies (the “harmonic progression or “chord progression”) can be seen to follow well-traveled routes. We who have grown up immersed in Western musical culture know what to expect intuitively along those routes, even if we have no intellectual understanding of what those expectations are. Indeed, most non-musicians are not even aware that they have been conditioned by years of exposure to Tonal music to have this understanding.

Music theory, then, could be described as the discipline that gives names to events that musicians otherwise understand “by ear,” with the goal of enabling students of music to reproduce and control those events. A subsidiary goal would be to improve a musician’s listening acuity, so that they may consciously recognize those events when they hear them.
ACADEMIC EXCELLENCE SHOWCASE WELCOME RECEPTION & MAURICE UNDERGRADUATE INITIATIVE $5,000 AWARD

Werner University Center (WUC) Willamette Room
11 to 11:45 a.m., WUC Willamette Room

Please join the members of the AES Committee and the Maurice Undergraduate Initiative Committee at this hosted reception to celebrate our institutional passion for innovative teaching and learning, in all its forms. This reception will feature the Maurice Undergraduate Initiative Competition*, including the presentation of the $5,000 award to the student winner(s) of the 2014 competition, followed by a brief overview of the winning project by its students. Take a moment between the poster sessions in WUC to learn more about the competition, its student winners, and how more students might participate.

Session sponsors:
Program for Undergraduate Research Experiences Executive Committee, Academic Excellence Showcase (AES) Planning Committee, Maurice Undergraduate Initiative Committee: Breeann Flesch (NSM), Chair; Bob Hautala (HPE) and Matt Ciancetta (NSM), faculty members; Rachel Martin, Hillevi Johnson, Jose Garcia, Kyle Rush, and Tara Ostrander, student members; Tommy Love, staff member.

Session speakers:
Alfred Maurice, founder; Dr. Steve Scheck, vice president for academic affairs; Dr. Breeann Flesch, chair; 2014 competition student winner(s).

This unique competition offers WOU students a rare opportunity to win an unrestricted cash award based on their ability to define a problem of importance to them, and to pursue solving that problem without restrictions on their creativity, innovation, or execution. Ultimately, the competition intends to help students broaden their knowledge about themselves and their abilities, as well as learn more about the global community. The winner(s) are chosen by the committee based on the a) innovation, design, and execution of the project over its 12-week implementation, b) depth of knowledge gained through the student’s project, c) impact of the project on the campus and community, and d) the quality, clarity and appropriateness of the analysis report and presentation to the committee.

Western Oregon University Chapter of The Honor Society of Phi Kappa Phi – co-sponsor of the 2014 Academic Excellence Showcase

Founded in 1897 and headquartered in Baton Rouge, La., Phi Kappa Phi is the nation’s oldest, largest and most selective all-discipline honor society. Phi Kappa Phi inducts annually approximately 30,000 students, faculty, professional staff and alumni. The Society has over 300 chapters ranging from Maine to the Philippines and from Alaska to Puerto Rico. Membership is by invitation only to the top 10 percent of seniors and graduate students and 7.5 percent of juniors. Faculty, professional staff and alumni who have achieved scholarly distinction also qualify. Western Oregon University’s chapter was founded in 1979 and held the first initiation on May 9, 1980. For over 30 years, Phi Kappa Phi – with the support of its members, as well as faculty and staff across campus – has sponsored Academic Excellence on campus, celebrating our students’ outstanding research and creative endeavors. Our chapter is pleased and honored to continue this important tradition of recognizing and celebrating student excellence.
ACADEMIC EXCELLENCE SHOWCASE PROCEEDINGS
**ANTHROPOLOGY**

Session title: Anthropology Symposium
Session chairs: Isidore Lobnibe, Joan Paluzzi and Robin Smith
Location: Hamersly Library (HL) 107

**Presentations**

9 to 9:30 a.m., HL 107

**Joshua Lasky**
*Faculty sponsor: Robin Smith*

**Title:** Changing Courtship Practices in the Willamette Valley: The Impact of Online Dating

**Abstract:** Over the last 20 years online dating has become an important alternative to traditional methods of finding love in the U.S. I propose to investigate why single adults in the Willamette Valley who are searching for long term committed relationships are choosing online dating over traditional courtship practices. This study will use written surveys and face-to-face ethnographic interviews to understand the motivations of online daters as well as the outcomes they experience. I expect to gain an understanding of how online dating is changing courtship practices and the potential consequences for individuals and society.

9:30 to 10 a.m., HL 107

**Robin Roemer**
*Faculty sponsor: Isidore Lobnibe*

**Title:** Knitting in 21st Century America: The Culture and Ideology of Knitting Groups in Rural Oregon

**Abstract:** Knitting has existed since medieval times and continues even in 21st century America. Why do people knit, and what leads knitters to form themselves into social groups? My proposed ethnographic project will investigate these and related questions in order to understand how knitters learn their methods and the craft. It will also examine the identities they construct as members of knitting groups in rural Oregon. Drawing on participant observation, surveys, and oral interviews, I hope to gain insights into the craft of knitting, the different knitting practices employed by knitting groups, the patterns and materials used, and the ideologies associated with learning how to knit.

10 to 10:15 a.m., HL 107

**Josh Sullivan and Hillary Lutz**
*Faculty sponsor: Joan Paluzzi*

**Title:** Child Soldiers: Human Rights Awareness and Advocacy

**Abstract:** This project was designed for a human rights class. It explores the public’s knowledge of child soldiers in chronic and intense conflict situations around the world through the development of a public service announcement (PSA) video. Beginning with the very first article of the Universal Declaration of Human Rights: “All humans are born free and equal in dignity and rights,” the conscription of child soldiers represents violations of many of the Declaration’s thirty articles. This PSA was designed to raise awareness of the issue and to contribute to the global effort to end this violence directed at children.

10:15 to 10:30 a.m., HL 107

**Madison Clark**
*Faculty sponsor: Joan Paluzzi*

**Title:** Human Rights Awareness and Education

**Abstract:** Within the context of a course on human rights, a short public service announcement (PSA) was created to educate/advocate for action against an ongoing abuse that violates the Universal Declaration of Human Rights. This PSA video project addresses the practice of female genital mutilation (FGM). FGM specifically violates more than one of the universal rights including, “No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.” By demonstrating current awareness of this practice, the goal is to educate and to encourage public support against it.

10:30 to 11 a.m., HL 107

**Meghan Day**
*Faculty sponsor: Isidore Lobnibe*

**Title:** Methamphetamine in the Willamette Valley: Media and Cultural Influences on Individual Perceptions of “Meth” Addiction

**Abstract:** My senior research project investigated the social and cultural beliefs surrounding use of and addiction to methamphetamine (“meth”) in the Willamette Valley. The goal was to gain an understanding of public perceptions regarding the drug and those addicted to it. Research data for this project were gathered through a random sample survey of individuals, an analysis of film and television shows, and review of other secondary sources. Preliminary analysis suggests that, in addition to media representation, perceptions regarding meth and individuals addicted to the drug are often informed by multiple factors including class, gender and ethnicity.
ART
Session title: Art and Visual Communication Design Student Portfolio Presentations
Session chairs: Jen Bracy and Jodie Garrison
Location: Campbell Hall (CH) 101

Presentations

11:15 to 11:30 a.m., CH 101
Jimmy Wilder
Faculty sponsor: Jen Bracy
Title: Visual Communication Design Senior Portfolio Presentation

11:30 to 11:45 a.m., CH 101
Adam Fyffe
Faculty sponsor: Jen Bracy
Title: Visual Communication Design Senior Portfolio Presentation

11:45 to 12 p.m., CH 101
Jenna Bauman
Faculty sponsor: Jen Bracy
Title: Visual Communication Design Senior Portfolio Presentation

12:30 to 12:45 p.m., CH 101
Eric Loftin
Faculty sponsor: Jodie Garrison
Title: Art Senior Portfolio Presentation

1 to 1:15 p.m., CH 101
Nathaniel White
Faculty sponsor: Jodie Garrison
Title: Art Senior Portfolio Presentation

1:15 to 1:30 p.m., CH 101
Krista Rich
Faculty sponsor: Jodie Garrison
Title: Art Senior Portfolio Presentation

ASL STUDIES, ASL/ENGLISH INTERPRETING, and INTERPRETING STUDIES
Session title: Topics in American Sign Language and Interpreting
(conducted in ASL – no interpretation)
Session chairs: Elisa Maroney and Mike Olivier
Location: Education (ED) 217

Presentations

8:30 to 8:50 a.m., ED 217
Carissa Culver
Faculty sponsor: Elisa Maroney
Title: Interpretership: My Spring as an ASL/English Interpreting Intern

Abstract: Carissa Culver outlines her experience as an American Sign Language (ASL) and English Interpreting Intern and the impacts the internship experience has had and will continue to have on Culver’s professional development. This presentation will provide a snapshot of the culminating endeavor of WOU’s Interpreting Program seniors: the internship. Also addressed will be struggles and triumphs, and other tidbits, shared from one intern’s perspective.

8:55 to 9:35 a.m., ED 217
Cheryln Elisabeth McCarry, Miranda Featherstone, Sammy Lyman, Hanna Dingwall, Rebecca Dooms, and Erik McFarland
Faculty sponsor: Kara Gournaris
Title: The Evolution of ASL Teaching Methods

Abstract: The class of ASL 430 has endeavored to portray the evolution of methods implemented to teach American Sign Language throughout the years. Only within the last few decades has ASL been recognized as a true language. Thus, the means by which it was taught has been altered over time, not only in regards to how the language is viewed, but also in accordance with the latest teaching methods. The students in this presentation wish to share the history of a language they love and appreciate, students will show a video presenting six different methods, followed by a question and answer session.

9:40 to 10 a.m., ED 217
Brittany App
Faculty sponsor: Mike Olivier
Title: Mental Health: What Voices do you See?
Abstract: A presentation about Deaf mental health. Imagine seeing voices in your head and not being able to control them. Why is this different in the Deaf culture? Where in the regional U.S. can the Deaf receive treatment? There are specific circumstances that affect us as humans and our lives, but with Deafness and mental health, this aspect can change in a blink of an eye.

10:15 to 10:40 a.m., ED 217
Amanda Rayfield
Faculty sponsor: Elisa Maroney

Title: Effects of Repetitive Motion Injury on the American Sign Language Interpreting Career

Abstract: The purpose of this research is to investigate the incidence of Repetitive Motion Injury (RMI) amongst American Sign Language interpreters and its related effect both professionally and economically. This study examines the duration of an interpreter’s career; hours spent interpreting weekly, areas of specialty or focus, levels of stress, and usage of consecutive versus simultaneous interpretation. Additionally, if RMI is experienced, this research seeks to gather data regarding wages lost due to injury, necessary treatments, surgical or otherwise, loss of employment, and assistance of personal insurance companies regarding financial burdens experienced due to injuries sustained while interpreting.

10:45 to 11:30 a.m., ED 217
Jordan Guffey and Chloe Hansen
Faculty sponsor: CM Hall

Title: Service Learning and Professional Exploration with Deaf-Blind Adults

Abstract: This service learning experience is unique in its ability to engage students’ commitment to volunteerism, their bilingual and bicultural talents, and connect it to their future professional pursuits and passion. Through collaborative team-building, examination of systems of institutional oppression, and concentrated learning, students prepare to serve as professional Support Service Providers working with Deaf-Blind adults from around the globe. Advanced preparation involves over 120 hours studying about Deaf-Blind people, fundraising and practicing guiding and communication techniques to match the variety of hearing and vision losses. This training then culminates in a week-long service trip who experience a fully accessible vacation.

BEHAVIORAL SCIENCES
Session title: Behavioral Sciences Poster Session 1
Session chair: David Foster
Location: Werner University Center (WUC) Pacific Room

Posters
9 to 11 a.m., WUC Pacific
Deborah Perin
Faculty sponsor: Chehalis Strapp

Title: Delayed Gratification and Trust, is there a Connection?

Abstract: This research predicted that participants would accept a delayed reward from a trustworthy person, as opposed to an untrustworthy person. Using a within-subjects design, twenty participants including 15 females and five males (M=25.5 years, SD=7.02) were randomly presented with either a trustworthy or untrustworthy person first. They then read a character depiction matching each face, and answered twenty questions, which offered either smaller immediate rewards or larger delayed rewards. Participants opted for a delayed hypothetical monetary reward if the person was trustworthy. These results suggest that trust influences an individual’s ability to delay gratification.

9 to 11 a.m., WUC Pacific Room
Annalissa J. Bittner
Faculty sponsor: Chehalis Strapp

Title: Problem Solving Under Pressure

Abstract: The present study examines the impact of time pressure on mathematical problem solving ability. Participants included forty Western Oregon University students. Thirty of the participants were female and ten were male with an average age of 24.5 years (SD=2). Using a between groups design, participants completed an arithmetic test with time pressure, or with unlimited time and the number of problems solved was compared. Additionally, participants’ working memory capacity was examined. Results indicate that time pressure negatively impacts mathematical problem solving ability.

9 to 11 a.m., WUC Pacific Room
Jade M. Bostwick, AnniKa M. Johnson, and MaryLynn B. AhrensBach
Faculty sponsor: Stephanie Hoover

Title: Social Justice Identity

Abstract: Social justice is important to the counseling profession, but little is known about social justice identity (SJID). A feminist-constructivist grounded theory design was implemented to explore the meaning of mental health counselors’ SJID. With purposeful sampling, 20 mental health counselors from a social justice-oriented agency participated in focus groups and follow-up interviews. Analysis yielded four themes about the meaning of social justice identity: a) SJID requires internal reflexivity; b) SJID is ingrained in oneself; c) SJID involves investment in people’s lives; and d) SJID facilitates using one’s position of power to promote social change. Findings are illustrated with participant quotes.

9 to 11 a.m., WUC Pacific
Keeleigh Daquilanto
Faculty sponsor: Chehalis Strapp

Title: Music and Memory: The Effects of Music on Memory and Recall

Abstract: It was hypothesized that students in a group who heard a list of words sung to them, would remember more of those words than students in another group who simply heard
the same words verbally said to them. Participants included 40 college students (25 female, 15 male). Participants were randomly assigned to each group in which they heard the same list of words sung or spoken. Results showed that students who listened to the list of words in song remembered more of the list than those who heard the words verbally.

9 to 11 a.m., WUC Pacific
Alex Rose, Raymond Scott, and Geoff Thoma
Faculty sponsor: David Foster

**Title:** Language Patterns Associated with Leadership and Influence

**Abstract:** We explored language usage associated with influence within a group. Participants in 80 three-person groups rank ordered various items in terms of their importance for survival in the wilderness; both individually and as a group. Influence was assessed by determining how closely group members brought the collective group decision to their own. The results showed that influence was positively correlated with longer sentences and negatively correlated with positive emotions, and agreement. These results suggest that to be maximally influential in group settings, people should be articulate, but less emotional and agreeable towards the ideas and opinions of other group members.

9 to 11 a.m., WUC Pacific
Taylor Munson
Faculty sponsor: David Foster

**Title:** Changes in Language Style in Response to Performance Feedback

**Abstract:** We explored the effects of feedback on individual language style during a group problem solving task. Participants in 80 three-person groups rank ordered various items in terms of their importance for survival in the wilderness; both individually and as a group. After the first task, group members received positive, negative, or neutral feedback. Analyses showed that group members receiving negative feedback increased their use of first person singular pronouns and decreased their use of prepositions. In contrast, group members receiving positive feedback increased their use of first person plural pronouns and prepositions but decreased their use of sight words. Implications will be discussed.

9 to 11 a.m., WUC Pacific
Emily A. Nascimento, Danica Drapela, and Cierra Henderson
Faculty sponsor: Chehalis Strapp

**Title:** Perceptions of Educational Requirements and Expected Earnings for Careers in Psychology

**Abstract:** The current study investigated the accuracy of students’ perceptions regarding the education required to obtain their desired career and expected annual salary for this job. Sixty-four undergraduate psychology majors (Mage=24.11, SD=6.08) were asked to report their desired career title, to estimate the education needed for this position, and expected annual salary. The data were compared with information provided in the Occupational Outlook Handbook or ONET (2013). As predicted, students overestimated the amount of education needed for their desired career, however they did not overestimate income. Results are discussed in terms of career self-efficacy.

9 to 11 a.m., WUC Pacific
Alyssa Jacobs
Faculty sponsor: Chehalis Strapp

**Title:** Does Smiling Increase Helping Behavior?

**Abstract:** This study predicted that smiling would have an impact on helping behaviors. Using a between-subjects design, 50 participants, including 28 males and 22 females (M=20.5 years, SD=2.21) were randomly assigned to a control or an experimental group. Participants were asked for directions by a confederate who either did or did not produce a smile and the amount of time spent helping was measured. Results showed that participants who received a smile from the confederate, spent more time giving directions than people who did not receive a smile. These results suggest that smiling affects helping behaviors.

9 to 11 a.m., WUC Pacific
Gaudi Salazar
Faculty sponsor: Chehalis Strapp

**Title:** Effects of Mood on Helping Behavior

**Abstract:** This research predicted that there would be a difference in helping behavior between participants in a happy mood vs. neutral mood. Participants were 25 happy students and 25 neutral with a mean age of 22 years (SD=4.5). Happy students watched a three minute clip of Kevin Hart and the control group watched the three minute Mood Induction: Neutral clip. Helping behavior was determined by participant’s willingness to help someone after “leaving” the study. Results indicated that there was a difference between the groups in willingness to help and suggest that mood influences helping behavior.

9 to 11 a.m., WUC Pacific
McKenzie Johnston
Faculty sponsor: Chehalis Strapp

**Title:** Is Perception of Leader Effectiveness Influenced by Gender and the Role Congruity Theory?

**Abstract:** While traditional gender roles have begun to lose their emphasis within the workplace, women are still viewed as less effective leaders than men. This between group study extending past research (Rosette and Tost, 2010) presented a sample of university students, 12 men and 28 women (M=20.7 years, SD=4.39), with either a male or female prospective CEO candidate description to measure perception of effectiveness. In support of the researcher’s hypothesis, the female candidate was perceived to be less effective than the male candidate. These results indicate further need of gender equality within the workplace.

9 to 11 a.m., WUC Pacific
Abby Gorsek
Faculty sponsor: Chehalis Strapp

**Title:** Time Limitations and Reading Comprehension
Abstract: This study examines that as time limitations increase, correct answers on a test increase. Thirty undergraduates, 18 females and 12 males (mean age=23), were randomly assigned into three different time limit groups: eight, 10, and 20 minutes. Participants were given three different passages with corresponding questions to complete under their assigned time limit. The correct answers were compared through ANOVA (F(3, 18)=8.52, n2=.54, large effect). Therefore, as the time limit increased, the amount of correct answers increased. This should be taken into consideration so students perform to their optimal level while testing.

9 to 11 a.m., WUC Pacific
Taylor Munson
Faculty sponsor: Joel Alexander

Title: Underlining Superstitious Beliefs within Mathematical Patterns

Abstract: Superstition is something that many rely on during their everyday life to bring good or back luck or even achievement with items such as lucky charms or common sayings. While most look in to the correlation with competitiveness, others have even looked along the lines of the correlation of pattern detection or hyper-active agency detection device. In this study I will be looking at the correlation of superstitious beliefs and pattern detection in mathematical equations. I am curious as to if those who are more superstitious beliefs will be able to pick up on patterns easier and faster in mathematical equations.

9 to 11 a.m., WUC Pacific
Holly Matheny
Faculty sponsor: Chehalis Strapp

Title: Societal Paradox: Wary of Welfare but Sympathetic of the Poor

Abstract: Studies have shown that society is empathetic towards individuals deemed poor but that they judge individuals receiving welfare benefits harshly. Understanding how society differentiates between these two groups helps provide understanding of how stereotypes are formed. A survey was administered asking participants to rate their feelings about public policy spending aimed at the poor and welfare in order to capture unfavorable attitudes about either group. A feeling thermometer designed to capture emotional responses was used when asking participants questions about the poor and welfare recipients. Findings revealed that there is empathy for the poor and for the programs that could help them. Findings further revealed a negative, less favorable opinion of welfare recipients and welfare programs, even though these are the very programs that often help and support the poor.

9 to 11 a.m., WUC Pacific
Patrick Josh, Paul Cookingham, and Michael Boggess
Faculty sponsor: Ethan McMahan

Title: Beliefs about the Hedonic Nature of Well-Being
Moderate the Effect of Stressful Life Experiences on Actual Well-Being

Abstract: Previous research indicates that individuals’ beliefs about the nature of well-being are associated with actual psychological functioning. The purpose of the current study was to address whether endorsing hedonic beliefs about the nature of well-being impacts associations between stress and several indicators of experienced well-being. Data was collected primarily through survey-based procedures. Results indicated that endorsing the belief that happiness involves the experience of pleasure buffered individuals against the negative effects of stress. In contrast, results further indicated that endorsing the belief that happiness involves a lack of unpleasant experiences exacerbated the negative effects of stressful life experiences.

9 to 11 a.m., WUC Pacific
Teri Lee
Faculty sponsor: Chehalis Strapp

Title: Social Status: Effect on Personal Space Invasion

Abstract: What is personal space and how is it affected by the presence of a perceived status symbol? This study duplicates the design of Latta (1978). A chair positioned at a six seat table, and another chair on wheels placed just inside the door are the only seating available. One of two status conditions were placed in the chair at the table. Once the participant rolled the chair over to the table a tape measure was used to document the distance chosen. Results showed significance between the two conditions with greater space required for the perceived status condition.

Session title: Behavioral Sciences Keynote Speaker
Session chair: David Foster
Location: Hamersly Library (HL) 107

Behavioral Sciences Keynote Speaker

1 to 2 p.m., HL 107
Jon E. Grahe, professor of psychology, Pacific Lutheran University

Title: Crowdsourcing Science Projects can Improve Science while Benefiting Student Researchers

Abstract: In recent years, a replicability crisis emerged in science as methodologists discovered that reported findings from most sciences are too good to be true. Psychology was not immune to the crisis with problems related to repeated failures to replicate high profile effects, a publication purporting to demonstrate the existence of ESP, and the discovery of outright fraud by prominent researchers. Crowdsourcing science projects can encourage better science and offer opportunities for students to participate in larger scientific discourse. This talk will review crowdsourcing projects, discuss their structural differences, and consider their potential impact.
Session title: Behavioral Sciences Poster Session 2  
Session chair: David Foster  
Location: Werner University Center (WUC) Pacific Room  

2 to 4 p.m., WUC Pacific  
Brandon Partney  
Faculty sponsor: Chehalis Strapp  

Title: Music: Study Aid or Steady Distraction  
Abstract: In the present study it was hypothesized that the presence of background music during information acquisition would result in impaired recall. Participants consisted of 23 females and eight males with a mean age of 22.51 years (SD=4.365). Participants were asked to study a list of 20 words for two minutes and afterwards complete a free recall task of said words. In the experimental condition popular vocal music would be present whereas the control condition was silent. Results supported the hypothesis suggesting that background music during information acquisition subsequently impairs recall.  

2 to 4 p.m., WUC Pacific  
Lillian Guarerra  
Faculty sponsor: Chehalis Strapp  

Title: The Effects of Binge Drinking on Perceived Attractiveness Ratings  
Abstract: The present study examined the effects of binge drinking on perceived attractiveness of the consumer, by having participants view photos of attractive individuals accompanied by a profile either including binge drinking in the experimental group, or without it in the control group. Attractiveness was measured by having 20 male participants and 20 female participants, age 18-25 (M=21 years, SD=2.3) rate the attractiveness of the individuals in the photos on a Likert type scale. The results indicate that binge drinking is perceived to be unattractive by both males and females.  

2 to 4 p.m., WUC Pacific  
Alex Rose  
Faculty sponsor: Chehalis Strapp  

Title: Media’s Influence on Giving Behavior Toward Stigmatized Groups  
Abstract: We explored the level of influence positive media coverage has on behavior. Specifically the giving behavior of individuals towards a generally stigmatized group, the homeless. Forty participants (17 male, 23 female) were randomly assigned to read about a local sports team, or a mission making positive changes in its community. A modified empathy scale was given. The results show an increase in giving behavior toward the homeless when participants read the story involving the mission, rather than the piece involving a sports team. These results suggest that media coverage can have a positive effect on how people view stigmatized groups.  

2 to 4 p.m., WUC Pacific  
Emily A. Nascimento  
Faculty sponsor: Chehalis Strapp  

Title: The Effects of Mindfulness Meditation on Mood and Perceived Stress  
Abstract: The purpose of the present study was to determine if there were any significant benefits using a brief, 15 minute Mindfulness Meditation (MM) intervention on mood and perceived stress. Fifty undergraduates (M=22.78, SD=2.25) were randomly assigned to one of two groups: the experimental group (listened to guided MM recording) and the control group (listened to sounds of nature). Each group filled out a demographics survey, and completed the Quick Mood Scale (Woodruffe-Peacock et. al, 1998) and the Perceived Stress Scale (Cohen et. al, 1983) pre- and post-intervention. Results indicated that brief MM interventions improved mood and perceived stress.  

2 to 4 p.m., WUC Pacific  
Sierra Liddycoat  
Faculty sponsor: Chehalis Strapp  

Title: The Effects of Textual Stimuli on Contagious Yawning  
Abstract: The present study hypothesizes that the amount of contagious yawns produced will differ between participants exposed to textual stimuli involving yawning relative to textual stimuli involving smiling. After random assignment, participants (N=26, female=14, male=12, M=22.40, SD=2.92) read material relevant for their group while the experimenter counted the number of yawns produced. Participants then filled out a questionnaire regarding demographics and their urge to yawn or smile. Consistent with the hypothesis, results show differences in the amount of contagious yawns elicited by different textual materials. Results suggest the type of material effects contagious yawning and should be considered in future studies.  

2 to 4 p.m., WUC Pacific  
Corinne Hues  
Faculty sponsor: Chehalis Strapp  

Title: Personality Perceptions and Animal Companions  
Abstract: Perceptions of personality traits of a man and a woman pictured with a cat, dog, or no animal were examined in 50 college students (M=24.77; SD=9.04). As anticipated, there was an interaction between gender and animal, such that the woman was rated higher when presented alone and the man when presented with the dog. Results suggest personality perceptions differ depending on gender and animal presented.  

2 to 4 p.m., WUC Pacific  
Escarlett Trujillo  
Faculty sponsor: Chehalis Strapp  

Title: Behavioral Perceptions of Dogs  
Abstract: The current study hypothesized that dogs with lower pitched barks will be classified as more aggressive and less approachable relative to dogs that produce higher pitched barks. Participants included 27 females (M=23, SD=4.74) and 13 males (M=25, SD=3.23). For this between subjects study, participants heard five barks either high or low pitched and then they were asked to rate the dog on six social categories such as adaptability, aggressiveness, approachability, dangerousness, friendliness, and intelligent. Overall, dogs with lower pitched barks were perceived to be more aggressive and less approachable than dogs with higher pitched barks.
Title: How Does Obesity Influence Employment?

Abstract: The hypothesis of this study was that obese individuals are less likely to get hired for a high contact work position than non-obese individuals. Participants were randomly assigned to read a personal description about either an obese applicant or a non-obese applicant. Then, they rated the likelihood of hiring an applicant on a seven-point scale. Participants were less likely to hire the obese applicant compared to the non-obese applicant.

Title: Do Video Games Effect Heart Rate?

Abstract: It was hypothesized that violent video games would be more likely to have an effect on heart rate than non-violent video games. Participants included 25 males and 25 females with a mean age of 23.09 years (SD=5.87). Participants were assigned to all three conditions. Heart rate was measured pre-condition and participants spent five minutes playing: Counterstrike; or Sim City 2000; participants also watched the violent Counterstrike condition and no direct assignment; with heart rate assessed again at the end of each condition. The results indicate differences between conditions and show that the violent video game condition does influence heart rate.

Title: Psychological Well-being and Cognitive Processing during an Expressive Letter Writing Exercise

Abstract: This study examined how cognitive processing words in an expressive letter writing exercise are associated with psychological well-being. It was predicted that participants who used a greater proportion of cognitive processing words would report more satisfaction with life and positive emotions. Twenty-eight undergraduate students were assigned to write an expressive letter or a forgiveness or gratitude letter. Afterwards, the participants would report more satisfaction with life and positive emotions.

Title: The Street Tree Inventory Project

Abstract: The Street Tree Inventory Project is an ongoing effort to collect distribution and life history data on the street trees in municipalities from the mid-Willamette Valley in western Oregon. One of the primary objectives of the project is to provide these municipalities with information regarding the identity and maintenance needs of their street trees. Thus far, data has been collected from trees occurring in planter strips (i.e., the landscaped areas between the street edge and sidewalk) and city parks in Monmouth, Oregon. These data included tree location, species name, physical condition, and management concerns. Following collection, data were entered into a Microsoft Excel spreadsheet and then linked to a web-based mapping system created using Google Maps and JavaScripts. This web-based mapping system will ultimately provide interactive, online access to these data for a broad audience. Additional project outcomes will include a web-based, interactive plant inventory.
identification key and species descriptions of the street trees found in each respective city.

Session title: Research in the Biological Sciences
Session chairs: Ava Howard and Jeffrey Snyder
Location: Werner University Center (WUC) Pacific Room

Posters

2 to 4 p.m., WUC Pacific Room

Brittney Caudill
Faculty sponsor: Ava Howard

Title: Growth of Urban Trees in Response to Rainfall and Temperature

Abstract: As urbanization is occurring, less wild and more urban habitats are available for trees. Determining the relationship between tree growth and climate is the first step to understand how trees thrive in urban habitats. We used basal area increment (BAI), to analyze yearly growth of four species, Pin oak (Quercus palustris), Port Orford cedar (Chamaecyparis lawsoniana), Douglas fir (Pseudotsuga menziesii), and Western redcedar (Thuja plicata), in an urban environment. BAI was compared to climatic variables: yearly total rainfall, average temperature, and average maximum temperature. BAI for all species examined was not correlated (P>0.05) to any of the climatic variables. However, the sensitivity index of Douglas fir was more than three times higher than the other species, indicating greater interannual variability in BAI. This study indicates that in this urban environment there may be other factors causing trees to not follow the expected trend of increased growth with increased rainfall and temperature. Further studies should be conducted to determine these other factors, such as possibly; irrigation, light pollution, and heat island effect.

2 to 4 p.m., WUC Pacific Room

Spicie Davis, Taylor James, and Eli Zachary
Faculty sponsors: Kristin Latham and Michael Baltzley

Title: Directional preference in Drosophila

Abstract: Diverse organisms, including birds, sea turtles, lobsters, and sharks have been shown to use Earth-strength magnetic fields to navigate. We are examining whether the fruit fly Drosophila melanogaster has a directional preference and if this preference has genetic underpinnings. In order to answer these questions we designed a Y-maze in which each fly makes 10 sequential choices to go north or south. To breed a population of north-seeking flies, we record the distribution of flies exiting the maze and select the northern-most 20 percentage to give rise to the next generation. We are using a similar protocol to breed a population of south-seeking flies. Our data show that wild-type Drosophila do not have a distinct innate preference for either north or south. Moreover, after four generations we have not produced a population of flies with a directional preference. As a positive control we are running a similar experiment to look at phototaxis. Our data show that flies exhibit positive phototaxis but we have not been able to generate separate populations of positive- and negative-phototaxic flies. These experiments will be continued for 15 generations. Our findings will contribute to a better understanding of the genetics of magnetic orientation and directional preference.

2 to 4 p.m., WUC Pacific Room

Nicole Herrera
Faculty sponsor: Sarah Boomer

Title: The Effect of Stream Size on Enteric and Pseudomonad Bacteria Concentrations

Abstract: Enterics are Gram-negative bacteria found normally or pathogenically in the intestines of humans and animals. Pseudomonads are another type of Gram-negative bacteria that are often found in soil. Both of these bacteria have the ability to contaminate water sources making them unsafe. MacConkey media is typically used by health officials to test for these gram-negative contaminants. We tested to see if the stream size of the water source had an effect on the concentration of Enteric and Pseudomonad bacteria. Water samples were taken from the Willamette River and Rickreall Creek and then plated on MacConkey media. Representative colonies were then isolated and put through a series of additional classification tests to compare the diversity levels in each water source. We found that the Willamette River contained significantly more bacteria than Rickreall Creek. However, Rickreall Creek revealed more diversity within the types of bacteria present. Our results indicated that there is a positive correlation between the stream size and the concentration of Enteric and Pseudomonad bacteria.
Title: Intraspecies Variability in GABA-Immunoreactive Neurons in the Central Nervous System of *Helix aspersa*

Abstract: While the central nervous systems of closely related species are generally conserved, there are many examples of variability in the size, number, and location of homologous neurons between species. We examined the nervous system of *Helix aspersa* to investigate whether there is similar variability between different populations of the same species. We used immunohistochemistry to identify GABA-immunoreactive cells in the *H. aspersa* central ganglia. Overall, our results are similar to previously published studies. We found GABA-immunoreactive neurons in the buccal ganglia, as well as several clusters of GABA-immunoreactive neurons in the cerebral and pedal ganglia. We did not identify any GABA-immunoreactive neurons in the visceral, parietal or pleural ganglia.

2 to 4 p.m., WUC Pacific Room

**Anusha Hoda**
Faculty sponsor: Michael Baltzley

Title: Effects of Bacterial Metabolites on Fruit Fly Development

Abstract: Bacterial metabolites are known to affect the development of fruit flies (*Drosophila melanogaster*). *Pseudomonas fluorescens* (PF-5), a common gram negative bacterium, produces a variety of metabolites such as pyoluteorin, pyrrolnitrin, rhizoxin, and cyanide. Different strains of PF-5 can be created via DNA insertions or deletions. This can alter metabolite production of the bacteria. Our goal is to determine the effects of several PF-5 strains on fruit fly development. Each experimental round consisted of one strain of PF-5 and its associated Gac mutant. Plates were set up for a PF-5 strain, its associated Gac mutant, and controls. Each plate started with the same number of fly eggs each round and development stages were checked every two days for two weeks. Survival in the A-506 strain round was lowest for adults. Survival in the SWB25 strain round was similar among all plates through all life stages. Our findings suggest that the A-506 non-gac mutant strain has the greatest impact on proper development of fruit flies.

2 to 4 p.m., WUC Pacific Room

**Max Kohen**
Faculty sponsor: Kristin Latham

Title: Tomato (*Solanum lycopersicum*) Response to Hypoxic Stress

Abstract: Earth is experiencing climate change that may impact our ability to grow crops efficiently and economically, threatening our food supply. To understand how flooding impacts tomato, we grew tomato in a hypoxic simulated environment on a cycle of four consecutive days with roots submerged and three consecutive days of regular drainage. Plants were grown in a Greenhouse and treated equally with all other respects. Hypoxia resulted in overall smaller plants than the control. Hypoxia reduced height by 32 percent (t8=2.82, P<0.025), but increased the maximum photosynthetic rate by 90 percent (t8=27.8, P<0.005) and the specific leaf area by 51 percent (t8=7.33, P<0.005). Water potential, stomatal density, and the minimum transpiration rate were not significantly different between treatments (all P>0.05). Our results support that hypoxia decreases tomato growth. Further study should determine the best water conditions for achieving high crop yields economically.

2 to 4 p.m., WUC Pacific Room

**Holy Meler**
Faculty sponsor: Ava Howard

Title: The Effects of UV-B Radiation on the Growth and Functionality of Kale (*Brassica oleracea Acephala*).

Abstract: UV-B radiation exposure on plants causes abnormal formation of plant structures and decreased ability to perform functions. The effects that plant species experience from UV-B exposure are still unknown. Here we tested the impact on growth and function of daily UV-B exposure for intervals of 15 seconds on five *Brassica oleracea* Acephala (Kale). The experimental kale showed greater average heights and greater stomatal densities (adaxial, 60 percent; abaxial, 85 percent) compared to controls (adaxial, P<0.05; abaxial, P<0.005). Minimum conductance, dark adapted pressure potential and average SLA (Specific Leaf Area) all showed no significant difference between the experimental and control kale (P>0.05). However, the experimental kale showed significantly less negative light adapted pressure potentials (average, -0.972MPa) than that of the controls (average, -1.088MPa). We found evidence that supports exposure to daily bursts of UV-B positively affected plant growth but found no evidence to support the negatively affected pressure potentials in neither the experimental kale nor the functionality of the structures where the unforeseen pressure potentials resulted.

2 to 4 p.m., WUC Pacific Room

**Adam Pettitt**
Faculty sponsor: Kristin Latham

Title: Determining the Effects of *Pseudomonas fluorescens* on *Drosophila melanogaster*

Abstract: The bacteria *Pseudomonas fluorescens* has been shown to cause an immune response in *D. melanogaster* larvae that can lead to both death and delayed developmental growth, but little is known about what biological factors associated with *P. fluorescens* cause these immune responses in *D. melanogaster*. This current study sought to determine whether the bacteria *P. fluorescens* itself triggers the immune response in fly larvae, or whether the response was due to secreted metabolites produced by the bacteria. To determine this, different strains of *P. fluorescens* that lacked certain metabolites (e.g., PF-5 strain, A506 strain, SWB25 strain, and GAC mutant strains) were mixed into yeast fed to the fly larvae. Larvae were placed on plates and monitored throughout developmental stages, up to adulthood, for both rate of development and rate of death. Certain strains of *P. fluorescens* lacking specific metabolites showed a small, but significant difference in both death rates and developmental delay when compared to controls, while other strains showed large significant developmental delay and increased death rates. These results suggest that specific metabolites can be implicated in the immune response seen in *D. melanogaster*.
Title: Identification of GABA Producing Cells in the Nervous System of Hirudo verbana.

Abstract: In the leech Hirudo verbana, the stimulation of a mechanoreceptor cell acts both to excite the neuron innervating that receptive field and to inhibit neurons that innervate surrounding receptive fields. The method by which one mechanosensory cell inhibits other cells is not fully understood, but it is hypothesized that the neurotransmitter GABA is released by interneurons to inhibit these mechanosensory neurons. To test this hypothesis, it is necessary to first identify the GABA producing cells in the leech nervous system. Using antibodies to tag GABA, we identified three bilaterally symmetrical pairs of neurons located anteriorly in each midbody ganglion. Our next step is to use electrophysiological techniques to characterize the neurons that produce GABA, and determine whether these cells have synaptic connections to the mechanosensory neurons.

Title: Drosophila melanogaster development after ingestion of Pseudomonas fluorescens bacterial strains

Abstract: The fruit fly, Drosophila melanogaster, has been used as a model organism to study host-microbe interactions and host immune response. After ingestion of Pseudomonas fluorescens bacteria, Drosophila melanogaster show morphological defects, delayed development or death. In our lab, we experimented with different strains of Pseudomonas fluorescens Pf-5, A506 and SWB25 bacteria to determine how ingestion alters the ability of larvae to survive and complete development. Larvae were staged and fed known doses of P. fluorescens strains. The developing larvae plates were monitored every other day for larval growth, morphological defects or death, as compared to controls. Larvae treated with P. fluorescens Pf-5 showed delayed development. Interestingly, 32 percent of larvae reached the adult stage when treated with Pf-5 compared to 80 percent of control larvae. Surprisingly, 93 percent of larvae treated with A506 reached the adult stage and 96 percent treated with SWB25 reached adult stage. However, neither strain showed morphological defects. The experiments demonstrate that ingestion of Pseudomonas by Drosophila can be lethal and delay Drosophila development. The results also suggest that bacterial metabolites are responsible for the toxicity response in Drosophila.

Title: Leadership Analysis of the Streaming Video Industry

Abstract: Students from BA 407 Leadership conducted a strategic leadership analysis of the Streaming Video industry to determine what are some of the best leadership principles, qualities, skills, traits, etc. for senior leaders to be effective in this highly competitive and rapidly changing industry. Their leadership analysis included the CEOs of Netflix, Amazon and Hulu.

Title: An Organizational Behavioral Analysis of Hewlett Packard

Abstract: Students from BA361D Organizational Behavior conducted an organizational analysis of Hewlett Packard focusing on HP’s negative public image and financial crisis resulting from the controversial acquisition of Autonomy corporation. The students studied HP’s organizational culture and applied the principles of knowledge management and Kotter’s eight steps in managing complex change to develop recommendations for Hewlett Packard.

Title: Organizational Analysis (organization to be announced)

Abstract: Students from BA361 Organizational Behavior researched a company and interviewed its representatives to get an in-depth understanding of how it operates. The students conducted an organizational analysis and prepared a case study on the company’s background, ethics, motivational programs, and leadership. Based on the analysis, the students developed recommendations to help the company improve its organizational effectiveness.

Title: Does the availability of natural spaces affect our sense of well-being? Can land development lead to depression and suicide? To answer this question, I regressed the rate of suicides in each state on the percentage of land that is developed. To control for other factors related to the quality of the physical...
environment, I included the percentage of sunny days and emissions from fossil fuels. Unexpectedly, states with a higher percentage of developed land had a statistically significant lower rate of suicide.

12:30 to 1 p.m., WUC Calapooia Room

**BA 361 – Organizational Behavior Students**

*Faculty sponsor: Jennifer Yang*

**Title:** Organizational Analysis (organization to be announced)

**Abstract:** Students from BA361 Organizational Behavior researched a company and interviewed its representatives to get an in-depth understanding of how it operates. The students conducted an organizational analysis and prepared a case study on the company’s background, ethics, motivational programs, and leadership. Based on the analysis, the students developed recommendations to help the company improve its organizational effectiveness.

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**CHEMISTRY**

**Session title:** Chemistry Posters

**Session chair:** Pete Poston

**Location:** Werner University Center (WUC) Pacific Room

**Posters**

9 to 11 a.m., WUC Pacific Room

**Ashley Medina and Brian Hauenstein**

*Faculty sponsor: Pete Poston*

**Title:** Enhancing Chemiluminescence from Luminol Using Gold Nanoparticles

**Abstract:** Luminol is a common chemical used in forensics for the detection of latent blood stains. The blood stains become visible because of the strong chemiluminescence that is emitted as the luminol reacts with the hemoglobin in the blood. Gold nanoparticles have been shown to enhance this chemiluminescence, allowing the detection of even smaller amounts of blood.

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**Session title:** Biochemistry Posters

**Session chair:** Patricia Flatt

**Location:** Werner University Center (WUC) Pacific Room

**Posters**

9 to 11 a.m., WUC Pacific Room

**Eugene Huebner**

*Faculty sponsor: Patricia Flatt*

**Title:** Analyzing the Effects of a Six-Month Vegan Low-Carbohydrate Diet on Cardiovascular Risk Factors and Bodyweight in Hyperlipidaemic Adults

**Abstract:** It has been previously established that low-carbohydrate diets are an effective method of inducing weight-loss in significantly overweight individuals. However, concerns have persisted about the effects of the large amount of animal fats included in traditional low-carbohydrate diets like Atkins. To test the effectiveness of a low-carbohydrate diet that does not include animal fat, a randomized trial was devised to compare the cardiovascular health markers and weight-loss of a low-carb vegan diet against a lacto-ovo vegetarian diet after six months.

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9 to 11 a.m., WUC Pacific Room

**Olivia Goleman**

*Faculty sponsor: Patricia Flatt*

**Title:** Wood Smoke Particles Generate Free Radicals and Cause Lipid Peroxidation, DNA Damage, NFKB Activation and TNF-a Release in Macrophages

**Abstract:** This study investigated the generation of free radicals created by wood smoke and the cellular damage that was caused. Electron spin resonance techniques measured reactive oxygen species in wood smoke and found that hydroxyl radicals were generated. DNA strand breakage was also seen by exposing wood smoke to Hind III fragments using gel electrophoresis. Cellular DNA damage was also observed in cultured mouse macrophage cells within the single cell gel electrophoresis assay. These results indicate that the free radicals generated by wood smoke through the reaction of Fe with H2O2 are able to cause DNA and cellular damage.

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9 to 11 a.m., WUC Pacific Room

**Spicie Davis, Taylor James and Eli Zachary**

*Faculty sponsor: Patricia Flatt, Kristin Latham, and Michael Baltzley*

**Title:** Directional Preference in Drosophila

**Abstract:** Diverse organisms, including birds, sea turtles, lobsters, and sharks have been shown to use Earth-strength magnetic fields to navigate. We are examining whether the fruit fly *Drosophila melanogaster* has a directional preference and if this preference has genetic underpinnings. In order to answer these questions we designed a Y-maze in which each fly makes 10 sequential choices to go north or south. To breed a population of north-seeking flies, we record the distribution of flies exiting the maze and select the northern-most 20 percent to give rise to the next generation. We are using a similar protocol to breed a population of south-seeking flies. Our data show that wild-type *Drosophila* do not have a distinct innate preference for either north or south. Moreover, after four generations we have not produced a population of flies with a directional preference. As a positive control we are running a similar experiment to look at phototaxis. Our data show that flies exhibit positive phototaxis but we have not been able to generate separate populations of positive- and negative-phototaxic flies. These experiments will be continued for 15 generations. Our findings will contribute to a better understanding of the genetics of magnetic orientation and directional preference.
Session title: Chemistry Capstone Seminars
Session chair: Arlene Courtney
Location: Natural Sciences (NS) 101

Presentations

10:30 to 11:15 a.m., NS 101
Kera Holt
Faculty sponsor: Arlene Courtney

Title: Dopamine: Giving Rise to Our Desires and Behaviors

Abstract: Dopamine is a neurotransmitter that is secreted near where it is needed. It’s involved in many functions within the human body. It’s a part of learning, addiction, attention, lust, and disease. A dopamine rush is like the bee in the bonnet or a kid in the candy store, you don’t know what you want, but you can’t get enough. Today, many medications exploit Dopamine’s characteristics and receptors. One of the most well-known diseases associated with dopamine is Parkinson’s Disease, which is characterized by tremors of muscles, rigidity, slow movements, and impaired balance. Dopamine plays an important role in the body and the body functions. This seminar will explore and explain how the concentrations of dopamine impact the body, including the functions, complications and side effects.

11:15 to 12 p.m., NS 101
Justine Tabor
Faculty sponsor: Arlene Courtney

Title: Don’t Meth with it: A look at the Methamphetamine Epidemic

Abstract: Methamphetamine is a stimulant that was originally used to keep soldiers in WWII from feeling fatigued. Once people around the world started abusing it as a recreational drug, it became hard to control. Methamphetamine alters the chemistry of the brain, making it more and more difficult to achieve the high that users experience the first time they use the drug. Methamphetamine use changes the physical appearance of a person, damaging their teeth and skin. Methamphetamine can be synthesized from pseudoephedrine an ingredient cold medicines such as Sudafed. This has made it difficult to control clandestine labs and methamphetamine use forcing officials to change methamphetamine to a schedule I drug and Sudafed to a prescription drug in many states, including Oregon. Methamphetamine can be detected inside and outside the body using instrumentation such as Gas-Chromatography/Mass-Spectrometry (GC-MS), High Performance Liquid Chromatography (HPLC) and Fourier Transform Infrared Spectroscopy (FTIR).

1 to 1:45 p.m., NS 101
Heather Gonzalez
Faculty sponsor: Arlene Courtney

Title: Uranium: The Useful Radiation?

Abstract: Uranium has been in the media a lot lately. We have all heard about the Fukushima Nuclear Disaster, and the radiation spreading throughout the world. What is the controversy surrounding this element? How does a rock go from the ground to being something that can produce so much energy? It can generate enough energy to power a city through generating stations or level a city, for example Hiroshima. This presentation will take the audience from obtaining uranium as a rock, the processing, through to the benefits and liabilities. We will also touch on uranium’s family line, more specifically, his naughty daughters. As with everything, there are many advantages for example cheap, clean power and powerful protection. However, there are some disadvantages also, such as Chernobyl and radioactive waste.

1:45 to 2:30 p.m., NS 101
Christopher Boorman
Faculty sponsor: Arlene Courtney

Title: “Fracking” up our Environment

Abstract: The natural gas industry profits over $476 billion a year and is a major contributor to the United States economy. The large amounts of natural gas found in shale deposits could accommodate domestic demand for more than a hundred years. Although this sounds like a great investment for the country, there are some severe environmental costs. The first is that hydraulic fracturing uses huge amounts of water which must be transported at significant environmental cost to the drilling site. Another concern is that carcinogenic chemicals may escape and contaminate groundwater around the drilling site. The natural gas industry suggests pollution incidents result from bad practice, rather than an inherently risky technique. This is exactly what we would expect these corporate giants to say. Before making an investment in this new technology, we need to know what the environmental costs really are.

2:30 to 3:15 p.m., NS 101
Stefany Young
Faculty sponsor: Arlene Courtney

Title: Exposing Evidence: The Use of Enhancement and Amplification Techniques in Forensic Analysis

Abstract: Forensic evidence is not always perfect. Often times a sample of DNA at a crime scene is degraded or much too small to be analyzed. Blood spatter may be cleaned up before police arrive. Fingerprints may be latent and nearly invisible to the naked eye. How do forensic professionals use these imperfect samples to build a case? They must find a way to chemically enhance and amplify each of the samples so they are suitable for analysis. This seminar will discuss some of the techniques used by forensic professionals to overcome imperfect evidence. We will also discuss how each technique works, the benefits, and the downfalls involved. By the end of the seminar, these imperfect situations will no longer be seen as obstacles, rather, just another step in the process of forensic analysis.
9th Annual Academic Excellence Showcase

3:15 to 4 p.m., NS 101

Kristin Kelly  
Faculty sponsor: Arlene Courtney

**Title:** ALS- A Conversation about “The Silent Killer”

**Abstract:** Amyotrophic Lateral Sclerosis (ALS), also known as Lou Gehrig’s Disease, is a neuromuscular degenerative disease in which motor neuron signaling breaks down causing neuron death. Symptomatic presentation is progressive paralysis of voluntary motor function. ALS affects all races and ethnic backgrounds with a slight prevalence in males. More than 90 percent of cases are sporadic, having no recorded cause or gene mutation, and the remaining 10 percent are familial, having multiple recorded gene mutations and a family history of the disease. ALS is fatal in 100 percent of cases, and half of all affected individuals die within three to five years of symptom onset. By attending this seminar, an individual will gain an understanding of neuronal chemistry, the theorized causes of ALS and research limitations due to the lack of knowledge surrounding this debilitating disease. This presentation is dedicated to my Uncle Mike, who is currently living with ALS.

3:30 to 3:45 p.m., HWC 205

JoEllen DeLeon  
Faculty sponsor: Molly Mayhead

**Title:** A Feminist Lens on Alias

**Abstract:** It doesn’t happen often where females play the protagonists in action movies and television shows. Instead, the women play the roles of mothers, housewives, and not as people with high-paying impactful jobs. There’s a common stereotype that women are weaker, and the men dominate. However, the television series, Alias, is a show that displays women in a positive light. Using the rhetorical strategy of feminist criticism, this paper analyzes how, specifically, the first two episodes of Alias challenge common female stereotypes. The show displays three primary factors that challenge these stereotypes: 1) women are competent, 2) women in important careers, and 3) women as leaders.

3:45 to 4 p.m., HWC 205

Ashley Sigl  
Faculty sponsor: Emily Plec

**Title:** Ellen DeGeneres’ Tulane Commencement Speech: Is She Getting Through to Anybody?

**Abstract:** In my analysis of Ellen DeGeneres’ commencement speech given at Tulane University in 2009, I show that she successfully establishes enough ethos to be seen as a highly credible source on the subject of life, and thus, have her claims resonate as reasonable and sound with her audience. DeGeneres does this through her balanced use of humor and tragedy as a rhetorical style, her use of the commencement speech genre (as presented in Margaret LaWare’s essay, “Redefining the ‘Good Life’: Life Lessons and Virtues in Commencement Speeches by Women”), and her ability to identify with her audience.

**COMMUNICATION STUDIES**

**Session title:** Top Papers in Communication Studies  
**Session chair:** Emily Plec  
**Location:** Health and Wellness Center (HWC) 205

**Presentations**

3 to 3:15 p.m., HWC 205

Kathleen George  
Faculty sponsor: Emily Plec

**Title:** Repression and Reconciliation: Exploration of Narrative Psyche in The Fall of the House of Usher

**Abstract:** This discussion examines the possibilities inherent when an author of Edgar Allen Poe’s deep interest in human psychology creates a world where the outward setting echoes the unnamed narrator’s inward psychosis. In The Fall of the House of Usher, the physical House of Usher becomes a mirror of the fracturing psyche of the narrator. This paper provides a close reading of this text in order to reveal this hidden nature of the unconscious connections between setting and character, allowing for a more in depth psychoanalysis of one of Poe’s many unstable minds.

3:15 to 3:30 p.m., HWC 205

Ashley Sigl  
Faculty sponsor: Emily Plec

**Title:** Thumbelina: The Classic Tale of a Damsel in Distress

**Abstract:** Using the sociological method of media criticism, as well as components of Hansjorg Hohr’s essay “Dynamic Aspects of Fairy Tales,” I analyze the children’s film Thumbelina. My analysis shows that the many socializations of Thumbelina throughout the film incidentally work to instill a predisposition in its child viewers to see themselves as merely objects in their environment. It also suggests to them that death is never final, love is what life is all about, and communicates several other problematic messages.

3:30 to 3:45 p.m., HWC 205

JoEllen DeLeon  
Faculty sponsor: Molly Mayhead

**Title:** A Feminist Lens on Alias

**Abstract:** It doesn’t happen often where females play the protagonists in action movies and television shows. Instead, the women play the roles of mothers, housewives, and not as people with high-paying impactful jobs. There’s a common stereotype that women are weaker, and the men dominate. However, the television series, Alias, is a show that displays women in a positive light. Using the rhetorical strategy of feminist criticism, this paper analyzes how, specifically, the first two episodes of Alias challenge common female stereotypes. The show displays three primary factors that challenge these stereotypes: 1) women are competent, 2) women in important careers, and 3) women as leaders.

**COMPUTER SCIENCE**

**Session title:** Computer Science Individual Software Project  
**Session chair:** David Olson  
**Location:** Instructional Technology Center (ITC) Third Floor

**Posters**

11:30 to 1:30 p.m., ITC Third Floor

Ethan Flory  
Faculty sponsor: David Olson

**Title:** Hide or Die

**Abstract:** Bring more excitement to your life with a more sophisticated combination of hide/seek and tag. Have the spy life brought to you while you putting your friends on the “Most Wanted List” and having a contact take the mission to take them down. Experience the thrill of being hunted while others have had you put on the list of the most wanted. Join Hide or
Die now and bring the life of a spy to you.
Features:
• Have a GPS location on your target
• Put yourself in the shoes of a spy
• Work your way on unlocking various enhancements

11:30 to 1:30 p.m., ITC Third Floor
Devin Dodson
Faculty sponsor: David Olson

Title: Labyrinth 2.0

Abstract: A new take on an old game! This digitized re-imagining of the classic roly-poly maze game will put your dexterity, as well as your spatial reasoning, to the test.
Features:
• Flex your mental muscles with multiple levels that increase in difficulty
• Control the ball by tilting your device
• Top-down board view
• Probably some sort of physics engine
• It’s a game

11:30 to 1:30 p.m., ITC Third Floor
Nathan Robinson
Faculty sponsor: David Olson

Title: WOU Campus Map

Abstract: New to the Western Oregon campus? Or maybe you are just need to find your way to a building. With this new WOU campus map you can do that and much more.
Features:
• Navigate from one building to another
• View parking lots based on lot designation
• View buildings based on type
• Information on each campus building

11:30 to 1:30 p.m., ITC Third Floor
Jamie Hansen
Faculty sponsor: David Olson

Title: No Trip Meals

Abstract: You come home late from work, sit down on the couch ready to relax when you suddenly realize it’s time to make dinner. Unfortunately, you don’t have very many ingredients and don’t particularly want to go to the store. Luckily you have the No Trip Meals app. Select from our long list of ingredients that you have and we’ll match you with delicious recipes that you can make without leaving the house.
Features:
• Huge list of ingredients to choose from
• Simple and fast recipes at your fingertips
• No shopping trips guaranteed

11:30 to 1:30 p.m., ITC Third Floor
Sean Martinez
Faculty sponsor: David Olson

Title: Drive-Thru Finder

Abstract: An app that takes your GPS coordinates and searches for the nearest “x” drive-thru so that you always know where to get food on the run.
Features:
• Updating in the background as you change locations
• Area saving client-side so that you don’t need online access to view previous checks
• Alarm setup to remind you of times you might want to find a drive-thru
• Menu suggestions

11:30 to 1:30 p.m., ITC Third Floor
Jake Hyde
Faculty sponsor: David Olson

Title: Fish and Wildlife

Abstract: An app that gives fisherman a place to post pictures of the fish that they have caught. Updates users on where, what, and when to fish as well as a place to track your fishing progression.
Features:
• Feed of local fisherman and recent fish they caught
• Updates on stocking dates for local bodies of water
• Body of water where fish was caught
• Link to Fish and Wildlife website
• Calendar of when certain seasons begin and finish

11:30 to 1:30 p.m., ITC Third Floor
Kira Nguyen
Faculty sponsor: David Olson

Title: Before You Leave

Abstract: Before you leave, remember to bring your reusable grocery bags! With Before You Leave, you can record a reminder that will appear when you leave the determined place. Just create a reminder for when you leave the mall to buy a gift and the reminder will appear when you leave the selected radius of the mall, now you won’t go far without being reminded!

11:30 to 1:30 p.m., ITC Third Floor
Riley McDonald
Faculty sponsor: David Olson

Title: Towers

Abstract: Are you prepared to create towers? With this, you form a tower of blocks, but that’s not all. You must maneuver the blocks through a course in order to stack them. Reaching a certain height, wins the level!
Towers includes:
• Intricate level designs
• An explosive soundtrack
• Lots of tower stacking

11:30 to 1:30 p.m., ITC Third Floor
Vera Karavaev
Faculty sponsor: David Olson

Title: Soap Bubble Toys
Abstract: Are you prepared to create towers? With this, you form a tower of blocks, but that’s not all. You must maneuver the blocks through a course in order to stack them. Reaching a certain height, wins the level! Towers include:

Features:
- Intricate level designs
- An explosive soundtrack
- Lots of tower stacking

11:30 to 1:30 p.m., ITC Third Floor
Bryan Ayala
Faculty sponsor: David Olson

Title: Puzzle Slider Scramble

Abstract: Take pictures with your phone’s camera and instantly turn them into a sliding puzzle! Move the puzzle pieces with your fingers or by tilting your device. Beginner, intermediate, and advanced modes available with your choice of a nine, 16, or 25 piece puzzle. Challenge friends and family by sending them pre-scrambled photos for them to enjoy the fun of solving and revealing your photo!

11:30 to 1:30 p.m., ITC Third Floor
Tristan Knope-Jenkins
Faculty sponsor: David Olson

Title: The Silencer

Abstract: Uses the phones GPS to silence your phone when you come onto campus or turn it back on when you return home! Never again interrupt class with an embarrassing ringtone! And don’t miss an important call because your phone was on silent again.

11:30 to 1:30 p.m., ITC Third Floor
Erica Smith
Faculty sponsor: David Olson

Title: Sheepify

Abstract: Sheepify is an app that allows you to take a picture of yourself or a friend and make them look like sheep. Simply drag and drop sheep features onto the image and then add background or share with other user. Change things like the color of your wool, or even record funny sheep sounds.

Features:
- Customize your sheep with colors and backgrounds
- Give your sheep a funny voice or catch-phrase

11:30 to 1:30 p.m., ITC Third Floor
Ted Landauer
Faculty sponsor: David Olson

Title: Bear Tracker version 1

Abstract: Bear Tracker is a mobile app that lets find police officers. It uses your GPS location to point out police officers that have been seen nearby. It also lets you mark the location where you last saw a police officer with the push of a button by using your GPS location.
Abstract: Bear Tracker is the easy way for you and those around you to collaborate and track those bears. When a sighting occurs, members can quickly log it with a single click, and they can add in extra information if they want to. It’s a great way for members to always be notified of recent bear sightings and other potential bear related hazards on the road.

5:15 to 5:30 p.m., ITC 211
Group: Foogle
Devin Dodson, Ethan Flory, Jamie Hansen, and Nate Robison
Faculty sponsor: David Olson

Title: Mass Reach

Abstract: Ever need to be able to send email and texts to groups of people? Or are you a professor who wants to be able to reach students in the 21st century? With Mass Reach you can send multiple people the same message without having to re-enter numbers or emails.

Features:
- Save lists of numbers and emails.
- Access these list from anywhere with internet access.
- Send text and/or email to lists of people.

5:30 to 5:45 p.m., ITC 211
Group: Thunder Dog Studio
Tristan Knope-Jenkins, Erica Smith, Sean Martinez, and Kira Nguyen
Faculty sponsor: David Olson

Title: TextBook Buddies

Abstract: A social program to help students borrow or buy their textbooks from other students locally. Don’t pay through the nose for books and shipping, we can help you reach out to the people in our community who are happy to share!

5:45 to 6 p.m., ITC 211
Group: Day Day Up
Haoran Fang, Kun Qian, and Xinyang Sui
Faculty sponsor: David Olson

Title: Rider Hopper

Abstract: Do you not have a car and need a ride? With our app people and drivers are able to post their schedule on when they will be leaving and arriving in different cities. The riders will be able to post their schedules (work schedule etc.) of the times and when they need to be at certain cities and the drivers will be able to comment and let them know if they will be able to give them a ride. Drivers will also be able to post their schedules and riders will be able to comment on them, letting them know if they will be able to hop in the car and catch a ride. This will also be an app where people will be able to post if they have rooms available for people to stay in if they are stuck in a city and can’t get a ride. Drivers and people who have rooms available will be able to post rates etc. for the rider to know more information about the person they are going to get a ride with.
Abstract: Our research objectives are to 1) estimate stature (living height) of a human postcranial skeleton using Fordisc 3.1 and 2) compare these results with another method using a single set of regression formulas. Fordisc 3.1 is a computer program that allows the use of postcranial measurements to determine an estimated stature. Comparing the two methods helps determine the validity of the results. Fordisc 3.1 provides a stature of 55.7 – 60.7 inches; the regression formula gives an estimated stature of 53.5 – 62.9 inches. The difference of 2.2 inches indicates that the methods are not in agreement and further research is necessary to understand why.

Abstract: As the Forensic Anthropology minor is expanding at Western Oregon University donations of multiple skeletal remains have been procured. This project is an investigation of processes used in the curation of human skeletal remains acquired through the Oregon State Police Forensic Lab. The donated human remains were fully articulated with metal rods and wiring. For curation and practical laboratory purposes the human skeleton was disarticulated, slightly cleaned, and labeled with accession numbers. Disarticulation and labeling processes are discussed as well as ethical and confidentiality considerations for donated remains.

Title: Ancestry Estimations Using Fordisc 3.1 Versus Morphological Traits

Faculty sponsor: Misty Weitzel

Title: Human Postcranial Stature Estimation Using Fordisc 3.1 and Isolated Regression Formulas

Faculty sponsor: Misty Weitzel

Title: Attribution of Ancestry Using Anthropometric Measurements Applied to Cranial Remains

Faculty sponsor: Misty Weitzel

Title: Morphological Analysis of a Human skeleton as a method for Identifying Sex

Faculty sponsor: Misty Weitzel

Title: Ancestry Estimation of Five Human Crania

Faculty sponsor: Misty Weitzel
officials. This becomes complicated because human races are based more on geography than morphology. As students in the learning process, the purpose of this project is to estimate the ancestry of five sets of human cranial skeletal remains using non-metric morphological traits. First, an inventory was conducted on five crania that were donated to the Western Oregon University Forensic Anthropology Laboratory. Thirty non-metric traits were used for the estimation. The results will then be compared to the known ancestry of these remains.

**DANCE**

**Session title: Academic Excellence in Dance**

**Session chair: Sharon Oberst**

**Location: Maple Hall (MH)**

**Presentations and Performances**

9 to 9:15 a.m., MH

**Angel Stromberg and Rachel Britt**

*Faculty sponsor: Marita Cardinal*

**Title:** Kinesiological Analysis of a Grand Rond de Jambe en L’air in Attitude with a Twist

**Abstract:** This presentation entails the kinesiological analysis of one phase of a modern dance movement, a grand rond de jambe en l’air in attitude with spinal rotation. A full body analysis will be presented, focusing on each anatomical joint, the actions, the muscles involved, and their role in producing the movement. Techniques for performing this movement successfully and without injury as well as ways to condition the body to enhance performance will be included.

9:15 to 9:20 a.m., MH

**Michael Eckerdt, Angel Stromberg, and Rachel Britt**

*Faculty sponsor: Marita Cardinal*

**Title:** Part of Your Foot

**Abstract:** This presentation involves a humorous dance choreography of an anatomical analysis of the ankle-foot. Bones, joints, muscles, and joint actions are portrayed through poetry, music, and dance choreography set to the song, “Part of Your World” from the Disney movie, “The Little Mermaid.”

9:20 to 9:30 a.m., MH

**Amelia Douglas**

*Faculty sponsor: Amy McDonnell*

**Title:** Anne Teresa De Keersmaeker and Beyoncé

**Abstract:** A PowerPoint presentation speaking a bit about the life and choreographic works of Anne Teresa De Keersmaeker. Keersmaeker is a current modern dance choreographer, based in Belgium. The presentation also focuses on the plagiarism of two of her choreographic works by music artist Beyoncé Knowles. Did Knowles use two of Keersmaeker’s dances as “inspiration” for her music video “Countdown”, or did she go too far?

9:30 to 9:45 a.m., MH

**Jodessa Chapa**

*Faculty sponsor: Amy McDonnell*

**Title:** Ohad Naharin: Developer of Gaga Dance Technique

**Abstract:** Ohad Naharin is the Artistic Director of the Batsheva Dance Company in Tel Aviv, Israel, and the creator of a new branch of modern dance called “Gaga”. The Gaga Technique is an entirely new language of movement that explores the natural impulses of the human body and its relationship with others and the space around it. Naharin’s choreography is captivating audiences and artists all over the world. Batsheva performances are in high demand and they perform internationally as well as hold intensives and classes in Tel Aviv.

9:45 to 10:05 a.m., MH

**Courtney Martin**

*Faculty sponsor: Sharon Oberst*

**Title:** Dance and Physical Education: The Evolution of Dance in Monmouth Oregon through the May Day Pageants

**Abstract:** Dance was used by physical educations as an appropriate form of exercise for women in the early 20th century. Dance in universities continued to change with the popularity of pageants, such as the May Day Pageant, and the introduction of creative dance. Early dance classes were made up of appropriate versions of folk dances, however through the use of Pageants by Oregon Normal School many other types of dance, including modern dance, became full time classes. A short recreation of the May Day Pageants will be included.

10:05 to 10:15 a.m., MH

**Cy Higashi**

*Faculty sponsor: Darryl Thomas*

**Title:** Pulse

**Abstract:** Pulse is an abstract dance that uses the breath to carry the body through the movement. We found new ways of moving within our bodies and expressing that through the movement.

10:15 to 10:25 a.m., MH

**Emily Aalbers**

*Faculty sponsor: Sharon Oberst*

**Title:** Vitality

**Abstract:** An exploration of movement. This abstract piece of art is an experiment with the human body; it is an investigation of potential movement of the dancer and the embodiment of the music. The piece aims to display the unique abilities, lines, and angles of a body with dynamically sharp and contrastingly smooth movements. The costumes and lighting serve to accentuate the athletes’ muscles and lines and highlight their moving forms.
Abstract: Melding ballet technique with modern movement creativity, Guest Choreographer, Brian Enos created this abstract modern dance that includes broad strokes of kinesthetically pleasing phrases with the nuance of detailed movement. Enos selected eight WOU dancers who auditioned for the opportunity to work with this talented choreographer. The dancers were invited to perform *Aerie* at the Lane Community College faculty dance concert and also performed the piece in Missoula, Mont. at the American College Dance Festival.

**EARTH SCIENCE**

**Session title:** “Eruptions that Shook the World” – Examining the Influence of Volcanism on the Earth System

**Session chair:** Jeffrey Templeton  
**Location:** Health and Wellness Center (HWC) 105

**Presentations**

12:30 to 12:40 p.m., HWC 105  
**Jeffrey Templeton**  
*Faculty sponsor:* Jeffrey Templeton

**Title:** Session Overview: “Eruptions that Shook the World” – Examining the Influence of Volcanism on the Earth System

12:40 to 1 p.m., HWC 105  
**Skyler Edmison**  
*Faculty sponsor:* Jeffrey Templeton

**Title:** The Impact of Pyroclastic Density Currents on Human Civilizations through Time

Abstract: Volcanic eruptions have shaped the surface of the Earth throughout its history, and modern humans have been witness to numerous explosive eruptions during the past 200,000 years. This project focuses on the impact of pyroclastic density currents (PDCs) on humans based on documentation of these events in the literature. A central theme is how PDCs have shaped human societies through time. PDCs consist of hot gas and rock, collectively known as tephra, which is formed during an explosive volcanic eruption. As a volcanic eruption proceeds, PDCs can travel down the slope of a volcano at speeds of over 100 km/hr and reach temperatures exceeding 400°C. The movement of PDCs is controlled by tephra density, slope gradient, and volcanic output rate. Understanding the flow of PDCs is important, because they do not always follow topography, which can contribute to mass devastation. Human civilizations have been impacted by these flows throughout history with loss of human life and total destruction of cities in their path.
atmosphere, not volcanic ash as many in the general public tend to believe. The SO2 gas reacts with the atmosphere and turns into sulphuric acid (H2SO4), which then forms an aerosol veil that circulates around the Earth. This aerosol veil is what ultimately causes the climate change, creating cooler summers and warmer winters. While the regional effects of the aerosol veil can vary widely, the net cooling of global climate was 0.5°C as a result of the Mt. Pinatubo eruption in 1991. In general, the effects of the aerosol veil can persist for up to three years in the atmosphere, but the effects of climate change on the oceans can last for as long as a century.

2:10 to 2:30 p.m., HWC 105
Harry Hill  
Faculty sponsor: Jeffrey Templeton

Title: Volcanism as a Driving Force for Mass Extinction Events

Abstract: Mass extinctions periodically decimate life on Earth, such as the well-known event 65.5 million years ago that wiped out nearly all of the dinosaurs. Numerous theories have been proposed to explain mass extinction events, including bolide impacts, rapidly transmitted viruses, climate change, volcanic activity driven by mantle plumes, or combinations of some or all the above. Over the last century scientists have unearthed ancient lava flows, some covering 2,000,000 km2. Almost every major disappearance of life from the fossil record coincides with massive eruptions of lava flows in the form of large igneous provinces. Four of the five largest extinction events in the last 450 million years correspond to well-dated large igneous provinces within 1 million years of the respective extinction event. Most notably, the eruption of the Siberian traps directly predates the largest known extinction event, which resulted in the destruction of over 95 percent of Earth’s flora and fauna about 250 million year old. Similarly, the 65.5 million year old Deccan traps in India directly predict the dinosaur extinction. It seems like Earth’s greatest destructive power is not from outer space but from within the mantle. Inevitably, if history repeats, will humans be the next mass extinction on the magma cutting block?

2:30 to 2:50 p.m., HWC 105
Kevin Chambers  
Faculty sponsor: Jeffrey Templeton

Title: Toba Eruption: Significance to Human Evolution and Global Climate Change

Abstract: Danau Toba (Lake Toba) is a water-filled caldera of an ancient super volcano approximately 86 by 30 km. Understanding Toba as a super volcano allows researchers to relate the size, scope, and magnitude of the destruction that occurred during Toba’s most recent eruption about 75,000 years ago. As the story of the human species was beginning to unfold, it almost ended before it ever began. Evidence suggests that the Toba eruption may have caused a bottleneck in human evolution, almost leading to the extinction of the human species. This same evidence points to a worldwide volcanic winter as a result of the Toba eruption, leading to drastic, long-term changes in the global climate. However, new evidence and research is emerging that calls into question this scenario and suggests that the Toba eruption may have not played as significant a role in human evolution. The effects of the Toba eruption may or may not have influenced the global climate to the extent previously thought, but it can shed light on the future of humans as another super volcano close to home begins to stir.

2:50 to 3 p.m., HWC 105

Break

3 to 3:20 p.m., HWC 105
Vicki Bergquist  
Faculty sponsor: Jeffrey Templeton

Title: Impacts of Volcanic Eruptions on Human Civilization During the Dark Ages

Abstract: The dark ages “dust veil event” of 536 A.D. plunged the northern hemisphere into a cold darkness that had a domino-like influence upon epidemics, food production, politics, economics, and religion across Mesoamerica, Europe, the Mediterranean, and Asia. Significant levels of sulphuric acid-rich layers found in ice cores in Greenland and Antarctica, coincide with dendrochronology data, and point to three large tropical volcanic eruptions as probable sources. Tambora and Proto-Krakatau located in the Philippines, and Ilopango in El Salvador, have independent evidence of the timing of the eruption that occurred in the mid 6th century. The global effects were far reaching, elevating the potential role of volcanism as a major climate control and demonstrating the intimate link between human affairs and nature.

3:20 to 3:40 p.m., HWC 105
Beeb Singson  
Faculty sponsor: Jeffrey Templeton

Title: Volcanic Resources through the Ages

Abstract: Throughout time, people have used the materials created by volcanic eruptions to better their lives. Resources include volcanic glass (obsidian), basalt, volcanic ash, and even the heat generated by magma underlying volcanic systems. The use of materials such as obsidian may have been a driving factor in the building of complex and long distance trading between early civilizations. Currently, geothermal energy is being used in locations across the globe, helping to reduce anthropogenic CO2 production. Innovative uses of basaltic materials have emerged in recent years. Basalt fibers and wool are being used, along with volcanic ash, to strengthen building materials used in infrastructure. These types of volcanic resources are also being used to clean up pollution of heavy metals and oil in sea water. This project focuses on the use of volcanic materials through time. The research utilizes the collective insight of multiple papers covering different aspects of material uses and studies.
Title: Geomythology: Volcanic Myths and their Geologic Significance

Abstract: Geomythology is the study of oral traditions created by pre-scientific cultures to explain geologic phenomena. Geomyths describe both observed geologic events, and those that need supernatural explanation. Because humans have always sought to explain their natural surroundings, the link between geology and mythology is apparent in many cultures. Recurring themes include the origin of landforms and the significance of geologic events, such as floods, earthquakes, and volcanism. For volcanic activity, examples of datable and verifiable evidence that support accounts of specific events include Hawaii’s legends of the goddess Pele, the stories of the Oracle at Delphi, accounts of Mt. Mazama, creation legends of landforms in the British Isles, and the Greek epics of Homer and Hesiod. Although geomythology is in its infancy within the scientific community, the insight derived from oral traditions could potentially have a profound effect on the geologic record and how civilization views its relationship with geologic events.

ENGLISH, WRITING AND LINGUISTICS
Session title: English: Linguistics, Literature, Writing
Session chair: Marjory Lange
Location: Health and Wellness Center (HWC) 205

Presentations

8:45 to 9:15 a.m., HWC 205
TBA
Faculty sponsor: Christine Harvey Horning

Title: WR 115 and WR 135 Presentations / the “Phi Kappa Phi First-Year Writing Awards”

9:15 to 9:25 a.m., HWC 205
Donovan Douglas
Faculty sponsor: Henry Hughes

Title: Selected Poems

Abstract: Selection of Poetry

9:25 to 9:35 a.m., HWC 205
Kris Curtis-Barney
Faculty sponsor: Katherine Schmidt

Title: Getting it Right: Process Revision of a Short Story

Abstract: This presentation will look at revision methodology for the Writing 360 Fiction Workshop. Dispelling the myth that short stories take less work, we will follow one student’s journey into the revision process. The concept of incorporating all elements of great fiction to highlight a single effect is a daunting task, but achievable, and a great start to craft writing for character development and plot trajectory is to develop a personal revision strategy that works for the one person that matters: you!

9:35 to 9:50 a.m., HWC 205
Peter Carrillo and Amelia Liggett
Faculty sponsor: Cornelia Paraskevas

Title: Prestige Forms: Hypercorrection and Self-Reported Linguistic Competence in College Students

Abstract: This study was designed to determine whether or not students in college hypercorrect to a form of writing that is perceived to be more prestigious and to determine whether people who hypercorrect have a tendency to self-report a higher level of linguistic competence. Short surveys were distributed to students in two writing classes and the University’s writing center. The survey had six questions, allowing students to self-report on their linguistic competence and to answer questions about the grammatical correctness of four sentences. We found that the majority of students who were hyper correcting had a lower self-report of linguistic competence.

9:50 to 10 a.m., HWC 205
Break

10 to 10:15 a.m., HWC 205
Chelsea Hunt, Rachel Jackson, Heather Sanderson, and Matthew Verley
Faculty sponsor: Katherine Schmidt

Title: Flash Fiction

Abstract: “A flash is simply a story in miniature, a work of art carved on a grain of rice—something of import to the artist or writer that is confined and reduced, either by design or outcome, into a small square space using the structural devices of prose line and paragraph form with the purpose of creating an intense, emotional impact.” —Tara L. Masih

10:15 to 10:25 a.m., HWC 205
Dana Houston Jackson
Faculty sponsor: Justin Lewis

Title: Digital Identity

Abstract: The PechaKucha narrative, “Social Identity,” discusses the need to carefully sculpt your own and your families’ social identity through a technology use plan. Continued and increased digital surveillance necessitates that parents and educators be actively involved in the social identity, digital security, and lifelong digital footprint that young people leave behind for anyone to find, and potentially use against them. You and your family may not able to undo past mistakes that are recorded in the digital world ad infinitum, but you can prevent future ones.
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10:25 to 10:33 a.m., HWC 205
Curtis Holbert
Faculty sponsor: Henry Hughes

Title: Excerpt from “How to Drive in Baghdad” (a memoir)

Abstract: A small excerpt from a memoir of my time spent in Baghdad, Iraq in 2007-08. The work regards observations and interactions in the city of Baghdad at the height of the surge, and details an attack on our platoon.

10:33 to 10:43 a.m., HWC 205
Frank Asay
Faculty sponsor: Christine Harvey Horning

Title: Rise of an African American Mythos

Abstract: Written in an artistic explosion among the African American community known as the Harlem Renaissance, Zora Neale Hurston’s 1937 novel, Their Eyes Were Watching God, represents a cultural contribution which significantly advances the equality of African Americans and women. It goes beyond this contribution as well by crafting a new mythology shaped by a recent past that includes government sanctioned Jim Crow laws and the collective experience of slavery among members of Hurston’s community. The novel and its author stand as a cultural pivot point in America. Where previously African American artists had been limited by white American expectations and even their own self-repression, Hurston elevates her narrative beyond these limits, acknowledging the struggles of the community but using them as a strength and a right to embrace the reality of their burgeoning freedom and to claim a unique but universal spiritual identity.

10:43 to 10:51 a.m., HWC 205
Rhiannon Goodfellow
Faculty sponsor: Henry Hughes

Title: Selection of Poems

Abstract: A selection of poetry.

10:51 to 11 a.m., HWC
Break

11 to 11:10 a.m., HWC 205
Cassie Falling
Faculty sponsor: Robert Troyer

Title: African American English and Linguistic Ideology in To Kill A Mockingbird

Abstract: Harper Lee’s classic novel, To Kill A Mockingbird, presents “white-folk-talk” and “nigger-talk” as separate languages, with the boundaries being ideologically and emotionally determined. By using linguistic analysis of standard and non-standard English including African American English, I sought to discover the true differences between these constructs, as well as the role that racism plays in this novel.

11:10 to 11:18 a.m., HWC 205
Amelia Liggett
Faculty sponsor: Henry Hughes

Title: Excerpt from “21” (a memoir)

Abstract: A memoir excerpt that deals with alcohol and family relations.

11:18 to 11:28 a.m., HWC 205
Faculty sponsor: Uma Shrestha

Title: Awards for Outstanding Students

11:30 to 12 p.m., HWC 205
Meyer Prize Winner (to be announced)
Faculty sponsor: Gavin Keulks

Title: Meyer Prize Winning Essay

GENERAL SCIENCE HONORS
Session title: Scientific Storytelling using Student Created Videos: The Energy Files
Session chairs: Philip Wade and Arlene Courtney
Location: Natural Sciences (NS) 101

Presentations

8 to 8:15 a.m., NS 101
Chris Carbonaro and Isaac Keister
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Coal

Abstract: The United States, which possesses the largest coal reserves in the world, produces 37 percent of its electricity from coal. Coal has been the building block of empires throughout the centuries, being prized for its industrial applications. It still remains a mainstay of modern energy production. However, controversy surrounds the use of coal, the most abundant fossil fuel in the world, because it produces the most greenhouse gases and air pollution of all the fossil fuels. This documentary gives an overview of how coal is formed, mined, and processed and explores the history of coal as a fuel source, its present role in the energy industry, and the future of coal as more environmentally friendly energy options become available.

8:15 to 8:30 a.m., NS 101
Alisha Perry and Braden Shribbs
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Are You a Fan of Renewable Energy?

Abstract: For millennia, sailing ships have used the wind to power their travel. Until recently, wind power has not been used as a resource to create electricity. This documentary will delve into the aspects of today’s wind energy technology. Wind turbines are the most efficient generators of renewable wind
energy currently available. Wind farms, as well as personal wind turbines, have become an increasingly popular form of renewable energy. These machines provide the electricity that power anywhere from a single home to an entire neighborhood. In fact, a single megawatt turbine can power up to 400 homes! Yet how much of our renewable energy is actually made up from wind energy? Similarly, is the cost of setting up and maintaining wind turbines practical for the amount of energy received from these turbines? If these questions interest you, you may be a fan of wind energy!

8:30 to 8:45 a.m., NS 101

Kate Schwartz and Sarah Pettigrew
Faculty sponsors: Philip Wade and Arlene Courtney

Title: The Ocean: Energy in Waves

Abstract: This documentary explores the ways in which the ocean can be an alternative source of renewable energy. Topics reviewed include thermal, tidal, and wave energy technologies. The environmental consequences that these devices can have on various forms of sea life are also considered. Similarly, it analyzes the economic demand of such innovations. Specific technologies discussed in this documentary include the Pelamis and Ocean Thermal Energy Conversion (OTEC). The ocean is an underutilized energy resource that merits research to develop its immense potential. This documentary provides an unbiased narrative within the discussion of the ocean’s renewable energy as well as how we can advance this resource.

8:45 to 9 a.m., NS 101

Ashley Templeton and Tyler McAfee
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Grassoline: The Future of Fuel

Abstract: In the United States, approximately 365 million gallons of gasoline are used every day. Although it is used for many other purposes, the majority of gasoline is used for transportation. Unfortunately, the production and use of gasoline has many harmful effects on both human health and on the environment. Cellulosic biofuel (informally known as grassoline) is a plant-based substitute for ethanol used in gasoline, developed in an effort to reduce its harmful effects. This research project takes a look at the positive and negative aspects of cellulosic biofuel and explores the world’s methods of fuel consumption in the near and distant future.

9 to 9:15 a.m., NS 101

Jared Petersen and Nathan Tew
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Cracking the Case on Fracking

Abstract: Hydraulic fracturing, or fracking, is the process of extracting and collecting natural gas that involves pumping horizontal wells full of a mixture of water, sand, and chemicals at a very high pressure. The pressure fractures the rock and releases natural gas and various other substances, which are then collected in storage tanks. This increasingly popular natural gas extraction method is becoming more and more important as the United States attempts to take advantage of its large natural gas deposits. With the increasing cost and decreasing availability of crude oil, natural gas is becoming a more enticing energy alternative. This video documentary briefly examines the mechanics of fracking, its environmental and economical impacts, and objectively examines the controversy surrounding this technology.

9:15 to 9:30 a.m., NS 101

Cierra Henderson and Gianne Pabustan
Faculty sponsors: Philip Wade and Arlene Courtney

Title: A Brighter Future and a Cleaner Earth

Abstract: Most of the energy resources that we use have many negative impacts on our environment such as air and water pollution. Natural gas, on the other hand, is one of the cleanest energy sources available today. Recently, there have been many advances in obtaining natural gas and putting it to use in homes and industrial settings. Compared to coal or propane, natural gas can save families and businesses thousands of dollars each year. This video gives an overview of how natural gas is formed, found, transported, and utilized in houses, industries, and transportation, and discusses how natural gas has the potential to fill our energy needs with less environmental degradation than other fossil fuels.

9:30 to 9:45 a.m., NS 101

Audrey Jones and Emily Parker
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Black Gold – Texas Tea

Abstract: The extinction of the dinosaurs may have been tragic, but their decomposing bodies left behind a resource valuable to the world of today: petroleum oil. Some of the more common uses include transportation, everyday household products, and construction supplies. Contrary to popular belief, we don’t have to rely so heavily on foreign oil, as we have a large supply of petroleum within our own borders. Texas, the largest oil-producing state in America, puts 3.4 million barrels of oil onto the market per day. Lately it seems that oil has a bad reputation, but even though it may not be the cleanest of fuels, it is one that we are very dependent upon. This documentary sheds light on the positive aspects of the petroleum industry, while also taking a look at the dark side.

9:45 to 10 a.m., NS 101

Ruby Tidwell and Jennifer Hight
Faculty sponsors: Philip Wade and Arlene Courtney

Title: One Man’s Trash is Another Man’s Fuel

Abstract: Due to mounting concerns about the environmental impact of fueling our insatiable energy appetite, innovative alternative energy sources and technologies are being explored. Scientists are now looking to Landfill Gas (LFG), composed of 50% methane, which can be captured and utilized as a
fuel source. Harnessing LFG for use as an energy source is a preferable alternative to the current practice of simply burning off the gas to prevent it from entering the atmosphere. The Coffin Butte Landfill Facility north of Corvallis, Oregon has been making strides to promote a public awareness of LFG and its potential as a viable energy source. With ongoing research and development, harnessing LFG could serve a dual purpose in protecting the environment from methane release, while serving as an environmentally friendly alternative to oil and coal. Now that’s nothing to turn your nose up at!

10 to 10:15 a.m., NS 101
Aubrey Fear and Kaylee Church
Faculty sponsors: Philip Wade and Arlene Courtney

Title: Energy From Sources You Never Expected

Abstract: This documentary explores various novel sources for alternative energy. Some of the alternative energy resources that will be explored include fluorescent green proteins from jellyfish, harnessing energy from exploding lakes like the Rwanda Power Plant’s efforts to collect the explosive power of lake Kivu, bio-fuels produced from the potentially deadly E. Coli bacteria, using carbon nano tubes to collect solar energy, and the emerging technology of converting vibrations into usable energy. This video documentary demonstrates that there are always new and unusual sources for alternative energy, and that while the laws of energy remain constant, the development of energy sources is always changing.

GEOGRAPHY
Session title: Short films on landscape from GEOG 386
Session chair: Shaun Huston
Location: Instructional Technology Center (ITC) 211

Presentations

9 to 9:18 a.m., ITC 211
Lilly Miller
Faculty sponsor: Shaun Huston

Title: Landscapes and Textures

Abstract: The world is filled with so many different textures and landscapes. Naturally occurring landscapes are intriguing, and the textures that are within them are as well. This video was filmed in the Rogue-Siskiyou National Forest near the town of Gold Beach, Oregon. Through the making of this video, I was attempting to explore different natural landscapes that showed the differences in habitats. Within each of those landscapes I explored the different textures that were present. Although you cannot feel the textures through the video, a viewer can get an idea of the textures that are a part of this world.

9:18 to 9:36 a.m., ITC 211
Todd Wing
Faculty sponsor: Shaun Huston

Title: Landscaping Traditions

Abstract: Creator Statement: Landscape Traditions is based on J.B. Jackson. J.B. Jackson was an American writer and publisher of what he called the “vernacular” landscape. He had an interest in the commonplace or everyday landscape, and how the everyday people were landscaping their environment. In one of his videos, “Figure in a Landscape: A Conversation with J.B. Jackson”, he conveys that the way he sees the landscape, not as scenery, but as man-made spaces. He is interested in what man has done to the face of the earth. My video captures an essence of vernacular architecture through another way of viewing the landscape, as having been built by different generations ie. The Old and The New.

9:36 to 9:54 a.m., ITC 211
Nicole Longoria
Faculty sponsor: Shaun Huston

Title: J.B. Jackson Portlandtopia

Abstract: This film shows the J.B Jackson tradition in landscape study through ideas about the urban landscape as transformed it into “Portlantopia”, a version of emerging everyday life in a metropolitan area. The film focuses on concepts of travel within a city landscape, not just cars, but transportation alternatives that many people use in this up and coming city. This shows the way people interact within the landscape of Portland, Oregon.

9:54 to 10:12 a.m., ITC 211
Marissa Thompson
Faculty sponsor: Shaun Huston

Title: The Project of Dwelling: A View of Tim Ingold’s Theories on Landscape

Abstract: Social anthropologist Tim Ingold described landscape in terms of practical activity, writing that the world becomes a meaningful environment only by being inhabited. The landscape is not strictly “nature” in the sense of an external, distanced world, but is any lived-in environment made up of human perception. The aim of this video is to show how humans perceive and interact with their world in order to live in it—how the landscape is an everyday project of dwelling.

10:12 to 10:30 a.m., ITC 211
Hope Sneddon
Faculty sponsor: Shaun Huston

Title: Movement, Mobility and Landscape

Abstract: It is important to study the relationship that people have with space and landscape. There are different ways in which humans experience or interact with their surroundings; such as through types of movement and mobility. Different types of movement can provide different perceptions of the landscape. Sometimes we move through spaces with a destination or we may simply wander. This video shows how we use hiking towards a destination as a way of experiencing a certain landscape. This video was filmed at Silver Falls State Park for the Geography 386: Making Digital Film course.
GRADUATE STUDIES
Session title: Graduate Programs Poster Session
Session chairs: Amber Deets and Bill Hamlin
Location: Werner University Center (WUC) Willamette Room

Posters

3:30 to 5 p.m., WUC Willamette Room
Marc Adamo
Faculty sponsor: Kristina Frankenberger

Title: Open Table Marketing Plan

Abstract: My poster presentation will be based off of the marketing plan I made for the company, OpenTable. The presentation will provide information on OpenTable, its competition, and a plan for marketing the company. The overall focus, however, will be on what a marketing plan is, and why it is important to a company. I want to show the significance of marketing as it relates to business, and I will use OpenTable as the example.

3:30 to 5 p.m., WUC Willamette Room
Aurae Beidler
Faculty sponsors: Mary Bucy and Greg Zobel

Title: Designing a Website with Open Source Tools

Abstract: Using open source tools for website development provides users with a free, collaborative alternative for website design. This project used the following open source tools to create a website for a consulting business: Wordpress, GIMP and OpenOffice. The process included using GIMP to manipulate a logo and images to enhance the purpose of the website, creating website content using OpenOffice, and making changes to and fitting the content within a Wordpress template. The result is a visually-enhanced, functional website appropriate for the consulting business.

3:30 to 5 p.m., WUC Willamette Room
Teal Carter
Faculty sponsor: Maria Dantas-Whitney

Title: The Effects of GLAD Instruction on Second Grade English Language Learners’ Oral Language Development

Abstract: The purpose of this study was to analyze the effects of Project GLAD on the oral language development of English language learners at the second grade level. To achieve this, I taught a five-week GLAD unit on Plant and Animal Life Cycles in its entirety within the setting of my own second grade classroom. I collected student oral language observation data on four ELL students throughout the unit. It was important to understand how the strategies employed through the GLAD model were affecting student language development, and whether the effects were positive or negative.

3:30 to 5 p.m., WUC Willamette Room
Chad M. DeSeranno
Faculty sponsor: Amber Feist

Title: Inspire and Excite the World: The History and Mission of the Paralympic Movement

Abstract: The purpose of this presentation is to educate Western Oregon University students and faculty about the history of the Paralympic movement and its holistic benefits for individuals with disabilities. The Paralympic movement has had a dynamic history founded in recreational rehabilitation and has exponentially grown into the premier international athletic event for people with disabilities. As a platform for athletic excellence, the Paralympics have empowered individuals with disabilities with the self-determination to represent their home nations and communities. The foundations of the Paralympic movement can be found within local volunteer clubs. These clubs provide essential mentorship and adaptive equipment for athletes with disabilities that result in greater inclusion and overall health benefits for all participants.

3:30 to 5 p.m., WUC Willamette Room
Cheri Freedman
Faculty sponsor: Kristina Frankenberger

Title: A Healthy Future: Inventure Foods and Jamba Juice Smoothies

Abstract: Inventure Foods is not a company name that most consumers would readily recognize; however their licensed snack products, both healthy and indulgent, are familiar to consumers in most regions of the United States. The frozen food industry is growing and Inventure Foods (Innovation + Adventure) is navigating their growth in this market with a diverse portfolio, expansive manufacturing capabilities, and strong licensee partnerships. One of their licensed products, Jamba Juice At-home Smoothies, has proven to be an excellent match for Inventure Foods capabilities and an interesting expansion into this relatively new area of the frozen food market.

3:30 to 5 p.m., WUC Willamette Room
Lisa Hupp
Faculty sponsors: Mary Bucy and Greg Zobel

Title: Designing to Connect: An MSEd Information Technology Portfolio

Abstract: This video gives an overview of my portfolio for the MSEd:IT Program. I am a park ranger at Kodiak National Wildlife Refuge; much of my professional life revolves around connecting people with the unique landscapes and wildlife of Kodiak. Technology is an incredibly valuable tool to educate and inspire people about remote places such as Kodiak. It can also be a distraction from actually getting outside and experiencing these places. My academic work explores both the potential and pitfalls of incorporating technology in creating connections to natural environments.

3:30 to 5 p.m., WUC Willamette Room
Lisa Rogers
Faculty sponsor: Carmen Caceda
Title: Bilingual Education and Student Support

Abstract: This summative presentation highlights the main topics and themes from ED 622: Sociopolitical Foundations of ESOL/Bilingual Education. With a brief discussion of the politics and relevance of ELL education in today's schools, there will be a primary focus on the significance of bilingual programs within the K-12 school system as a beneficial method to support participating students of all cultural and linguistic backgrounds.

3:30 to 5 p.m., WUC Willamette Room
Joseph Waarvik
Faculty sponsors: Mary Bucy and Greg Zobel

Title: Designing Online Virtual Learning Spaces

Abstract: Access to the Internet and the proliferation of computers and related devices have opened up the possibility of creating a wide variety of virtual learning spaces online. My video will showcase several of the virtual learning spaces I have created for various purposes and discuss what types of situations these learning spaces best work for, as well as how they have been received by my students.

3:30 to 5 p.m., WUC Willamette Room
Shunan Wang
Faculty sponsors: Kristina Frankenberger

Title: What Can We Learn from Medifast Direct? – A Marketing Plan for Medifast, Inc.

Abstract: This marketing plan is established after my research of Medifast, Inc. It consists of external analysis of the weight loss industry in the United State, the macro-environment of demographic, economic, technological, and legal factors that are impacting the market, the competitive analysis of the company’s top competitors, the internal analysis of the company, the study of the home delivery weight loss market, and the future marketing strategy for Medifast, Inc.

HEALTH, PHYSICAL EDUCATION, and EXERCISE SCIENCE

Session title: Health/Physical Education/Exercise Science Symposium
Session chairs: Daryl Thomas, Janet Roberts, and Natalie DeWitt
Location: Health and Wellness Center (HWC) 203

Presentations

8:30 a.m., HWC 203
Victoria Agorsah, Kim Lavoie, Julia Peralta, and Jill Watkins
Faculty sponsor: Doris Cancel Tirado

Title: FEAST Evaluation Plan

Abstract: Food Education Agriculture Solutions Together (FEAST) Oregon is an organization developed through the Oregon Food Bank that is dedicated to helping communities decrease food insecurity. FEAST’s purpose is to engage community members and to provide them with the tools they need to make a difference in their own local food systems. The purpose of this presentation is to present a plan to evaluate the FEAST program and assess the engagement of all the FEAST participants, to measure if the FEAST volunteers are demographically representative of their community, and to determine if FEAST is an effective program in creating long-term community partnerships.

9 a.m., HWC 203
Dawn Marie Oaks
Faculty sponsor: Warren Allen

Title: Roots of the Loins: Herbal Remedies for Infertility

Abstract: Infertility is defined as the failure to achieve pregnancy during one year of frequent, unprotected intercourse. Infertility affects 10 to 20 percent of couples trying to achieve pregnancy in industrialized countries, and more than 186 million married women of reproductive age in developing countries. Many partners in western culture are utilizing western medicine but should we go back to our traditional roots? Herbal remedies have been used as early as 200 A.D. to rectify the balance of the body. Many studies have shown 50 to 90 percent success rates with the use of herbal remedies. It is a cost-effective option that can be used in conjunction with Western therapies.

9:20 a.m., HWC 203
Courtney Chang Wo
Faculty sponsor: Warren Allen

Title: Ayurvedic Medicine

Abstract: Ayurveda is the traditional medical system of India and has been around for at least 5,000 years. The goal of Ayurveda is to prevent and treat disease and illness by maintaining balance of our unique and individual doshas, or energies, in the mind, body, and consciousness through the use of herbal remedies, minerals, oils, and special diets. Risks have been shown when heavy metals are used in certain herbal preparations or medications. However, it has been proven to help reduce or lower the risk of various health conditions, like stress, heart disease, cancer, and arthritis. This presentation takes a look into the alternative medicine known as Ayurveda; its risks and benefits, treatment, and how it compares to conventional medicine.

9:35 a.m., HWC 203
Seabre Church
Faculty sponsor: Warren Allen

Title: Hydrotherapy

Abstract: Hydrotherapy is an alternative approach to traditional Western medicine. Hydrotherapy is the use of water as a modality to restore, maintain, and regulate an individual’s health. This modality can be used in a variety of different
settings for a number of different ailments. Hydrotherapy has a rich history seen in all cultures throughout the world. Hydrotherapy utilizes waters natural healing properties to restore one’s health. This presentation introduces an alternative form of medicine called Hydrotherapy. It covers the history, how it works, the risks and benefits, how it heals, and who is able to benefit from this modality.

9:50 a.m., HWC 203
Danielle Harcourt
Faculty sponsor: Tom Kelly

*Title:* The Critical Analysis of Carnitine During Exercise

*Abstract:* The presentation examines the research looking at the role of carnitine supplementation for fat metabolism, potential weight loss, and improved exercise performance. Claims are made that supplementation of carnitine can help burn fat and increase performance. It has been hypothesized that the body should be able to work longer during exercise because of improvement in the transportation of long-chain fatty acids into the mitochondria where fat molecules are broken down.

10:05 a.m., HWC 203
Jamie Kahn
Faculty sponsor: Tom Kelly

*Title:* The Critical Analysis of the Weight Loss Claims of Green Tea Extract/Supplements

*Abstract:* Green tea extract/supplements contain high concentrations of antioxidants called polyphenols. The most prevalent polyphenol in green tea is EGCG (catechin epigallocatechin gallate), which appears to have anti-obesity effects. Green tea extract is theorized to influence body composition and fat loss with EGCG possibly stimulating thermogenesis and fat oxidation. Claims made by diverse companies allege their green tea products aid in weight loss by burning calories, boosting metabolism, increasing energy and fighting fatigue. This presentation will highlight research testing the weight loss claims of green tea extract/supplements.

10:20 a.m., HWC 203
Melissa Gonzalez, Sean Kubishta, Joey LaThorpe, Alyssa Leopard, Brandon Updike, and Jacob Whisler
Faculty sponsor: Gay Timken

*Title:* Learning to Teach in the Real World: What 6th Graders Taught us About Teaching, Learning, Kids.... and Learning to Teach

*Abstract:* For the first time, during winter 2014, PE 430 (teaching methods) and PE 431 (assessment methods) were conducted at Talmadge Middle School. Part of class responsibilities was to teach real 6th graders in school-based physical education. Sixth graders learned content and participated in activities specifically focused on fitness concepts such as cardiovascular fitness, muscular strength / endurance, and principles of overload, specificity and adaptation. This presentation will showcase our work with TMS students, and what we as future teachers learned about teaching, learning, middle school students, and the process of learning to teach.

11 a.m., HWC 203
Sarah Larsen, Stephanie Cox and Rachael Lapping
Faculty sponsor: Amy Hammermeister

*Title:* The Effects of Television in the Bedroom of Children and Adolescents

*Abstract:* Televisions in the bedrooms of children and adolescents have become a common norm in the United States. A problematic cause of concern when looking at the health and well-being of children and adolescents not only includes the mental and physical daily functioning which is being affected by the lack and quality of sleep that children receive, but health risks such as early onset childhood obesity, and risky behaviors including sexual activity, drugs, and cigarette smoking. Research has shown that all of these affects are proven to increase when a television is in a child’s bedroom.

1 p.m., HWC 203
Mackenzie Lafferty and Savannah Phillips
Faculty sponsor: Daryl Thomas

*Title:* Acupuncture as a Beneficial Treatment for Insomnia and Depression

*Abstract:* Alternative forms of treatment for insomnia and depression will be examined in this presentation. Chinese Traditional Medicine is not commonly practiced in Western cultures, but is becoming increasingly popular. Acupuncture is seen as one of the main treatment methods in Chinese Traditional Medicine practices. A comparison of Western medicine and acupuncture will be discussed in this presentation to provide examples for the different aspects in the treatment style. Review of case studies will support and better identify the benefits of acupuncture for treating both insomnia and depression illnesses.

1:30 p.m., HWC 203
Sean Kubishta, Alyssa Leopard and Brandon Updike
Faculty sponsor: Marita Cardinal

*Title:* The Importance of Quality Teaching in Elementary Physical Education

*Abstract:* Our goal in physical education is to provide children with the knowledge, skills, and behaviors for a lifetime of physical activity. By providing a variety of engaging activities, students have the opportunity to learn and develop a solid foundation of motor skills and express themselves through movement. To accomplish these goals, extensive planning and preparation, including modifications of activities, is required so all children can experience success. Varied teaching methods allow for students with different abilities and learning styles to become actively engaged. Creating a safe and encouraging environment helps students build healthy relationships and a love for physical activity.
2:20 p.m., HWC 203
Nicole Crane and Sarah Fox
Faculty sponsor: Siobhan Maty

Title: The Association Between Fiber Intake and Risk for Breast Cancer

Abstract: Genetics account for 5-10% of breast cancer cases, leaving environmental factors to have the potential to have an influence. Our research study builds upon the known literature on fiber’s effect on breast cancer. Our study uses a prospective cohort design using both qualitative and quantitative data. We will follow 10,000 women ages 26 to 40, who live in Oregon, and have not been diagnosed with or have a family history of breast cancer for ten years. Using an individual unit of analysis for each woman we will calculate the effect that their individual fiber intake had on their risk of breast cancer.

2:40 p.m., HWC 203
Eunice Jones
Faculty sponsor: Daryl Thomas

Title: The Use of Herbal Medicine in Ghana (West Africa)

Abstract: The presentation focuses on herbal medicinal practices in Ghana, West Africa, and the influence of different cultural practices by different tribes in herbal medicinal uses. Herbal medical uses are different across the country. Practices of herbal medicine by herbal medicinal practitioners are different due to difference in training. About 70% of the population of Ghana uses herbal medicine. There have been a few scientific researches in the types of herbs used, their effective healing abilities and the safety precautions. There are many different herbs available to the people due to the large rainforest that runs through sub-Saharan Africa, which leads to newly found herbs every day.

3 p.m., HWC 203
Ashley Bixenstein
Faculty sponsor: Daryl Thomas

Title: Home vs. Hospital-Based Births (Midwife edition)
Crazy, Different or Genius

Abstract: The act of childbearing has undergone a dramatic evolution during the last century. Traditional practices such as home birth and the incorporation of midwives during the delivery process has dwindled. Once seen as the cultural norm, these birthing modalities were quickly replaced by clinical procedures beginning in the 20th century. However, despite the growing presence of medical aided birth, these traditional practices have seen a resurgence. Whole subsets of women are breaking from the medical model. They are opting for a more holistic approach to delivery; redefining their birthing experience. In this presentation an exploration of a woman’s right to utilize the traditional birthing modalities of home-based delivery, as well as midwives, will be conducted. In addition, their associated positive effects and health outcomes will be revealed. Showcasing how they contribute to a stronger foundation for human development.

Session title: Health/ Physical Education/ Exercise Science Poster Session
Session chairs: Daryl Thomas, Janet Roberts, and Natalie DeWitt
Location: Werner University Center (WUC) Pacific Room

Posters

9 to 11 a.m., WUC Pacific Room
Sarah Dethman, Ted Kendros, and Summer Szumski
Faculty sponsor: Siobhan Maty

Title: Slowing the Progression of Alzheimer’s Disease by Increasing Cerebral Blood Flow

Abstract: More than five million Americans have Alzheimer’s disease (AD). It is a condition characterized by progressive disorientation, confusion, memory failure, and many other related symptoms. Vascular risk factors are strongly linked with AD. There is a higher rate of cognitive and functional decline in individuals who present with one or more vascular risk factors.

We proposed a study that would increase patients’ cerebral blood flow through repositioning and by the performance of simple movements. We anticipate that through these interventions, patients will exhibit a measurable increase in cerebral blood flow, thus slowing the onset and progression of AD.

9 to 11 a.m., WUC Pacific Room
Paige Amend and Katrin Hood
Faculty sponsor: Siobhan Maty

Title: How Cohabitation Affects Risk of Mortality Post-Widowhood

Abstract: Reviewing the literature on the widowhood effect (phenomenon that a person’s risk of mortality increases post-widowhood) shows little is known regarding how social ties relate. We designed a study to investigate the association between different states of cohabitation (living alone/not living alone) on risk of mortality within one year post-widowhood.

We propose an observational cohort study design to see the
outcome (mortality) as it develops after exposure (widowhood); a large sample size ensures good statistical power. We anticipate persons living alone will be more likely to die within one year post-widowhood compared to persons who do not live alone post-widowhood.

9 to 11 a.m., WUC Pacific Room

Krisen Perry
Faculty sponsor: Brian Caster

Title: Biodex Capabilities of Training and Testing

Abstract: The purpose of this study is to learn more about the Biodex and it’s capabilities of training and testing the balance of individuals. For this experiment, eight dance students from Western Oregon University performed all tests and trainings on the Biodex as described in the manual. After the trials, each participant was given a survey asking multiple questions regarding their thoughts on the machine and if they think it will be effective in their training, or if they would benefit from the testing as a dancer.

9 to 11 a.m., WUC Pacific Room

Kelsey Lindsey and Katrina Katigbak
Faculty sponsor: Brian Caster

Title: The Friction Effects of Various Goalkeeper Gloves

Abstract: A soccer goalkeeper’s gloves are arguably their most important piece of equipment. The purpose of this project is to test three different types of goalkeeper gloves and determine which glove produces a greater amount of friction. The study consisted of two parts, which were: testing the gloves using a force platform, and testing the gloves on goalkeeper subjects. In conclusion, our results showed us that the gloves with latex palms produced the most friction. This information could be referenced when purchasing goalkeeper gloves.

9 to 11 a.m., WUC Pacific Room

Katie Clark and Ashley Soto
Faculty sponsor: Brian Caster

Title: Biomechanical Modification of an Elliptical Trainer

Abstract: Studies have shown that elliptical trainers cause anterior rotation of the pelvis. This anterior rotation of the pelvis increases back extension and muscle overloading in the quadriceps which leads to joint loading on the knees and quicker fatigue for the user. The current study was designed to counteract that loading by modifying the elliptical trainer to maintain constant heel contact. The heel contact causes the hamstrings to engage, thus, removing stress from the quadriceps. The study included three participants who supported the modifications for future use.

9 to 11 a.m., WUC Pacific Room

Peter Heuberger and Alex Morgan
Faculty sponsor: Brian Caster

Title: Women’s and Men’s Basketballs: Do they Make a Difference?

Abstract: Changing the size of boy’s and girl’s basketballs is a common practice once children get older. The purpose of this study was to investigate differences between men’s basketballs and women’s basketballs to see if the size actually makes a difference in shot accuracy. Six college students shot a men’s basketball, a women’s basketball and a kid’s basketball in order to test the differences between shot accuracy, flight time of the ball, and body angles. We found only minimal differences between all of the basketball sizes, which could mean for college aged students different sized basketballs might not make a difference.

9 to 11 a.m., WUC Pacific Room

Chloe Fief, Gretchen Noll, Molly Murphey, and McKenzie Lovell
Faculty sponsor: Natalie DeWitt

Title: Planning for Girls Circle Program

Abstract: Girls Circle is a program targeted at middle school aged girls that promotes self-esteem, resiliency, and connection to school among other positive health traits. This presentation details our plan to implement the program at LaCreole Middle School in Dallas, including conducting a needs assessment to help us tailor the program to the needs of the community, and a review of the various challenges we faced along our journey.

HISTORY

Session title: History Senior Thesis Presentations
Session chair: David Doellinger
Location: Natural Sciences (NS) 103

Presentations

8 to 8:15 a.m., NS 103

Stacy Roberts
Faculty sponsors: Patricia Goldsworthy-Bishop and John Rector

Title: 20th century North African Colonial History: A Look at Gender and Race through the Lens of Isabelle Eberhardt

Abstract: This thesis examines the life of Isabelle Eberhardt and the ways in which she and other European women interacted within the context of gender and race in the colonies. By examining this controversial character in French colonial history, this paper defines the expectations that were placed on women in the colonies and in what ways some women were liberated. Primary sources that are used include the writings of Eberhardt and other women as well as other secondary sources that have analyzed the lives and interactions of European women in the colonized regions. This work will argue that the actions of women like Isabelle Eberhardt were the result of the new opportunities available in the colonized regions and in Eberhardt’s case education and upbringing. Eberhardt and women like her forced the colonizers to rethink their views of gender and race.
Title: Education Prescriptions and Disregarded Side Effects: Gilded Age Education Reform in Oregon

Abstract: This paper looks at education reform with a focus on Oregon during a tenuous time period of U.S. history, from around 1850 through the turn of the century; the Gilded Age. Oregon’s upper and middle classes perceived themselves as the moral, and intellectual ideal in a time of transition and destabilization of American society following the Civil War and leading up the Progressive era. Many of which saw education reform as their responsibility. These perceptions coupled with racism and classism to transform positive intentions into conditions of paternalistic control and resulted in many communities having to cope with an education system pulled out of their hands over a relatively short time period. Using primary source materials, including newspapers, letters, and government documents, this paper looks to recreate the dialogue and analyze the true nature of the reforms through a number of different community perspectives, including: Native Americans, African Americans and rural Oregonians. The argument fits into the wider educational history to help understand how U.S. education developed into its current manifestation.

Title: Women’s Air Force Service Pilots

Abstract: This thesis examines the U.S. Women’s Air Force Service Pilots (WASPs) of World War II, covering the origins of the organization, development, and training during their period of operation from 1942-44. The primary focus is on the technological aspects of WASP training and the important role of the various classes to prepare them for duty. This training gave women pilots the foundation to perform their aircraft ferrying duties successfully with skills equal to their male counterparts, while enduring the gender issues of that era.

Title: “There is No Law Here”: Vigilantism, Militarism and Metropolitanism in Coos County, Oregon 1912-1913

Abstract: This paper addresses the economic, political and social issues that affected the Coos County region during the period of 1912-1913 within the context of national trends in labor violence before the First World War. It specifically examines the deportations of Socialists and members of the Industrial Workers of the World in June and July 1913. Vigilantism and institutionalized militarism became the preferred methods for elite citizens of Coos County to enact extralegal justice against individuals with political ideas they deemed both un-American and contrary to the capitalist ethos that controlled the community. Metropolitanism was a process of community building that sought to make Coos Bay the premier port on the Pacific Coast through boosterism campaigns that used deportations and other forms of labor violence as a means to create an elite-centric, homogenous community identity.

Title: Leading Ladies: A Study of Anglo-Saxon Queenship and Identity through Conquest

Abstract: By examining the lives of Medieval English queens from the early 11th to early 12th centuries, namely Edith (wife of Edward the Confessor), Matilda II (wife of Henry I), and Emma (wife of Æthelred II and Cnut), a correlation between gender identity and national identity is revealed. The changes in national identity that inevitably accompany conquest, as seen in both the Danish and Norman conquests, mimic shifts in the lives of royal women. This allows for a close study of the larger, English identity as it relates to the personal identities of England’s queens. In depth primary source analyses of documents like the Vita Ædwardi Regis and the Anglo-Saxon Chronicle inform this argument. Anglo-Saxon writings provide a contemporary understanding of Englishness, gender, and queendom as well as how such concepts are personified by these queens.
10:20 to 10:35 a.m., NS 103

**Andrea Bijan**
*Faculty sponsors: Kimberly Jensen and David Doellinger*

**Title:** Titanic and the People on Board: A Look at the First, Second, and Third Classes

**Abstract:** This thesis paper will focus on the treatment, safety, and heroism of the first, second, and third class passengers on board the White Star Line passenger ship the RMS Titanic. The paper uses primary sources such as newspaper coverage of the sinking, journals, and legal inquiries. The newspapers and inquiries questioned whether there were enough lifeboats on board for all of the passengers on board. The newspapers that covered the event, gave a biased perspective of how the loss of social and economic elites affected the American society, with very little attention on the steerage passengers.

10:40 to 10:55 a.m., NS 103

**Katria Hiersche**
*Faculty sponsors: Patricia Goldsworthy-Bishop and Kimberly Jensen*

**Title:** Prostitution in the 19th Century British Colonies and the Contagious Diseases Act

**Abstract:** This paper examines the Contagious Diseases Acts of the British Colonies, which were created in 1864 and lasted until 1886. It will analyze the unfair targeting of women and other minorities in Natal Africa, India, and England itself. With British attempts to decrease the spread of venereal diseases in areas where military men were stationed, the new laws led women to be accused of prostitution and to be treated unfairly.

11 to 11:15 a.m., NS 103

**Tate Sanders**
*Faculty sponsors: John Rector and Mark Henkels*

**Title:** The Monroe Doctrine: Openly Defensive

**Abstract:** While the Monroe Doctrine is not thoroughly documented in today’s annals of history, it still provides controversy as a document that either defends American imperialism or forwards the American desire to keep out European influence in the Western Hemisphere. The latter is described in this paper, based on both American anti-imperial attitudes and actions while secondarily, showing the U.S. lacked the potential to be an imperial power when the Doctrine was declared in 1823. Focusing mainly on the United States, Britain, the rest of Europe and Latin America within this time period will be examined as well.

11:20 to 11:35 a.m., NS 103

**Curtis Holbert**
*Faculty sponsors: Max Geier and John Rector*

**Title:** The Farmer’s Tool: The Changing Grange of Oregon (1938-1948)

**Abstract:** An analysis of the farmer’s organization, The Patrons of Husbandry in Oregon and their Grange Halls, this paper assesses how Granges continued to be useful and meaningful tools for rural citizens of the United States from the 1938 to 1948. Utilizing public records and literature from the Oregon State Grange, this paper examines social, economic and political discourse from the agrarian community in Oregon to determine how well the Grange Halls in Oregon adapted to the dynamic shifts in the larger national culture.

11:40 to 11:55 a.m., NS 103

**David Price**
*Faculty sponsors: Elizabeth Swedo and John Rector*

**Title:** The Lion Marks its Territory: What Really Changed in the Welsh Marches with the Arrival of the Normans During the last half of the 11th Century

**Abstract:** This thesis challenges the consensus tone that sweeping changes to the people and the land of the Welsh Marches arrived with the Normans following the conquest of England in the last third of the 11th century. The Welsh Marches were altered forever by the Normans, yet their impact was varied. Using a variety of primary and secondary sources, it is demonstrated that aspects such as daily life, religious influence, economics and trade, construction improvements, nobility, laws, and colonization were not equally influenced by the coming of the new Norman overlords.

12 to 12:15 p.m., NS 103

**Rich Galvin**
*Faculty sponsors: Patricia Goldsworthy-Bishop and David Doellinger*

**Title:** Fire!: Agent of Change

**Abstract:** The following paper will examine fire as an agent of change broadly, and more specifically in Tunisia during The Jasmine Revolution through the lens of self immolation and its impact on the people. This paper will look at the history of self immolation as a form of protest, as well as reasons why human beings attempt such an elaborate, visual, personal, and yet seemingly horrific action, and it will examine in depth a man named Mohamed Bouazizi who used such a protest to begin the first of the revolutions which are still going on to this day. This paper will also show how the people of Tunisia came to see Mr. Bouazizi’s actions as a catalyst to revolution and the way that they used social media both before and after he set himself ablaze in front of a police station in Sidi Bouzid; as well as explore some of the changes that have taken place since the relatively peaceful revolution that took place in Tunisia.

**MATHEMATICS**

**Session title:** Mathematics Senior Project Presentations

**Session chair:** Michael Ward

**Location:** Math and Nursing Building (MNB) 104

**Presentations**

9 to 9:20 a.m., MNB 104

**Nils Wendland**
*Faculty sponsor: Cheryl Beaver*
Title: Is Your Credit Card Safe?

Abstract: We will take a look at current encryption systems and their ability to securely transmit data so that intruders cannot get the information.

9:25 to 9:45 a.m., MNB 104
Kara J. Tyler
Faculty sponsor: Cheryl Beaver

Title: Reasonable Doubt: Analysis of Quantification Approaches

Abstract: Is there a mathematical model or interpretation that could successfully recreate actual juror decisions in a criminal trial? We take a look at four separate approaches developed in attempt to quantify reasonable doubt and predict jurors’ decisions, and analyze these approaches through Chi-Square analyses.

9:50 to 10:10 a.m., MNB 104
Daniel Shelton
Faculty sponsor: Cheryl Beaver

Title: I Ain’t Fibin’

Abstract: This presentation is an exploration of patterns within the famous Fibonacci sequence.

10:15 to 10:35 a.m., MNB 104
Akaanchya Pradhan
Faculty sponsor: Breeann Flesch

Title: The Game of Graph Nim

Abstract: Nim is a well-known two player impartial combinatorial game. Various versions of playing Nim on graphs have been investigated. I will introduce a new version of Nim called Graph Nim. Given a graph with n vertices and edges connected to these vertices, players take turns to remove edges until there are no more edges left. Players have to choose a vertex and remove at least one edge connected to the chosen vertex. The player that removes the last edge or edges wins the game. I will give some preliminary results of winning and losing positions of Graph Nim, compare the game of Graph Nim with other impartial combinatorial games, and discuss open problems.

10:40 to 11 a.m., MNB 104
Jesse D. Aitken
Faculty sponsor: Cheryl Beaver

Title: There and Back Again

Abstract: Solitaire Army is a variation of the traditional peg board game. In this variation, the player must reach as far into “the Desert” as possible. How many steps can you make into the Desert? And once you get there, will you be able to get back?

11:05 to 11:25 a.m., MNB 104
Jillian Johnson
Faculty sponsor: Cheryl Beaver

Title: Playing with Permutations: Examining Mathematics in Children’s Toys

Abstract: This presentation will present research completed for my mathematics senior project. My project was based on a paper entitled How Do You Stack Up? by John P. Bonomo and Carolyn K. Cuff that dealt with mathematics related to a common children’s toy, a stacking ring tower. The main problem that will be discussed is “What is the average extent of all permutations of n rings on a stacking ring tower?” I will present my own research for the solution as well as Bonomo’s and Cuff’s.

Session title: History of Mathematics Posters
Session chair: Michael Ward
Location: Werner University Center (WUC) Pacific Room

Posters

11:30 to 1 p.m., WUC Pacific Room
Derek Zeis
Faculty sponsor: Michael Ward

Title: Omar Khayyam and the Quadratic Formula

Abstract: Omar Bin Al-Khayyam was a Persian poet and mathematician from 1048 to 1131. Born in Nishapur, modern day Iran, Omar witnessed the fall of the Abbasid Caliphate to the Seljuk Turks, which by 1055 had conquered much of the Persian region of the Abbasid Caliphate. Omar also lived during the First Crusade in 1097. Omar was known for his mathematics which includes his proof of the quadratic formula for positive values using only geometry. This project looks at the Omar’s proof of the quadratic formula step by step to discover how Omar proved the quadratic formula for positive values.

11:30 to 1 p.m., WUC Pacific Room
Christa Moorhead
Faculty sponsor: Michael Ward

Title: Archimedes’ Second Proposition

Abstract: This poster discusses the property of parabolas in Archimedes’ Second Proposition. He does not provide a proof alongside this proposition. A proof by W.H. Drew is shown in detail. Step-by-step description of this proof is given to understand one approach to supporting the proposition. One will also find an in-depth analysis of a proof by Apollonius of Perga. This proof differs from Drew’s in multiple ways. Given both proofs it will become clear why Archimedes’ Second Proposition is correct.

11:30 to 1 p.m., WUC Pacific Room
Chris Hartman
Faculty sponsor: Michael Ward
Title: Lagrange's Lecture III. On Algebra, Particularly the Resolution of Equations of the Third and Fourth Degree

Abstract: Joseph Louis Lagrange, one of the greatest modern analysts, gave a series of lectures at École Normale in 1795 on elementary mathematics to further mathematical understanding. This presentation goes into great detail on Lagrange’s Lecture III. On Algebra, Particularly the Resolution of Equations of the Third and Fourth Degree.

11:30 to 1 p.m., WUC Pacific Room

Andy Fry
Faculty sponsor: Michael Ward

Title: Notes on the Paper “Cayley: On the theory of groups as depending on the symbolic equation θ^n=1”

Abstract: On the theory of groups as depending on the symbolic equation $\theta^n=1$, is one of Arthur Cayley’s famous papers on abstract algebra. It might even be the most famous paper in the history of group theory. This paper includes the better part of his groundbreaking essay annotated with notes designed for an undergraduate math student. The main theory behind this paper is the transition into a symbolic and abstract representation of groups. Specifically, Cayley proves that there are only two groups of order 4 and of order 6, order meaning the number of elements in the group.

11:30 to 1 p.m., WUC Pacific Room

Kathleen Hess
Faculty sponsor: Michael Ward

Title: Creating Napier’s Logarithms

Abstract: Today, we can easily compute complex mathematical calculations by punching a few buttons on a calculator. Before this ease of calculations, mathematicians and scientists alike spent much of the their valuable research time, performing mundane calculations. John Napier devised a table that would reduce harder calculations such as multiplying and dividing large numbers into nothing harder than adding and subtracting. His work lead to the discovery of logarithms. We will take a look at John Napier and his logarithms as he explained them in Mirifici Logarithmorum Canonis Constructio.

11:30 to 1 p.m., WUC Pacific Room

Jillian Johnson
Faculty sponsor: Michael Ward

Title: Oliver Byrne’s Elements

Abstract: Around 300 B.C.E. a mathematician called Euclid wrote a comprehensive, mathematically rigorous account of geometry at that point in time. This is known as Euclid’s Elements. In 1847 Oliver Byrne wrote a partial translation of Euclid’s Elements. In this translation, Byrne translated Euclid’s proofs using colored pictures to represent Euclid’s text. The purpose of this was to focus the learner’s attention on visualization, and make the concepts covered within Elements simpler for the reader to understand. This presentation will attempt to explain in thorough detail Byrne’s proof of Proposition 47, or the Pythagorean Theorem, that is presented in his work.

11:30 to 1 p.m., WUC Pacific Room

Logan Emonds
Faculty sponsor: Michael Ward

Title: Analysis of L’Hopital’s Rule

Abstract: What happens when we take the limit of a function and get an indeterminate form? We use L’Hopital’s Rule. This paper will explain a brief historical account of how L’Hopital’s Rule came to be known. The proof of the rule will be analyzed and updated to a modern interpretation.

Session title: Pi Mu Epsilon Induction and Speaker
Session chair: Michael Ward
Location: Ackerman (ACK) 141

Presentations

2 to 2:15 p.m., ACK 141

Akaanchya Pradhan
President, Oregon Delta Chapter, Pi Mu Epsilon

Title: Pi Mu Epsilon Induction Ceremony

2:15 to 3:15 p.m., ACK 141

Speaker: Professor Kathryn Nyman
Willamette University

Title: Cutting Cakes with Linked Preferences

Abstract: Whether dealing with property, inheritance, revenue, or taxes, the question of how to divide “goods” (cake) fairly among a group of people is a ubiquitous problem. At first glance, the question of dividing a cake fairly among n people may seem to pose no problems: just cut it into n equal pieces. But, while this might work for a homogeneous chocolate cake, consider a cake which is half chocolate and half vanilla, with sprinkles in one corner; that is, a cake where each player may value different parts of the cake differently. While the problem of dividing one cake among several players has received considerable attention, the problem of dividing multiple cakes introduces new challenges, and, despite its usefulness in economics, has yielded little ground. We consider a situation in which a player’s desired piece in the second cake depends on the piece he received in the first cake.

MECHA DE WOU

Session title: MECHA de WOU: Political Activism and the U.S. Chicano Movement
Session chairs: Brenda Watts, Sofia Llamas, and Verónica López Lomeli
Location: Werner University Center (WUC) Calapooia Room
**Presentations**

2 to 2:30 p.m., WUC Calapooia Room  
**Sofía Llamas**  
Faculty sponsor: Brenda Watts

**Title:** The Chicano Movement: An Ongoing Battle  

**Abstract:** This presentation will include a brief history of the Chicano Civil Rights Movement (1965-1975), followed by a discussion about the oppression people faced, their efforts to overcome it and their upbringing and probably most important, how “El Movimiento” is still progressing.

2:30 to 3 p.m., WUC Calapooia Room  
**Verónica López Lomeli**  
Faculty sponsor: Brenda Watts

**Title:** Being a Student and not Revolutionary is Contradicting

**Abstract:** Are you a student? Do you identify as a person of color? Or part of the LGBTQ Community? If you answered yes to any of these questions, then this is the workshop for you. During this workshop we will discuss:  
1. The importance of your involvement in political/social justice issues  
2. Bills/laws affecting your communities and  
3. Different student movements that have changed the world.
Please join us in this interactive and informational discussion.

3 to 4 p.m., WUC Calapooia Room  
**Sofía Llamas and Verónica López Lomeli**  
Faculty sponsor: Brenda Watts

**Title:** Chicano Activism in Practice

**Abstract:** This presentation will represent what an active student group can achieve. There will be visuals, discussions and more information about how you can find a cause and become active in today's society. In this presentation we hope to inspire activism through concrete examples of successful student involvement as recently enacted in the Greeley Colorado National MEChA Conference.

**MODEL UNITED NATIONS**

**Session title:** Model United Nations  
**Session chairs:** Eliot Dickinson, Brianna Cunningham, and Alishca Heinisch  
**Location:** Bellamy Hall (HSS) 107

**Panel Discussion**

1 to 2 p.m., HSS 107  
**Brianna Cunningham and Alishca Heinisch**  
Faculty sponsor: Eliot Dickinson

**Title:** Model United Nations Mock Session

**Abstract:** The Model United Nations Club will perform a mock session demonstrating how the United Nations works. The simulation will show students acting as UN diplomats and discussing international political events.

**MUSIC**

**Session title:** Concerto/Aria Audition Winners 2014  
**Session chair:** James I. Nail  
**Location:** Smith Hall (SH) 121

**Performances**

11 a.m., SH 121

“It Is Enough” from *Elijah* (Felix Mendelssohn)  
Jason Wenger, *baritone*  
Jackie Morelli, *piano*

Piano Concerto in A Minor (Edvard Grieg)  
I. Allegro molto moderato  
Connor Shields, *piano*  
Jackie Morelli, *piano*

Oboe Concerto (Ralph Vaughan-Williams)  
III. Scherzo  
Michael Gann, *oboe*  
Jackie Morelli, *piano*

Concerto for Saxophone and Orchestra (Paul Creston)  
Darrel Watson, *alto saxophone*  
Jackie Morelli, *piano*

Concerto in f minor (B.H. Crusell)  
I. Allegro  
Jeffrey Richardson, *clarinet*  
Jackie Morelli, *piano*

“Ich gehe doch” from *Die Entführung aus dem Serail* (W.A. Mozart)  
Matthew Moorehead, *bass*  
Aimee Larsen-Amend, *mezzo-soprano*  
Jackie Morelli, *piano*

Concerto in Eb (Franz Krommer)  
I. Allegro  
O’Ryan Adams, *clarinet*  
Jackie Morelli, *piano*
Session title: Excellence in Music History and Ethnomusicology  
Session chair: Diane Baxter  
Location: Smith Hall (SH) 122

**Presentations**

1 to 3 p.m., SH 122  
TBA

**PHILOSOPHY**  
Session title: Philosophy Department, Senior Theses  
Session chair: Ryan Hickerson  
Location: Bellamy Hall (HSS) 336

**Presentations**

10:30 to 11 a.m., HSS 336  
Travis Allen  
*Faculty sponsor: Ryan Hickerson*  
*Title: Blurring the Lines: Aristotle and Epicurus on Pleasure and Virtue*

*Abstract:* When reflecting on what it means to live a good life, it is necessary to take into account both virtue and pleasure. In this paper I explore the similarities and differences in the views of two ancient philosophical heavyweights, Aristotle and Epicurus. I argue not only that the differences in their accounts of pleasure and virtue are minimal, but that both philosophers appear to be arguing for a similar, substantive understanding of the good life. The origins of pleasure and virtue are of course given different description, but both philosophers argue that the one needs the other, and that both are necessary for the good life.

11 to 11:30 a.m., HSS 336  
Marya Tracer  
*Faculty sponsor: Ryan Hickerson*  
*Title: Gender Equality and Plato’s Republic*

*Abstract:* This thesis is about Book V of Plato’s Republic. Book V advocates equal opportunity regardless of gender in Plato’s ideal society. This essay will compare and contrast how gender equality in Plato’s ideal society is similar to and different from modern theories of gender equality. It will examine how Plato’s idea of equality is related to his idea of justice, as well as how our modern idea of equality is related to our modern concept of justice.

1 to 1:30 p.m., HSS 336  
Stephanie Belden  
*Faculty sponsor: Ryan Hickerson*  
*Title: Theories of the State of Nature: Can Both Hobbes and Locke Be Correct?*

*Abstract:* State of Nature theories enable a clearer perspective on why the state exists and what type of state would best suit the needs of the people who live under it. Thomas Hobbes and John Locke hold widely diverging ideas of what the State of Nature would be. It is commonly held that either the Hobbesian or Lockean State of Nature theory is correct, but not both. In this paper I argue that the State of Nature theories offered by Hobbes and Locke are not mutually exclusive: both are applicable and can exist simultaneously in relation to different people and different societies.

1:30 to 2 p.m., HSS 336  
Travis Isaac  
*Faculty sponsor: Ryan Hickerson*  
*Title: The Failings of Ethical Egoism*

*Abstract:* This paper seeks to show how Ethical Egoism falls short as a philosophical moral doctrine. I begin by distinguishing Ethical Egoism from Psychological Egoism, and then illustrate the various existing moral arguments for and against it, concluding with my own. I highlight the various ways in which Ethical Egoism is inappropriate, but particularly insofar as it fails to resolve the most basic conflicts that a moral doctrine should address. I argue that Ethical Egoism is in deep conflict with human nature.

2:30 to 3 p.m., HSS 336  
Jessica Patterson  
*Faculty sponsor: Ryan Hickerson*  
*Title: Problems of Epistemology: Foundationalism, Coherence, and a Gettier Case*

*Abstract:* When epistemology was in its infancy it was believed that justified true belief was enough to give an individual knowledge. In 1963 Edmund Gettier presented his infamous Gettier problem and demonstrated that beliefs can be true and justified without being warranted. Foundationalism and coherence theory both claim to solve the problems of epistemology. But examining each theory closely it can be seen that, in fact, neither truly solves the problem presented by Gettier; by using Gettier as a test it can be seen that even when the two are combined they cannot save justified true belief.

3 to 3:30 p.m., HSS 336  
Dakota Moore  
*Faculty sponsor: Ryan Hickerson*  
*Title: Griffins, Unicorns, and the Empty Set: A Defense of Trope Theory*

*Abstract:* This paper is about a general dispute between realism and nominalism pertaining to the existence of universals. Realists believe that something, a universal, is exemplified whenever we identify many particulars as of the same type. Nominalists do not believe in such universals, at least not as explained by the realists. This argument is an old one, but it is still relevant for philosophers today. The focus of this paper will be defending a more recent type of nominalism, called trope theory, against the modern-day realists who ironically claim that tropes do not exist.
POLITICAL SCIENCE
Session title: Peace Studies-Great Peacemakers
Session chair: Eliot Dickinson
Location: Bellamy Hall (HSS) 107+108

**Posters**

10 to 11 a.m., HSS 107+108

**Lindsey Anderson**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* John Lennon

10 to 11 a.m., HSS 107+108

**Andrew Cummins Jr.**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Dietrich Bonhoeffer

10 to 11 a.m., HSS 107+108

**Donnie Davis II**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Nelson Mandela

10 to 11 a.m., HSS 107+108

**Timothy DeMichele**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Mother Theresa

10 to 11 a.m., HSS 107+108

**Emily Easton-Mace**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Rosa Parks

10 to 11 a.m., HSS 107+108

**Elizabeth Estrada**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Sister Helen Prejean

10 to 11 a.m., HSS 107+108

**Bre Francom**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Dag Hammarskjold

10 to 11 a.m., HSS 107+108

**Olivia Goldberg**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Linus Pauling

10 to 11 a.m., HSS 107+108

**Sara Grant**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Jane Addams

10 to 11 a.m., HSS 107+108

**Stacie Loose**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Henry David Thoreau

10 to 11 a.m., HSS 107+108

**Wesley Naylor**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Leo Tolstoy

10 to 11 a.m., HSS 107+108

**Angel Ordaz**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Father John Dear

10 to 11 a.m., HSS 107+108

**Denise Romero**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Oscar Romero

10 to 11 a.m., HSS 107+108

**Jessica Salazar**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Aung San Suu Kyi

10 to 11 a.m., HSS 107+108

**Maria Isabel Santana**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* A.J. Muste

10 to 11 a.m., HSS 107+108

**Daniel Shaffer**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Desmond Tutu

10 to 11 a.m., HSS 107+108

**Michael Storme**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Bertrand Russell

10 to 11 a.m., HSS 107+108

**Josiah Wunsch**  
*Faculty sponsor:* Eliot Dickinson  
*Title:* Martin Luther King Jr.

Session title: Political Science Research Papers
Session chair: Mary Pettenger
Location: Werner University Center (WUC) Northwestern Foyer

**Posters**

11:30 a.m. to 1:30 p.m., WUC Northwest Foyer

**Mary (Katy) Barlean**  
*Faculty sponsor:* Mary Pettenger  
*Title:* Female Genital Cutting: A Human Rights Abuse

*Abstract:* Last July, UNICEF released the largest report to date regarding the prevalence of female genital cutting (FGC). The practice affects tens of millions of women and girls worldwide. Though the report includes promising data that the trend is declining, 30 million girls remain at risk over the next decade unless action is taken to address the human rights issue. This
presentation will explain the historical significance (as well as cultural) of FGC, analyze the practice in terms of a human rights abuse, and examine the effectiveness of current local, national, and international efforts to eliminate the harmful practice.

11:30 a.m. to 1:30 p.m., WUC Northwest Foyer

**Amelie Marshall**  
Faculty sponsor: Mary Pettenger

**Title:** Refugee Law

**Abstract:** International refugee law was established as a political and humanitarian response to the massive numbers of persons displaced after World War I and II, and law around this issue was initially intended to respond only to this group. As the 20th century progressed, emerging refugee crises resulted in acknowledgement of a permanent need for sanctions regarding the definition and treatment of refugees. Although these conventions are non-binding, perception of treatment of refugees as a human rights issue pressure states to obey established norms around this continually evolving issue.

11:30 a.m. to 1:30 p.m., WUC Northwest Foyer

**Martin Carty**  
Faculty sponsor: Mary Pettenger

**Title:** Bureau of Land Management Internship: A look at public engagement.

**Abstract:** I will present my internship with the Bureau of Land Management (BLM), specifically, the public outreach events I participated in regarding the ongoing planning effort for a new resource management plan for Western Oregon’s BLM managed lands. These events focused on educating the public to encourage public buy-in of the new plan. This is a new and unique approach to how the BLM approaches planning. The presentation will involve discussion about the voluntary public engagement events the agency has done in conjunction with required public notice and comment aspects of governmental policy changes.

**REHABILITATION COUNSELING**

**Session title:** Topics in Rehabilitation Counseling Education  
**Session chair:** Amber Feist  
**Location:** Werner University Center (WUC) Santiam Room

**Presentations**

1 to 1:20 p.m., WUC Santiam Room

**Miguel Gonzalez**  
Faculty sponsor: Amber Feist

**Title:** Unmarried Latino Immigrants and First-Generation Children in the United States

**Abstract:** The presentation will focus on Latino immigrants that come to the United States, and the cultural differences this population faces today. It will also discuss the struggles and barriers of unmarried Latino mothers’ experience. First-generation children difficulties in the education system, and the Latino views on disabilities will also be discussed. In conclusion, the presentation will educate and help people understand the Latino culture, and will provide counseling techniques on how to counsel this population.

1:30 to 1:50 p.m., WUC Santiam  
**Kate Hargett**  
Faculty sponsor: Amber Feist

**Title:** Societal Barriers of Autism Spectrum Disorder

**Abstract:** This presentation examines the societal barriers which exist for individuals experiencing Autism Spectrum Disorder. Looking at various social, educational and employment barriers, this presentation aids a variety of customer service professionals in holistically approaching and considering this unique population.

2 to 2:20 p.m., WUC Santiam Room  
**Shelley Hill**  
Faculty sponsor: Amber Feist

**Title:** African-American Experiences and Perspectives of Public Health Care and Disability

**Abstract:** African-American perspectives of public health services and disability have been shaped by many experiences associated with persistent minority status, poverty, and oppression resulting from centuries of discrimination. The following includes an overview of key historical events and political environments that have created conspiracy theories and outright fear of medical professionals among this population. The effects of prejudice and bias on family development and organization, acculturation, and response to disability will also be discussed. This presentation concludes with a discussion of the role of a rehabilitation counselor when working with this diverse population.

2:30 to 2:50 p.m., WUC Santiam Room  
**Jordan Meekins**  
Faculty sponsor: Amber Feist

**Title:** Counseling Considerations for Arab and Muslim Americans with Disabilities

**Abstract:** This presentation provides some insight into aspects that are important while counseling Arab and Muslim Americans with and without disabilities. The following is a general overview of ideas to evaluate, and is not an exclusive guide or list of required tenants. Clients of Middle Eastern decent can be very different from one another depending upon tribe, cultural values, family structures, region, ethnicity, religion, and personality. Considering each client’s unique background in respect to their personal paradigm is becoming an effective and important method of providing ethical, successful, and useful counseling to this population of Americans.

3 to 3:20 p.m., WUC Santiam Room  
**Nathan Reiman**  
Faculty sponsor: Amber Feist

**Title:** A Practical Application of Humanistic Psychology
Abstract: The basic tenets of Carl Rogers’s Person Centered Counseling Theory, including congruence, unconditional positive regard, and accurate empathetic understanding, constitute basic interpersonal communication skills that, when utilized, have a strong influence on human interactions. This presentation shows how the tenets of Person Centered Theory can be applied beyond a counseling session using examples including teacher-student relationships, effective business sales techniques, and human-to-human interactions.

3:30 to 3:50 p.m., WUC Santiam Room
Anna Correa
Faculty sponsor: Amber Feist

Title: Mexican American Culture and Rehabilitation Counseling

Abstract: In 2012, the U.S. Census Bureau estimated the Latino population in Oregon to be 12.2 percent representing 471,608 of the 3,930,065 Oregonians (U.S. Census Bureau, 2014). Mexican American culture is a complex system derived from an accumulation of customs, norms, beliefs, experiences, knowledge, meanings, hierarchies, and religion, which is deeply woven into the threads of Mexican American societies. The growth of Mexican Americans requires rehabilitation counselors to gain a knowledgeable understanding of Mexican American culture, as to best serve this population. Rehabilitation counseling multicultural competence involves a counselor’s awareness of disabilities that Mexican American experiences and how they are dealt with.

SOCIOMETRY
Session title: Research and Praxis in Sociology
Session chair: Dean Braa
Location: Bellamy Hall (HSS) 235

Presentations

8:30 to 8:45 a.m., HSS 235
Faculty presenter: Dean Braa

Title: Introduction to Sociology at WOU

8:45 to 9 a.m., HSS 235
Adam Brown
Faculty sponsor: Dean Braa

Title: Perspectives and Opinions on Ballot Measure Eleven (Oregon)

Abstract: This project examines Measure 11 and the opinions and perspectives of defense attorneys and prosecutors twenty years after the passage of the controversial ballot measure. The research presents the thoughts and opinions of the people who had a hand in the implementation of Measure 11 about its influence on the state’s budget, its efficacy in reducing Oregon’s crime rate, and its effect on due process of the law. It also makes the case for the reform or repeal of a law that takes power away from judges, juries and defense attorneys and concentrates power into the hands of the prosecutor.

9 to 9:15 a.m., HSS 235
Jennifer Turner
Faculty sponsor: Peter Callero

Title: Hiring Felons in Oregon

Abstract: People with criminal histories face many barriers to successful re-entry into American civic life. What are Oregon employer attitudes within the Mid-Willamette Valley in regards to hiring people with felony criminal histories? Are there hiring differences between large and small public and private employers? Ten out of eleven employers who participated in this research report that they have hired or are open to hiring people with felony convictions. Contrary to previous research, no differences were found between small and large organizations. There are employment opportunities for people with felony criminal convictions if they have the skills that meet the job requirements. This is especially true for many state agencies. Limitations of sample size are discussed.

9:15 to 9:30 a.m., HSS 235
Rocio Olivera
Faculty sponsor: Maureen Dolan

Title: Evaluating Access to Preventive Services for Undocumented Latinas

Abstract: Immigrant Latinas make up one fifth of the total Latino population. Data regarding access to care is limited for this population, specifically undocumented immigrant Latinas. This study incorporates comparative case studies, content analysis, and interviews in order to evaluate access to preventative services for undocumented immigrant Latinas. Three types of facilities were examined for this study: a state based clinic, a community based clinic, and private based clinic. Results indicate undocumented status was not a barrier when seeking preventative services in the state or community clinics; however, only employed undocumented Latinas had access to services in the private clinic.

9:30 to 9:45 a.m., HSS 235
Katrien Cokely
Faculty sponsor: Maureen Dolan

Title: Reviving Democracy: Autonomous Social Movements in Europe and the United States

Abstract: The Occupy movement revived political consciousness and has sparked a discourse which recognizes systemic inequality as an attack on democracy. Local efforts to reclaim the commons create autonomous spaces founded on solidarity, egalitarianism and horizontalism. Through methods of participant observation, informal interviews, and content analysis, a sample of Portland’s current activist network is described. Research sites include post-encampment Occupy and a worker-owned cooperative café that connect local spaces of political protest and social transformation to an international democratic movement. The study concludes that through the self-management of local communities, contemporary activists are creating social, political and economic alternatives to capitalism.
9:45 to 10 a.m., HSS 235

**Veronica Garcia Martinez**  
*Faculty sponsor: Dean Braa*

**Title: Student Debt**

**Abstract:** The purpose of this study is to research increasing student debt and its effects on students. The study is based upon interviews and surveys which are used to explain the causes and consequences of student debt. A key question is the effect of debt on graduate school consideration and potential for indebtedness and the development of student financial aid.

10 to 10:15 a.m., HSS 235

**Devin Taylor**  
*Faculty sponsor: Peter Callero*

**Title: The Effect of Parents’ Divorce on Students**

**Abstract:** Prior research indicates that children of divorce are more likely to struggle in developing meaningful and lasting relationships. Children of divorce also struggle more in school and score lower on measures of psychological adjustment. This study looks to see if these negative impacts of divorce are evident in young adults. Survey responses from a 170 college students at Western Oregon University are analyzed. Results compare the financial, psychological and relationship success of adults whose parents divorced with those whose parents did not divorce.

10:15 to 10:30 a.m., HSS 235

**Coffee and discussion break**

10:30 to 10:45 a.m., HSS 235

**Karina Torres**  
*Faculty sponsor: Maureen Dolan*

**Title: Latinos in the Media**

**Abstract:** Although the United States has experienced a 25 percent Latino population growth during the past few years, Latinos have remained invisible in the mainstream media. The purpose of this study is to examine how Latinos are portrayed in the media, and how that portrayal affects Latinos in the United States. I have examined this question through an analysis of the role of Latinos in the television sitcoms. Past research has shown that the sitcoms reflect popular cultural beliefs in American Society, and the complexity of minority assimilation. The methodology utilizes interviews, surveys and focus groups, as well as a media presentation that I have created which includes programs such as the George Lopez sitcom, *Modern Family* and *Weeds*. The results indicate that media images have a complex impact on Latino identity formation with significant generational variation.

11 to 11:15 a.m., HSS 235

**Luis Cisneros**  
*Faculty sponsor: Maureen Dolan*

**Title: Educational Resiliency and Graduation Preparedness Among Latino Seniors at Central High School**

**Abstract:** Educational resiliency has been defined as the ability to attain success despite being subject to educational barriers. Research strongly supports the claim that there is a disproportionate percentage of high school dropouts among Latino students. The objective of this study is to identify which educational resiliency characteristics are prevalent among Latino students and why some Latino students are more prepared to graduate. These characteristics are identified using questionnaires, interviews, and content analysis. This study confirms the existence of educational barriers to Latino students.

11:15 to 11:30 a.m., HSS 235

**Stacie Carter**  
*Faculty sponsor: Peter Callero*

**Title: Burnout and Satisfaction Rates of Caregivers**

**Abstract:** Elder care in the United States is moving from the family to institutional facilities where paid staff work as caregivers. Prior research indicates that job burnout can lead to deterioration in the quality of care or service that is provided by staff. This study examines the work experience of caregivers at an elder care facility with 16 residents. Three sources of data are analyzed: 1) participant observation in a care facility, 2) questionnaire responses from a sample of caregivers, and 3) face-to-face interviews with employees. Findings show that many caregivers experience an overload of responsibility. The stresses experienced by caregivers may also affect the well-being of the people they care for.

11:30 to 11:45 a.m., HSS 235

**Elizabeth Van den Broeke**  
*Faculty sponsor: Dean Braa*

**Title: Organic Farming in the Mid-Willamette Valley: A Guide to the Production and Distribution of Organic Food**

**Abstract:** This study explores organic farming in Oregon’s Mid-Willamette Valley and provides a critique of conventional industrial agriculture. This study is designed to give an historical
overview of the rise of industrial agriculture and how it became main stream. Another goal of this study is to describe the dangers that pesticides have to our environment and health as consumers, and to explore how organic producers and distributors in Oregon have worked to change the course of our local agriculture. This study will delve into the methods used by small farms and co-ops to help provide nutritious pesticide free food. Interviews and participant observation were methods used in the study.

11:45 to 12 p.m., HSS 235

Concluding remarks

SPANISH

Session title: Soñar no cuesta nada. It doesn’t cost anything to dream
Session chairs: Patricia Giménez-Equíbar
Location: Werner University Center (WUC) Santiam Room

Posters

9 to 11 a.m., WUC Santiam Room
Greg Baker, Nichole Chaney, Nicolette Dimond, Ayat Haidar, Audrey Jones, Ariana Martensen, Allison Nolan, Cherene O’Hara, Annie Sheie, and Ben Wasden
Faculty sponsor: Elizabeth Braun

Title: “Soñar no cuesta nada”. “It doesn’t cost anything to dream”

Abstract: The main goal of this project was to practice the structural skills acquired during First Year Spanish, and widen their knowledge by incorporating it to the culture of Spain and Latin-American Spanish speaking countries. Students choose a country of their preference and pretended that they had been there, in order to practice the imperfect and preterit tenses they wrote a letter to a friend telling about their experience.

Session title: ¡Publique y gane má$! Publish and earn more
Session chairs: Patricia Giménez-Equíbar
Location: Werner University Center (WUC) Santiam Room

Posters

Abstract: Students of business Spanish had the opportunity to practice some of the basic concepts taught in this course. Each student was given the task of creating and advertising campaign for an invented/imaginary project. The advertising was intended to be promoted in a Spanish speaking country, while keeping in mind the four P’s (i.e., product, place, price, promotion). Class participants developed a specific product based on the needs, demography and traditions of the selected Spanish speaking country. They then created a poster with a logo, a slogan, as well as the other necessary elements implicit in this type of project. Finally, they presented each of their advertising projects to the class, in Spanish of course! Many of the students were pleased to see how they could apply classroom knowledge to real life situations.

9 to 11 a.m., WUC Santiam Room
Keegan Burris
Faculty sponsor: Elizabeth Braun

STUDY ABROAD AND INTERNATIONAL EXCHANGES

Session title: Stories from England, Germany and India – Digital Productions by WOU Study Abroad Students
Session chair: Alaric Trousdale
Location: Bellamy Hall (HSS) 108

Presentations

2 to 2:10 p.m., HSS 108
Tate Sanders
Faculty sponsor: Alaric Trousdale
Title: This is Why I Learn History

2:10 to 2:20 p.m., HSS 108
Sarah Parrish
Faculty sponsor: Alaric Trousdale
Title: Out of the Woods

2:20 to 2:30 p.m., HSS 108
Anna Ralston
Faculty sponsor: Alaric Trousdale
Title: We’re All Part of a Larger Story
TEACHER EDUCATION

Session title: MAT Action Research Poster Presentations
Session chairs: Alicia Wenzel, Carmen Cáceda, and Holly Eckles
Location: Education (ED) 204/205

Presentations

1 p.m., ED 204/205
Jessica Sellers
Faculty sponsor: Holly Eckles
Title: Different Perspectives Coming Together

1:15 p.m., ED 204/205
Shawnti Peachy
Faculty sponsor: Holly Eckles
Title: Connections to the Child Care Center

1:30 p.m., ED 204/205
Cecilia Perez
Faculty sponsor: Holly Eckles
Title: Ideal Teacher Boot Camp

1:45 p.m., ED 204/205
Camille Shupe
Faculty sponsor: Ken Carano
Title: Going Places

2 p.m., ED 204/205
Nancy Vasquez
Faculty sponsor: Jennifer Schultze
Title: The Power of Valuing All Learners

5 to 7 p.m., ED 217
Gabrielle Anne Hommes
Faculty sponsor: Marie LeJeune
Title: Silent Sustained Reading in the Classroom and its Impact on Students’ Reading Identities

5 to 7 p.m., ED 217
Gregory M. Allen
Faculty sponsor: Rachel Harrington
Title: Comparing Perspectives in Daily Journals with Words and Pictures: An Investigation through Action Research

5 to 7 p.m., ED 217
Patrick Melby
Faculty sponsor: Marie LeJeune
Title: Departure from the Textbook: Exploring Alternative Texts in Social Studies Education

5 to 7 p.m., ED 217
Sylvia Herrold
Faculty sponsor: Marie LeJeune
Title: Content Literacy Strategies to Increase Student Understanding of Concepts in a Science Classroom

5 to 7 p.m., ED 217
William Crook
Faculty sponsor: Rachel Harrington
Title: Incorporating Common Core State Standards into a Social Studies Classroom and its Impact on Students

5 to 7 p.m., ED 217
Amanda F. Tuss
Faculty sponsor: Marie LeJeune
Title: A STEM Based Genetic Engineering Curriculum

5 to 7 p.m., ED 217
Rebecca M. Chadd
Faculty sponsor: Marie LeJeune
Title: Incorporating Authentic Texts for All Levels in the Secondary Spanish Foreign Language Classroom

5 to 7 p.m., ED 217
Lacey Jean King
Faculty sponsor: Rachel Harrington
Title: ¡Juguemos!: Incorporating Interactive Gaming Pedagogy into the Secondary Spanish Classroom

5 to 7 p.m., ED 217
Derek A. Barnett
Faculty sponsor: Marie LeJeune
Title: Zero Period for Athletes
5 to 7 p.m., ED 217
Andrew Jensen
Faculty sponsor: Rachel Harrington
Title: Multicultural Education in a Homogenous Classroom

5 to 7 p.m., ED 217
Whitney Duval
Faculty sponsor: Marie LeJeune
Title: Critical Thinking and its Effects on Self Efficacy and Self Perception in the Sixth Grade Language Arts Classroom

5 to 7 p.m., ED 217
Stephanie Strasdin
Faculty sponsor: Rachel Harrington
Title: Benefits of Visuals to Students’ Writing and Reading Development

5 to 7 p.m., ED 217
Lindsay Androy
Faculty sponsor: Rachel Harrington
Title: Impact of Mixed Ability Language Grouping in an English Class

5 to 7 p.m., ED 217
Richard Lawrence Zeis
Faculty sponsor: Marie LeJeune
Title: Motivation and MVPA in Physical Education

5 to 7 p.m., ED 217
Joel Everett
Faculty sponsor: Marie LeJeune
Title: Study of Proficiency Based Grading on a 10th Grade Social Studies Class

5 to 7 p.m., ED 217
Kirk Myrold
Faculty sponsor: Rachel Harrington
Title: HTML for ELLs: Basic Coding and Web Design for English Language Acquisition in an ELD Classroom

Session title: Theatre Senior Capstones
Session chair: Tad Shannon
Location: Rice Auditorium (RA) 113

Presentations

9 to 9:20 a.m., RA 113
Kelsi Hennig
Faculty sponsor: Tad Shannon
Title: Capstone Presentation

Session title: Theatre History Presentations
Session chair: Michael Phillips
Location: Rice Auditorium (RA) 113

Presentations

10 to 10:20 a.m., RA 113
Erin Cunningham
Faculty sponsor: Michael Phillips
Title: The Printing Press and Theatre
Abstract: The invention of the printing press caused a fundamental shift in theatre, as it moved plays from entities created to be seen and heard to ones which could be printed and read as literature. This presentation examines, in particular, the impact of the printing press on the works of William Shakespeare.

10:20 to 10:40 a.m., RA 113
Nate Dunaway
Faculty sponsor: Michael Phillips
Title: The Blight of Unusual Character: How the Great Famine Devastated a Nation and Changed Irish Theatre Forever
Abstract: This paper is an examination of the great Irish Potato Famine, and how it directly influenced changes in the theatre of that time (especially in terms of the playwrights and their subject matter) and for years to come.

10:40 to 11 a.m., RA 113
Miranda Warren
Faculty sponsor: Michael Phillips
Title: Victor Hugo: Leader of French Romanticism
Abstract: Victor Hugo is not only a well-known novelist of the 1800s, he was also intimately involved in the theatre as a theorist and playwright. This presentation examines Hugo as the leading proponent of Romanticism, and how the form made its way onto the stage.

11:10 to 11:30 a.m., RA 113
Trevor Jackson
Faculty sponsor: Michael Phillips
Title: Scratch an Actor...
Abstract: This paper examines the life and work of some of the great actors in Britain, from the Restoration to the late 1800s. Some of the actors examined include Richard Burbage (Shakespeare’s lead actor) and David Garrick, among others.

11:30 to 11:50 a.m., RA 113
Bridget Rogers
Faculty sponsor: Michael Phillips
Title: Costume Design for William Congreve’s The Way of the World
Abstract: Congreve’s play premiered in 1700, and serves as a transitional piece between the extravagance of the Restoration period and the more conservative 18th century. This costume design, including renderings for a number of the play’s characters, reflects the historical moment, and the cultural shift of the time.

Session title: Theatre Production BFA’s Senior Portfolio
Session chair: Tad Shannon
Location: Rice Auditorium (RA) Lobby

Graduating production BFA students will present their final theatre portfolios in the lobby of Rice Auditorium. The portfolios will be viewable all day.

Presentations (viewable all day)

12:30 to 1:30 p.m., RA Lobby
Grace Polackwich-Owens
Faculty sponsor: Tad Shannon

Title: BFA Portfolio

12:30 – 1:30 p.m., RA Lobby
Joceline Wynn
Faculty sponsor: Tad Shannon

Title: B.F.A. Portfolio

12:30 – 1:30 p.m., RA Lobby
Jenessa Raabe
Faculty sponsor: Tad Shannon

Title: B.F.A. Portfolio

12:30 – 1:30 p.m, RA Lobby
Isabel Bristow
Faculty sponsor: Tad Shannon

Title: B.F.A. Portfolio

Session title: Distracted
Session chair: Ted deChatelet
Location: Rice Auditorium (RA)

Performance

2 to 4:30 p.m., RA

Student cast: Tia Laulusa, Emily Scott, Roshelle Peterson, Kolleen Chapa, Collette Kilbourn, Belladina Starr, Declan Hertal, and J.R. Jackson

Puppeteers: Amanda Norman and Ollie Burgh

Student design and technical staff: Kara Loree, Rebecca Bond, Matt Whitesell, Dani Potter, Chanelle Magee, Erin Freeman, Dylan Mata-Lovato, Kai Hennig, Heather Preusse, Jody Showman, and Stephen Nielsen

Title: Distracted

Abstract: Lisa Loomer’s Distracted is the story of a boy with attention-deficit disorder and what it does to his family. It’s a satirical journey through multiple doctors and attempted treatments. But along the way it also makes the case that ADD is an apt metaphorical diagnosis for our times.
ACKNOWLEDGEMENTS

The 2014 Academic Excellence Showcase Planning Committee

Hamid Behmard, Brian Caster, Lisa Catto, Bryan Dutton, Nan Lehto, Ethan McMahan, Betty Orwick, Erin Passehl, Nathan Sauer

The Academic Excellence Showcase Planning Committee gratefully acknowledges the generous support of this program provided by President Mark Weiss and Vice President of Academic Affairs Stephen Scheck. Thanks are extended to Dean Sue Monahan (College of Liberal Arts and Sciences) and Dean Mark Girod (College of Education), whose support of this event has been unwavering. We are most appreciative of Nan Lehto and the Werner University Center staff for graciously accommodating all of our scheduling needs, especially at the WUC. Kathy Hill is also gratefully acknowledged for her invaluable assistance with this event. Our appreciation is extended to Nathan Sauer and his staff for providing exceptional technologic support for the showcase. We extend our gratitude to Steve Carter and his staff in the print shop for providing exceptional service in producing all of the showcase related materials. A special thank you is given to Lisa Catto, Betty Orwick, and Denise Vissiauo from the Office of Public Relations for their hard work, dedication and amazing talents in graphic arts design and publishing. We are especially indebted to the session chairs and faculty sponsors who are crucial to the success of this event.

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Legend: * = sponsor; + = session chair; @ = faculty presenter; # = invited speaker

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