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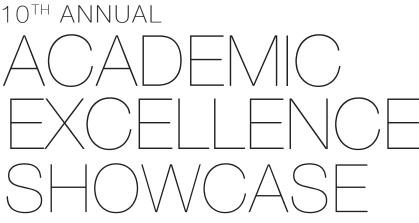
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Proceedings of the 2015 Academic Excellence Showcase

THURSDAY, MAY 28, 2015

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Don't want to carry around a proceedings from session to session? For an electronic showcase schedule and to download events to your mobile device or calendar, go to: http://digitalcommons.wou.edu/aes_event/2014/



WELCOME

A message from Mark Weiss, president, Western Oregon University

This year's Academic Excellence Showcase, marking a 10 year anniversary, 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 our 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 WOU's *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 during the academic year. 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 2015 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 100 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, approximately 400 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 2015 Academic Excellence Showcase. We hope you will join us in attending as many sessions as possible and congratulating students on their outstanding scholarship.

Program for Undergraduate

Research Experiences



Dr. Katherine M. Schmidt, professor of English at Western Oregon University, recipient of 2014 Pastega Award for Excellence in Teaching

THE HONOR SOCIETY OF PHI KAPPA PHI Induction ceremony keynote address

A Global Revision: Changing Students' Beliefs about Their Abilities as Writers

As a professor of writing and the director of the WOU Writing Center, I work with a range of students who possess varied strengths and challenges as writers. When I first meet a group of students, I ask them, "How many of you would be willing to call yourself writers?" Consistently, the majority is reluctant to raise their hands, and I have discovered the reason for their reluctance: when they think of the word "writer," they imagine major literary figures, like Shakespeare, Thoreau, and Morrison; popular genre writers, like King, Crichton, and Martin; or writers who appeal to audiences of all types and ages, like Rowling or Collins.

What few students consider is the writing inherent in their lives, as students and employees, as members of families, and as friends. They have learned to believe that writing in these capacities just doesn't count. Technology has been infused in the writing classroom, and, although students are writing for all of their classes, they are unable to recognize their roles as writers. Social media has introduced a new dimension to functioning as a writer, and students are everyday producers, as opposed to basic consumers, yet this doesn't count as writing either. Students are writing for the self in the form of journaling, lists, and love notes; nothing could be more functional and transactional, yet this writing especially doesn't count. Students are writing all of the time, yet they are reluctant to say, "Yes, I'm a writer."

Why the reluctance?

In "Remembering Writing, Remembering Reading," writing researcher Deborah Brandt studied participants' memories of early childhood literacy experiences, and part of what she found is not find surprising: we read to our kids. Reading is a pleasurable family ritual that is independent of school, and many adults view reading as a parental obligation. Unfortunately, we do not have the same associations about writing. Memories are often negative and within school contexts: punishment, loneliness, secrets, and rebellion. Even my own writing students are unclear about what a writing memory should look like when I ask them to reflect on their early years.

What does this mean?

Many students' early writing experiences are negative or nonexistent, which serve as a foundation to a scaffolding of writing lore over many years: strong writing is the product of genetics; writing is a private affair; revision is proofreading; proofreading is intuitive; and mistakes and errors are synonymous. This lore is then reaffirmed by responses they receive from adults and teachers. While students have global writing challenges, their teachers often respond in local ways, and progress becomes nearly impossible, which can engender negative beliefs regarding capacity for success and basic worth. But it doesn't have to be this way.

What is our response as teachers?

In 1976, Mina Shaughnessy published her text "Errors and Expectations" in response to the open admission policies in New York. She described a developmental scale for teachers of writing:

• Guarding the Tower: the teacher must protect the academy from outsiders who appear to not belong, believing that the students won't make it unless standards are lowered.

• Converting the Natives: the teacher recognizes that some students have the capacity to catch up—i.e., admits some are educable—but treats them as empty vessels to be filled.

• Sounding the depths: the teacher stops because she realizes that the simple may not be so simple to outsiders, she observes the students and their writing, she observes herself as teacher, she seeks a deeper understanding of the behavior associated with writing and the differences that students experience, and she looks for patterns and sees logic.

• Diving In: the teacher remediates herself. Unfortunately, the developmental scale has not changed significantly in 39 years. Shaughnessy writes "Our greatest barrier is our ignorance of our students," and she argued for change.

A remediation/revision of teacherly self requires us to shift the way we see things. We must set aside our expectations and meet students where they are. We have an obligation to recognize urgent sites for research in ways that matter to and for our students.

In my own journey as Writing Center Director, I began to ask what's missing here? what is it that we are really doing? and how do we describe it? better yet, how do other disciplines describe it? Partnering with Dr. Alexander of the Psychology Department, we examined practices in the WOU Writing Center and discovered that the academic support target is the cultivation of writerly selfefficacy (WSE), which is an individual's belief of being capable of performing necessary behavior to perform writing tasks successfully in the future. WSE is developed over time through the synthesis of academic coaching, self-evaluation, and repeated practice. While it's possible to achieve some progress in a writing class, results are more dramatic in a writing center. Our research has taught us to shift our perspective. We can teach our students how to possess forward thinking, growth-related, can-do perspectives on future performance in writing. This changes their decisions, objectives, affect, endurance, and perseverance.

What does this look like?

In the Writing Center, we must first gain a sense of what students need in order to change their beliefs about what is possible. Generally speaking and for the purpose of this address, the students are not English majors, they do not self identify as writers, they have writing challenges that they cannot articulate, and many are preparing to enter a profession where writing is required. This is our audience when trying to undo years and years of writing myths.

Our goals are many: we demystify the writing process; we articulate why and how time is required to move our writing from messy stages of discovery and meaning making to the audience-ready and genre-appropriate communication stage; we illustrate the complex nature of revision, which sometimes means starting over; and we help them to identify, understand the logic of, and self-correct error patterns in their written communication. We meet every single student where they are, as opposed to where we expect them to be and this makes the kind of difference that helps all students believe that they belong.

Ultimately, every student is a writer, every student possesses the capacity to write well, and every student needs a teacher who is able to recognize, articulate, and teach to her particular strengths and challenges as a writer.

ACADEMIC EXCELLENCE SHOWCASE MAURICE UNDERGRADUATE INITIATIVE \$5,000 AWARD

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

Please join the members of the Maurice Challenge Committee at this reception to celebrate the Maurice Challenge Competition, including the presentation of the \$5,000 award to the student winner(s) of the 2015 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.

Maurice Challenge Committee: Breeann Flesch, chair; Bob Hautala and Patricia Gimenez-Eguibar, faculty members; Beth Struxness, Riley McDonald, Maria Vargas, Joanne Mayberry, and Natalie Wallace, student members; Tommy Love, staff member.

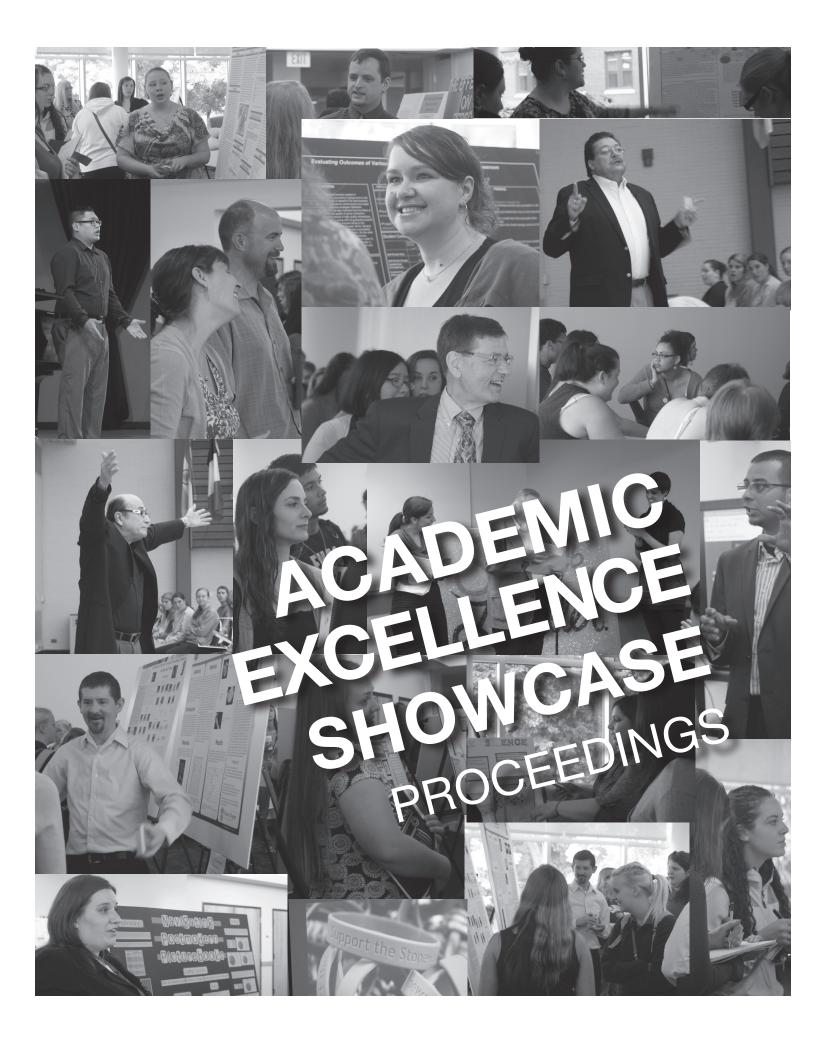
Speakers: Dr. Steve Scheck, provost; Dr. Breeann Flesch, chair; 2015 competition student winner(s)

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 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 2015 Academic Excellence Showcase

Founded in 1897 and headquartered in Baton Rouge, La., Phi Kappa Phi is the nation's oldest, largest and most selective alldiscipline 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.



ABBY'S HOUSE

Session title: Creative Feminist Praxis: Students as Advocates and Educators Session chairs: Andrea Hugmeyer Location: Werner University Center (WUC) Santiam Room

Presentations

1 to 1:20 p.m., WUC Santiam Room Samantha Hughes Faculty sponsor: Andrea Doyle Hugmeyer

Title: Abby's House 2.0: Using Web Tools for Change

Abstract: In a time of flourishing social media, networking, and Web 2.0 technologies, it is critical for feminist educators and university women's centers to expand our definitions of activism. Furthermore, we need to expand our ways of thinking about meanings and definitions of virtual "space" as a place for students to gain agency, foster political and feminist consciousness, and enhance creative expression. This presentation will explain the motivation to weave such technologies into Abby's House programming efforts as well as highlight different Web tools used to convey critical information to the WOU community.

1:20 to 1:40 p.m., WUC Santiam Room Hannah Towle Faculty sponsor: Andrea Doyle Hugmeyer

Title: Researching, Creating, and Launching the CounterACT Violence Campaign

Abstract: One factor in the high prevalence rates of violence is the widely held false beliefs and myths about sexual violence. These myths are harmful to all individuals, especially survivors of sexual violence. This multimedia project addresses some of these myths in a campaign that attempts to break down false beliefs about sexual violence. The presenter will discuss her role in creating and launching the campaign as an advocate at Abby's House. Elements of the CounterACT Violence campaign will be featured.

ANTHROPOLOGY

Session title: Anthropology Symposium Session chairs: Robin Smith Location: Instructional Technology Center (ITC) 211

Presentations

9 to 9:30 a.m., ITC 211 Joshua Henderson Faculty sponsor: Robin Smith

Title: Early Human Occupation in the Pacific Northwest: Digital Archaeology and the Excavation of the Cooper's Ferry Site in Western Idaho

Abstract: The Pacific Northwest has a long history of human occupation, including evidence of pre-Clovis cultures dated to 13,800 RYBP on Haida Gwaii, British Columbia. I will survey the literature on early human settlement in the region and then participate in an archaeological field school led by Oregon State University at Cooper's Ferry, Idaho, in summer 2015. Research continues in areas that have produced Western

Stemmed assemblages dated to 11,370 and 11,410 RYBP. I will ask how new digital methods of replication and recordation help us understand when and how humans arrived in North America, as well as how they thrived.

9:30 to 10 a.m., ITC 211 **Curran Kleen-Brown** *Faculty sponsor:* Shirley Heying

Title: Taste Buds and Suds: Flavor Preferences and Cultural Influences of Consumers in the Booming Craft Beer Industry of the Willamette Valley, Oregon

Abstract: In Oregon, the craft beer movement has been gaining rapid momentum over the past 20 years and has since made Oregon famous with its plethora of various craft brew companies. In 2013 alone, over \$2 billion dollars was generated by the craft beer industry in Oregon and created over 29,000 jobs for Oregonians. In my research project, I aim to examine how consumers are engaging with the craft beer movement in the Willamette Valley of Oregon. My goal is to determine how the craft beer industry has changed consumers' flavor preferences and their cultural practices surrounding the consumption of beer.

10 to 10:30 a.m., ITC 211 Nicole K. Larsen Faculty sponsor: Shirley Heying

Title: Cultural Competence in Action: Treatment Action Campaign's Community-Based HIV/AIDS Services and Advocacy in South Africa

Abstract: Seventy-eight million people have been infected with the HIV virus worldwide and nine million people have died of HIV since 1981. In Sub-Saharan Africa, one in every 20 adults live with HIV, and in South Africa 8 percent of the population is HIV-positive. The Treatment Action Campaign (TAC), a Cape Town-based civil society organization, advocates for and treats South Africans with or at risk for HIV/AIDS utilizing a culturally astute, community-based approach. My project aims to determine how TAC defines cultural competency and to what extent they incorporate local sociocultural practices into their program design.

10:30 to 11 a.m., ITC 211 Lauren Ault and Vanessa Grant Coats Faculty sponsor: Misty Weitzel

Title: Microaggressions: Invisible Discrimination

Abstract: Microaggressions include verbal and behavioral actions of indignity and are often derogatory and insulting to the victim whether intentional or unintentional. Microaggressions can have serious impacts on those being ridiculed. We conducted interviews with WOU students documenting personal experiences of microaggressions via audio and visual technology. We used a set of interview questions to create a short documentary film to share personal testimonies. Through these interviews we would like to inform our student body of the discrimination that occurs on campus every day. Raising awareness is the key to creating a campus, culture, and society of tolerance and – someday – equality. 11 to 11:30 a.m., ITC 211 Joshua Lasky Faculty sponsor: Shirley Heying

Title: The Perfect Match: How Online Dating Has Affected Courtship Rituals in the Willamette Valley of Oregon

Abstract: The increased use of online dating has raised various questions regarding shifts in contemporary courtship rituals. To better understand these effects, I conducted a general literature review and an ethnographic research project in the Willamette Valley of Oregon working with 10 adult participants over a six-month period. I discuss how the use of online dating has changed over the past 20+ years and how public perspectives towards the practice have shifted. I conclude by delineating the role online services play in the courtship rituals of adults looking for relationship and love, and demonstrate the need for further research.

ART

Session title: Art and Visual Communication Design Student Portfolio Presentations Session chairs: Jen Bracy and Jodie Garrison Location: Campbell Hall (CH) 101

Presentations



10:30 to 10:45 a.m., CH 101 **Paige Asay** *Faculty sponsor:* Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



10:45 to 11:00 a.m., CH 101 Casey Dias Faculty sponsor: Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



11 to 11:15 a.m., CH 101 Linley Emard *Faculty sponsor:* Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



11:15 to 11:30 a.m., CH 101 Matthew Hakola Faculty sponsor: Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



11:30 to 11:45 a.m., CH 101 **Zicheng Song** *Faculty sponsor:* Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



11:45 a.m. to 12 p.m., CH 101 Ann Todd Faculty sponsor: Jen Bracy

Title: Visual Communication Design Senior Portfolio Presentation



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



12:45 to 1 p.m., CH 101 **Michelle Reed** *Faculty sponsor:* Jodie Garrison *Title:* Art Senior Portfolio Presentation



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



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



1:30 to 1:45 p.m., CH 101 Jeanine Newsome *Faculty sponsor:* Jodie Garrison *Title:* Art Senior Portfolio Presentation

BEHAVIORAL SCIENCES

Session chair: David Foster and Jaime Cloud Session title: Behavioral Sciences Poster Session 1 Location: Werner University Center (WUC) Pacific Room

Posters

9 to 11 a.m., WUC Pacific Room **Tim Godfrey** *Faculty sponsor:* Chehalis Strapp

Title: Aggressive and Prosocial Influence of Violent Video Games

Abstract: The current study seeks to test the hypothesis that prosocial violent video games improve prosocial action and violent video games. Past research has revealed that playing violent video games increases aggression and aggressive actions. Participants were undergraduates who consented to take part in the experiment, which had them complete the Buss-Perry Aggression Questionnaire before and after playing a session of a randomly assigned violent video game (the pro-social, Watchdogs, or Grand Theft Auto V), to ascertain differences in aggression. Upon completion, participants were then subjected to a pro-social opportunity to compare prosocial action after play.

9 to 11 a.m., WUC Pacific Room **Rosa Mendoza** *Faculty sponsor:* Chehalis Strapp

Title: The Effect of Color on Mood and Emotion

Abstract: Research predicted gender differences among color and mood preference, as well as color and the linkage to emotions. Also, warmer colors would be associated with higher arousal, compared to the darker colors. Using a mixed-design, 50 participants, including 25 males and 25 females (M=20.5 years, SD=1.33) were randomly assigned to a bright or a dark colored sheet of paper that asked questions pertaining their mood. Then, were shown colored cards and were to identify which emotions the color represented. Findings suggest that color can influence mood, and that brighter colors are associated with higher arousal compared to darker colors.

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

Title: What Comes After an Undergraduate Degree in Psychology? Expectations and Perceptions Regarding Education and Salary for Careers in Psychology

Abstract: This study investigated accuracy of psychology majors' perceptions regarding the amount of schooling needed and expected annual salary for a specific career. Participants (N=136) listed a desired career, estimated the amount of schooling needed to achieve this career, and expected annual salary. Students' perceptions were compared with information in Occupational Outlook Handbook. Results indicated student's overestimated education needed for desired career and generally overestimated salary for this career. Upper class students were not more accurate in estimates relative to first and second year students with respect to estimates. Implications for student advising and career preparation are discussed. 9 to 11 a.m., WUC Pacific Room **Kylie M. Roth and Kayla D. Foster** *Faculty sponsor:* Chehalis Strapp

Title: Steps after Graduation: Psychology Alumni Career Paths and Advice

Abstract: This presentation describes a project designed to connect current psychology undergraduates with alumni. Purposive sampling was used to recruit diverse alumni following different career paths and representing alumni who identified as first generation, nontraditional, Latina/Latino or as a student of color. Current students conducted semi-structured interviews with alumni. Interview topics included decisionmaking, barriers, supports, and gathering advice for current psychology majors. Additionally, some alumni agreed to participate in an "alumni profile". These profiles included advice regarding beneficial classes, what they wished they knew as an undergraduate student, extracurricular activities, and knowledge gained on the path from graduation to career.

9 to 11 a.m., WUC Pacific Room

Stacy Potter Faculty sponsor: Chehalis Strapp

Title: Media Ideals and Male Body Esteem

Abstract: It is hypothesized that the results of a second body esteem questionnaire will be noticeably lower than those of the first after a male participant views images containing media ideal males. This is a within-subject design with 20 participants, all male (Mage=21.5, SD=1.68). Participants first completed a body esteem questionnaire. After being exposed to five media images of the "ideal" male, participants once again filled out the same body esteem questionnaire. Images depicted males with large upper bodies, thin waists and muscular arms. As predicted the scores were on average lower after viewing the images than before viewing the images.

9 to 11 a.m., WUC Pacific Room Araceli Cortes Rodriguez Faculty sponsor: Chehalis Strapp

Title: The Effects of Vocal Music on Working Memory

Abstract: It was hypothesized that vocal music would disrupt working memory more than the silent condition. There were 22 females and 8 males with a mean age of 23 years (SD = 5.21). A within subjects design was used to test participants working memory in the vocal music and the silent condition. Working memory was measured using a digit span test and participants were to recall digits presented. Working memory scores were determined by the number of digits placed in the correct order. Participants in the vocal music condition recalled fewer digits. These results suggest that music interferes with working memory.

Presentations

9:30 to 10 a.m., WUC Columbia Room Sarah Duhart Faculty sponsor: Debi Brannan

Title: Corpus Callosum Effects on Perception

Abstract: The corpus callosum (CC) is the structure of fibers connecting the left and right hemispheres of the brain, which means the CC is responsible for all interhemisphere communications. Individuals with CC pathology (CCP) are seen to have a variety of cognitive dysfunctions; this literature review focuses on cognitive dysfunctions revolving around perception. Research on individuals with CCP has revealed impairments in sensory input, reasoning, and the ability to switch perceptions. These characteristics of CCP allow researchers to better understand the function of the CC and the roles of each hemisphere of the brain.

10 to 10:15 a.m., WUC Columbia Room Samantha Leon-Coria Faculty sponsor: Joel Alexander

Title: Marriage Satisfaction and Length of Relationship

Abstract: This study aimed to investigate if couples who were married for 1 year as opposed to 10 years would be perceived as being more satisfied. Based on previous research I hypothesized that couples who were married for 1 year would be perceived as being more satisfied compared to couples married for 10 years. Means are unknown for either group at this time as results are still forthcoming. A limitation could be that the sampled contained only college students.

10:15 to 10:45 a.m., WUC Columbia Room Colton Johnson

Faculty sponsor: Joel Alexander

Title: The Effect of Race and Scholarship Type on a Professor's Perceived Efficacy

Abstract: The purpose of this experiment was to investigate the effect of race and scholarship type on a hypothetical professor's perceived efficacy. The researcher hypothesized that hypothetical African American applicants to a faculty position would receive lower efficacy ratings than their Caucasian peers. The researcher also hypothesized that applicants with prior experience in a classroom would be rated as more efficacious than their peers who had no classroom experience but more field experience. The participants reviewed the CV of a hypothetical incoming faculty member and then evaluated the applicant's efficacy. Results will be discussed during the presentation.

10:45 to 11 a.m., WUC Columbia Room Jason Waggoner Faculty sponsor: Joel Alexander

Title: Stroop Color Word Test and Gender

Abstract: Research across a wide range of subjects has shown that females typically perform better than males during a Stroop Color Word Test. Though females perform better than males on the Stroop Color Word Test, it is unknown if gender or education had any influence. The current study aims to examine the performance of males and females ages 18-25 currently enrolled in courses at a Pacific Northwestern University. This study is a between subjects design 2 Sex(Male, Female) x 2 Condition (Control, Experimental). 20 males and 20 females were used in this study. Results of this study are forthcoming.

11 to 11:15 a.m., WUC Columbia Room Juliana VandenBroeke Faculty sponsor: David Foster

Title: College Students' Experiences with Loss of a Grandparent

Abstract: This qualitative study explores the effects of grandparent death on college students. Participants (N = 74) who experienced grandparent death within the previous four years answered open-ended survey questions administered during undergraduate courses. Analyses revealed individual and familial implications linked to quality of relationships with grandparents, death trajectories, and coping skills. Students reported that family systems typically were strengthened after the death. Outcomes highlight the need for support resources for bereaved college students and the potential need for assistance as they assume new responsibilities within families.

11:15 to 11:30 a.m., WUC Columbia Room

Cyntia Rodriguez, Xavier Rubio, and McKenzie Johnston *Faculty sponsor:* Stephanie Hoover

Title: Treatment Content for Culturally Accommodated Treatment for Latino Adolescents

Abstract: To further develop culturally-accommodated treatment, this study examines treatment content of Ethnic Identity and Adjustment sessions, as well as a subsequent session when participant homework was reviewed. Sessions were part of a 12-week culturally-accommodated cognitive behavioral treatment for Latino adolescents with substance abuse/dependence. Data from five different groups of adolescents were analyzed (n = 28; mean group size = 5.5). The average adolescent was a 15 year-old male who spoke Spanish at home and preferred English. Transcripts were analyzed with consensual qualitative techniques to determine domains and core ideas. Domains and core ideas will be described with illustrative quotes.

Session Chair: David Foster and Jaime Cloud Session title: Psychology Keynote Speaker, Western Oregon University Psychology Student Association (WOUPSA) Club Location: Werner University Center (WUC) Columbia Room

12 to 1 p.m., WUC Columbia Room Jennifer Ruh Linder, Linfield College Sponsor: WOUPSA Club

Title: Does the Screen Make Us Mean?: The Effects of Media Aggression on Children and Adolescents

Abstract: For decades, concerns about the negative effects of television focused almost exclusively on media violence. More recently, researchers have turned their attention to non-physical forms of aggression on television, including *relational aggression*. Relational aggression refers to behaviors that use relationships, rather than physical means, to harm. Research indicates that relational aggression is even more prevalent than physical aggression, both physical and relational, on young viewers? To answer this question, I will review existing theories and research on the effects of

media aggression, including my own research on the effects of televised relational aggression.

Session Chair: David Foster and Jaime Cloud Session title: Behavioral Sciences Poster Session 2 Location: Werner University Center (WUC) Pacific Room

Posters

2 to 4 p.m., WUC Pacific Room Edgar Guerrero Faculty sponsor: Joel Alexander

Title: Anchor Effects on Test Performance

Abstract: Various types of anchoring take place in everyday life, and have an impact on different situations and outcomes. An anchor is a factor that can cause or influence, an outcome or a decision. This study was conducted to see if an anchor could impact test performance negatively and positively. The study included 20 Western Oregon University students who were randomly assigned to either a negative or positive test score anchor. The results showed that there were significant effects between pre-test scores, post-test scores and the assigned anchor, those who received the high anchor performed better on the post-test than pre-test and those who received the negative anchor performed worse on the post-test than pre-test. The results show that being provided with positive scores before a test can influence test performance.

2 to 4 p.m., WUC Pacific Room **Pristene Delegato** *Faculty sponsor:* Chehalis Strapp

Title: The Impact of Thought Speed on Positive Mood

Abstract: It was hypothesized that thought acceleration would have a direct impact on positive mood. Forty college students (29 females, 11 males) participated, and the mean age was 21 (SD= 2). A between subjects design was used, and the treatment group received problem-solving instructions that elicited fast thinking, while the instructions of the control group promoted slower thinking (Pronin, Jacobs, & Wegner, 2008). The positive mood of the subjects was measured on a rating scale (Watson, Clark, & Tellegen, 1988). The results indicated that faster thinking led to a more positive mood than slower thinking. These findings suggest that fast thinking cognitive tasks influence affect.

2 to 4 p.m., WUC Pacific Room **Crystal Perkins** *Faculty sponsor:* Chehalis Strapp

Title: Word and Shape Visual Memory Recall with Auditory Distraction

Abstract: The recall of visual word list and visual shape list was examined in a 2 x 2 study. With four experiments total; two had no auditory distraction and two was manipulated by auditory distraction. In the first experiment it was found that visual shape recall was superior to visual word recall with auditory distraction. In the second experiment it was found that the recall of visual shapes recall was minimally superior to visual words recall with non-auditory distraction. Results were interpreted in terms of the dual coding hypothesis and indicated that visual shapes are encoded into both a visual store and an acoustic store; however, visually presented words

are only encoded into an acoustic store. Auditory distraction should prevent rehearsal of information in the acoustic store but should not affect information in the visual store.

2 to 4 p.m., WUC Pacific Room Selena Lockamy Faculty sponsor: Ethan McMahan

Title: The Effects of Time Pressure on Test Performance

Abstract: In the United States, a substantial amount of college students take multiple exams a year under time constraints. The present study examines how undergraduate college students' performance and anxiety levels are affected by time constraints on exams. Thirty-four college students (female=23) were given a 30-question simple multiplication math test and then asked to rate their anxiety levels on a 5-point Likert type scale. It was hypothesized that the participants who are not under a time constraint while taking the test will perform significantly better than those participants who are given a specific amount of time to complete the test and that participants who are under a time constraint will experience moderately high anxiety levels. There were no significant differences between the groups' test performance (p=0.243) and the groups' anxiety levels (p=0.423). While the hypothesis was not supported, the study does produce noteworthy findings that can contribute to current literature. This is one of the first studies to examine anxiety levels and test performance on college students placed under time constraints. The study provides an interesting perspective on test performance and test anxiety when time limits are present.

2 to 4 p.m., WUC Pacific Room **Roxane Miller** *Faculty sponsor:* Chehalis Strapp

Title: Television Noise While Studying: The Effects of Multitasking on Reading Comprehension

Abstract: This researcher predicted that there will be differences in reading comprehension test scores between the group without television noise, one with a quiet program, and one with a noisy program. Using a between-subjects design, participants included 40 females and five males (M=22, SD=1.4) and they were randomly assigned to the three conditions and took a GRE reading comprehension test. The results showed that there are differences across the three conditions in reading comprehension test scores and that test scores differed between the control group and the noisy group. This suggests that television noise does affect the quality of studying.

2 to 4 p.m., WUC Pacific Room Yazmin Alvarez Faculty sponsor: Chehalis Strapp

Title: Individuals Attraction Based on Group Presence

Abstract: This research predicts people would look more attractive if presented in a group versus being viewed individually. In this between subject design of 40 participants, there were 30 females and 10 males (M=24, SD=2.3). Participants were randomly assigned to rate a specific person's attractiveness based on a photograph. They may be pictured alone or with a group of people. The scale used in this study was a five level Likert Scale. The person photographed was rated more attractive when they were photographed with a group of people. The results suggest that a person is perceived more attractive in groups.

2 to 4 p.m., WUC Pacific Room Joelle Cooper Faculty sponsor: Chehalis Strapp

Title: Aromatherapy and Mood

Abstract: This research predicted that participants exposed to lavender scent would report decreased anxiety, improved mood, and feeling more relaxed. Those exposed to rosemary scent would report lower anxiety, improved mood, and increased alertness. Using a between-subjects design, 30 participants, including 18 females and 12 males (M=21.7 years, SD=2.8) were randomly assigned to a scent group and asked to rate their current mood, answer simple math questions, then inhale the assigned scent for three minutes and rate their mood again. The results suggest lavender has calming properties while rosemary has energizing properties.

2 to 4 p.m., WUC Pacific Room Laney Christine Stephens Faculty sponsor: Chehalis Strapp

Title: The Impact of Femininity on Assessments of Competence

Abstract: The current study predicted that prospective employers would rate job applicants as more competent when the applicant appeared dressed in traditionally masculine rather than traditionally feminine attire. Utilizing a between-subjects design, one hundred participants, including 50 females and 50 males (M=25.6 years, SD=2.3) were randomly assigned to view photographs and rate applicants on attributes of competence. The woman dressed in feminine clothing was rated to be less competent compared to the woman in masculine attire. These results suggest that gendered attire affects perceived competence.

2 to 4 p.m., WUC Pacific Room Leah Fechter Faculty sponsor: Chehalis Strapp

Title: The Effects of Performing Kind Acts on Psychological Well-Being

Abstract: Research evidence suggests that recipients of compassionate acts (acts that benefit others or make others happy, typically at some cost to oneself) often derive some benefit from such acts. Little research, however, has examined the effects of compassion on those engaged in the act of kindness. It was hypothesized that those who engaged in performing acts of kindness would score higher on measures examining happiness, life satisfaction, self-esteem, and perceived stress than those who performed neutral acts. The study included 40 participants, 20 female and 20 male. Participants performed one kind act (experimental condition) or one neutral act (control condition) for a period of three days and then completed measures examining psychological well-being. It was found that those who engaged in the acts of kindness scored higher on the measures of psychological well-being than those who performed neutral acts. Further research should include other aspects of compassion such as donating to charity or volunteering to fully examine the effects of being compassionate.

2 to 4 p.m., WUC Pacific Room **Brenda Castillo** *Faculty sponsor:* Chehalis Strapp

Title: Ideal Body Image and Self Esteem

Abstract: Analysis of diet advertisements was performed to examine how diet advertisements portray the feminine beauty and

promote dieting in women's magazines. Recent research offers conflicting views of whether women high in dietary restraint are inspired or demoralized after viewing slim ideal images. I conducted one study to explore the impact of diet advertisement featuring the slim-ideal image to 20 female students from Western Oregon University. Results showed that women who are most exposed to diet advertisements, rate themselves more unfavorably than those who are not exposed at all to diet advertisements. Results further indicated that women may be misled to believe that dieting is effective without pain, if they buy the product presented in advertisements. This study suggests that advertisement may negatively influence young adults to start a diet; therefore, diet advertisements need to establish government regulations or policies about diet advertisements.

BIOLOGY

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 Aaron Romero Faculty sponsor: Kristin Latham

Title: Pseudomonas fluorescens Ingestion by *Drosophila melanogaster* Larvae

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. I experimented with different strains of P. fluorescens Pf-5, A506 and SWB25 bacteria and their respective Gac mutants to determine how infection 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 daily for larval growth, morphological defects or death, as compared to controls. Larvae treated with P. fluorescens Pf-5 showed delayed development. Interestingly, 61.1 percent of larvae reached the adult stage when treated with Pf-5 compared to 79.41 percent of control larvae. Surprisingly, 42.86 percent of larvae treated with A506 reached the adult stage compared to 78.95 percent of control and 85.45 percent of Gac mutants. 80.39 percent treated with SWB25 reached the adult stage compared to 93.93 percent of control and 85.74 percent of Gac. The experiments demonstrate that ingestion of Pseudomonas by Drosop hila causes lethal phenotypes including delayed development and metamorphosis. The results also suggest that bacterial metabolites are responsible for the toxicity response in Drosophila because Gac mutants showed greater survival compared to wild type.

2 to 4 p.m., WUC Pacific Room **Connor Osterberg** *Faculty sponsor:* Kristin Latham

Title: Effect of Pseudomonas fluorescens on Drosophila Larvae

Abstract: Drosophila melanogaster, the fruit fly, is a well-established model organism great for studying life cycle development and immune responses for toxins at the cellular level. However, not much is known about the ramifications of introducing harmful bacteria at the first instar larvae stage. We

have infected these larvae with different strains of the bacteria Pseudomonas fluorescens to see how this affects the ability to survive and complete their lifecycle. We introduced P. fluorescens (Pf-5, A506 and SWB25) into the food of the first instar larvae to study the toxicity after infection. All strains showed developmental differences. Pf-5 showed a decreased rate of development and survival in a dose dependent fashion when compared to the control. The A506 strain exhibited slight developmental delay and large differences in survival to the adult stage when compared to the control. The SWB25 strain also had decreased survival getting to the adult stage in the wild type bacteria compared to the control. Both A506 and SWB25 Gac- mutants seemed to show similar, if not better, survival rates than the control group. These experiments show that infection of *P. fluorescens* in *D. melanogaster* larvae cause developmental delay and lethality before the adult stage.

2 to 4 p.m., WUC Pacific Room **Sarah Thompson** *Faculty sponsor:* Kristin Latham

Title: Drosophila Larvae Show Effects on Development and Survival after Ingestion of *Pseudomonas fluorescens*

Abstract: Drosophila melanogaster, the fruit fly, is a model organism with genetic applications and an accelerated life cycle, making them an ideal subject for developmental and immune system research. There has been little research investigating the lethal and non-lethal responses of flies infected with bacteria early in development. To further the knowledge on the early developmental responses of their immune system, this study examines flies that were exposed to wild type and mutant strains of *P. fluorescens* at the larval stage. In this study it was hypothesized that the bacteria would cause severe delays coupled with high mortality. First to second instar larvae were fed the strains Pf-5, A506 and SWB25 in one dose and then observed through the rest of development. It was found that both developmental delay (varying in degree) and lethality was observed in some of the flies exposed depending on the strain of bacteria. In further applications, this research could give insight to the innate immune response exhibited in humans to bacterial infections.

2 to 4 p.m., WUC Pacific Room

Stephanie Torrez, Natalie Wallace, Taylor James, and Eli Zachary

Faculty sponsors: Kristin Latham and Mike Baltzley

Title: Using Artificial Selection to Understand Orientation Behavior in Drosophila

Abstract: The fruit fly, Drosophila melanogaster, is commonly used to understand the genetic mechanisms of behavior. Using this model organism, we are testing whether Drosophila has directional preference based on the Earth's magnetic field and whether this preference has genetic underpinnings. To examine this, we are using a directional choice maze oriented so flies make a sequence of 10 choices of whether to go north or south. We are attempting to breed both north-seeking and southseeking populations. For the north-seeking population of flies that exit the maze, we select the northernmost 20 percent and these flies give rise to the next generation. A similar selection is used for South-seeking populations. Successive generations are run through the maze for 15 generations. Our preliminary data shows that wild-type Drosophila have no innate preference when it comes to north and south, however it remains to be seen whether we can select for directional preference over 15 generations. At this point in the experiment, the 12th generation of flies

has completed the maze trials. As a positive control, we are also performing similar experiments with light-seeking and darkseeking flies. Previous research on phototaxis suggested that a separation between light-seeking and dark-seeking populations becomes noticeable after 10 generations. At this point, we are seeing evidence of behavioral separation between our light-seeking and dark-seeking populations, but not between our north-seeking and south-seeking populations. Ultimately, this experiment will lead to a better understanding of the potential genetics of magnetic orientation and directional preference in flies, which has been documented in other organisms.

2 to 4 p.m., WUC Pacific Room Heather Hemmert Faculty sponsor: Mike Baltzley

Title: Determining the Predictors of Crawling Speed in the Snail *Helix aspersa*

Abstract: Across modes of locomotion, body size and speed of locomotion are well correlated. Body size and crawling speed are also thought to be correlated in terrestrial snails, but existing data is ambiguous. We tested this hypothesis by examining the relationship between foot length and crawling speed in Helix aspersa and examining the relationships between crawling speed and foot length to width ratio, body weight, shell size, wavelength, and frequency. We recorded crawling on both horizontal and vertical surfaces. We did not find a correlation between foot length and speed. We found there was a correlation between frequency and speed both on vertical and horizontal surfaces. Weight and shell length had no correlation with speed when snails were crawling horizontally, but we found a negative correlation when crawling vertically. Interestingly, we found a positive correlation between wavelength and foot length for crawling on both vertical and horizontal surfaces. We also found a negative correlation between wave frequency and foot length for vertical crawling. This suggests that foot length does not predict crawling speed. There may be a trade-off between wavelength and frequency on vertical surfaces; as foot length and wave lengths increase, the frequency of waves decreases, thus overall crawling speed does not change.

2 to 4 p.m., WUC Pacific Room Makayla Kachlein Faculty sponsor: Erin Baumgartner

Title: Maze Path Choice in Shrimp

Abstract: My experiment was designed to see if ghost shrimp (Palaemonetes paludosus) have the ability to remember a path that led to a food reward, which may provide information on a shrimp's ability to remember a pathway to specific locations in the wild. I used colored LEGOs to build a simple maze where each shrimp had to make a decision between four possible path options, one with a food reward. Eleven shrimp each went through a series of five trials. I predicted that the time it took the shrimp to complete the maze would decrease with each trial and that the shrimp would show a preference for the route that led to the food reward. My results did not support either hypothesis, but reflect shrimps' excellent visual capabilities and relatively simple brain and nervous system. The shrimp did not show a preference for the route that led to food, and there was not a decrease in time over each set of trials. An ANOVA test revealed that shrimp displayed preferences for certain paths, specifically the blue and green options. I hypothesize that their choice was influenced by the color, but further research is needed to determine this.

2 to 4 p.m., WUC Pacific Room Ashley James Faculty sponsor: Bryan Dutton

Title: Photopoint Documentation of Vegetational Changes Following Invasive Plant Species Remediation at Ankeny National Wildlife Refuge, Ore.

Abstract: Invasive plant species such as Rubus armeniacus (Rosaceae; Himalayan blackberry), have altered habitats throughout Oregon due to resource domination. Site-specific restoration efforts often include repeated mowing of R. armeniacus, followed by herbicide treatments, with the intent of reintroduction of native species. The goal of this monitoring project was to establish a procedure so that vegetative change could be documented following habitat remediation on a circa 11-acre parcel of Ankeny National Wildlife Refuge, Ore. Restoration efforts were carried out by the refuge staff and centered on the boundary of the plot, a creek habitat dominated by R. armeniacus. The primary data collection tool for this project was the digital photographic documentation of vegetative change through time in conjunction with refuge staff's remediation efforts. To accomplish this, two photo point surveys using GPS coordinates were established: one survey consisting of 60 points spaced 10 meters apart around the perimeter of the parcel, and a second survey based on 16 points interior to the first. The monitoring protocol was repeated every three-to-five weeks from June through December, 2014. Data was then organized, chronologically, by individual photo point using Microsoft PowerPoint to provide a visualization of vegetative change results through time following remediation efforts. Ongoing monitoring is required to assess if the removal of R. armeniacus at this site will result in long-term absence of this invader and if native species will return to, and persist in, this habitat.

2 to 4 p.m., WUC Pacific Room Han Nguyen Faculty sponsor: Sarah Boomer

Title: The Diversity of Bacteria in the Oral Cavity

Abstract: A clear understanding of oral microflora and its relation to health is an important to combat different oral diseases. Through whole genomic DNA analysis, previous research has shown a complex variety of species interacting with each other in plaque sample (Socransky et al., 1998). Before DNA methods, microbiologists depended largely on culture media, which only detects one to five percent of the bacterial diversity (Brock 14th edition). The goal of my research is to identify the presence of different bacteria in the oral cavity by using both culture media and DNA analysis. Here, I hypothesized that the DNA analysis would provide me with a clearer picture of bacterial diversity than culture media. To conduct my experiment, overnight tooth plaque samples were taken prior to brushing to determine the flora through both growing on culture media and DNA metagenome sequencing. I isolated pre-brush tooth plaque DNA by using the Meta-G-Nome DNA Isolation Kit. The DNA isolated was sent to the Research and Testing Laboratory (Lubbock, Texas) for Microbial Diversity Analysis, which uses PCR amplification of the 16S ribosomal RNA gene to identify bacteria. With the isolated plaque, I also grew bacterial colonies on different culture media: Nutrient, MacConkey, Mannitol Salt, Blood Agar, Lactobacillus, and Chocolate. Based on DNA methods (which generated over 24,000 16S rRNA sequence isolates), the most common genera in my tooth plaque sample were Fusobacterium (35 percent), Leptotrichia (18 percent), and Streptococcus (15 percent). These data are consistent with other findings in the literature (Aas et al., 2005). We observed

<u>Streptococcus</u> on Blood Agar, confirmed via Gram Staining/ microscopy and Catalase testing. Although we observed some other bacterial colonies on culture media, we were unable to confirm their identities or connect them with DNA-based data. In conclusion, these results supported my hypothesis that DNA analysis would provide a clearer understanding of bacterial diversity than culture media.

2 to 4 p.m., WUC Pacific Room Kindra Smith Faculty sponsor: Sarah Boomer

Title: Streptomyces Growth in Different Forest Soil

Abstract: Streptomyces are aerobic, Gram Positive, filamentous bacteria that produce spores and are important decomposers for organic material. There are over 550 species of known Streptomyces. Streptomyces are found mainly in soil and decaying vegetation, and are responsible for the earthy smell of soil. A majority of antibiotics are made by this genus. Because Streptomyces forms spores, I hypothesized that it would thrive better in drier, open habitats - as opposed to moist habitats in covered areas. Three samples were collected from three different sites in the McDonald-Dunn Research Forest (Oregon State University, College Forest). The first site was a managed, row-planted, mono-culture forest area, the second site was a diverse unmanaged forest area with heavy undergrowth, and the third site was a logged area with full sun exposure. To test my hypothesis, I grew plated each of these samples on starch media, isolated Streptomyces colonies, performed a Gram Stain on all isolates, and tested for antibiotic production. The results showed that the open, logged site had the most Streptomyces isolates, although none produced antibiotics.

Session title: Research in the Biological Sciences Session chairs: Ava Howard and Jeffrey Snyder Location: Natural Sciences (NS) 103

Presentations

4 to 4:15 p.m., NS 103 Sarah Thompson and Victoria Fliehr Faculty sponsor: Erin Baumgartner

Title: Host-Specific and Non-Host-Specific Caterpillar Prey Choice

Abstract: Locating food resources in a noisy environment may be difficult. Chemoreception of a caterpillar's specific host plant reflects evolutionary constraints and a possible learned component. Because the ovipositing females of Lepidoptera use chemoreception to locate their host plant, then the larvae of Lepidoptera may also use chemoreception to identify the host plant for consumption. We hypothesized that artificial food would be chosen by caterpillars of two species over host and non-host plants and that host plants would be chosen over non-host plants. We used the caterpillars of painted ladies, Vanessa cardui, and cabbage whites, Pieris rapae, to test this hypothesis. We put both species through a series of choice trials. We measured, over a period of two hours, the number of caterpillars on each choice, and their distance from each choice. We used t-tests to compare each species' choice of food items. We found that the cabbage whites were highly specific towards their host plant, kale, Brassica oleracea, compared to the nonconspecific host plant and the artificial food. The painted ladies were not as selective towards their own host plant, yarrow,

Achillea millefolium, compared to the non-conspecific host plant and the artificial food.

4:15 to 4:30 p.m., NS 103 Sadie Western Faculty sponsor: Erin Baumgartner

Title: Wavelengths of Light and Photo-Response in Planaria

Abstract: Planarian flatworms are among the simplest animals to develop eyecups- made up of pigment cells and photoreceptor cells- that enable them to detect and respond to presence and direction of light. Planaria reveal a negative phototaxis, evading light, and this response may be the result of a variety of factors. Understanding how planaria respond to different wavelengths of light can show what types of stimulus result in a phototaxis response; it can also show differing degrees of the response. To answer the question of whether planaria exhibit the same phototaxis behavior to different wavelengths of light, planaria were subjected to full spectrum, red, green, blue and ultraviolet light. Ten planaria were tested per ten-minute trial with six trials per variable. Latency of first planarian arrival in the unlit side and number of planaria in and out of light at the end of each trial was recorded. ANOVA with post hoc tests, chi-square frequencies, and t-tests were performed on the data. The planaria exhibited the same phototaxis response to ultraviolet light as they did to full spectrum light but they exhibited a longer latency to ultraviolet. Planaria were less affected by red, green, and blue light then full spectrum light.

4:30 to 4:45 p.m., NS 103 Anusha Hoda and Kaylah Stevens Faculty sponsor: Mike Baltzley

Title: Characterizing the Distribution of GABAergic Neuons in the Nervous System of Terrestrial Gastropod

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 central nervous systems of the snail Helix aspersa and the slug Prophysaon vanattae to investigate the variability between these species and to examine the variability between populations of the same species. We used immunohistochemistry to identify GABA-immunoreactive cells in the H. aspersa and P. vanattae. In H. aspersa, we found GABAimmunoreactive neurons in the buccal ganglia, as well as several clusters of GABA-immunoreactive neurons in the cerebral and pedal ganglia. Our results are similar to previously published studies on a different population of H. aspersa. We are in the process of quantifying and locating cell clusters in all ganglia of the P. vanattae, but we have identified GABA-immunoreactive cell clusters in the buccal ganglia. We have also found GABAimmunoreactive neurons in the cerebral and pedal ganglia.

4:45 to 5 p.m., NS 103 Adam Pettit Faculty sponsor: Mike Baltzley

Title: Serotonergic Polymorphisms Mediate a Weakened Response to SSRI Treatment: a Proposed Model

Abstract: Individuals with the short (S) allele in the promoter region of the serotonin transporter gene (5-HTTLPR) show a less favorable response to selective serotonin reuptake inhibitor (SSRI) treatment than individuals with the long (L) allele. Similarly, individuals with the C(-1019)G polymorphism in the promoter region of the serotonin 1A receptor gene (5-HTR1A) have shown blunted responses to SSRI treatment when compared with

individuals lacking this polymorphism. While these findings have been replicated across multiple studies, only two studies to date have reported data for a gene-gene interaction associated with response to SSRI treatment. Both of these studies reported a combined effect for these genotypes, with individuals homozygous for the L allele and the C allele (5-HTTL/L - 1AC/C)reporting the most favorable response to SSRI treatment and individuals homozygous for the S allele and the G allele (5-HTTS/S-1AG/G) reporting the least favorable response to SSRI treatment. Additionally, no neural mechanisms have been proposed to explain why this gene-gene interaction has been observed. To that end, this presentation provides a review of the relevant literature associated with these polymorphisms and proposes a feasible model that describes a genotype-dependent modulation of postsynaptic serotonin signaling associated with the 5-HTT and 5HTR1A gene.

BUSINESS AND ECONOMICS

Session title: Business and Economics Session Chair: Jennifer Yang Location: Werner University Center (WUC) Calapooia

Presentations

8:30 to 9 a.m., WUC Calapooia Room **To be Announced** *Faculty sponsor:* John Leadley

Title: Research Project - Project to be announced

Abstract: Students in Econometric Analysis & Report Writing develop a research proposal, collect data, conduct a statistical analysis, interpret the results and write a research paper to present those results and discuss possible limitations (including multicollinearity, heteroskedasticity and simultaneous equations). The primary statistical tool is linear regression using SPSS software.

9 to 9:30 a.m., WUC Calapooia Room Andy Daniels, Alyssa Raimer, and Jamie Nelson Faculty sponsor: Paul Disney

Title: Leadership Analysis of the Entertainment Industry

Abstract: Presenting on the ways that executives from the entertainment industry have shaped their organizations and have exemplified leadership excellence within their organizations.

CHEMISTRY

Session title: Deadly Toxins: Who Makes Them and How Do They Work?

Session Chair: Patricia Flatt Location: Werner University Center (WUC) Pacific Room

Posters

9 to 11 a.m., WUC Pacific Room Courtney Richardson, Mary Kate Miller, and Marylyn Weatherly Faculty sponsor: Patricia Flatt

Title: Little Frog, Big Toxin

Abstract: Deep in the tropical rainforests of Colombia lives a frog. Known by scientists as *Phyllobates terribilis,* this frog is known to the world as the Golden Poison Dart Frog. This frog

is only the size of a paperclip and yet has enough toxin in its body to kill 10 grown men. The toxin it carries is very unique, existing in only a couple species of frogs and birds, and it is called batrachotoxin. This review aims to explain what makes batrachotoxin so deadly and what scientists are looking at doing with this tropical poison.

9 to 11 a.m., WUC Pacific Room Abigail Oswald, Chelsea Wiley, and Kera Holt Faculty sponsor: Patricia Flatt

Title: Komodo Dragons: Not Your Typical Lizard

Abstract: Ten feet long and 330 pounds, do not try to out run the Komodo dragon, it could be your biggest nightmare. Komodo dragons originated from Indonesia and mainly reside on the small island of Komodo. They are known for their speed, being able to run up to 13 miles per hour but that is not what you have to worry about. The toxin located between the Komodo dragons' teeth is the knock out punch. *Pasteurella Multocida* and *Pseudomonas Aeruginosa* are partners in crime in the Komodo dragons take down method of prey, but what makes this bacteria combination so deadly?

9 to 11 a.m., WUC Pacific Room Eli Zachary, Michele Dumaran, and Teri Hill Faculty sponsor: Patricia Flatt

Title: The Toxicology of the Spitting Cobra

Abstract: Spitting cobras are a unique group of venomous snakes that have a highly specialized defense mechanism. They are capable of accurately spraying venom into the eyes of a target up to 8 feet away, causing pain and blindness. The venom is comprised of cytotoxins, post-synaptic neurotoxins, and cardiotoxins, which can lead to severe tissue damage and death. Antibodies derived from the venom are used to prevent deaths in most bite cases in areas where the snake is native. Despite it's lethality, the cytotoxins of cobra venom have shown potential implications as an anti-tumor drug.

9 to 11 a.m., WUC Pacific Room Anusha Hoda, Eugene Hueberger, and Kristin Kelly Faculty sponsor: Patricia Flatt

Title: Superantigens; Super Deadly

Abstract: We've all heard of Superbugs but have you heard of Superantigens? Antigens are usually foreign substances that elicit an immune response. However, some microbes produce Superantigens that cause a dangerous overreaction by the T-helper cells of the immune system. *Staphylococcus aureus* is a bacterium that is capable of producing several different Superantigens. These include toxic shock syndrome toxin, exfoliating toxin A and B, and enterotoxins A, B, C, D, and E. By over activating your T-cells, these Superantigens can cause many different symptoms which can lead to multiple organ failure and death.

Session title: Chemistry Capstone Seminars Session Chair: Arlene Courtney Location: Natural Sciences (NS) 101

Presentations

10:40 to 11:20 a.m., NS 101 **Eugene Heuberger** *Faculty sponsor:* Arlene Courtney

Title: Using Light to Understand Matter: Advances in Spectroscopic Methods

Abstract: Although the concepts of chemical purity and identity are fairly common knowledge, how this information is obtained might not be as well known. While there are numerous methods available for chemical identification, most modern analytical processes are spectroscopic in nature. Spectroscopy refers to the practice of manipulating matter with electromagnetic radiation and recording the spectra of the resulting electromagnetic emissions. Changes between the measured excitation and emission energies are characteristic of molecular properties. Though classical spectroscopic methods do not require large sample sizes in the conventional sense, their required size can still be quite limiting on the molecular scale. To accommodate this shortcoming, a series of enhancement methods have been developed to predictably amplify the emissions of measured molecular compounds. Two of the most well-known techniques of this analytical branch are surface-enhanced fluorescence spectroscopy and surfaceenhanced Raman spectroscopy.

11:25 to 12:05 p.m., NS 101 Sean Fujinaga Faculty sponsor: Arlene Courtney

Title: The Use of Gas Chromatography in Drug Testing

Abstract: Drug screening is prevalent in both pre-employment screenings as well as criminal investigations. Gas chromatography coupled with mass spectrometry (GC-MS) is the standard for identification of controlled substances within drug screening. Controlled substances are ranked by schedules depending on their medical use and addictive tendencies. A GC-MS analysis uses two different techniques that are paired to provide an unparalleled analysis. Gas chromatography uses a column that contains a mobile and stationary phase, which allows for separation of the controlled substance to occur in a sample. Size differences separate metabolites by elution time allowing for individual metabolites become isolated. Utilizing a mass spectrometer allows you to quantify and interpret what substances are present as indicated by the various metabolites that are present in the sample.

1 to 1:40 p.m., NS 101

Chelsea Wiley Faculty sponsor: Arlene Courtney

Title: Blood Spatter: A Unique Investigation Tool

Abstract: Blood spatter analysis includes examining the size, shape, location, and distribution pattern of blood stains to provide an interpretation of the origin of the physical events. Various detection tools are used to determine the source and location of the blood spatter such as the use of luminol, the stringing method, and the extraction of DNA from blood swab samples. The current methods can be time consuming, so are there ways to reduce the time spent on evaluating crime scenes? New technology and research is being developed to reduce time spent analyzing crime scenes and increase efficiency of such methods. Possible new investigative

techniques include calculating point of origin of blood spatter using laser scanning technology and development of a molecular method to correlate bloodstains with wound sites for easier crime scene reconstruction.

1:45 to 2:25 p.m., NS 101

Dominique Aubrey *Faculty sponsor:* Arlene Courtney

Title: Opioids and the Forensic Drug Analyst

Abstract: Many people know of some of the more common opioids such as oxycodone and heroin, but did you know that there are additional and more dangerous opioids such as fentanyl and methadone that are being abused nationwide? The majority of abused opioids belong to the upper classifications of drugs deemed by the DEA as having the highest potential for abuse. To help in eliminating the presence and circulation of these dangerous drugs, forensic drug analysts are responsible for identifying unknown drugs that may or may not be opioids. They have a multitude of tests at their disposal that provide an accurate identification of individual opioids. Forensic drug analysts must also present their findings in court, where the fate of the accused depends on the accuracy of their laboratory analyses.

2:30 to 3:10 p.m., NS 101 **Courtney Richardson** *Faculty sponsor:* Arlene Courtney

Title: Neurotoxicity: Are men and women really the same?

Abstract: It's often joked that women can't hold their liquor, but did any of the jokesters ever think that maybe this is biologically true? Many studies have been done on neurotoxicity and toxic substances, but very few of said studies looked at gender specific effects of these toxins. There are subtle and not so subtle differences in brain functions between men and women and the question is, do these differences lead to different effects when exposed to toxins? The answer is yes. If neurotoxins react differently for different genders, then symptoms could be different, and the problem could be incorrectly identified or not identified in time. Because of this growing concern, recent research has been focused in this area to see how different genders react to different toxins ranging from alcohol to lead.

3:15 to 3:55 p.m., NS 101 Anton Lemeza Faculty sponsor: Arlene Courtney

Title: Carbon Nanotubes - How Carbon is Saving Lives

Abstract: Nerve cells have long been understood to be one of the few cells that cannot regenerate. This simple but grim fact has long plagued the medical field, and has robbed the quality of life of countless individuals. On the other hand, the uncontrolled multiplication and growth of cells is rapidly taking the lives of cancer patients. The simple carbon atom may be the answer to treating both patients. Carbon nanotubes display previously unimaginable strength and electrical conductivity. This amazing material was first published by two Russian chemists in 1952 in the Soviet Journal of Physical Chemistry. Since this initial discovery, it has shown promising results in delivery of drugs directly to cancer cells and even in using carbon nanotubes to interface with neurons. This seemingly simple, yet groundbreaking technology, is revolutionizing medical research.

COMMUNICATION STUDIES

Session title: Environmental and Health Communication in Action

Session Chair: Emily Plec and Paula Baldwin Location: Health and Wellness Center (HWC) 205

Presentations

1 to 1:30 p.m., HWC 205

Cherene O'Hara, Chelsie Denham, Hannah Towle, Iain Dexter, Melody Wheeler, Paul Anderson, Shannen Brouner, Soren Cullivan, Gaby Harper, Afton Sullivan, and Hayden Rue

Faculty sponsor: Emily Plec

Title: WOU Campus Garden

Abstract: The WOU Campus Garden was founded in 2012 by graduating senior Karisa Mueller. Since that time, the garden has changed size, location, and continues to grow its volunteer base. Providing herbs for Campus Dining, vegetables for the WOU Food Pantry, and opportunities for hundreds of volunteers and dozens of service projects, the WOU Campus Garden is a place where members of the campus community can practice and learn about organic gardening. This presentation highlights the current efforts of the campus garden, including its relocation to the fenced area between the College of Education and Rice Auditorium as well as promotional and fundraising efforts undertaken by students and volunteers.

1:30 to 2 p.m., HWC 205 Kendall Rehn and Rachel Westendorf Faculty sponsor: Paula Baldwin

Title: Creating a Health Campaign: Raising Awareness for the WOU Food Pantry

Abstract: Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. This includes their ability to access necessities, such as food. Come and learn of one classroom's journey to bring awareness to the issues of low health literacy, and the problem of food scarcity in their community. Together we were able to educate the student population, and bring awareness to one of Western Oregon University's very own healthy-living resources, the food pantry.

Session title: Top Papers in Communication Studies Session Chair: Emily Plec and Paula Baldwin Location: Health and Wellness Center (HWC) 205

Presentations

2 to 2:20 p.m., HWC 205 **Christopher Buol** *Faculty sponsor:* Molly Mayhead

Title: Preserving Privacy to Protect the Home: A Pentadic Analysis of Kyllo v. United States

2:20 to 2:40 p.m., HWC 205 **Paul Anderson** *Faculty sponsor:* Emily Plec *Title:* "1st of Tha Month" and Gangsta Rap: A Medium for Discussing Social Policy

Abstract: We often overlook what we don't find relevant or important in our lives. This occurs also when we simply don't understand what is being presented to us. Using semiotics to dissect connotative symbolism that creates a satirical narrative, the song "1st of Tha Month" by Bone Thugs-N-Harmony becomes an outcry from the urban communities of the US to address the issues of cyclical welfare dependency, criminality, and substance addiction.

2:40 to 3 p.m., HWC 205 Olivia Kunkel Faculty sponsor: Molly Mayhead

Title: A Rhetorical Criticism of Frank Lloyd Wright's Usonian Houses

Abstract: Architect Frank Lloyd Wright created the term, 'USONIA' which to Wright stood for the United States of North America. He took this term and applied it to his work and created over 100 Usonian houses across the United States. The concept behind these houses, "small, single, freestanding houses for 'true Americans' --Usonians" (McCarter 324). Through Ideological Criticism and the examination four of Wright's Usonian houses, this question will be answered, how do Frank Lloyd Wright's Usonian houses enforce his ideology of being connected spiritually to Nature, minimalism, and imagination?

COMPUTER SCIENCE

Session title: Computer Science Individual Software Projects Session chair: Mitch Fry Location: Instructional Technology Center (ITC) Third Floor

Posters

9 to 11 a.m., ITC Third Floor **Waleed Aldeghaithir** *Faculty sponsor:* Mitch Fry

Title: Recipe As it is

Abstract: For customer who want to be inventive in the kitchen, the *As it is* is an information system that will pick a recipe meal randomly; example, chicken, potatoes, carrots and spinach. Then the app would then display all the recipes in its directory containing these ingredients. Unlike the current Recipe applications catalog, our product will provide the customer with a suggest meal randomly and in a fun way.

9 to 11 a.m., ITC Third Floor **Motab Alharbi** *Faculty sponsor:* Mitch Fry

Title: Social Seal App

Abstract: For mobile's users who tired of their kids never responding to their calls, when they out, *Social Seal* is a revolutionary application that lets you remotely lock your child's phone until they call you or get back home for the password. Unlike other application is very limited in functionality. It just creates an inconvenience for the kid because they have to call their parents. Our product involves not only locking the phone, but completely blocking off access, and has a large emphasis on being very embarrassing. There's a reason why users give a warning before they actually lock the phone. 9 to 11 a.m., ITC Third Floor Yaser Alsalman Faculty sponsor: Mitch Fry

Title: Lost Chicken

Abstract: For android game players who need to play strategic game on their phone, the *Lost Chicken* is an android strategic game that will provide players with a fun and full feature imagination strategic game . The game will provide players with:

- 1. Ability to build full feature farms.
- 2. Ability to make a defiance or truce with other farms.
- 3. Player can buy tools to upgrade his own farm inventory.
- 4. Player can steal other inventory.

9 to 11 a.m., ITC Third Floor **David Avery** *Faculty sponsor:* Mitch Fry

Title: Chore Planner

Abstract: For individuals who have ever had roommates, the *Chore Planner* is a planning and scheduling system that will provide assistance with assigning household chores, and noting where others have left off. This application can help make a fair scheduler that can assign new chores defined by the user, for what ever time table is needed, and also can show who is doing their fair share. Unlike the current method of such planning, like boards and written text, this product adds an easy electronic planner to a simple, but important aspect of shared living.

9 to 11 a.m., ITC Third Floor **Christian Bazoian** *Faculty sponsor:* Mitch Fry

Title: GoBullistic

Abstract: GoBullistic is a projectile trajectory calculating application for the Android platform. It allows the user to input information about the projectile they will be firing, the distance, and then calculates the physics behind the trajectory of the fired projectile. The end result informs the user you how far the projectile will drop. This app can be used for recreational shooters and hunters to help take the guesswork out of lining up their shot.

9 to 11 a.m., ITC Third Floor **Claire Buehler** *Faculty sponsor:* Mitch Fry

Title: Rate My Plate

Abstract: Rate My Plate is an app that will allow an individual to input any dish they try at any restaurant with a rating. It will store all the dishes from each restaurant you input. This system will save people from repeating dishes they have already decided they don't like. Unlike the current apps such as yelp you don't rate the restaurant as a whole but each plate they serve. My product will show overall ratings for a dish, friend's ratings of a dish, and personal rating of a dish along with comments about the food.

9 to 11 a.m., ITC Third Floor Alexander Carlson Faculty sponsor: Mitch Fry

Title: Clearmind

Abstract: For migraine and headache sufferers, Clearmind is an

android application designed to identify and detect migrainecausing environments by using the device's integrated sensors. Unlike other anti-migraine applications, *Clearmind* actively detects headache-causing environmental factors, instead of just offering a migraine journal functionality.

9 to 11 a.m., ITC Third Floor Aaron Carson Faculty sponsor: Mitch Fry

Title: Imbroglio

Abstract: For people who enjoy mazes, the *Imbroglio* Android game provides an open-ended gameplay experience that rewards exploration, encourages strategy and offers high replayability through procedurally generated worlds. The player has a limited number of steps, which are replenished through collecting Treasures dispersed through the levels. Use collected magic to add or remove walls. Enemies show up in later levels, which can block your way. Run out of steps or get blocked into a corner unable to move, and you lose. Unlike many other maze games out there, *Imbroglio* has responsive touch controls that are intuitive and easy to use.

9 to 11 a.m., ITC Third Floor Matthew Cramer Faculty sponsor: Mitch Fry

Title: ProRead

Abstract: This application will provide people who like to read with a hand held book reader. *ProRead* not only lets you read your books, but provides the study proven best way to read, word by word. This application will let you set bookmarks for when you want to pick up where you left off. This application will take a bit to get used to, so you can change the speed to match your skill level. The outcome of using this application shows that you will be able to learn what you read better and faster and more comfortable.

9 to 11 a.m., ITC Third Floor **Noe Dotson** *Faculty sponsor:* Mitch Fry

Title: Puzzle Alarm Clock

Abstract: For people who have trouble waking up in the morning, the *Puzzle Alarm Clock* is a personalized alarm clock that is deactivated by solving simple puzzles involving logic and reasoning, arithmetic, and spatial recognition. There are various types of puzzles, as well as various levels of difficulty for each, procedurally generated so that you don't simply learn the puzzles by memory. Unlike other puzzle alarm clocks, our product also allows you to "bail out" and ask for hints to various puzzles, but at a cost -- the system keeps tracks of these failures month by month.

9 to 11 a.m., ITC Third Floor Ethan Eiter Faculty sponsor: Mitch Fry

Title: Stack 'Em

Abstract: Stack'Em turns the classic game of *Tetris* on its head by putting a fresh twist on the original puzzle game. Players will attempt to reach the top of the screen using as few blocks as possible. Players will find this challenging when the blocks fall at varying speeds and must use the accelerometer to control the horizontal placement of the falling blocks. Players will also

need to be steady, because if they do not stack with stability, their blocks will slip off the block underneath and will have to try again. *Stack'Em* brings new twists and new ways to play.

9 to 11 a.m., ITC Third Floor Sheila Faulkner Faculty sponsor: Mitch Fry

Title: GrabIt!

Abstract: GrabIt! -- For adventurers who want to remember special photos they have taken while traveling, *GrabIt!* allows adventurers the ability to snap a photo, save it, tag its location, and display images on a live google map. It also gives you additional options like displaying photos and information in different views.

9 to 11 a.m., ITC Third Floor **Wilson Gao** *Faculty sponsor:* Mitch Fry

Title: Flip and Remember

Abstract: This is a memory game by flipping cards. there are many cards showing their back side on the screen. User will hit two cards, then the two cards would flip over and show their front side. if the two sides is the same, then they are matched and keep the front side on. else, they will flip back over. user will win the game when all cards is matched. furthermore, it could have the statistical information to record times I have played this game in each level, the shortest time of each level, etc.

9 to 11 a.m., ITC Third Floor

JJ Garcia Faculty sponsor: Mitch Fry

Title: 2A Delivery

Abstract: For students who want or need to learn how to count in binary and hexadecimal, the 2A Taxi Android application is a teaching tool that will help students learn by playing a game. This game will simulate a career with a fictional delivery company and will encourage the dedication of the student with pay raises, bonuses for great work, upgrades to vehicles, and map expansions. Unlike the current educational games available on the market, our product will use a storyline that will boost learning and stimulate the mind by teaching how to convert between multiple number bases.

9 to 11 a.m., ITC Third Floor Amanda Hatch Faculty sponsor: Mitch Fry

Title: CryptoMaster

Abstract: For puzzle solvers who want better analysis into the world of cryptography, *CryptoMaster* is an interactive tool that introduces users to the world of data security through education of cryptography techniques. Unlike websites like Rumkin. com where users can use tools that help with frequency analysis and letter pair checking my product aims to expand these tools through layering their use on the same cyphertext so full analysis is possible. This product will be a leading tool for students and others wanting to get into the world of cryptography.

9 to 11 a.m., ITC Third Floor Kathleen Hess Faculty sponsor: Mitch Fry

Title: Photo Caching

Abstract: For photo enthusiasts who what to get outside while challenging their friends, *Photo Caching* is an outdoor recreational activity that uses GPS to seek out the locations of photographs, allowing you to recreate them. The application will let you view photographs your friends have shared, allow you to share your photographs with your friends, provide the GPS location the photograph was taken at, and challenge the users to recreate their friends' photographs. Unlike current caching activities, our product will not require users to leave items at a location causing less environmental impact and allowing unlimited possibilities for searches.

9 to 11 a.m., ITC Third Floor Daniel Jackson Faculty sponsor: Mitch Fry

Title: Travel Companion

Abstract: For the traveler who wants a display to read without having to look down at their instrument panel; *Travel Companion* allows those who want to monitor their speed, distance, current latitude and longitude and have a compass to find their bearing in one small, easy to use app. The app runs based off of each individual device without having to worry about signing up or registering for any form of membership. Just download the app, and run it, and it will use your devices GPS to calculate your speed, distance traveled and your current position, then uses your onboard sensor to create a compass that provides your direction, and current heading in degrees. This is meant to drivers, hikers, and mountain bikers; pretty much anyone who enjoys traveling and wants a companion to aid them in their trip.

9 to 11 a.m., ITC Third Floor **Zihan Jin** *Faculty sponsor:* Mitch Fry

Title: Math Quiz

Abstract: A small math quiz application that support users to calculate small math problems. Those math problems have different difficulty levels from easy level to difficult level. The core functionality of the application is that the system will give user two or more numeric values and an arithmetic function, which includes add, subtract multiply and divide. After entering the answer, the system will help you get the total score and countdown at the same time. It is time to keep your brain working, let's challenge our self!

9 to 11 a.m., ITC Third Floor Jessica Justice Faculty sponsor: Mitch Fry

Title: Mile Tracker

Abstract: Track your mileage! This android app allows you to easily track your mileage for work or tax purposes. All of your data and destinations will be conveniently stored for you to retrieve, and you can select which destinations are work-related to be tallied for total miles driven. You can see how many miles you've driven in a given day, or all the miles you've driven, making keeping mileage logs easy.

9 to 11 a.m., ITC Third Floor Zhaoqi Liu

Faculty sponsor: Mitch Fry

Title: ChaChat

Abstract: ChaChat is a free messaging app helps you keep in touch with your friends or connect with your family even out of the space! You can send text or share you location to your friends.

Features:

- Text with your friends by instant message.
- User can save the contact information in this app.
- Share the location with friends.

9 to 11 a.m., ITC Third Floor Brin Manoogian-O'Dell Faculty sponsor: Mitch Fry

Title: Teutonic History

Abstract: An educational application that seeks to inform its users of the history of the Teutonic Knights, *Teutonic History* uses a series of images and animations to impart information. Users can digest information easily, as facts are delivered via easily-navigable slides.

9 to 11 a.m., ITC Third Floor Gregory McKinney Faculty sponsor: Mitch Fry

Title: Wear Guard

Abstract: Wear Guard is an application designed to help the user keep track of routine and scheduled maintenance and track fuel economy. The user is able to input the dates and odometer readings related to various types of maintenance related items such as oil and other vital automotive fluids as well as the age and mileage of key mechanical components such as brakes and tires. *Wear Guard* will help prevent the need for costly repairs that result from improperly maintaining vehicles.

9 to 11 a.m., ITC Third Floor Zach Miller Faculty sponsor: Mitch Fry

Title: OREORS

Abstract: Oregon Real Estate ORS (OREORS) is for Oregon Realtors who are looking for a more convenient way for searching pertinent Oregon Revised Statutes concerning real estate law. Never struggle with static HTML documents again. With *OREORS*, users will have access to easy searching of any Oregon Real Estate ORS and access to popular FAQs asked by Oregon Retaliators regarding anything real estate related. Unlike Other ORS applications, *OREORS* is catered 100 percent for realtors.

9 to 11 a.m., ITC Third Floor Nick Moore Faculty sponsor: Mitch Fry

Title: DiscGolf Caddie

Abstract: For people who play disc golf the *DiscGolf Caddie* is an application for android phones and tablets that allows you to keep track your distance to the hole in the palm of your hand while on your way to your next stroke. This app can tell you the distance you are from the goal using Google maps and GPS sensor available on your device. *DiscGolf Caddie* even gives

you advice on the disc that might work best for your distance. Unlike other apps on the market The *DiscGolf Caddie* app allows you to know the distance your are from scoring a great round. The use of GPS will help your game in ways you never would expect.

9 to 11 a.m., ITC Third Floor Andrew Moser Faculty sponsor: Mitch Fry

Title: Eagle Eye App

Abstract: The application provides users with the utility to create a location for bald eagle sightings. The user can choose the type of eagle they saw. Users can write a description. They can also view all of the other eagles others have marked in the northwest.

- 1. Register as a user.
- 2. Google maps to view locations or set a new location for
- a sighting.
- 3. A database will be used.
- 4. Social media integration.

9 to 11 a.m., ITC Third Floor Lexin Ning Faculty sponsor: Mitch Fry

Title: Android Map View

Abstract: Map view is an Android application. Map view can show you the map around the world. It also can show you the street view for restaurants, museums and more. The purpose of Map view is to help people who often lost their way and to guide the direction where they want to go. In addition, Map view uses the GPS system to locate where you are and gives you information about what nearby restaurant, gas station, grocery stores and so on, which makes your travel more convenient and your traffic navigation faster and easier.

9 to 11 a.m., ITC Third Floor **Tanner Parker** *Faculty sponsor:* Mitch Fry

Title: Recipe Reader App

Abstract: For bakers or anyone who needs to bake a cake, meal, etc, the *Recipe* App is a useful tool that allows someone to listen to the needed steps of a particular recipe even if your hands are busy or dirty and cannot pick your phone up. Unlike other recipe apps, our product allows people to listen to the recipe being spoken aloud to them without needing the use of their hands.

9 to 11 a.m., ITC Third Floor Jared Petersen Faculty sponsor: Mitch Fry

Title: Ovidja

Abstract: Ovidja is an android application that helps videogame collectors keep track of their collection. Users can track the quantity, completion status on a incomplete, beat, and complete scale, and write down notes about what they think about the game and what they were doing in the game last. All of the data is linked to user accounts stored securely in the cloud, allowing users to access information about specific videogames and their collection from anywhere.

9 to 11 a.m., ITC Third Floor **Ryan Peterson** *Faculty sponsor:* Mitch Fry

Title: Spice o' Life

Abstract: Spice o' Life is a multipurpose life randomization app. Its main purpose is to allow the user to enter multiple equally appealing activities and with a press of a button of flick of the wrist, the app will choose randomly among them.

9 to 11 a.m., ITC Third Floor **Ty Phillips** *Faculty sponsor:* Mitch Fry

Title: Hike Oregon

Abstract: For Oregonians who want to find hiking trails near their location, the *Hike Oregon* app is a mobile app that provides Oregonians with a list of potential hikes near their location. This app allows users to suggest their own favorite hikes for others to view. The *Hike Oregon* app would save Oregonians time in searching for their next hike, by giving them a list of possible trails. Unlike other hiking websites, this product would narrow the trails down to your specifications and it would be a mobile app at your fingertips.

9 to 11 a.m., ITC Third Floor Clara Pratt

Faculty sponsor: Mitch Fry

Title: Rent-A-Pet

Abstract: For persons who desire companionship with animals, *Rent-A-Pet* is an android based application that allows for users to rent out a pet or animal companion for a determined amount of time. Users will be able post listings of their pets. Users, when renting, can discuss terms and conditions with the renter about the constraints based on how or what they would like to do. Interactions are limited based on what the owner would like. Unlike shelters, our product allows for freedom of the user to prioritize interacting with an animal rather than taking care of all of its needs.

9 to 11 a.m., ITC Third Floor Charles Prinslow Faculty sponsor: Mitch Fry

Title: Short Term Memory with Titles

Abstract: The android game will have a sequence of pictures that consist of movie characters. Players can choose which movies they want to use. The speed of the sequence is variable by the player. It will reveal the sequence of the previous round and append a new picture. If they enter the sequence wrong, the game will ask if they want to continue. If they use the second chance to stay in the game, it won't affect the points that have been received. The end will give a popup of the points they have accumulated.

9 to 11 a.m., ITC Third Floor Weiling Qu Faculty sponsor: Mitch Fry

Title: Book Trading System

Abstract: For users who need to sell or buy a book, the *Book Trading System* is an information system that will achieve the user to download the application. The system will allow users to publish and find the information for the books, and users

can receive the information of the other users in a certain area. The system will implement user-defined upload information, and to achieve add, search, modify, and delete operations. The system will save the users 80 percent of their time by search or sell their books online. Unlike the traditional bookstore, our product will provide convenient for users, they can save time for their go to the bookstore to find books and used books is fully utilized.

9 to 11 a.m., ITC Third Floor Miles Rakestraw Faculty sponsor: Mitch Fry

Title: Ten and Two

Abstract: For young drivers and parents of young drivers who need a way to ensure their kids are not texting or calling while driving, *Ten and Two* is an application that will provide parents with a way to secure their children from texting and calling while driving. This application will allow parents to lock their young driver's phone via a unique pass code they assign upon installation. Unlike similar applications, *Ten and Two* is geared to allow parents to at least ensure their children are not text/calling while driving without completely locking device functionality.

9 to 11 a.m., ITC Third Floor Trenton Saruwatari Faculty sponsor: Mitch Fry

Title: Travel Helper

Abstract: For tourists who need an online social network, the Tourist Idea application is a social network that will provide tourist a universal environment where they can share different ideas and things to do at different tourist locations. The network will offer features that allow the users to explore an entire community of ideas at all tourist locations. Unlike the current social networking offered to the public, our product will provide you a unique networking experience that can be on your mobile device for those who a frequent traveler and need ideas on what to do on their trip.

9 to 11 a.m., ITC Third Floor April Senner Faculty sponsor: Mitch Fry

Title: Waste No More

Abstract: The *Waste No More* Android app informs and challenges users regarding wasting less resources, like water, trash, and gasoline. Whether to be more environmentally-friendly or to save money, users can calculate and track their own consumption over time, and can compare it to the national average usage. As they use the app, users are informed of statistics about consumption in the U.S. and in the world, motivating them to waste less. *Waste No More* helps users by motivating eco-friendliness and tracking progress for several usage types over time.

9 to 11 a.m., ITC Third Floor Benjamin Smith Faculty sponsor: Mitch Fry

Title: PockeTech

Abstract: For the car repair do-it-yourselfer, who needs step-bystep guidance on repairing their own vehicle, *PockeTech* is an advanced step by step help guide that walks users from diagnosing a vehicle concern through the final repair procedure. First, the user enters in what kind of vehicle they have. Then, based on vehicle system, symptom, or DTC, the app will start to take you through a step-by-step flow chart in helping you to diagnose the vehicle concern. Unlike other applications, our product is free for use and requires no subscription or paid add-ons.

9 to 11 a.m., ITC Third Floor Anna Therkelson Faculty sponsor: Mitch Fry

Title: Nature Walk

Abstract: For adventurers who want to discover and share wildlife in the Polk County area, *Nature Walk* is a social application that provides the explorer with the opportunity to explore hundreds of animals as well as post photos and descriptions of their personal activities. Users are able to customize their accounts and be notified if there are any dangerous animals nearby. Unlike a bulky field guide, our product allows users to not only look up information, but to post and share their findings with just a click of a button, thus bringing people together over their passion for the great outdoors.

9 to 11 a.m., ITC Third Floor Henry Thomas Faculty sponsor: Mitch Fry

Title: Bag Reminder App

Abstract: Now that more and more places are banning bags, it is becoming normal to carry reusable bags with us when we go to the store, but how often do we forget them in the car and have to pay to get a bag anyway? I've been at the checkout before I realize I forgot the bags in the trunk of my car many times. This app will use GPS to find out when you go to a store and send you a notification to remember to grab your bags before you go inside.

9 to 11 a.m., ITC Third Floor Hang Wang Faculty sponsor: Mitch Fry

Title: iRemember

Abstract: For people who want to train their memory ability or just have a fun time, this light game is designed for them. There are three different levels for players to choose, which are easy mode, normal mode and hard mode. When the game starts, several pictures will be shown in turn and then be flipped over by the system for five seconds, after the pictures be shown again, one of the original pictures will be subsituted and the player will be asked to figure it out.

9 to 11 a.m., ITC Third Floor Micah Yabes Faculty sponsor: Mitch Fry

Title: Sports Wall

Abstract: For groups of friends that watch various sporting events for entertainment, who need an app that connects them with ease and simplicity, *Sports Wall* will provide them with this solution. The app will offer features that allow the users to connect, create and join groups, chat within the group using a public wall, and update those who aren't watching the event. *Sports Wall* will be a simple environment for all sports enthusiasts alike wanting to get together and talk about a game they are currently watching with a group of people sharing similar interests.

10th Annual Academic Excellence Showcase

9 to 11 a.m., ITC Third Floor **Zhenzhong Yang** *Faculty sponsor:* Mitch Fry

Title: Greedy Snake

Abstract: This is a traditional game "greedy snake". Control the snake by clicking the image instead of the button or keyboard. Provide new experience for the player. This game also contains score recording and time recording. The game will pause when the calling interrupts your cell phone.

9 to 11 a.m., ITC Third Floor **Stan Ward** *Faculty sponsor:* Mitch Fry

Title: Project Management Application

Abstract: For Surfaces NW employees who need to manage flooring installation projects and inventory. The employee is be able monitor inventory levels, be notified when a particular inventory level falls below a predetermined threshold, allocate inventory to particular installation projects, submit an order request if no inventory is available, add install dates, job site specific notes, new job site locations, and customer contact information to a project. The application will generate a report for the purchaser to see all inventory that needs be ordered and current inventory levels, and a report that shows all pertinent information related to a specific project.

9 to 11 a.m., ITC Third Floor **Zhou Zhou** *Faculty sponsor*: Mitch Fry

Title: Picture Matching Game

Abstract: This is a small smart phone game. In this game we can click two same pictures and let them disappear. If we disappeared all pictures, we will win this game. This game is used one android phone. There are a lot of lovely pictures, so children will be like it. And it is not hard to play. Just try it, you will love it.

Session title: Computer Science and Information Systems Senior Capstone Group Projects Session chair: Mitch Fry Location: Instructional Technology Center (ITC) 211

Presentations

1 to 1:15 p.m., ITC 211 Nicholas Moore, Clara Pratt, Henry Thomas, and Micah Yabes Faculty sponsor: Mitch Fry

Title: Skooled!

Abstract: For a university that needs to expand their services, *Skooled* is a Web application that will expand a universities capabilities into something more broad covering that focuses on putting the campus back into the hands of the students. Users will get a profile that handles and shows all information for them. Users can join or make groups, based upon what classes or subjects they are interested in. Schedules are given to users that will update them on what and when an event is coming. Unlike many current systems, this product provides a more open-ended application for anyone to use.

1:15 to 1:30 p.m., ITC 211 Joshua Patterson and Charles Ziegler Faculty sponsor: Ted Beers

Title: BYOPC's Backbone

Abstract: We created a database that contains information on various computer parts, and established a relationship between pieces that demonstrate compatibility with the different pieces.

1:30 to 1:45 p.m., ITC 211

David Avery, Noe Dotson, Zihan Jin, and Trenton Saruwatari *Faculty sponsor:* Mitch Fry

Title: Computer Science Study Group Searcher

Abstract: For computer science students who are attending college or are part of an organization, the *Study Group Searcher* is a student directory and scheduling suite that will assist computer science students in staying on track. This system will help students connect and communicate with one another through group membership, where communication can occur among group members, and also serve as an open scheduling service for students though meeting arrangements. Students can also mark their association with an organization, where other students can opt to join said study group from similar organizations.

1:45 to 2 p.m., ITC 211

Aaron Carson, April Senner, J.J. Garcia, and Jared Petersen Faculty sponsor: Mitch Fry

Title: Tentsntrails

Abstract: Tentsntrails is a Web application that helps outdoor enthusiasts discover their next outdoor destination. Users can add locations, search based on a variety of criteria, share pictures and videos taken on their trip, and bookmark places that they enjoyed or would like to go to in the future. Locations can be rated and reviewed so that people can share their outdoor experiences. Users can connect and interact with other users through organizing events and messaging their friends. Unlike other outdoor websites, *Tentsntrails* offers a unique blend of discovery and social connectivity.

2 to 2:15 p.m., ITC 211

Matthew Cramer, Andrew Moser, Yaser Alsalman, and Zhou Zhou

Faculty sponsor: Mitch Fry

Title: Progressive Dining Site

Abstract: The application provides registered users with the utility to create progressive dining events. The user can invite, and add participants to their progressive dining event. Users can assign other users as chefs for each course of their event. The goal of our site is to make it easier for users to share and connect.

- 1. Users can register.
- 2. Users can create and define their progressive dining events.
- 3. Users can have a list of participants for their dinners, and invite/accept new participants.
- 4. Users can invite/assign courses in their event to users or participants.

2:15 to 2:30 p.m., ITC 211 Miles Rakestraw, Stan Ward, Tanner Parker, and Gregory McKinney

Faculty sponsor: Mitch Fry

Title: Road Trip Planner

Abstract: For Western Oregon University students who would like to find/plan a road trip, the *Road Trip Planner* is a networking site that will provide them with a place to safely plan their road trip. This application will provide a place for students to safely meet and plan a road trip with other students. Students will be able to post their plan and announce to other students that they have room for more going their way. Unlike current trip planning Web applications our product is geared to students at Western Oregon University and is designed to facilitate inexpensive and secure transportation needs.

2:30 to 2:45 p.m., ITC 211 Ioane Sabas, Nick West, and Nick Davis Faculty sponsor: Ted Beers

Title: BYOPCs (Build Your Own Personal Computers)

Abstract: Here at BYOPCs, we understand that building a computer can be a difficult task. This can cause many users to become frustrated, ultimately deterring them from the idea completely. Our goal at BYOPCs.com is to remove that deterrent any user may have when facing the opportunity to build a PC. Building a computer should not be a challenge, but instead a great learning experience for everyone.

2:45 to 3 p.m., ITC 211

Zhenzhong Yang, Wilson Gao, Hang Wang, and Weilong Qu Faculty sponsor: Mitch Fry

Title: Student Book Share

Abstract: This is a website about book sharing. A user can post the book they want to sell with the title, ISBN, price, the class it use for, etc. then buyer could search book by the information mentioned above. Also, the buyer can see the seller's contact information and contact off line to figure out the price and the way to trade. Also, they could chat online in this site. Furthermore, buyer could leave message below each book to let the seller know.

4 to 4:15 p.m., ITC 211

Motab Alharbi, Sheila Faulkner, Ryan Peterson, and Ty Phillips

Faculty sponsor: Mitch Fry

Title: OpenSource MatchUp

Abstract: OpenSource MatchUp is a website that connects contributors to open source projects, and is a medium for project owners to locate interested contributors. The site matches contributors to projects based on the skills and abilities selected by contributors and project owners. Unlike sites using forums to connect users and projects, our product connects users and projects through advanced searching and matchup and all in one location.

4:15 to 4:30 p.m., ITC 211

Daniel Frank, Ignacio Mendez, and Abdulrahman Bin Jaman *Faculty sponsor:* Ted Beers

Title: Epidemiology Analysis Database

Abstract: In the information era that we live in today, Big Data has become a crucial part of our society. Big Data can save

human lives by tracking viral outbreaks, or epidemics and warning residents of high-risk areas. Our project is creating a database fine-tuned to store and retrieve data useful for viral researchers. Our database is accessible from anywhere on the Internet, compatible with popular API's. It performs backups automatically. We've built it to cater to researchers.

4:30 to 4:45 p.m., ITC 211

Ramesses A. Ramirez, Hasan Aljanaby, and Mohammed Alsultan

Faculty sponsor: Ted Beers

Title: Epidemiology Analysis Data Mining

Abstract: The main goal of the project is to project future viruses in the United States. This project is the second part of the project analysis. The other team would be working on the Database part. Based on different algorithms we would be able to project viruses and narrow the information based on location. Also, the information may differ from user to doctors.

4:45 to 5 p.m., ITC 211

Waleed Aldeghaithir, Kathleen Hess, and Lexin Ning *Faculty sponsor*: Mitch Fry

Title: Garage Sale Finder

Abstract: For anyone who is strapped for cash, the Garage Sale Finder is an information system that will provide an interactive directory of local garage and estate sales. The system will list sales by community, permit searches for items including a price range. This system will increase sales while saving time by making it easier to connect sellers to buyers, who want what is being sold. Unlike current classified advertisement websites, our product will be only for garage and estate sales and allow users to search by area.

5 to 5:15 p.m., ITC 211

Alexander Carlson, Eli Gasiorowski, Amanda Hatch, and Benjamin Smith Faculty sponsor: Mitch Fry

Title: Symbiosis

Abstract: For professionals who need a place to trade their skills, *Symbiosis*, is a skills for hire application that will provide a network, which brings freelance work to professionals in a wide variety of fields. Unlike other professional service listing sites, where users exchange money in return for the use of skills, our application requires our members to trade their craft and resources for someone else's expertise instead of paying out of pocket for services. Our product will be at the forefront of a currency free exchange where skills and jobs are traded in the adventure into a more socially engaging marketplace.

5:15 to 5:30 p.m., ITC 211

Claire Buehler, Anna Therkelsen, Zach Miller, and Ethan Eiter *Faculty sponsor:* Mitch Fry

Title: Adopt-A-Drain

Abstract: Adopt-a-Drain is a tracking system that tells the condition of storm drains in the area. Users will be able to claim a drain. When they do, they are agreeing to keeping that drain clean. If there is something wrong with the drain that the user cannot fix, they have the ability to report the issue. Adopt-a-Drain also has a playful aspect to it. The more drains a user agrees to care for, the higher score they have. Users can compete with each other for the best score. Users can also steal drains from each other if they have been neglected.

5:30 to 5:45 p.m., ITC 211 Jessica Justice, Christian Bazoian, Brin Manoogian-O'Dell, and Zhaoqi Liu *Faculty sponsor:* Mitch Fry

Title: Hobby Tracker

Abstract: For Internet users who want to track their hobbies and share their documentation with a community, the Hobby Tracking Web App is an information system that will provide a single point of access to records. The App will allow users to store what movies they have watched, what books they have read, and what music they have listened to, as well as share those items with a hobby-centric group. Our product will display every detail you would like to be shown related to your hobby and sharing those items with like-minded enthusiasts is only a few clicks away.

5:45 to 6 p.m., ITC 211 Daniel Jackson and Charles Prinslow Faculty sponsor: Mitch Fry

Title: Underground Dining

Abstract: For a chef who desires a website to track, monitor, and present information for their upcoming underground dining events; this web application will give them an area to update their news feed for all people viewing the site, allow people to join as members and to get automatic updates about any upcoming events. It will also allow members and the chef to send emails to each other through in app emailing, and allow the chef to determine who will get an invitation to the events.

CRIMINAL JUSTICE

Session title: Bioanthropology/Forensic Anthropology Session Chair: Misty Weitzel Location: Werner University (WUC) Pacific Room

Posters

11:30 to 1:30 p.m., WUC Pacific Room Nicole K. Larsen Faculty sponsor: Shirley Heying

Title: Working to Death: The Rise of Chronic Kidney Disease in Central America

Abstract: In the past two decades, over 20,000 people in Central America have died from chronic kidney disease (CKD). Alarming growth in the number of CKD victims has raised major concerns in the public health sector and the general populations of Central American countries. In my poster, I discuss the prevalence of CKD in Central America, and examine relationships between individuals afflicted by CKD—most of whom are agricultural workers—and their exposure to various agrochemicals through farm work, as well as working conditions and regional factors that attribute to CKD prevalence. Discussion suggests actions that could effectively address this escalating epidemic.

11:30 to 1:30 p.m., WUC Pacific Room Ben Lesh and Megan Reynolds Faculty sponsor: Misty Weitzel

Title: Osteobiographical Analysis of an Incomplete Skeleton

Abstract: One of the most important tasks for forensic anthropologists is to determine the osteobiographical information of

an individual skeleton. There are many metrics that are used to determine the sex, age, ancestry, and stature. However many of these methods rely on the presence of certain bones, such as the skull or os coxa. Oftentimes, incomplete remains are found, but these osteobiographical determinations still must be made. The individual in this experiment is an incomplete skeleton consisting of twelve right ribs, twelve left ribs, the spinal column (excluding sacrum and coccyx), the sternum, and both clavicles. In this experiment we will attempt to determine the age of this incomplete set of remains by analyzing the morphology of the sternal end of the right fourth rib, as first introduced by M. Yasar Iscan et al. in 1984, and further solidified by the work of later forensic anthropologists.

11:30 to 1:30 p.m., WUC Pacific Room Carin Davis and Tiffany Powers Faculty sponsor: Misty Weitzel

Title: Effects of Corrosive Substances on Soft Tissue and Bone

Abstract: Our research objective is to test the effects of corrosive household substances on flesh and bone. The chemicals that we will be using are Hydrochloric Acid, Lye, and an inorganic drain cleaner. Tap water will be used as a control in this experiment. Our experiment is based on a study done by Hartnett, Fulginiti, and Di Modica (2011), which shows the effects of these agents, how they differed from soft tissue and bone, and finally how they inhibit the identification process. With this study in regard, we hope to document the effects these substances have on bone and soft tissue in order to help improve the identification of human remains when corrosive agents are involved.

11:30 to 1:30 p.m., WUC Pacific Room **Crystalynn Engichy, Gloria Pascual-Cruz, and Rubi Garcia Rizo** *Faculty sponsor:* Misty Weitzel

Title: Evaluating the Presence of Artificial Cranial Deformation in Argentinian Skulls

Abstract: Forensic anthropologists focus on the identification of human remains by constructing a biological profile. Anomalies present on the skeleton may make this osteobiographical assessment more challenging, for an example, when the skull has been subjected to artificial cranial deformation. Artificial cranial deformation is a type of trauma, a force applied to the bone, which changes or forms the cranium differently from a natural cranial form. Artificial cranial deformation starts from a young age. This practice usually has cultural meaning behind it. In our research we will determine whether a skull from Argentina exhibits artificial cranial deformation using a method developed by *O'Brien and Stanley* (2013).

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

Brenna Murphy, Stephanie Reed, and Arianna Martensen Faculty sponsor: Misty Weitzel

Title: The Disarticulation and Identification of a Human Skeletal Teaching Specimen

Abstract: The goal of this project is to disarticulate a complete preserved skeleton that was previously used as a teaching specimen, and to conduct an osteobiographical assessment, sex and age of the individual. The first step was to carefully remove the wires, pins and other fastens on the specimen using a variety of common craftsman pliers and bolt cutters. Then each bone was inventoried, and labeled with specialized identification markers with the aid of clear nail polish and dark ink pens. The goal of this project is to not only to become familiar with the common

practices of disarticulation, but to also apply common methods of osteobiographical assessments.

11:30 to 1:30 p.m., WUC Pacific McKenzie Davis and Kate Libra Faculty sponsor: Misty Weitzel

Title: The Analysis of Fire Accelerants on Bone

Abstract: The objective of this study is to identify the effect of fire on bone when an accelerant is used and to analyze the color and fracture patterns related to the accelerants. The materials used in this study are three fleshed long bones from a domestic pig (*Sus scrofa*) exposed to gasoline and kerosene. Each experiment was executed within a standardized time frame. Each bone was analyzed in terms of color and fracture patterns. The results of this experiment will be used to aid in the identification of remains that have been disarticulated by fire and possible accelerants.

11:30 to 1:30 p.m., WUC Pacific Sarah Addington and Alexis McKnight Faculty sponsor: Misty Weitzel

Title: Physical Changes in Burned Human Remains

Abstract: The mission of the forensic anthropologist is to help identify the individual, despite what state the remains are in. Human remains are often burned or in a cremated state, and the usual osteobiographic methods may not be employable. This project is an investigation into the changes in bones that occur when exposed to fire. Domestic pig (*Sus scrofa*) bones will be measured, weighed, and color will be assessed before and after burning. The experiment will occur in an outdoor exposed soil pit. To observe variations of burning, temperature will also be recorded during different stages. It is our estimation that variation in temperature will result in various levels of change in the skeletal material. These changes in the bones are discussed, as well as the general purposes of learning to identify charred skeletal remains.

DANCE

Session title: Academic Excellence in Dance Session chair: Amy McDonnell Location: Maple Hall (MH)

Presentations and Performances

8:45 to 9 a.m., MH Sarah Cotter Faculty sponsor: Marita Cardinal

Title: A Kinesiological Analysis of a Toe Stand Turn

Abstract: A toe stand turn is divided into movement phases, with a detailed kinesiological examination of an action phase. Performance tips and injury prevention are also discussed. A project for Kinesology for Dancers, winter 2015.

9 to 9:10 a.m., MH Kirstyn Pagano Faculty sponsor: Marita Cardinal

Title: The Pagano Method

Abstract: An experiment on the view of Conditioning for Dancers in a gym and home setting to improve dancers' health and fitness. The conditioning programs were designed specifically for individual dancers, based on goals that they sought to accomplish. Nutritious foods were also suggested to supplement the conditioning program.

9:10 to 9:20 a.m., MH Samantha Bredahl LaVine Faculty sponsor: Deborah Jones

Title: Dance Movement Therapy

Abstract: Dance Movement Therapy, or DMT, is a unique form of therapy using movement as a basis to further the emotional, cognitive, physical, and social integration of the individual. The presentation explores what DMT is, the history and development of the therapy, who can benefit, and the training to become a therapist.

9:20 to 9:30 a.m., MH Stephanie Brunelle Faculty sponsor: Amy McDonnell

Title: A Research Paper on Marian Chace

Abstract: A short history of how Marian Chace came to be one of the first dance therapists.

9:30 to 9:40 a.m., MH Jenni Bowker Faculty sponsor: Cynthia Gutierrez-Garner

Title: Where the Wind Goes

Abstract: This dance is about the wind and how it can be beautiful and also how it can manipulate so many different things in nature. It takes you on a journey of where the wind goes.

9:40 to 9:50 a.m., MH **Cy Higashi** *Faculty sponsor:* Darryl Thomas

Title: Journey Once Traveled

Abstract: Journey Once Traveled is an abstract dance that expresses the feeling of travel and adventure individually and as a pack. This journey is traveled in many different ways showing that no matter where you go, you will always have the love and support from your pack. The development of this piece came from watching packs of animals and how strong these packs can be. Watching a pack of wolves and the strength they possess, was eye catching. We developed this idea to a point where the pack is actually its family.

9:50 to 10 a.m., MH

Hayleyann Evers, Anthony Hall, Camille Hobson Lopez, Brittany Hortert, Emma Mochnick, and Ramon Rodriguez

Faculty sponsor: Darryl Thomas

Title: When You Go That Way

Abstract: This dance was created by guest choreographer Lauren Edson. Originally from Boise, Idaho Edson began her training at Ballet Idaho Academy and Westside Dance Academy, Ore. She continued her formal studies at North Carolina School of the Arts and The Juilliard School, under the direction of the late Benjamin Harkarvy. She most recently danced with the highly acclaimed Trey McIntyre Project located in Boise, ID and was featured in several of McIntyre's works. Her past professional experiences include Hubbard Street Dance Chicago, Idaho Dance Theatre and Ballet Idaho.

DEAF STUDIES AND PROFESSIONAL STUDIES

Session title: Topics in American Sign Language, Interpreting, and Mental Health (conducted in ASL- no interpretation) Session chairs: Mike Olivier Location: Education (ED) 217

Presentations

8:30 to 8:50 a.m., ED 217 **Geoffrey Thoma** *Faculty sponsor:* Julia Smith

Title: Rehabilitative Counseling Considerations for Agnosticism

Abstract: Agnosticism is the belief that human reason is incapable of definitively proving the existence or non-existence of god. Though agnostics are one of the fastest growing groups in America they still remain almost entirely unrepresented in government, media, and even scientific research. This lack of representation can present significant barriers to the counseling process, and inhibit multicultural competencies within the helping profession. This presentation identifies the demographics of agnosticism, their associated groups, societal barriers, and discusses agnosticism's cultural views of disability. This information is used to shape counseling tools more specifically geared toward the agnostic community.

8:55 to 9:10 a.m., ED 217

Aymee Narvaez Faculty sponsor: Michael Olivier

Title: Language Acquisition for Deaf/Hard of Hearing

Abstract: Language acquisition among deaf children is a hot topic among deaf educators and linguists. Some believe a mainstream environment allows deaf children to acquire two languages simultaneously, English and American Sign Language (ASL); while others believe a institute is more beneficial for deaf children. Through the published works of linguists, a neuroscientist, and a deaf person; Aymee Narvaez was able to pull together information about language acquisition in children and hypothesizes that deaf children would benefit more from a institute than a mainstream school. This project only touches the surface and could be the start for a bigger study later.

9:15 to 9:35 a.m., ED 217 **Sierra McIver** *Faculty sponsor:* Erin Trine

Title: Translation Analysis: The Pale Blue Dot

Abstract: This presentation will address the thought processes and steps taken during a 10-week translation project. The translation of Carl Sagan's reflections about the Pale Blue Dot photograph will be discussed and previewed. Special considerations will be given to data collection and consumer matching throughout the translation process.

9:40 to 9:55 a.m., ED 217 Elizabeth Holland Faculty sponsor: Vicki Darden

Title: Me, Audist? But I am an Interpreter

Abstract: Audism is not something that only some people do.

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Everyone is an audist, even interpreters. Audism is not something that can be labeled and fit into a neat tiny box. There are different forms of audism, but the fact is, any form of oppression of the deaf is a form of Audism. The first step in decreasing audism, is acknowledging that we are Audists.

10 to 10:15 a.m., ED 217 **Caitlin Masterson** *Faculty sponsor:* Michael Olivier

Title: Battle of the Sexes: Genders Effect on ASL Learners

Abstract: As a student of American Sign Language, I have had the opportunity to take many ASL classes in different levels, and a variety of subjects. Every time it is the same story, I walk into the classroom and see maybe three men in a class of twenty people. I became curious, why is this? Does our gender affect our ability to learn language? That is what I hope to explore: the role of gender in how and why we learn a second language, specifically a visual language such as ASL.

10:20 to 10:35 a.m., ED 217 **Darcie Chin** *Faculty sponsor:* Vicki Darden

Title: Cochlear Implant Impact on the ASL/English Interpreting Field

Abstract: The presentation examines the impact cochlear implants (CIs) have on the ASL/English interpreting profession through previously published research. The research investigates if the use of cochlear implants is changing the demands and roles of interpreters. The researcher examines published data showing if the use of CIs is changing the use of ASL.

10:40 to 10:50 a.m., ED 217 Caitlin Henry Faculty sponsor: Brent Redpath

Title: Unqualified High School ASL Teachers

Abstract: There are more and more high schools offering American Sign Language (ASL) here in the United States. However, there is a pattern with these ASL teachers. Are they qualified to teach ASL? What makes someone qualified or unqualified to teach this language? This is having an impact on high school students as they go to college to continue their education.

10:55 to 11:10 a.m., ED 217 Darcie Chin and Zoey Davis Faculty sponsor: Erin Trine

Title: Performance Interpreting

Abstract: This presentation will describe a detailed process of theatrical interpreting from script to stage, including developing name signs, assigning characters to interpreters, dividing scenes for team purposes, and formulating interpretations. There will also be a discussion comparing and contrasting the different approaches to translating genre texts, and the uniqueness of theatrical interpreting.

11:15 to 11:30 a.m., ED 217

Janelle Butler, Karli Mitchell, and Miranda Featherstone Faculty sponsor: Kim Poage

Title: Disaster Preparedness for Individuals who are Deaf, Hard of Hearing, DeafBlind, Late Deafened, and Their Communities

Abstract: Earthquake, flood, tsunami, tornado, hurricane; How do we meet our ethical responsibility to be prepared as a community to successfully navigate such disasters? The updated 2010 CRC Code of Ethics D.3.b lists Disaster Preparation and Response as a new mandate for counselors. Materials currently available will be reviewed with a focus on preparation for such events and the implementation of needed services. National and local community standards and best practices and how they fit with the ADA as well as areas of further research and resource development needs will be discussed. Case studies will be used for application of learning.

11:35 to 12:05 a.m., ED 217 Brenda Puhlman and Sarah Pettigrew Faculty sponsor: CM Hall

Title: The Adventures of Two SSPs: Seabeck to Oklahoma

Abstract: The DeafBlind community is a diverse group of individuals who enjoy close connections and embrace volunteers. Brenda and Sarah, Juniors in the ASL/English Interpreting program, will recount their experience volunteering as Support Service Providers (SSPs) to the DeafBlind communities of Washington and Oklahoma. These experiences detail the different approaches and paradigms towards working with the DeafBlind community and how this work makes such a large impact.

EARTH AND PHYSICAL SCIENCE

Session title: Case Studies in Geographic Information Science Application Session Chair: Melinda Shimizu

Location: Werner University Center (WUC) Pacific Room

Posters

11:30 a.m. to 1:30 p.m., WUC Pacific Room Karl Amspacher Faculty sponsor: Melinda Shimizu

Title: Examination of Surface Water Nitrate levels and Co-Located Animals in the Willamette Valley, Oregon

Abstract: This poster examines the correlation between surface water nitrate levels (NO3) and farm animals. Nitrate is a naturally occurring substance, however anthropogenic actions such as agriculture run-off and manure can cause higher levels of nitrates, particularly in rural areas, such as those around Monmouth and Western Oregon University. Methods used include examination of surface water close to areas used by four species of farm animals, including domestic sheep (*Ovis aries*), domestic chickens (*Gallus gallus domesticus*), domestic cows (*Bos taurus*), and domestic horses (*Equus ferus caballus*). I expect to find a correlation between animals and nitrate levels in co-located surface water.

11:30 a.m. to 1:30 a.m., WUC Pacific Room Greg McKinney Faculty sponsor: Melinda Shimizu

Title: Spatial Distribution of Computer Labs at Western Oregon University

Abstract: This poster demonstrates the spatial distribution of computers suited for teaching courses which offer their students cutting edge software training, with the purpose being to determine the spatial distribution of computer lab resources

on campus and to answer the question "does the distribution match academic needs?" To answer this question, spatial autocorrelation is utilized to show whether or not the locations of the labs correlate with the locations of classes and/or departments that use them. The results of this analysis could suggest potential improvements to the spatial distribution of WOU's computing resources.

11:30 a.m. to 1:30 a.m., WUC Pacific Room Esteban Quiles Faculty sponsor: Melinda Shimizu

Title: Graphical Information Science in Oregon Higher Education Institutions

Abstract: This project evaluates Western Oregon's University's Geographic Information Science (GIS) minor, by comparing to other higher educational institutions GIS programs in Oregon, both private and public. The criteria for this evaluation included three parts. One, an analysis of the variety, and types of GIS certifications or degrees offered. Two, the total number of courses, and credits required for completion of these GIS programs. Three, estimated GIS program cost of completion, and application requirements. Analysis indicates Western Oregon's GIS minor compares with other Oregon universities credit completion requirements, but lacks variability in course selection and a graduate level certificate option.

11:30 a.m. to 1:30 a.m., WUC Pacific Room Richard Brown

Faculty sponsor: Melinda Shimizu

Title: Alleviating California's Drought: An Analysis of Crop Relocation Using Geospatial Technology

Abstract: This poster examines the possibility of relocating California's agriculture to different areas of the country to help alleviate the ongoing drought conditions experienced by the state. Using geospatial technology, alternate sites were examined for this purpose. Variables such as land use, drought conditions and latitudinal range were considered when trying to determine possible relocation areas. After examining the results, some possible crop relocation areas include middle to lower Missouri, Illinois, Indiana and Ohio as well as upper Arkansas.

11:30 a.m. to 1:30 a.m., WUC Pacific Room Jonathan Bosman Faculty sponsor: Melinda Shimizu

Title: Methodology on Data Point Symbology for Representing Tree Thinning Data

Abstract: Geographic Information Systems (GIS) is a computer based software used for the display and interaction with geographical phenomena, and has the capability to link information data to points, lines, or area with the intent of producing a visual map. Maps have the ability to display both location and attribute data that is associated with a given geographic location. This project, located in the Western Cascades of Oregon within the Crabtree and Quartzville Creek watersheds, looks at the young stand growth regeneration by using plot data collection and investigates the best method for attribute data portrayal using point symbols. 11:30 a.m. to 1:30 a.m., WUC Pacific Room Holly Meler

Faculty sponsor: Melinda Shimizu

Title: Tree Density as a Potential Indicator of Air Quality on WOU Campus

Abstract: This study examines the spatial distribution of conifer and non-conifer trees on the WOU campus. Because both tree types participate in carbon sequestration, they have the potential for improving overall air quality in terms of CO2 concentrations. Using GIS to analyze the spatial distribution and density of these trees, this study is able to predict air quality on campus and identify areas that could potentially benefit from future planting of trees.

Session title: Perspectives in River Restoration Session chairs: Steve Taylor Location: Health and Wellness Center (HWC) 105

Presentations

1 to 1:10 p.m., HWC 105 **Steve Taylor**

Title: Introduction to ES407 Theme Session: "Perspectives in River Restoration"

Abstract: This theme session involves presentation by five WOU Earth Science students enrolled in ES407 Senior Seminar. The focus is on river restoration with case study examples from Oregon. Watersheds are comprised of channel networks and represent one of the most fundamental landscape systems on the Earth's surface. They provide ecological services along riparian corridors that form critical habitat, with salmonid fishes serving as a key indicator of aquatic health in the Pacific Northwest. The historic interplay between human occupation, intensive land management, and fluvial systems has resulted in significant impairment of waterways over the past century. River restoration is the act of improving hydrologic, geomorphic, and ecological processes in a degraded watershed system; and replacing compromised elements therein. This theme session provides an overview of watershed assessment strategies and restoration techniques. Topics include: project design, evaluation, salmonid habitat recovery, fluvial hydrology, spawning gravel maintenance, fish passage, riparian vegetation, water quality and channel modification techniques.

1:15 to 1:35 p.m., HWC 105 **Katie Halvorson** *Faculty sponsor:* Steve Taylor

Title: Watershed Assessment and River Restoration Strategies

Abstract: River restoration is important for degraded watersheds that need habitat modifications to help restore the natural system. Many of these restoration goals operate over time frames that last decades or more. River restoration methodologies include placement of woody debris to increase channel complexity, supply and movement of sediments within the stream, and increased forest cover along the riparian corridor to provide shading and decreased water temperature. Land use also has a large impact on rivers and their natural functions. As such, each watershed has a unique set of restoration priorities that vary according to geologic setting, geomorphic process and land-use history. River restoration is an on-going effort in the Pacific Northwest, the goals of which are to improve salmonid fish populations.

1:40 to 2 p.m., HWC 105 **Dylan Castle** *Faculty sponsor:* Steve Taylor

Title: Salmonid Habitat as a Guiding Principle in River Restoration

Abstract: Restoring salmonid-rearing habitat in river systems is crucial to increasing fish populations in the Pacific Northwest. An estimated 71 percent of healthy aquatic habitat has been degraded in the Puget Sound area, while 42 percent has been compromised across the entire Pacific Northwest. These fluvial habitats are imperative for animal foraging and physiological transformations. Mitigation projects should aim to restore previously existing habitats rather than creating new ones, as artificial habitats often lack natural key processes that are not sustainable over time. Restoration actions include, but are not limited to, breaching of dikes, planting vegetation, removing fill, creating side channels, and restoring floodplain hydrology. Not all salmonid species require the same conditions to thrive. Restoration projects should be designed according to the needs of specific species (e.g. Coho, Chinook, Stealhead) so that one is not harmed at the expense of another. Completed restoration projects need to be monitored to ensure that they are beneficial to the system and achieve the desired outcomes over time.

2:10 to 2:30 p.m., HWC 105 **Ryan Johnson** *Faculty sponsor:* Steve Taylor

Title: Fluvial Hydrology, Fish Passage and Sedimentation

Abstract: Many salmonid species in the Pacific Northwest spend their adult lives in the ocean, and migrate upstream for spawning and rearing. These fish require complex stream elements to accommodate all of their life-stage needs. Channel complexity is generated by sediment transport and various fluvial processes, which in turn are controlled by the hydrologic flow regime. This natural regime includes discharge, gradient, the balance of sedimentation and erosion, and the magnitude and frequency of disturbances (e.g. floods, debris flow, fires). When human activity disrupts the natural fluvial process, by direct or indirect means, it can have major repercussions not just on the channel system, but also on the local biota. For salmonid populations specifically, changes in the type of sediment deposited can make spawning environments inhospitable for salmon eggs. Additionally, barriers in the stream, usually caused by human crossings, can restrict or block salmonid migration outright, further disrupting ecological productivity.

2:35 to 2:55 p.m., HWC 105 Ian McBride Faculty sponsor: Steve Taylor

Title: Riparian Vegetation, Landuse and Habitat Restoration

Abstract: In terms of ecological function in river systems, riparian vegetation, land use and habitat structure are three of the most important factors contributing to success of salmonid fisheries. First and foremost is riparian vegetation or the plant life bordering the stream channel. Riparian vegetation provides a myriad of benefits including cooling and regulation of water temperature, stabilization of banks, and reduced suspended sediment load. Second is land use. A large number of streams have been degraded by livestock grazing too closely to stream banks. Unsustainable grazing practices in close proximity to river channels can degrade riparian vegetation and dissuade regrowth. Healthy riparian vegetation is crucial for waters suitable for fish. The third consideration is sustaining fish habitat within the channel through the recruitment of large woody debris (LWD). The addition of tree fall to a river channel provides crucial features for fish habitat. LWD creates hydraulic complexity by providing low-energy refugia for fish to forage, as well as providing physical shelter from predators. Both of these benefits facilitate anadromous fish migration and creation of fertile spawning habitat.

3 to 3:20 p.m., HWC 105 Esteban Quiles Faculty sponsor: Steve Taylor

Title: Channel Modification and Restoration

Abstract: Previous decades of river restoration projects provide valuable insight on the effectiveness of channel modification techniques for the improvement of salmonid habitat. Artificial structures including constructed weirs and engineered log jams have been observed to generally increase salmonid populations over the short term. Placement of wire gabions and boulder clusters has been documented to recruit and retain high-quality spawning gravels, thus increasing the occurrence of redds. Numerous studies in the Pacific Northwest have documented that the incorporation of large woody debris (LWD) into the channel system increases hydraulic complexity and offsets losses of system function due to historic logging practice. With a 10 to 20 year design life for these engineered structures, their proper application could promote a long-term renewal of self-sustaining river processes.

3:25 to 3:30 p.m., HWC 105 Steve Taylor

Title: Concluding Remarks: "Perspectives in River Restoration"

ENGLISH, WRITING AND LINGUISTICS

Session title: English: Linguistics, Literature, Writing Session chair: Thomas Rand Location: Hamersly Library (HL) 107

Presentations

8:30 to 9:05 a.m., HL 107

Ranjit Kayastha, Aleisha Clark, Jessy Lamb, and Kennen Hembree

Faculty sponsors: John Campbell, Christine Harvey-Horning, Kyeongheui Kim, and Tandy Tillinghast-Voit

Title: The Phi Kappa Phi First-Year Writing Awards

9:05 to 9:25 a.m., HL 107

Brandy Balas, Megan Clark, Brianda Gutierrez, Danielle Hannan, and Taylor Schnell Faculty sponsor: Christine Harvey-Horning

Title: The American Dream Quintet

Abstract: Does the American Dream mean the same thing to everyone? One literature class asked this question from multiple perspectives and found many points of overlap, some differences, and also more questions. This presentation showcases five individuals' definitions of what the American Dream means in contemporary society and why it matters (or not) to Americans. Set against the backdrop of the art of Norman Rockwell, our voices capture America's past and call to its future.

9:25 to 9:35 a.m., HL 107 **Sydney Culpepper** *Faculty sponsor:* Christine Harvey-Horning

Title: The Persisting Prevalence of White Hegemony in Representation of Black Women

Abstract: This paper takes into account the troubled history of race relations in the United States, focusing on black-white relations, and looks at the particular hegemony of white lifestyle and characteristics and its standards of beauty and representation in the media. From Janie Crawford in Zora Neale Hurston's *Their Eyes Were Watching God* (1937) to Tiana in Disney's contemporary adaptation of *The Princess and the Frog*, the paper analyzes how white standards of beauty are still applied to the representation of black women today, and that representation hasn't improved much at all.

9:35 to 9:42 a.m., HL 107

Megan Clark, Elizabeth Lowry, and Bridget Rose Rogers Faculty sponsor: Katherine Schmidt

Title: Myth Files: The Hunt for Writersquatch

Abstract: This digital short follows an eager and determined investigator as she attempts to find the legendary but elusive writer known as Writersquatch. Through her journey, she is able to dispel several writing myths that persist today, which prevent writers from being the best that they can be.

9:42 to 9:49 a.m., HL 107

Jesse Sutter Faculty sponsor: Katherine Schmidt

Title: Excerpt from The Magnum Opus (fiction)

Abstract: This is a story about two people whose lives intertwine in a most peculiar and permanent way. Themes explored include esoteric psychology; the brain in a vat theory; Fourth Way philosophy; man vs. God; man vs. self; and, ultimately, the evolution of man.

9:49 to 9:56 a.m., HL 107 Sarah Celia Funk Faculty sponsor: Katherine Schmidt

Title: Excerpt from The Price of a Gem (fiction)

Abstract: This is an unusual love story of a man and the vineyard that should have been his inheritance. Ernest Diaz has sacrificed everything, even his marriage, to his dream of buying back Fir Hills, the vineyard that used to belong to his family. But when Ernest goes to work at Fir Hills, his plans are destroyed by the realization that he will never be able to afford it. As Ernest struggles with the cruelty of loss, he gains the chance to offer back to his wife what she cherished and lost: himself.

9:56 to 10:05 a.m., HL 107 **Break**

10th Annual Academic Excellence Showcase

10:05 to 10:20 a.m., HL 107 **Chelsea Hunt** *Faculty sponsor:* Uma Shrestha

Title: The Many Ways We Introduce Direct Quotations

Abstract: Quotatives, the verbs we use to introduce direct quotations, come in many different types. The quotatives we use in our daily language are influenced by social factors such as social status. However, many people use a variety of quotatives to express different implications of factuality. The research conducted for this presentation was done via Labov's rapid and anonymous survey method.

10:20 to 10:28 a.m., HL 107 Brandy Balas Faculty sponsor: Joshua Daniels

Title: Poem One in the Style of Emily Dickinson

Abstract: My presentation will present a parallel text in the style of Emily Dickinson. I will then explain the features of her poetry that I found most relevant in creating her style that I attempted to emulate. These features include her word choice, rhythm, rhyme scheme, and theme.

10:28 to 10:36 a.m., HL 107 Bridget Rogers Faculty sponsor: Joshua Daniels

Title: Representations of Jack Kerouac's Big Sur

Abstract: Presentation of a creative parallel text of Jack Kerouac's *Big Sur*, emphasizing major themes of his writing such as music, eastern religion, the supernatural, and drugs.

10:36 to 10:44 a.m., HL 107 Erika Fitzpatrick Faculty sponsor: Joshua Daniels

Title: Admiring Light on a Sunny Day

Abstract: My poem, *Admiring Light on a Sunny Day,* is a parallel poem to Robert Frost's *Stopping by Woods on a Snowy Evening.* After carefully analyzing Frost's poem, I just as carefully constructed my own poem with parallel structure and theme, which is rigorously explored in my analysis.

10:44 to 10:52 a.m., HL 107 **Courtney Haess** *Faculty sponsor:* Joshua Daniels

Title: Representations of Robert Lowell's For the Union Dead

Abstract: Mixed media/photographic representations and analysis of Robert Lowell's poem *For the Union Dead*.

10:52 to 11:07 a.m., HL 107 **Caitlin Arthur** *Faculty sponsor:* Uma Shrestha

Title: A Cool, Awesome, Great Sociolinguistic Analysis of Adjectival Word Choice

Abstract: While the phrase "That's cool!" may roll off your tongue with little thought, the choice to say "cool" instead of any other adjective has numerous social implications. Is that the word you would choose when speaking to an employer? If you were an educator? If you were a student in high school? This study analyzes the adjectival word choices of individuals

of different genders, ages and occupations, in formal and informal social situations.

11:07 to 11:15 a.m., HL 107 Connor Shields Faculty sponsor: Henry Hughes

Title: A Selection of Poems

11:15 to 11:25 a.m., HL 107 **Break**

11:25 to 11:35 a.m., HL 107 Nicolas Evans Faculty sponsor: Carol Harding

Title: Chaucer and Storytelling

Abstract: By examining Geoffrey Chaucer's use of frame narratives and dialogue, we see an underlying justification of the importance of storytelling and an emphasis on the importance of having a diverse range of storytellers. Chaucer also explores the conflicts between authorial intent and the constraints that the audience puts on the author. Storytelling is important to Chaucer as an individual, but it becomes apparent when examining his works that it is his desire to spread his passion to others through his justification of writing from such a diverse range of characters.

11:35 to 11:43 a.m., HL 107 Stephanie Stuckey Faculty sponsor: Henry Hughes

Title: A Selection of Poems

11:43 to 11:58 a.m., HL 107

Daniel Thom Faculty sponsor: David Hargreaves

Title: Do You See What I Mean? An Introduction to Conceptual Metaphors

Abstract: Traditionally metaphor has been considered merely a figurative device, ornamental language used primarily in literature. In this understanding, metaphorical language contrasts with the literal, propositional statements, which comprise most of our daily language. However, since the 1980's, linguists George Lakoff and Mark Johnson have shown that metaphors are not merely literary devices but rather reveal the ways we conceptualize a wide range of experiences. Thus, far from being merely ornamental, metaphorical language is essential for making sense of the world. Metaphors structure the way we think about and experience the world. This presentation will introduce Lakoff and Johnson's conceptual metaphor theory and provide a practical understanding of how we view the world through metaphor.

11:58 a.m. to 12:05 p.m., HL 107 **Gabrielle Boyle** *Faculty sponsor:* Henry Hughes

Title: A Selection of Poems

12:05 to 12:15 p.m., HL 107 **Uma Shrestha**

Title: Awards for Outstanding Students

12:15 to 12:35 p.m., HL 107 Gavin Keulks

Title: Meyer Prize Winning Essay

HEALTH AND EXERCISE SCIENCE

Session title: Health and Exercise Science Symposium Session chairs: Daryl Thomas and Janet Roberts Location: Health and Wellness Center (HWC) 203

Presentations

8:30 to 8:45 a.m., HWC 203 Mary Geanelli Bernardo Faculty sponsor: Kathy Farrell

Title: The Importance of Physical Education in Schools

Abstract: This project was given as a scenario where I acted as a fourth grade teacher at a school whose physical education classes are being taught by a physical education specialist who travels around the district delivering physical education instruction as well as acting as a consultant for the classroom teachers. Unfortunately there have been budget cuts and the school district has decided to eliminate the physical education program. As a teacher who cares for her students and is aware of the importance of physical education, a positional report was created to present to the school board to justify the need, role, and educational worth of elementary physical education.

8:45 to 9 a.m., HWC 203

Linzy Griffin, Shantell Guyton, and Tracy Romero Faculty sponsor: Amy Hammermeister-Jordan

Title: The Effects of Recess on a Child's School Experience

Abstract: Recess has always been a part of a child's school day experience, but as of now the length of time children are spending outside and moving during the school day is decreasing. School administrators have been shifting their focus from ensuring children are moving, to ensuring children are in the classroom learning as much as possible in order to raise test scores. However research shows this strategy may be counterproductive. This decreased amount of playtime could have adverse effects on students. Understanding these effects could allow teachers, administration and policy makers to improve the current strategies they have been utilizing.

9:05 to 9:25 a.m., HWC 203

Keelie Daquilanto and Jennifer Strong Faculty sponsor: Amy Hammermeister-Jordan

Title: Risks of Abuse among Children and Adolescents with Chronic Illnesses

Abstract: Many different studies have proven that children and adolescents with a chronic illness are at a heightened risk for abuse. This may be due to the feelings of frustration, anger, and powerlessness of the direct caregiver, as well as the child, in relation to daily task related situations. In many cases, families with a child suffering from a chronic illness experience more hospital visits, financial struggle, and overall abnormalities in day-to-day function. Prevention of abuse among this population has much to do with the education of caregivers, as well as providing a quality level of support to not only the caregiver, but the child as well.

9:30 to 9:50 a.m., HWC 203 Savannah Phillips, Mackenzie Lafferty, Stephanie Delker, and Elizabeth Perez Faculty sponsor: Emily Vala-Haynes

Title: Tobacco-free WOU

Abstract: This presentation will address tobacco use at Western Oregon University (WOU) through a campaign that promotes a campus wide tobacco-free policy. This initiative will address decision makers on campus and discuss numerous reasons why it would be beneficial for WOU to adopt a tobacco-free policy. While working to influence decision makers throughout the term, statistics were presented regarding campus support and progress of the initiative. In the end the main goal of this program is to eliminate the use of tobacco products on WOU's campus.

9:55 to 10:10 a.m., HWC 203 Savannah Patterson *Faculty sponsor:* Janet Roberts

Title: Her Own Kind of Beauty

Abstract: Have you ever thought about living in today's society that revolves around celebrities and new and upcoming hair and beauty fashion trends? What would happen if you lost your hair due to an autoimmune disorder and suddenly didn't look like everyone else following the trends? Alopecia Areata is an autoimmune disorder that causes hair loss on the scalp and the body. This case study looks at one young female's life living with alopecia; this case study includes the biopsychosocial model as well as current research regarding the relationship between vitamin D and alopecia.

10:15 to 10:30 a.m., HWC 203 Justin Davidson, Shawn Murray, and Jessica Westby Faculty sponsor: Gay Timkin

Title: Fast Times at Talmadge Middle School: Learning to Teach while Being Taught

Abstract: During Winter 2015, PE430 (teaching methods) and PE431 (assessment methods) were conducted at Talmadge Middle School. Along with WOU classmates, we taught over 100 sixth graders in school-based physical education (yes, all at one time). Sixth graders learned content and participated in activities specifically focused on fitness and nutrition concepts such as cardiovascular fitness, muscular strength / endurance, principles of overload, hydration, sugar and healthy eating habits. We 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.

10:35 to 10:50 a.m., HWC 203 Leander Largoza Faculty sponsor: Tom Kelly

Title: Intermediate Strength and Lean Mass Program

Abstract: The Intermediate Strength and Lean Mass Program is a client program tailored for a mid-level college lifter. The protocol of the program focused on hitting each muscle group 2x per week, which was achieved through the given split: Monday – lower body, Tuesday – upper body, Thursday – lower body, and Friday – upper body (rest days – Wednesday, Saturday, and Sunday). Primary focus was placed on compound lifts (barbell back squat, flat barbell bench press and the deadlift) and increasing the poundage's with the aid of accessory work. The combination of optimal training frequency along with flexible dieting resulted in continued success.

10:55 to 11:10 a.m., HWC 203 Marissa Minato Faculty sponsor: Tom Kelly

Title: A Diet and Exercise Plan for a Physically Active Female College Student

Abstract: Presentation on an exercise and nutrition plan for a 23-year-old college age female. The client was a 23-year-old female who was a currently physically active rugby player. Her main objectives involved increasing her strength and cardiovascular fitness. Several questionnaires and a variety of pre-assessments such as body composition, fat percentage, VO2 max, 1RM strength, and cardiovascular endurance took place prior to the creation of the workout and nutrition plan. At the end of testing, a realistic and adjustable workout plan and nutrition guideline was made for the client.

11:15 to 11:30 a.m., HWC 203 Michael Parker Faculty sponsor: Tom Kelly

Title: Exercise Testing and Prescription Program with the Implementation of Physical Therapy Based Rehabilitation

Abstract: A three-month program based on exercise testing and prescription guidelines that involved physical therapy based rehabilitation. The program focused on a client with a lower extremity disability. Regular exercise was modified by implementing physical therapy rehabilitation techniques. At the end of the three months the client showed progress in range of motion and strength in the right knee and ankle.

11:30 to 11:45 a.m., HWC 203 Hanelle Crites Faculty sponsor: Siobhan Maty

Title: World Poverty

Abstract: This presentation relays general facts and statistics regarding poverty in developing countries, why it's related to public health, and to give the general public a more wholesome understanding of what destitute living is truly like.

1:15 to 1:30 a.m., HWC 203

Tracy Romero and Kellie Woodward *Faculty sponsor:* Siobhan Maty

Title: The Effects of Extra Recess on 4th Grade Elementary School Children's Academic Achievement

Abstract: Elementary school classes have gotten longer and physical activity time, by physical education (P.E) or recess, has gotten shorter. These schools are increasing sit-down-classroom times in order to improve state testing scores, but is it really helping? This presentation provides background information on the topic and describes our proposed study that will use an experimental design to investigate how recess affects a child's academic achievement among public elementary school students in Oregon. The intervention group will receive extra recess time and the control group will get normal recess time. Results will provide statewide school comparisons and identify urban/rural differences.

1:35 to 1:50 p.m., HWC 203 Sydney Blankinship Faculty sponsor: Siobhan Maty

Title: Texting and Driving

Abstract: This presentation focuses on a rising safety problem that comes with our technology-obsessed generation: texting and driving. Texting and driving has quickly become one of the biggest reasons for vehicular accidents, injuries and even death. This presentation examines why distracted driving is dangerous and what is being done to prevent it.

1:55 to 2:20 p.m., HWC 203 Rene Dionne, Nic Cooley, and Nicole Kem Faculty sponsor: Doris Cancel-Tirado

Title: Considerations for an Evaluation of Big Brother Big Sister Mentorship Program

Abstract: The Big Brothers Big Sisters (BBBS) mentorship program focuses on matching at-risk youth with appropriate adult mentors. Evaluation plans should focus on screening, training, and matching processes to determine whether the program is operating efficiently and effectively. A research team should spend time collecting information from both mentors and mentees at BBBS affiliates. Surveys about screening and training should be administered to mentors. Focus groups for mentees to assess their feelings about their matches would be the most affective way to evaluate effective matches. Data from the surveys and focus groups will need to be analyzed for common patterns. At the end of the analysis, recommendations will be made accordingly to the BBBS Columbia Northwest affiliate in order to improve their program.

2:25 to 2:40 p.m., HWC 203 Ted Kendros Faculty sponsor: Janet Roberts

Title: Open Heart Surgery as a Risk Factor for Cognitive Decline

Abstract: Dementia and Alzheimer's disease (AD) are neurological degenerative disorders affecting millions of people, but much remains unknown regarding these fascinating yet debilitating cognitive conditions. With the advent of the aging baby boomer generation and the prevalence of memory and cognition disorders in the U.S., more research is needed in order to provide essential care for this growing population. One question that warrants attention is the apparent correlation between open-heart surgery and cognitive disorders such as dementia and AD. To put faces behind the research, a case study is presented which brings to life a mother's personal journey with dementia.

2:45 to 3 p.m., HWC 203 Jamie Kahn and Tyler Crawford Faculty sponsor: Brian Caster

Title: Gait Analysis: Post-Stroke Gait versus Non-Impaired Gait

Abstract: Stroke is the leading cause of long-term disability in the United States. Improving walking ability is often the primary goal for post-stroke individuals. In the following analyses, post-stroke and non-impaired stroke individuals participated in gait phase studies: phase timing analysis, velocity and acceleration profiles, and video gait kinematic analysis. This presentation will highlight similarities and differences evaluated in the gait cycle of a post-stroke individual and a healthy, non-impaired individual. Results from the various analyses suggest post-stroke individuals often have slow walking speeds, decreased ability to accelerate, and decreased joint range of motion while walking.

3 to 3:15 p.m., HWC 203 **Tonya Bamboe** *Faculty sponsor:* Warren Allen

Title: What Occurs within the Body; Rare Autoimmune Disorder: Periodic Fever, Aphthous Stomatitis, Pharyngitis, Adenitis

Abstract: The following review categorizes periodic fever, aphthous stomatitis, pharyngitis, adenitis (PFAPA) in recurrent fever syndromes; however, its relationship to rheumatoid arthritis and treatment are explored. After the "discovery" by Marshall et al. (1987) the in-contagious syndrome was diagnosed as a common recurring fever in children yet, was not discovered in adults until 2008 when the first case arose. Since 2008, there have been 34 adult American diagnoses (one case found at WOU) living with the economic and social implications of the physical disorder. The following presentation will regard the disease origins, symptoms, repercussions, diagnosis difficulty, and treatment options of PFAPA.

3:20 to 3:35 p.m., HWC 203 Jake Reynolds

Faculty sponsor: Tom Kelly

Title: An Upper Body Strength Program for a College Age Client

Abstract: Presentation on the process of exercise testing and prescription for a client who desires to gain upper body strength. Subjects covered: heath forms, pre assessment risk stratification, goal establishment, assessment, programming, physiological justification, and evaluation. Specific detail will be given about each step of the proper training progression. Areas covered will help potential physical trainers gain knowledge of the process and allow the client reach their goal safely and effectively.

3:35 to 3:50 p.m., HWC 203 **Dylan Simkins** *Faculty sponsor:* Tom Kelly

Title: A Ten Week Strength Conditioning and Diet Program for a College Aged Female

Abstract: Presentation of a 10-week progressive exercise program involving strength and cardiovascular training of a college aged female client. Prepared with input from the client on short and long-term goals. Discussion of the research based evidence and metabolic calculations involved in the development of the program. Follow-up on specific progression she has made in both diet and physical fitness.

3:50 to 4:05 p.m., HWC 203 Katie Leino Faculty sponsor: Tom Kelly

Title: Evaluating the Performance Claims of Sodium Bicarbonate

Abstract: Evaluation of research studies regarding performance claims made concerning the use of Sodium Bicarbonate as a method of improving exercise performance by reducing or delaying fatigue. Evaluation of the research reviewed showed sodium bicarbonate could have a slight positive effect on performance of high intensity exercise lasting between one and 10 minutes with an average performance increase of 1 to 2 percent.

4:10 to 4:20 p.m., HWC 203 **Kyle Nielson** *Faculty sponsor:* Tom Kelly

Title: Assessing and Prescribing a Fitness Program for a College Aged Client

Abstract: A presentation of goals and concepts used in developing a comprehensive training program for a college aged student. Discussion of the tools (stress tests, graded exercise tests, and body composition) used in the pre-assessment of baseline health and fitness levels and a discussion of why they were chosen. Also covered will be how goals were constructed and assessed. Finally, a self-evaluation what could have been changed to improve the program.

Session title: Health and Exercise Science Poster Session Session chairs: Daryl Thomas and Janet Roberts Location: Werner University Center (WUC) Pacific Room

Posters

9 to 11 a.m., WUC Pacific Room Christina Baurer and Nic Cooley Faculty sponsor: Siobhan Maty

Title: Prolonging the Benefits of Cognitive Behavioral Therapy for Adolescents at Risk for Major Depression

Abstract: This presentation discusses a proposed study to evaluate the effectiveness of cognitive behavior therapy (CBT) as a tool to treat depression in adolescents. The study design focuses on adolescents ages 13 to 19 who score above 30 on the Beck Depression Inventory. Presenters will discuss the importance of group sessions as they relate to CBT and the benefits of providing continued support after group sessions.

9 to 11 a.m., WUC Pacific Room Matt Wines and Dominik Heidemeyer Faculty sponsor: Brian Caster

Title: Barefoot Running—A Closer Look at the Biomechanical Differences between the Forefoot and Rearfoot Strike

Abstract: The project looked at the biomechanical difference between a forefoot strike running gait and a rearfoot strike running gait. A forefoot strike is often seen in barefoot runners while rearfoot striking is seen in traditional running footwear with heel cushioning. A literature review was conducted to compare both types. A phase timing analysis, velocity and acceleration assessment, joint angle measurements and motion tracking analysis was performed using Kinovia software. It seems that there are biomechanical advantages to running with a forefoot strike but appropriate transition to the program is crucial to avoid injury.

9 to 11 a.m., WUC Pacific Room Kenzie Smith and Caleb Falck Faculty sponsor: Brian Caster

Title: Biomechanics of the Olympic Snatch Lift

Abstract: The Snatch is a complex lift to which many biomechanical concepts apply, such as power, work, and friction. These concepts will be discussed, demonstrating why this is one of the most challenging lifts for an athlete to master. The Olympic Snatch will be compared to the Power Snatch. Although similar in execution, the type of snatch performed should be determined by the training needs for athletes. A breakdown of each phase will be provided, and phase differences between the lifts analyzed. Recommendations will be given in order to help individuals determine which lift best fits their performance needs.

HISTORY

Session title: History Senior Seminar Presentations Session Chair: John L. Rector Location: Natural Sciences (NS) 103

Presentations

9 to 9:15 a.m., NS 103 **Jennifer Roberts** *Faculty sponsor:* Patricia Goldsworthy-Bishop

Title: French vs. France: The Vichy Regime Attempts to Save the Empire

Abstract: By creating a regional analysis of Vichy policy and its interpretations, the impact of the Vichy regime in French Indochina, West, and North Africa created areas of local nationalism that promoted independence.

9:20 to 9:35 a.m., NS 103 Brian D. Reese Faculty sponsor: John L. Rector

Title: Forgotten Bravery: The San Patricio Battalion and the Irish Experience

Abstract: The San Patricio Battalion was a group of Irish immigrants who defected from the United States Army and went to fight for the Mexican Army during the Mexican-American War. I will discuss the reasons and motivations involved in the men's defection, which include nativism and the large component of anti-Catholicism that was largely present and practiced in the U.S. during that period and beyond. Sources that were used to understand the Irish history and heritage of the men, those that discuss nativism, and the progression of works that gradually recognized the narrative of the San Patricios will be analyzed.

9:40 to 9:55 a.m., NS 103 Matthew Cahill Faculty sponsor: David Doellinger

Title: Silencing Lord Haw-Haw

Abstract: On January 3, 1946, William Joyce, better known to W. W. II England as Lord Haw-Haw, became the last man to be hanged for high treason in Great Britain. American born and a naturalized Irish citizen, Joyce was convicted in a British court of aiding Nazi Germany as a radio propaganda broadcaster from 1940 to 1945. Although legally never a British citizen, and having become a naturalized German in 1940, Joyce was still determined to have been under British jurisdiction. This paper explores the circumstances of his actions and execution.

10 to 10:15 a.m., NS 103 **Sarah Johnson** *Faculty sponsor:* Patricia Goldsworthy-Bishop

Title: "...and still I remained that Kabyle woman." Alienation and Women's Education in 19th Century French Algeria and Morocco

Abstract: A study of how Women's education in French

controlled Algeria caused alienation from both settler and indigenous societies.

10:20 to 10:35 a.m., NS 103 **Rebecca Grizzle** *Faculty sponsor:* John L. Rector

Title: The Zoot Suit Riots and the Role of the Zoot Suit in Chicano Culture

Abstract: This presentation will examine the role of the iconic zoot suit in Chicano culture during the 1940's and the role the fashion played in the violent Zoot Suit Riots that occurred in Los Angeles in June of 1943. It also examines the prejudices that were facing the Mexican-American community at that time and the media coverage of the riots. Understanding the different factors that led to the riots is key to understanding the relationships between Anglos and Mexican Americans in World War II Los Angeles.

10:40 to 10:55 a.m., NS 103 **Dominic W. Annen** *Faculty sponsor:* Patricia Goldsworthy-Bishop

Title: The Tricolor and the Union Jack at Sea: How Napoleon's Navy Failed and Sealed his Fate

Abstract: Napoleon's accomplishments with his army are well known and respected. On the other hand, his navy was not so lucky. Many failings brought down this otherwise capable and dangerous force. This presentation explores those failings, ranging from political to military problems. Two major battles are also analyzed and given a narrative, so as to give context to the examination and provide a more interesting story.

11 to 11:15 a.m., NS 103 Gregory Baker Faculty sponsor: Elizabeth Swedo

Title: Convivencia: Manipulating the Medieval Past

Abstract: This paper examines the idea of *la convivencia* - a historiographical term which refers to the complex relationships between Christian, Jewish, and Muslim communities coexisting in the medieval Iberian Peninsula - and explores its popularity as a historical narrative in the recent past compared to previous conceptions of Spanish history. Analyzing its relevance to various political agendas both past and present, this paper argues that questions of religious tolerance and identity that lie at the heart of *la convivencia* have been manipulated since the medieval period itself to suit various political interests throughout history.

11:20 to 11:35 a.m., NS 103 Jordan Sterling Faculty sponsor: Bob Reinhardt

Title: Social Implications of the Eruption of Mt. St. Helens

Abstract: This paper examines the social impacts of the eruption of Mount Saint Helens. By moving away from the blast zone of the mountain and focusing on the effects on society. The major topics that will be looked at are the eruptions effects on agriculture, shipping, imports, and the long term health effects that the eruption may have caused.

11:40 to 11:55 a.m., NS 103 **Tyler Garries** *Faculty sponsor:* Elizabeth Swedo

Title: Henry IV: Legacy of Decline

Abstract: The relationship between the papacy and the Holy Roman Empire was important to the stability and success of both institutions. During Henry IV's reign this relationship faltered as imperial power waned as a result of poor leadership. Using the lack of imperial power to their advantage, the papacy broke completely from imperial control and all subsequent attempts to reassert control over the papacy by Henry IV only led to further deterioration in their relationship.

1 to 1:15 p.m., NS 103 Gonzalo DeLuna Faculty sponsor: Bob Reinhardt

Title: More than Machines: Cattle and Human Relationships in 17th and 18th Century Colonial America

Abstract: Even in spite of larger, overarching philosophies that all non-human animals were nothing more than machines, the farmers in 17th and 18th century Early America developed strong emotional attachments to the souls they spent countless hours with; at times more time was spent with them than with their families. These people saw cattle as vital to the environment around them, and whenever they didn't see cattle, they pictured how much cattle would enjoy it. These farmers were interested in the cattle's well being, constantly concerned with their health and happiness. It became plainly obvious that these cattle were important to humans for many reasons, whether economically, as a food source, and as a companion. This naturally developed into a personal connection between farmer and cattle, to the point where the farmers showed that cattle were far more than just for food and money. They were seen as a part of the family.

1:20 to 1:35 p.m., NS 103 Caitlin Tolleson Faculty sponsor: Elizabeth Swedo

Title: Pestilence and Progress: The Lives of Medieval Women in the Aftermath of the Black Death

Abstract: In July of 1348 a great pestilence swept through the streets of London. It accounted for the deaths of millions of individuals, and took two thirds of the souls who lived and worked all over the European continent. This was the Black Death or Plague, and unbeknownst to medieval society, it changed the face of Europe forever. This paper discusses medieval family, economy, and society; and serves to analyze English women's lives directly before and after the Black Death to discern what socioeconomic changes and opportunities were presented to them in the aftermath of the Plague.

1:40 to 1:55 p.m., NS 103 Konner Monk Faculty sponsor: John L. Rector

Title: Internal Enemies or American Citizens? Causes Leading Towards the Creation of the Japanese-American Internment Camps

Abstract: What caused the Japanese-American Internment Camps? While people believe the bombing of Pearl Harbor was the sole reason behind Executive Order 9066 which forcibly relocating 120,000 Japanese-Americans to internment camps, there are more social factors, which led to the infringement of their citizenship. The order was supposedly made for national security reasons, yet there were no German-American or Italian-American internment camps. Were these Japanese-Americans internal enemies, or simply citizens of America?

2 to 2:15 p.m., NS 103 William Baumann Faculty sponsor: Patricia Goldsworthy-Bishop

Title: Jews and the French Revolution

2:20 to 2:35 p.m., NS 103 **Kendall Holcomb** *Faculty sponsor:* Elizabeth Swedo

Title: Pulling the Strings: The Influential Power of Women during the Viking Age

Abstract: This paper covers Viking women from maidenhood to marriage, as well as negotiations, marriage rituals, and family. It looks at women's life stages including divorce and wid-owhood, and how these women influenced men and society.

2:40 to 2:55 p.m., NS 103 Louis Kerner Faculty sponsor: David Doellinger

Title: Nationalism, the Holocaust, and Israel: A Tale of Jewish Resistance

HONORS GENERAL SCIENCE

Session title: Energy Resources and Public Communication Session chairs: Philip Wade and Arlene Courtney Location: Natural Sciences (NS) 101

Presentations

8 to 8:15 a.m., NS 101 **Stephanie Diaz, Julie Postma, and Sofia LeVernois** *Faculty sponsor:* Philip Wade and Arlene Courtney

Title: Energy of the Future?

Abstract: There is no doubt that we are in an energy crisis. The current reliance on fossil fuels and other non-renewable energy sources is what has spiraled the world into an energy crisis. As this crisis continues, society has adapted and become more environmentally conscious as a result. The sun is the original source of energy for the earth, so why not rely on the original source? Using solar energy as a resource not only protects the environment, but will save consumers money over fossil fuels. From the sun powering a tiny solar car to large buildings, this documentary is one that will inform and demonstrate why switching over to solar energy will not only benefit the environment, but also the pockets of every day energy consumers.

8:15 to 8:30 a.m., NS 101

Katie Nance, Sarah Lundquist, and Julia Grabhorn *Faculty sponsor:* Philip Wade and Arlene Courtney

Title: There Must Be Something in the Water

Abstract: In this video, researchers explored the technology of hydropower. Hydroelectricity is a renewable power source, which harnesses the energy of moving water from melted snow and rainfall, streams, rivers, and/or dams. It serves as a promising alternative to environmentally harmful energy sources, such as fossil fuels. The video examined several questions regarding the science of hydroelectricity, the history

behind it, how this energy source is used today, and the drawbacks and benefits of hydropower. The researchers used an interactive video format to answer these questions and convey pertinent information regarding hydroelectricity. In addition to creating the video, researchers used a renewable energy science kit to build models of several innovations, which utilize hydroelectric energy. Such designs included a simple water wheel and a water wheel with a generator, both of which were filmed and incorporated into the video. The overall goal of this project was to inform viewers of an important renewable energy source, along with the ways in which it can be used safely and responsibly.

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

Laura White, Sydney Culpepper, and Kennedy Stram Faculty sponsor: Philip Wade and Arlene Courtney

Title: Batteries: (Em)powering the Future

Abstract: In 2005, the money generated from the battery industry was approximately \$48 billion. Ten years later, that number has increased as our society continues to rely on battery power for much of our daily lives, ranging from car engines to children's toys. This video explores two kinds of batteries and their energy output and efficiency: wet cell and environmental. The team compared the commonly used wet cell batteries to environmental batteries by using kits to make environmental batteries out of potatoes, oranges, and grapefruits. The team measured energy output and compared it to the wet cell battery and a D-Volt battery, which is dry cell. Finally, the team examined ways society could expand their use of environmental batteries to improve sustainability and reduce waste.

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

Aleisha Douthitt, McKenzie Stepper, and Samantha Gallagher Faculty sponsor: Philip Wade and Arlene Courtney

Title: Powering Up on Wind

Abstract: There are many types of energy used across the globe today; one such energy source that is often overlooked is wind power. Wind power is made from airflow and is collected by wind turbines that are placed in especially windy areas. These machines take the wind or air power and use it to create energy. The power of wind has been used for centuries to propel ships across water, and is now being used to create electricity using a clean and renewable energy source. This documentary examines the mechanics and functions of wind power in our world today. How wind power works, how it began, and how it is now being collected and distributed are all topics that will be discussed. Furthermore, this video presents the current debate regarding the benefits and limitations of wind power from economic and environmental standpoints.

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

Alissa McAlpine, Patricia (Tricia) Desrosiers, and Rachel Gordon

Faculty sponsor: Philip Wade and Arlene Courtney

Title: Fuel Cells: A Combined Effort

Abstract: With the recent increase in research regarding clean energy production, much attention has been paid to methods that produce little to no detrimental emissions. One of the leading theoretical models of clean energy production is the use of fuel cell technology. Hydrogen fuel cells operate by separating the hydrogen and oxygen atoms within a water molecule, which produces energy in the form of electricity. In the process, the hydrogen and oxygen recombine and produce water as the only emission. This video documentary explores the history and science of fuel cell technology, as well as its applications in the modern world. Both hydrogen fuel cells and biofuel cells are explored in terms of their potential benefits and consequences. The video concludes with an analysis of the efficiency of fuel cell technology and an examination of its possible uses and impacts in the future.

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

Erin Freeman, Elaina Glasscock, and Sarah Cotter Faculty sponsor: Philip Wade and Arlene Courtney

Title: Photovoltaic Cells, an Application

Abstract: In the process of finding possible solutions to the implications of increasing energy consumption and the negative environmental impacts of fossil fuels, humans can look to the sky to our oldest companion and greatest source of energy, the sun. This documentary examines the science, applications, and shortcomings of using solar power to reduce the need for fossil fuels. Through narrative, image, and a model of a photovoltaic automotive, the benefits, drawbacks, and challenges of solar power are discussed in an academically creative manner.

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

Leah Fechter and Katarina Smith Faculty sponsor: Philip Wade and Arlene Courtney

Title: Exploring Biofuels: Ethanol Production and Peanut Energy

Abstract: This documentary video investigates the production and combustion of ethanol. Specifically, it focuses on corn-based ethanol, since it is the most used liquid biofuel in the U.S. It also includes the process of extracting energy from various types of nuts. The history behind biofuel use and the scientific concepts relating to the process of fermentation and ethanol extraction are explored. This video also addresses current applications of ethanol based biofuel use in the U.S., the associated hazards, and the economic impacts of these biofuels. Lastly, it includes a short film clip showing a live example of obtaining energy from ethanol and peanuts. This documentary provides viewers with a basic understanding of the biofuel production process along with the pros and cons of using it.

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

Howard Passmore and Daniel Thom Faculty sponsor: Philip Wade and Arlene Courtney

Title: Fuel Cells: The Future of Sustainable Energy?

Abstract: With the rapid development of technology over the last century, there are more viable energy sources available than at any other point in history. Currently, the vast majority of this energy comes from oil, coal, and gas, but these fossil fuels are detrimental to the environment long term. Thus, in the pursuit of sustainable energy, many have recently turned to the hydrogen fuel cell: a technology that uses hydrogen to generate clean energy, emitting water vapor back into the environment. While a common use for fuel cells is in cars, hydrogen fuel cells have applications in multiple domains and are used to power industrial complexes, provide power on spacecraft, and even generate backup power for homes. Featuring Dr. Alexandre Yokochi, an OSU engineering professor and pioneer in sustainable energy research, this documentary explores the nature of fuel cell technology and its growing applications in the world today.

MATHEMATICS

Session title: Mathematics Senior Project Presentations Session Chair: Cheryl Beaver Location: Math and Nursing Building (MNB) 104

Presentations

8:30 to 8:45 a.m., MNB 104 Camarie Campfield Faculty sponsor: Matthew Nabity

Title: Portfolio Optimization: A Modeling Perspective

Abstract: Investing is critical in the business world and is an avenue to make profit for many. Making the decisions of what to invest in involves intricate mathematics in order to reduce risk. We investigate portfolio optimization, which is a branch of economic and financial modeling that typically has the goal of maximizing an investment's expected return. We explore a linear programming approach to a decision model for a first time investor. We then compare our results to the expectation and compute different outcomes based on adjusting our models used for calculating rates of return and failure rates in order to best capture reality.

8:50 to 9:05 a.m., MNB 104 Andy Fry Faculty sponsor: Breeann Flesch

Title: Playing with Abelian Sandpiles

Abstract: Imagine yourself on a beach, playing in the sand. You begin to make a sandpile by adding handfuls of sand. Now you consider dropping another grain of sand onto the pile but you don't know what will happen. It may cause nothing to happen or it may cause the entire pile to collapse in a massive avalanche. This is the idea behind the Abelian sandpile model. We measure the sizes of these avalanches and build what is called the avalanche polynomial. This topic is based on graph theory and enumerative combinatorics.

9:10 to 9:25 a.m., MNB 104 Amanda Evola Faculty sponsor: Breeann Flesch

Title: Relating Properties of Symmetry to Group Theory

Abstract: To get a taste of the fundamentals of group theory, we will first investigate the connections between geometry and group theory. The focus will be on groups of symmetries of regular polygons, specifically a square, while targeting the common core 8th grade standard on reflections, rotations, and symmetries. Finally, we will distinguish the connections between algebra and geometry in regards to symmetrical movements of regular polygons through the properties of group theory.

9:30 to 9:45 a.m., MNB 104 Beth Struxness Faculty sponsor: Breeann Flesch

Title: List Coloring

Abstract: Though some may be familiar with the topic of coloring from graph theory, few may be familiar with list coloring. List coloring is a generalization of coloring, where each vertex is assigned a list of available colors. In this talk, we will discuss the similarities and differences between coloring and list coloring.

9:50 to 10:05 a.m., MNB 104 **Kyle Peterson** *Faculty sponsor:* Cheryl Beaver

Title: Pell's Equation and Continued Fractions

Abstract: Pell's equation is the famous equation $dx^2+1=y^2$. We will use the continued fraction representation of the irrational number to find solutions to this famous equation when d is square-free.

10:10 to 10:25 a.m., MNB 104

Chris Hartman *Faculty sponsor:* Cheryl Beaver

Title: Trapezoidal Numbers

Abstract: Trapezoidal numbers are those, which can be written as a sum of consecutive positive integers where the smallest number must be at least two. We will look at the mathematics behind trapezoidal numbers and how to find all such representations. We will give a clever construction, which shows how each representation corresponds to an odd divisor of the number.

10:30 to 10:45 a.m., MNB 104

Logan Emonds Faculty sponsor: Cheryl Beaver

Title: Race to the Origin

Abstract: Race to the Origin is a two-player game where players take turns moving from a coordinate in the first quadrant toward the origin according to a specific set of rules. The first player to the origin wins. This is a variant of the game NIM. We will discuss the rules of play and give winning strategies. Learn how to beat your friends every time you play!

10:50 to 11:05 a.m., MNB 104 Alvaro Francisco Manuel Faculty sponsor: Cheryl Beaver

Title: Shooting Pool

Abstract: Many people are familiar with the game of Billiards, commonly known as Pool. We will consider a simple version of this game consisting of just the cue ball, cue stick, and table. The ball is shot at a 45 degree angle from the lower left hand corner. In this talk, we will find a general formula for a generic size table that gives us the number of bounces it takes before the ball lands in a corner pocket. Also, we will find a formula for predicting which pocket it will go into.

11:10 to 11:25 a.m., MNB 104 Nicole Welch Faculty sponsor: Cheryl Beaver

Title: Deck Manipulation Through Perfect Shuffles

Abstract: Perfect shuffles on a deck of cards perfectly interleave the cards. Out-shuffles leave the top and bottom card in the same positions, while in-shuffles do not. When in and out shuffles are combined, a card can be moved from any place in the deck to any other position the shuffler desires. This presentation will explore the algorithm that makes this possible.

10th Annual Academic Excellence Showcase

11:30 to 11:45 a.m., MNB 104 **Christina Moorhead** *Faculty sponsor:* Cheryl Beaver

Title: Insolvable Configurations of Peg Solitaire

Abstract: Peg solitaire is a board game that has been played and studied for many years. Examination of the game offers an opportunity to explore a practical application of group theory. Through the use of the Klein Four Group, the insolvability of different board configurations will be examined. We will also explore variations of the game using alternate rules in order to fully understand the game of peg solitaire.

Session title: Cryptology Posters Session Chair: Michael Ward Location: Werner University Center (WUC) Pacific Room

Posters

11:30 a.m. to 1:30 p.m., WUC Pacific Room Maddie Bode Faculty sponsor: Cheryl Beaver

Title: Cryptography in WWII: Germany

Abstract: My presentation is about the impact that cryptography had in the Second World War. I will focus on the work done at Bletchley Park and Alan Turing's work there and after the war. In my presentation I will give some background on Turing and Bletchley Park, talk about the tools used by Turing and his team in breaking Enigma, the impact that breaking Enigma had on the war, as well as what Turing did after the war and his death.

11:30 a.m. to 1:30 p.m., WUC Pacific Room **Khorben Boyer and Noë Dotson** *Faculty sponsor:* Cheryl Beaver

Title: Quantum Cryptology

Abstract: Quantum computing is a new and fundamentally different field of computation that utilizes the strange but well understood properties of quantum mechanical systems to enable implementation of new procedures and systems which have consequences for the field of modern cryptology. In particular, the new kinds of computational structures and algorithms offered by the field of quantum computing may well serve to make some aspects of cryptology such as certain domains of cryptography defunct while spurring its development in other areas both with respect to various mathematical research fields and exotic hardware systems for ensuring secure communication in a post-quantum world.

11:30 a.m. to 1:30 p.m., WUC Pacific Room Camarie Campfield Faculty sponsor: Cheryl Beaver

Title: History of the NSA

Abstract: The National Security Agency was founded in 1952 and works to protect our government's secrets while gaining intelligence information on foreign countries. Learn about this agency's history and the impact they have had on our country, or at least the history that they have allowed to be documented. 11:30 a.m. to 1:30 p.m., WUC Pacific Room Anthony Dominquez and Andy Fry Faculty sponsor: Cheryl Beaver

Title: Zero-Knowledge Proofs

Abstract: In this presentation we will look at the basic ideas behind zero-knowledge proofs and we will examine a modern day application. A zero-knowledge proof is proving to someone that you know a secret without telling them the secret. Internet passwords are one instance of a zero-knowledge proof. Without ever sending a password, one may be asked a series of questions to prove ones identity.

11:30 a.m. to 1:30 p.m., WUC Pacific Room Amanda Hatch Faculty sponsor: Cheryl Beaver

Title: Coding the Enigma Machine

Abstract: The Enigma machine was a cipher machine used by the Germans during WWII to stump the Allied forces and prevent their communications from being read by unwanted parties. It used a complicated system of rotors, reflectors, and rings to encrypt text. In this project, I wrote the code using the Java programming language to simulate the Wehrmaght Enigma machine so that its inner workings could be understood better. This is demonstrated through a run through of the program on an Android device.

11:30 a.m. to 1:30 p.m., WUC Pacific Room Mackenzie Koll and Ty Phillips Faculty sponsor: Cheryl Beaver

Title: Secret Sharing

Abstract: Secret sharing is a way to distribute a secret among a group of people. It can also be used for generating an electronic signature. The poster explains what secret sharing is, how it is used, etc. It also gives some examples of how it works.

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

Kyle Peterson

Faculty sponsor: Cheryl Beaver

Title: WWI and the ADFGX Cipher

Abstract: The German's used many ways to communicate in WWI, but the most famous was the ADFGX Cipher. This cipher used 2 different well-known ciphers in a complicated manner known as Superencipherment. Breaking this cipher lead to the United States and its allies winning WWI!

11:30 a.m. to 1:30 p.m., WUC Pacific Room Joy Scott and Charles McDonald Faculty sponsor: Cheryl Beaver

Title: The Japanese PURPLE MACHINE

Abstract: This presentation explores the history and workings of the Japanese PURPLE Machine. It came into use a couple years before the U.S. joined WWII and continued to be used throughout the war. During war, having the ability to eavesdrop on the enemy's communication becomes paramount and that is why so much work was put into figuring this machine out. It is the opinion of many people that the knowledge obtained by the U.S. cryptologists about PURPLE shortened the war by one or two years.

11:30 a.m. to 1:30 p.m., WUC Pacific Room **Robert Siewell** *Faculty sponsor:* Cheryl Beaver

Title: Zodiac

Abstract: A look at the codes sent by the infamous Zodiac Killer to newspapers and the stories behind them, along with the different possible meanings.

Session title: Pi Mu Epsilon Induction and Speaker Session Chair: Matthew Nabity Location: Ackerman (ACK) 141

Presentations

2 to 2:15 p.m., ACK 141 Andy Fry President, Oregon Delta Chapter, Pi Mu Epsilon

Title: Pi Mu Epsilon Induction Ceremony

2:15 to 3 p.m., ACK 141 Speaker: Kendall Rosales Western Oregon University

Title: The Kakeya Needle Problem

Abstract: In 1917, Japanese mathematician Soichi Kakeya posed the following question. "In the class of figures in which a segment of length 1 can be turned through 360°, remaining always within the figure, which one has the smallest area?" In other words, if a unit needle is dipped in ink and placed in the plane, what is the least area inked out while maneuvering the needle so as to exchange its endpoints? In 1928, Russian mathematician A.S. Besicovitch answered the question with a surprising result. In this talk, we will explore sets in which the needle can be reversed, also known as Kakeya sets, as well as develop the figure needed for Besicovitch's solution.

MUSIC

Session title: Concerto/Aria Audition Winners 2015 Session Chair: James I. Nail Location: Smith Hall (SH) 121

Performances

11 a.m., SH 121

Session title: Excellence in Graduate and Undergraduate Music Research Session Chair: Diane Baxter Location: Smith Hall (SH) 122

Presentations

1 to 1:15 p.m., SH 122 Christian Kaltwasser Faculty sponsor: Diane Baxter

Title: Recitative Text Setting as it Relates to Characterization in W.A. Mozart's Opera Buffa

Abstract: I will present on the topic of how W. A. Mozart's use of

recitative in the three *opera buffas* on which he collaborated with librettist Lorenzo Da Ponte – *Le nozze di Figaro, Don Giovanni,* and *Così fan tutte* – demonstrates a dramatic sense of how to use music effectively to establish and develop characters.

1:15 to 1:30 p.m., SH 122

Darrel Watson

Faculty sponsor: Diane Baxter

Title: A Life In Jazz: Wardell Gray

Abstract: This presentation examines the life and musical style of jazz legend Wardell Gray in an attempt to raise awareness of his role in the advancement of jazz. Though he is often regarded as an after-thought, Wardell Gray deserves to be shown as the direct musical descendant of Lester Young and a peer of Dexter Gordon.

1:30 to 1:45 p.m., SH 122 Aron Bernstein Faculty sponsor: Diane Baxter

Title: The Past as Future In Brahms: A Collision and Synthesis of Historical Styles in *Ein Deutsches Requiem*

Abstract: Brahms's manuscript collection reveals an intimate study of disparate compositional methods—from Sixteenth-Century polyphony to the Protestant liturgical settings of Schutz; from the great choral fugues of Handel and Bach to the lush chromaticism of Romantic harmony—which Brahms assimilated and used as text-appropriate temporal juxtapositions in the famed German Requiem.

2 to 2:15 p.m., SH 122 Derek Watson Faculty sponsor: Diane Baxter

Title: Ruby Braff: A Forgotten Legend

Abstract: With his feet firmly planted in the Dixieland tradition, Ruby Braff was soon forgotten in the quickly evolving musical climate surrounding jazz in the mid 20th century. A virtuosic trumpeter, Braff was a staple on the New York jazz scene in its hey-day, garnering praise from jazz royalty such as Jack Teagarden and John Coltrane. By 1980 Ruby Braff was all but forgotten.

2:15 to 2:30 p.m., SH 122 Christopher Mills Faculty sponsor: Diane Baxter

Title: Reconsidering the Traditional 20th Century Music History Paradigm in Light of Repertoire Programming in American Major Symphony Orchestras, 1925-1935.

Abstract: Music textbooks, music historians, and contemporary musicologists alike tend to consider a succession of avant-garde composers (notably the Second Viennese School and their students) to be the most significant musical creators in 20th century Classical music. My research challenges that assumption on the basis of an analysis of the most frequently performed works of then-living composers by 21 major American symphony orchestras during 1925-35, the period in which, according to the typical music history narrative, the avant-garde composers first flourished. 2:30 to 2:45 p.m., SH 122 Christopher Mills Faculty sponsor: Kevin Walczyk

Title: A Survey of Perspectives of Conductors of American Community and Regional Orchestras on Programming the Music of Living Composers.

Abstract: Composers frequently lament the difficulty of receiving performances of their orchestral works, and they often express a belief that orchestras, their conductors, and their audiences are opposed to "modern music". Rather than take this latter belief at face value, I created a questionnaire addressing various aspects of the relationship between regional/ community orchestras (I specifically excluded the full-time major orchestras) and living composers, and submitted this to numerous conductors of such orchestras. My intent was to better understand current trends in the frequency of programming of new orchestral music and to prepare a useful report to disseminate among composers and orchestras.

3 to 3:15 p.m., SH 122 Sarah Celia Funk Faculty sponsor: Diane Baxter

Title: Light and Darkness, Good and Evil: The Ring Cycle vs. The Lord of the Rings

Abstract: The similarities between Richard Wagner's opera cycle *Der Ring des Nibelungen* and J.R.R. Tolkien's novel *The Lord of the Rings* tend to overshadow the differences, for many aspects of the two stories, including the symbolism of light and darkness, are alike. The evil symbolized by darkness, however, takes different forms in the two works. In Wagner's, it exists in the characters who misuse the amoral ring; in Tolkien's, it exists as an independent force within the ring.

3:15 to 4 p.m., SH 122 Various undergraduate presentations Faculty sponsor: Diane Baxter

Title: Excellence in Ethnomusicology Fieldwork

Session title: Open Rehearsal with Western Hemisphere Voices Session Chair: Sherry Alves Location: Smith Hall (SH) 121

Performances

2 p.m., SH 121

PHILOSOPHY

Session title: Presentation of Philosophy Senior Theses Session chair: Mark Perlman Location: Bellamy Hall (HSS) 336

Presentations

1 to 1:30 p.m., HSS 336 Justin Ransome Faculty sponsor: Mark Perlman

Title: Spinoza Meets Nirvana: Smells Like Free Will

Abstract: Baruch Spinoza argued against free will with his idea that all actions are causally linked in an infinite chain going

back forever. But because of various examples of an *uncaused and blissful state;* namely the Buddhist notion of *Nirvana,* do in fact exist, I will take the position that free will can exist in Spinoza's system.

1:30 to 2 p.m., HSS 336 Shaun Whittle Faculty sponsor: Mark Perlman

Title: What Berkeley Should've Said Instead of Cheating

Abstract: For the famous idealist philosopher, George Berkeley, only minds and ideas exist, not material substances. This position comes from his empiricist principles and certain arguments against the possibility of material substances. However, some of those arguments are fatally flawed and he applies those principles in two inconsistent ways. If the flawed arguments are removed and then the two empirical principles are applied separately and consistently, two different possible positions result: a Humean position without minds or God; and a view in which material objects exist just as common sense suggests.

2 to 2:30 p.m., HSS 336

Will Johnson Faculty sponsor: Mark Perlman

Title: The Zombie Menace: The Hard Problem with the Hard Problem

Abstract: In this paper I will be disputing a variety of claims made by Chalmers in relation to philosophy of mind. Specifically I will be disputing his arguments for the dismissal of materialism about consciousness presented in his book *Consciousness and its Place in Nature*. I will argue that Chalmers has made a variety of errors and assumptions that, when scrutinized closely, do not support his view of the special status of consciousness and his rejection of materialism.

2:30 to 3 p.m., HSS 336 Timothy DeMichele Faculty sponsor: Mark Perlman

Title: The Cosmological Argument to God's Existence: What the Universe Has To Say

Abstract: One of the traditional arguments to God is the cosmological argument stating God exists as the transcendent, uncaused creator of the universe. Though its early conception had preceded the development of fundamental scientific discoveries, once science caught up it merely bore witness to the account of the God created universe. There were and are many critics of the argument including Carl Sagan and Neil deGrasse Tyson. My paper will rebuff their criticisms and therefore reinvigorate the cosmological argument as it is presented by numerous scientists and theologians both from the past and the present.

POLITICS, POLICY, AND ADMINISTRATION

Session title: Model United Nations Mock Session Session chairs: Mary Pettenger Location: Bellamy Hall (HSS) 112

Performances

10 to 11 a.m., HSS 112 Maxwell Jones, Dan Shaffer, Tyler Somers, Alischa Heinisch, Tyler Potter, Shelby Worthing, and Steve Gonzalez

Faculty sponsor: Mary Pettenger

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.

Session title: Politics, Policy, and Administration Research Papers

Session Chair: Mary Pettenger Location: Werner University Center (WUC) Pacific Room

Posters

11:30 a.m. to 1:30 p.m., WUC Pacific Room **Rebekah Smith** *Faculty sponsor:* Mary Pettenger

Title: Benazir Bhutto

Abstract: Benazir Bhutto was an anomaly of her era. She became the first female prime minister of a Muslim country following her father's term, betrayal, and execution. A lot of factors contributed to her rise to power as a female, something unusual given the time period and country. There hasn't been a female leader in Pakistan to date since Bhutto's term, and part of that reason was that all of these contributing factors (family history, wealth, and education) made a perfect storm, and the conditions were ideal for her rise to power.

11:30 a.m. to 1:30 p.m., WUC Pacific Room Eldon Hardenbrook Faculty sponsor: Mary Pettenger

Title: Deep Water Port Security in the Arctic

Abstract: As the Arctic passages open, an enormous and potentially game changing scenario is playing out among countries whose borders or continental shelves border or abut the Arctic region. Because of the vast amount of potential resources, virtually every major nation of the world is vying to either sit at the table, or partner into coalitions that are able to access a share of the possible rewards the Arctic may possess. Given the fragile nature of the Arctic Eco-system, how will the wonders of the Arctic be preserved, while allowing for trans-nation commerce. Most importantly, how will security measures be implemented to successfully ship these goods and services, and protect the new ports from external actions, such as terrorism, or war? What is the successful balance between protecting the environment, protecting Business opportunity and protecting both against acts of sabotage or terrorism?

11:30 a.m. to 1:30 p.m., WUC Pacific Room Yesenia Valentin Faculty sponsor: Mary Pettenger

Title: Dealing with Immigration: a Comparison between Germany and Spain

Abstract: Immigration has been an existent phenomenon since the rise of human civilization, and has recently become a heated debate worldwide due to the recent economic recession. Within the E.U. there have been various states plagued by the rise of non-European immigration. Two states that share such factors are Germany and Spain.Both states have dealt with immigration in similar ways, despite the multitude of differences they have. Despite Germany and Spain's different historical and cultural past both states have taken similar stances on non- European immigration. Comparing and contrasting both states' current government systems, economical, historical and cultural aspects, and both states' stances on immigration, present the reasoning for why both states are able to do what they do in relation to their historical past.

SOCIOLOGY

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

Presentations

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

Title: Sociology at WOU

8:45 to 9 a.m., HSS 235 Alex Taylor Faculty sponsor: Peter Callero

Title: Market Values in Our Heath Care System: Drug Prescribing Practices and Patient Behavior

Abstract: As the result of a pharmaceutical industry led campaign to treat pain as the "fifth vital sign," there has been an exponential increase in the prescription of opiates leading to increased abuse and addiction. This study examines how this campaign has affected physicians and patients in our healthcare system. The physician's interview reported this campaign pressures them to prescribe more liberally and makes any level of pain intolerable for patients seeking drugs. The success of the campaign is also seen in a survey group, who overwhelming perceived prescription drugs safer and less addictive then their illicit counterparts, despite their near identical pharmacology.

9 to 9:15 a.m., HSS 235 Karla Diaz Faculty sponsor: Maureen Dolan

Title: Gender Roles and Communication in Mexican American Immigrant Households

Abstract: This study examines Mexican American Immigrant families focusing on household division of labor and gender roles. Both qualitative and quantitative methods were used to obtain the data. Ten interviews were conducted face to face. Twenty surveys were completed; some of the participants completed the surveys via email and others face to face. The findings demonstrated most respondents practiced egalitarian gender roles although their ideology was more traditional. These findings are significant; through them one is able to observe the complexity of contradictory attitudes towards gender roles in Mexican American immigrant households. The results contradict the initial hypothesis that machismo prevails in traditional Mexican American immigrant household.

10th Annual Academic Excellence Showcase

9:15 to 9:30 a.m., HSS 235 Hillary Lutz Faculty sponsor: Dean Braa

Title: Social Capital and Elderly Quality of Life In Nursing Homes: The Importance of Nurse-Resident Bonds

Abstract: This paper analyzes the importance of nurse-resident relationships in the retirement home. An ethnographic research study design was used. Qualitative data collection was done through individual interviews with nurses, administration, and residents. There is a need to consider the effects of the current system of care in place for the elderly. Findings show that fostering a positive nurse-resident relationship will improve the stigma in place by providing patients with a sense of worth. Nurses play an important role in preventing feelings of depression and loneliness. In conclusion, relationships between nurses and residents build social capital for both parties.

9:30 to 9:45 a.m., HSS 235 *Questions and Discussion*

9:45 to 10 a.m., HSS 235 Rahel Rivas Faculty sponsor: Peter Callero

Title: Human Indignity and the Food Stamp Program

Abstract: This research examines how the public attitude has an effect on the experience of Latina women using the Supplemental Nutrition Assistance Program (SNAP). My research focuses specifically on Latinas in the Willamette Valley, Oregon. Using a structural interview format, eleven Latina women currently participating in SNAP were interviewed about their experiences with SNAP. Also a questionnaire was distributed to Western Oregon University students to examine attitudes concerning SNAP. The preliminary results revealed: all 11 women interviewed expressed a negative experience being on the program. Moreover, the data also revealed that all of the mistreated participants were victims of Latino providers.

10 to 10:15 a.m., HSS 235 Daniela Zamora-Sendejas Faculty sponsor: Maureen Dolan

Title: Latin@ Attitudes on Marriage, Cohabitation and Sexuality in the U.S.: Influence of Religion, Traditions, and Family

Abstract: This study analyzes transnational relationships as part of a social construction, in which many issues determine the decision and behaviors each individual pursues. Study focuses on the Latino population. A total of 10 recorded in person interviews were conducted with a non-formal follow up. In this research family, tradition, and religion continue to have significant ideologies on Latin@ attitudes on marriage, cohabitation, and sexuality, but current society is more accepting to non-traditional choices. It's important to perform a study on the Latino group because it's a rarely studied subject as the Latino population continues to grow in the United States.

10:15 to 10:30 a.m., HSS 235 **Daniel Glenn** *Faculty sponsor:* Dean Braa

Title: Problems in Veteran Reintegration

Abstract: This study explores and analyzes The Department of Veterans Affairs (VA) and its effectiveness in assisting veterans

with a successful transition back into society upon completion of their military service. Results from open-ended interviews conducted with 13 veterans and one former VA Chief of Staff show that the VA has done little to alleviate the stresses of reintegration, such as unemployment, post-traumatic stress disorder, and other problems. My study supports the argument that the VA has failed to assist many veterans in their struggle to reintegrate.

10:30 to 10:45 a.m., HSS 235 **Questions and Discussion**

10:45 to 11 a.m., HSS 235 Bonnie Mathis Faculty sponsor: Maureen Dolan

Title: Perceptions of Gun Culture Women

Abstract: This study considers the perceptions of women within gun culture about guns. These women are unique in that they provide an inside look into what the specific perceptions of guns are among women who are involved within the gun culture. Drawing on surveys and a quantitative analysis of how these women are portrayed within certain media outlets such as live shows, movies, and television. I found that women perceive guns as a protective force that can be controlled by people, i.e., guns are tools and not toys. Women who are part of gun culture have a certain understanding about guns and perceive them differently than any other gun culture population. These accounts allow for a unique inside perspective of what it means to be a woman within gun culture.

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

Dean Braa

Title: Questions, Discussion, Final Remarks

SPANISH

Session title: Spanish Poster and Presentations Session chairs: Elizabeth Braun Location: Werner University Center (WUC) Santiam

Presentations

9:30 to 11 a.m., WUC Santiam

Caitlin Bracken, Tuyen Bolton, Andres Classen, Jirae Hogan, Jeanine Newsome, Ian Shoen, McKenzie Stepper, Kaylyn Taylor, Samantha Valdez, and Clarissa Yance Faculty sponsor: Elizabeth Braun

Title: "Consejos simples que pueden cambiar tu vida, o la de un ser querido." (Simple advice that can change your life, or that of a loved one).

Abstract: The main goal of this project was to narrow the gap between classroom instruction and real-life. This was accomplished by engaging each student in meaningful real-life application of subjects taught in class. Students of Spanish 202 learned the concept of commands, and related it to the various problems that surround us. Work was primarily focused on family, friends, the community, and the environment.

Students selected a variety of issues such as drug abuse, domestic violence, depression, child abuse, alcoholism, bullying, healthy eating, addictions to video gaming, etc. After conducting research on the issues, they developed possible solutions and used the knowledge acquired in class to advise others on how to deal with these problems and where to find help. The project highlighted

Session title: Civilización y cultura de España Session chairs: Kathleen Connolly Location: Health and Wellness Center (HWC) 204

Presentations

1 to 1:15 p.m., HWC 204 **Becky Lawrence** *Faculty sponsor:* Kathleen Connolly and Patricia Giménez-Eguíbar

Title: The Influence of Arabic on Spanish Language and Culture

1:15 to 1:30 p.m., HWC 204 Leonardo Vidal Faculty sponsor: Kathleen Connolly

Title: Los toros: arte cultural o abuso animal

1:30 to 1:45 p.m., HWC 204 Rachel Larson Faculty sponsor: Kathleen Connolly

Title: La cultura del fútbol en España y su impacto / The culture of soccer in Spain and its impact

1:45 to 2 p.m., HWC 204 Evelyn Sanchez Faculty sponsor: Kathleen Connolly

Title: Pablo Picasso: un dios artístico

TEACHER EDUCATION

Session title: Teacher Education Oral Presentations Session chairs: Alicia Wenzel, Carmen Cáceda, and Holly Eckles Location: Education (ED) 204/205

Presentations

9 to 9:15 a.m., ED 204/205 Emily Allen Faculty sponsor: Holly Eckles

Title: Philosophy of Education

Abstract: In this presentation I will be discussing my philosophy of education that was created in ED100. The idea behind the assignment was to create something that reflected who you are, but also your approach to education. The representation of my personal philosophy is done in the form of a decorated cake. Each decoration on the cake is representative of different portions of that philosophy.

9:15 to 9:30 a.m., ED 204/205 Louisa Finley Faculty sponsor: Holly Eckles

Title: My Music Education Philosophy

Abstract: My presentation will discuss and explain a Philosophy of Education project I completed in ED100: a music box I made

with speakers embedded inside of it for me to use in my classroom. It represents my love for incorporating music and technology into my future teaching. The music box exemplifies the relationships I want to build with my students through pictures and drawings around the surface of the box. The box represents my philosophy of education all in one project that I will use forever.

9:30 to 9:45 a.m., ED 204/205 Gregory Grimes Faculty sponsor: Holly Eckles

Title: Education Philosophy: The Thinking Cap

Abstract: This presentation is an expansion on a presentation about my personal philosophy as it comes to how I see working in the classroom. The ideals of this presentation are built around a created visual aid that I used as a guideline for it when it was originally an assignment. This variation would be an expansion on the some of the ideas with some more general conversation about my views on how I will someday work in a classroom from my student perspective.

9:45 to 10 a.m., ED 204/205 Jacob Mitchell Faculty sponsor: Holly Eckles

Title: Philosophy of Education: The Growing Seed

Abstract: The growing Seed is a picture book that tells the story of the teachers roll, told through the lifecycle of a growing plant. It details the profound impact educators have on their student's lives. The plant is the student, and the teacher is the culmination of elements that make the plant flourish and grow.

10 to 10:15 a.m., ED 204/205 Sarah Protheroe Faculty sponsor: Holly Eckles

Title: Philosophy of Education

Abstract: Two pieces of art will be shared that represent my philosophy of education. The artwork on one plate represents passing on knowledge through the imagery of a teacher handing an apple to the student. This imagery is mirrored in the second image. This image represents so many aspects of what it means to be an educator. Through the use of imagery I have captured some of the joys and challenges of being a teacher.

10:15 to 10:30 a.m., ED 204/205 Lacey Hice Faculty sponsor: Holly Eckles

Title: My Philosophy of Education

Abstract: The project is a visual representation of my philosophy of education as a future educator. In my project I relate various aspects of education to a swing set to simplify and explain my beliefs. With this project I discuss the importance of student centered learning, communication with families and embracing diversity.

10:30 to 10:45 a.m., ED 204/205 **Spencer Luther** *Faculty sponsor:* Holly Eckles

Title: My Philosophy of Education

Abstract: Using resources and supplies that any student would have access to, I made up a mock classroom. This shoe box

classroom is filled with symbols that represent the ideals I find most important as an educator. The whiteboard describes the feeling my classroom should always have for my students. The grammar poster shows the value of learning to communicate effectively.

10:45 to 11 a.m., ED 204/205 Sara Hankins Faculty sponsor: Holly Eckles

Title: Breaking the Box: My Education Philosophy

Abstract: A presentation of my education philosophy comprised of four key parts: incorporating culture and diversity into the classroom, using different media to teach, creating a safe haven and fighting mental illnesses, poverty, and bullying in schools, and inspiration and goals for the classroom. This information will be presented in a presentation using a document camera to show an art project called an explosion box that visually shows each of the four parts listed above.

11 to 11:15 a.m., ED 204/205

Mandy Campau and Christina Laramie Faculty sponsor: Holly Eckles

Title: What is Bullying?

Abstract: This presentation describes the different types of bullying and their effects on bullying victims. Specifically, we compare cyberbullying with traditional bullying, explaining the greater exposure students have to bullying through these two different mediums. We describe both the effects students experience from bullying in their social, personal, and family lives, and how the teacher's role changes when faced with students undergoing bullying issues.

11:15 to 11:30 a.m., ED 204/205 **Caitlin Henry** *Faculty sponsor:* Holly Eckles

Title: Deaf Education in Residential and Mainstream Schools

11:30 to 11:45 a.m., ED 204/205 Makayla Nelson Faculty sponsor: Holly Eckles

Title: My Ideal Classroom Model

11:45 a.m. to 12 p.m., ED 204/205 **Christina Budiselic** *Faculty sponsor:* Holly Eckles

Title: Equality in the Classroom

12 to 12:15 p.m., ED 204/205 Marissa Gowen Faculty sponsor: Carmen Cáceda

Title: Getting Lost in Culture: A Presentation about my trip to Querétaro, México

Abstract: This presentation discusses my expectations of what Mexico was going to be like based on my knowledge from others and what I researched ahead of time. Additionally, I will share what I actually experienced and how it was very different than I previously imagined including: what the people are like, who I met and how they changed what I thought about Mexico, and the importance of getting lost in culture and how I lost myself in the culture.

12:15 to 12:30 p.m., ED 204/205 Annie Christiansen Faculty sponsor: Carmen Cáceda

Title: (Future) Bilingual Teachers' Voices about Learning a Second Language

Abstract: Based on my experiences as a student in a dual-immersion program, my own unique experiences growing up bilingual, and how they have changed my life. I later traveled to Panama and Argentina on study abroad trips, and continued to take Spanish language classes. My classmates in the dual-immersion program truly felt like a family, and we moved through the program together. The acceptance of other cultures was not only taught to us, but we lived it daily. This has influenced my life, and will influence my future teaching as well.

12:30 to 12:45 p.m., ED 204/205 Hannah Meador Faculty sponsor: Carmen Cáceda

Title: ESOL Querétaro Study Abroad Milestones

Abstract: In my presentation, I plan to discuss my cultural and linguistic expectations and beliefs about Mexico and Spanish before my study abroad trip. Then, I want to compare them to the reality that I experienced in Mexico. Finally, I plan to talk about the lessons that I learned while I was studying abroad and how I will apply them to both my life and my future career as a bilingual teacher.

12:45 to 1 p.m., ED 204/205 Marcea Palmer Faculty sponsor: Marcus Wenzel

Title: Drawing Connections Between Professional Development, Classroom Climate And Project Based Learning through Theoretical Study and Observation

Abstract: Through my term in ED333 with Marcus Wenzel, we were asked to observe one of our professors in order to connect educational topics, learning theories and teaching strategies and how these observations might inform our future practices in teaching. My self-study focused on professional development, classroom climate, and project-based learning.

Session title: MAT / MSEd Poster Session 1 Session chairs: Alicia Wenzel, Carmen Cáceda, and Holly Eckles Location: Education (ED) 217

Posters

4:30 to 6 p.m., ED 217 Jessica Wood Faculty sponsor: Tracy Smiles

Title: The Effect of Word Study on Student Achievement and Confidence

Abstract: This study examines the effect of word study on student achievement and confidence surrounding spelling. Spelling instruction is often times the piece of instruction that gets left on the back burner. Many teachers fall back on traditional methods for teaching spelling; they have their students color their spelling words in rainbow patterns and repeatedly write their words until their fingers hurt. Research has shown that more often than not there is no alignment between spelling instruction and teachers' theoretical beliefs. The question predominantly explored through this study is: What happens to student achievement and confidence when we find spelling words that are just right for individual students and teach them how to master those words and types of words through word study?

4:30 to 6 p.m., ED 217 Chelsea Cotton Faculty sponsor: Tracy Smiles

Title: Open-ended Response Strategies: Building Academic Language through Literature Discussions

Abstract: This study examines the academic conversations of fourth and fifth grade students through the use of open-ended reader response activities with correlation to a picture book read aloud by a classroom teacher. A higher emphasis has been placed on academic conversations in the classroom since the passing of the Common Core State Standards. Several standards focus around conversation and collaboration. Students are expected to engage in higher-level thinking as well as communicate through it. Through conversations, students are able to collaborate through authentic dialogue to construct meaning and deepen content understandings.

4:30 to 6 p.m., ED 217 **Courtney Small** *Faculty sponsor:* Tracy Smiles

Title: Writing Letter with a Pen Pal: Authentic Writing for Student Success

Abstract: This study examines letter writing as an authentic form of writing, it's effect on student writing success, and the benefits of implementing a pen pal program in the classroom. Literacy is a part of everyday life for the majority of people. Of the literacy practices, writing is one that is very prevalent. From making lists, writing reviews on a new book or movie, filling out forms, and writing e-mails, writing is found consistently throughout our days. This study will explore 31-second grade students and the effects of their writing success when writing letters to an authentic audience.

4:30 to 6 p.m., ED 217 **Trisha Chapman** *Faculty sponsor:* Tracy Smiles

Title: Miscue Analysis for Assessment and Planning Instruction: A Case Study

Abstract: This project was with eight first and second grade students from a variety of backgrounds including above grade level readers, on grade level readers, ELL students, and those struggling to read. Burke Interviews, miscue analysis, and retellings were used to guide this research. Findings indicate that miscue analysis is an effective process for differentiating reading instruction for students. Implications include the researcher creating curriculum around aiding students to become better readers.

4:30 to 6 p.m., ED 217 Diana Sohn Faculty sponsor: Tracy Smiles

Title: The Effects of Vocabulary Self-Collection Strategy on Fifth Grade Students "Word Warrior Wizardry"

Abstract: This study examines the impact of student selfselection on vocabulary development with fifth grade students who have limited academic language. With the increased demands from Common Core Standards for students to determine meanings of academic language, it is key that students become more competent with academic vocabulary. As a class, students self selected vocabulary based upon a teacher chosen mentor text, which was followed by rigorous systematic instruction and assessment. This study presents inquiries into the ways in which student choice and rigorous vocabulary strategies effect vocabulary development, comprehension, short and long term memory, written responses, and students' attitudes and perceptions about vocabulary learning.

4:30 to 6 p.m., ED 217 Kristie Ahola Faculty sponsor: Tracy Smiles

Title: The Role of Reading Engagement in a Skills-Focused Intervention

Abstract: This case study explores the value of including a reading engagement focus in a skills-based pull-out intervention. It follows a second-grade student from a traditional pull-out curriculum, using publisher-developed materials, to a model using teacher-selected materials. The instructional plan for the intervention included self-selection of reading materials, word study games, and picture book read-alouds. The plan was developed with the belief that reading engagement has a place in a skills-based intervention. Data showed improved reading scores on norm-referenced assessments, and an increased interest in reading in the case study student.

4:30 to 6 p.m., ED 217 **Danielle Geissler** *Faculty sponsor:* Tracy Smiles

Title: Mini-lessons in a Writing Workshop: Exploring Best Practices in Writing Instruction

Abstract: This study explored the following question, "How does teaching to the edges in Writers' Workshop mini lessons, based on student's needs, help impoverished 4th grade bilingual/biliterate students improve their organization?" Data included student work samples, field notes, and interviews. Initial findings suggest mini-lessons are effective tools but only when the lesson targets student needs and attempts to connect with students' individual interests and experiences.

4:30 to 6 p.m., ED 217 Angela Rieger Faculty sponsor: Tracy Smiles

Title: The Effects of Words Their Way on Low-Performing Kindergartners

Abstract: The kindergarten classroom of 2015 is dramatically different than those seen in the past. Even within the last 5 years, changes in standards have resulted in kindergarten programs that eschew developmentally appropriate practices such as dramatic play, art lessons and recess. Today, kindergarten students are expected to be reading and writing by the end of the kindergarten year. Teachers of kindergarten have voiced concerns about the change, and the effects of this change are difficult to predict, but teachers are working to meet the expectations. *Words Their Way* is professed to be "...a developmental approach to word study, phonics, spelling and vocabulary instruction" This action research study seeks to determine if Words Their Way will have a beneficial effect on lower performing kindergarten students. When used consistently, what is the impact of the Words Their Way program on the reading and writing scores of low performing kindergarten students?

10th Annual Academic Excellence Showcase

4:30 to 6 p.m., ED 217 Tracy McLaughlin Faculty sponsor: Tracy Smiles

Title: An Examination of Academic Vocabulary Development in a Third Grade Classroom

Abstract: Vocabulary size determines the level of comprehension of a text, but learning new words is hard for ELL students or students in poverty that are already lacking academic vocabulary. This study examined ways to develop academic vocabulary in a diverse third grade classroom. Anecdotal records, summative assessments, and student writing were analyzed to determine the effectiveness of explicit vocabulary instruction on student performance in reading unfamiliar vocabulary.

4:30 to 6 p.m., ED 217 Kara Tyler Faculty sponsor: Adele Schepige

Title: A Classroom Management Technique for Proficiency-Based Grading Policies

Abstract: My research examines what effect, if any, the implementation of incentive points— called math credits— for homework completion and in-class participation will have on student assessment scores under a proficiency-based grading model where homework does not count for an academic grade. This mixed methods approach of offering students incentive also examines student affect, both before and after the implementation, to help us better understand adolescent motivation and possibly determine effective homework policies and classroom management practices under a proficiency-based grading model.

4:30 to 6 p.m., ED 217 Ryan McQueen Faculty sponsor: Adele Schepige

Title: Environment and Society

Abstract: In social sciences, Geography has been a marginalized subject. Geographic education promotes critical thinking and allows students to explore a variety of personally relevant topics and interests in deep and profound ways. Geography is both underrepresented in secondary education's social studies curriculum, as well as misrepresented as a discipline. Often, geography curriculum is outdated and one-dimensional. Environment and Society is a place-based and critical environmental geography course that aims to alleviate these issues. The course emphasizes multiple perspectives, thus bringing in critical thinking skills, and allowing students to study personally relevant subjects.

4:30 to 6 p.m., ED 217 Matt Jones Faculty sponsor: Adele Schepige

Title: High School Biotechnology Curriculum Development

Abstract: The importance of integrating technology, engineering and mathematics in the high school science curriculum is widely accepted, and many high schools in Oregon are pursuing this goal. Biotechnology training in high schools continues to be limited due to time constraints within the traditional introductory biology curriculum. Other challenges to implementation include cost of equipment, lack of educator familiarity with the field, laboratory safety, and the controversial nature of some applications. This curriculum project is intended to be a first step toward addressing these challenges. The proposed curriculum integrates mathematics, safety, and applied biotechnology in a one-semester high school course.

4:30 to 6 p.m., ED 217 **Debra Virden** *Faculty sponsor:* Adele Schepige

Title: A Multiplication Fluency Intervention Using Power of Ten

Abstract: Students entering middle school should be able to demonstrate mastery of multiplication facts. Many sixth grade students are unable to demonstrate this level of mastery. The purpose of this study is to look at the effectiveness of a four-week multiplication intervention for sixth grade math students. As teachers we need effective methods for helping students increase their level of mastery. This study was a whole class intervention where once a week for four weeks students learned strategies for multiplication and practiced skills through the use of games. Data was collected both prior to instruction and after instruction.

4:30 to 6 p.m., ED 217

Elijah Heide

Faculty sponsor: Adele Schepige

Title: Designing a High School Level Music History Elective Course

Abstract: Music is much more than the notes on the page. There is performance, theory, collaboration, and history, as well as others. An important issue in current music programs in noncollegiate settings is that music history in nonexistent. It is only briefly mentioned if a piece of music the class is working on requires the historical context to be discussed. The goal of this professional project is to design a course that gives a wellrounded overview of music history, from Antiquity to present day, for all high school students, as an elective course.

4:30 to 6 p.m., ED 217

Mason Grine

Faculty sponsor: Adele Schepige

Title: Ancient Near East History Elective Course: Keeping the Social Sciences Rigorous and Relevant for Credit Recovery and Advanced Students

Abstract: What follows is a curriculum development project, Ancient Near East History Elective Course, I designed in order to meet the needs of two types of students in particular. Advanced students who have a passion for more thorough elective options in the social sciences, along with struggling students in need of a credit recovery option, will both benefit from taking this rigorous and relevant course. The specific content of the Ancient Near East is pertinent to the current happenings in 2015. Created with engagement theory in mind, this curriculum fulfills ODE standards and CCSS.

4:30 to 6 p.m., ED 217 **Traci Porter** *Faculty sponsor:* Alicia Wenzel

Title: Teaching Resilience through a Narrative Text

Abstract: Many students suffer from poverty, absenteeism, and abuse - risk factors contributing to lack of school success. So, how can we increase students' ability to thrive academically and emotionally despite adversity? There are many academic interventions, but a scarcity of curriculum directly impacts a teachers' ability to teach resiliency strategies. The purpose of this curriculum project is to create an eight-lesson supplemental curriculum that directly teaches resiliency strategies and promotes social competence, problem solving skills, autonomy, and a sense of purpose in school and life. This 8th to 9th grade curriculum integrates language arts common core standards specific to character development using a highly engaging novel.

4:30 to 6 p.m., ED 217 Kacey Parks Faculty sponsor: Alicia Wenzel

Title: A Culturally Relevant Public Speaking Course with a Focus on College and Career Readiness

Abstract: Students primarily communicating through texting and social media is on the rise. Many students are hesitant to utilize public speaking skills in their day-to-day life. How can the gap be bridged between teaching the fundamentals of a traditional speech course and applying relevant 21st century skills? In order to prepare students for future college and career paths, this proposed course will focus on teaching informative, persuasive and innovative 21st century skills for students of many diverse backgrounds and cultures with a focus on teaching high school students how to apply verbal and non-verbal communication skills to daily life.

4:30 to 6 p.m., ED 217 **Cory Sprague** *Faculty sponsor:* Alicia Wenzel

Title: Language Arts for the Cosmos

Abstract: The purpose of this curriculum is to create a course that facilitates learning skills of reading and writing informational texts through the engaging subject of astronomy. The issues that this curriculum aims to address are the limited access to astronomy knowledge in high school, and the low skills in reading and comprehension of informational texts. This curriculum will address these issues by giving the students constant non-fiction informational materials about astronomy that require their comprehension. This is designed for the students who are passing their core classes and have a natural inclination towards either science or language arts.

4:30 to 6 p.m., ED 217 **Kyle Meals** *Faculty sponsor:* Alicia Wenzel

Title: Games Approach to Physical Education

Abstract: This professional curriculum development project presents a curriculum that aims to increase the motivation and confidence of students in physical education. The tactical games model on P.E. can allow for all students to experience success by learning the tactics of a game, as well as the skills involved. This curriculum is aimed at students who typically have a hard time keeping up, or experiencing success in a "traditional" P.E. setting. This curriculum can allow them to increase their competence, and confidence as well as their motivation in this new P.E. setting.

4:30 to 6 p.m., ED 217 **Tim Mowry** *Faculty sponsor:* Alicia Wenzel

Title: Low Impact Physical Activity as an Alternative Practice in Physical Education

Abstract: This Physical Education Curriculum Development is aimed towards individuals who may want an alternative Physical Education experience. Traditional P.E. class approaches include a lot of dominate play and competitive team oriented activities that may disenfranchise some students. A Low Impact curriculum will deliver activity that is focused on personal growth and development in the students understanding of modification of activities for lifetime exercise adherence. Equipping students with the tools and knowledge necessary for alterative exercise sources is aimed to increase intrinsic motivation and is the purpose of this Low Impact curriculum.

4:30 to 6 p.m., ED 217 **Don Boles** *Faculty sponsor:* Alicia Wenzel

Title: Using Film as Literature to Engage High School English Students

Abstract: The goal of this curriculum development project is to find a meaningful way to integrate technology into the English high school classroom that engages and enriches students' understanding of literary texts. One concepts discussed is that of the "digital native" which describes students in the new millennium. These students are technology driven and view the world around them through various digital lenses. As a tool, film can be used effectively in the English classroom to better reach our students and increase their literacy of multiple texts, and ultimately a generation of intelligent, thoughtful readers.

4:30 to 6 p.m., ED 217 Jerry McGuffee Faculty sponsor: Heitho Reuter

Title: Engaging Students through Technology in a Middle School Social Studies Classroom

Abstract: The purpose of this four-week research project was to examine how the teacher will be able to utilize technology to engage middle school students. These daily lessons were developed to save time that is being lost during student transitions. This project was designed to show how student engagement can be increased by modifying the conventional methods. A short video replaced the standard written prompt as a transitional tool to engage the students at the beginning of the class.

4:30 to 6 p.m., ED 217

James John Faculty sponsor: Heitho Reuter

Title: Incorporating Art Into Science: Illustrated Children's Books in the Zoology Classroom

Abstract: As trends in American education shift towards increasing reinforcement of the STEM fields, and reduced support of artistic courses, historic evidence and continuing research show the synergistic relationship between science and the arts. The purpose of this study is to determine how the creation of an illustrated children's book about invertebrate biology reinforces content and increases appreciation of the subject. Through the analysis of pre- and post-assessments, and surveys and observations, data provides information on how the creation of an illustrated children's book affected student test performance, enjoyment of the unit, and interest in the course.

10th Annual Academic Excellence Showcase

4:30 to 6 p.m., ED 217 **Bryan Huber** *Faculty sponsor:* Heitho Reuter

Title: Enhancing Learning for Students who Struggle with Specific Skills

Abstract: This project explores the idea of using video feedback to increase the skill sets and confidence for struggling students in a sixth grade physical education class. A lack of confidence can affect student participation. Verbal feedback can come off as confusing or embarrassing for students in physical education. Students were videoed performing a skill and given video-feedback from the use of an iPad. Post-assessments were used for comparison. Through the collection of video-assessments and student surveys the data provides an insight to the effectiveness of video-feedback.

4:30 to 6 p.m., ED 217 **Kimberly Hazel** *Faculty sponsor:* Heitho Reuter

Title: Improving Student Academic Success by Incorporating In-Class, Skill-Building and Eliminating Homework

Abstract: The purpose of this two week study, conducted in a seventh grade social studies classroom, was to determine if eliminating homework, while increasing class practice, would help students strengthen academic success. Homework is a controversial topic, with arguments to both support and refute the convention. Most parents, students and faculty believe the practice is a valuable one. While research suggests homework is beneficial, some argue it becomes an inequitable practice when considering the barriers economically disadvantaged students face.

4:30 to 6 p.m., ED 217 Adam Harris

Faculty sponsor: Heitho Reuter

Title: Cognitive Improvisation: Utilizing Music Theory to Improve the Soling Abilities of Students in a High School Jazz Band

Abstract: The purpose of this study was to determine whether or not the acquisition of music theory and jazz harmony knowledge could enhance the improvised soloing abilities of students in a high school jazz band. This two-week study consisted of ten lesson plans on jazz theory, harmony and improvisation. It was taught to eighteen ninth through twelfth grade students at a rural high school in central Oregon. A music theory

4:30 to 6 p.m., ED 217 Bryce Johnson Faculty sponsor: Heitho Reuter

Title: Increased Student Engagement During Instruction in a High School Math Class

Abstract: The purpose of this study is to implement a systematic method of randomly calling on every student during instruction to increase student engagement. The study took place in a high school algebra one class comprised of 23 freshmen students. Data was collected prior, during, and after this unit through student surveys, peer observations, and exit slips. This data will be analyzed to determine if the technique itself proved effective in increasing the engagement levels of these students during instruction time in the classroom.

Session title: MAT / MSEd Poster Session 2 Session chairs: Alicia Wenzel, Carmen Cáceda, and Holly Eckles Location: Education (ED) 217

Posters

6:30 to 8 p.m., ED 217 **Tasha Corrigan** *Faculty sponsor:* Tracy Smiles

Title: Best Practices for Student Engagement in the High School Language Arts Reading Workshop

Abstract: When working with an at-risk population of students, most of whom have experienced multiple academic interventions over the years, a prescribed program such as READ 180 often leads to lack of engagement and frustration. This study examines the potential for increasing reading engagement for at-risk students in a high school setting. It addresses best practices for quality literacy instruction by transforming the useful components of an existing program, to further engage and encourage students, while increasing the ability for students to connect to reading by increasing comprehension, vocabulary and fluency skills.

6:30 to 8 p.m., ED 217 Joy Eriksson Faculty sponsor: Tracy Smiles

Title: Small Changes, Big Impact: Increasing Joy and Self-Efficacy for Writing in Five Minutes a Day

Abstract: With the increase in high stakes testing, there has been an influx of research on factors that affect student performance. Much of this research points to the importance of a student's beliefs and mindsets toward learning and intelligence as the key to increasing motivation, perseverance, and resiliency. This study examines the impact of consistent, brief conversations with at-risk students targeted toward steering mindsets toward a growth model and building self-efficacy in writing. Can just a few minutes a day make a difference?

6:30 to 8 p.m., ED 217 **Terri De Jager** *Faculty sponsor:* Tracy Smiles

Title: Student Interest in Non-Fiction

Abstract: This study examines the impact that language arts and social studies interdisciplinary studies have on students' engagement with non-fiction texts. This research aims to discover whether or not social studies instruction that is incorporated within literacy teaching encourages further independent, free choice, non-fiction reading among middle school students. Research has shown that as students enter into the middle school years, many students lose interest in reading non-fiction texts. By including compelling non-fiction texts through read alouds and book talks that are relevant to both language arts and social studies instruction, the goal is to examine whether or not these negative feelings can be reversed.

6:30 to 8 p.m., ED 217 Lindsay Strickler Faculty sponsor: Tracy Smiles

Title: Improving Fifth Grade English Language Learners' Vocabulary Through Morphology

Abstract: This study examines the impact on vocabulary development when morphology is integrated into the literacy instruction that uses a workshop model in fifth grade English language learners. The study uses Benchmark curriculum and incorporates additional best practices in the area of morphology. The study focused on units involving vowel and consonant alternation, as well as, how suffixes impacted these alternations. Each unit was broken into weekly lessons. Over the course of a week the curriculum included several components: introducing the new skill and focus words for the week; multiple word sorts such as buddy, common feature, blind, and speed sorts; word walls; word hunts and close sentence practice pages; and the culminating quick assessment on the final day. Findings were analyzed from pre- and post-assessments, quick assessments done weekly, video recordings of teaching, and surveys to assess engagement.

6:30 to 8 p.m., ED 217 Laren Vernoy Faculty sponsor: Tracy Smiles

Title: Informing Kindergarten Writing Instruction with Funds of Knowledge Theory

Abstract: This study examines the potential impact that could be brought to instruction and pedagogy through the lens of the funds of knowledge theory. In Kindergarten, students are expected to perform tasks that are elevated so much so that teachers have to question the task in ways that are developmentally appropriate. In the area of writing, Kindergarten students are faced with a unique challenge of beginning to manipulate and strengthen fine motor skills at the same time learning about genre and basic composition. This study will use a developmentally appropriate practice guided by Matt Glover and Katie Wood Ray while looking for hidden messages communicated by students about how they have come to understand the world using writing. This study will inform educators in the area of writer development, content success, authentic instruction in literacy and ways to build community and relationships with students

6:30 to 8 p.m., ED 217 Anna Wooley Faculty sponsor: Tracy Smiles

Title: The Acquisition of Spanish Literacy in a Bilingual 1st and 2nd Grade Classroom: A Case Study

Abstract: This case study examines the acquisition of Spanish literacy in a bilingual first and second grade classroom. The study focuses on one first grade student who is English dominant and has had no prior formal Spanish literacy experience. He has displayed low motivation for Spanish literacy and has exhibited anxiety during reading and writing activities in Spanish. Through exploring focused study of syllable readers in Spanish in a small group, coupled with the whole group literacy instruction, this study seeks to find a new hook for motivation and literacy acquisition when language proficiency is limited in the language of instruction.

6:30 to 8 p.m., ED 217 **Christine Knutson** *Faculty sponsor:* Tracy Smiles

Title: Utilizing Online Technology to Enhance Learning Experiences

Abstract: This video presentation highlights four digital artifacts showcased on my professional portfolio site designed for diverse groups of online learners. Using Weebly website builder, I created a weeklong unit for fifth graders about bully awareness and prevention. For adult learners seeking proficiency with the Instagram application, I developed a sixweek training unit utilizing Moodle software. The third artifact illustrates an interactive educational tool developed for kindergartners and first graders using eAdventure freeware. The fourth artifact, a Prezi presentation, informs teachers how to integrate technology into their science courses. All artifacts demonstrate the use of assorted educational technologies.

6:30 to 8 p.m., ED 217

Danielle Geissler and Shannon Loggins *Faculty sponsor:* Tracy Smiles

Title: Mini-lessons in a Writing Workshop: Exploring Best Practices in Writing Instruction

Abstract: Knowing which assessments to give students struggling to read can be difficult. This online resource provides teachers with lists and links to great reading assessments that are either free for all or to teachers who work in the Corvallis School District. These assessments have been used and assessed by Corvallis School district staff, including Shanning Loggins and Danielle Geissler to insure validity of the assessments. As studies have shown, one or even two assessments do not always paint the whole picture of learners and more assessments are needed to better understand learners and be able to determine the next instructional steps we need to take to help foster student growth. Teaching is a great passion of Loggins and Geissler. It is their goal to be lifelong learners and always strive to be best educated so they can best reach the next generation. It is with this passion that they created an online resource that all Corvallis School District employees and students may benefit from. Loggins and Geissler plan to open the website up for others to post more valid assessments to. The more we share the more we know!

6:30 to 8 p.m., ED 217 Danielle Ambrose Faculty sponsor: Tracy Smiles

Title: MS Ed Portfolio

Abstract: My MS Ed Portfolio is an electronic portfolio, which consists of a compilation of artifacts I have created and/or developed throughout the course of my program. Each artifact aligns with at least one ISTE Standard for Teachers. My portfolio also contains a section of my Best Work as well as a Literature Section containing three essays with a technology focus.

6:30 to 8 p.m., ED 217 **Daniel Bowman** *Faculty sponsor:* Adele Schepige

Title: Sports Medicine

Abstract: Sports medicine is an elective course for juniors and seniors that mixes health with physical education. This course will add knowledge and reinforce what students have learned in previous health and P.E. courses. The curriculum will address nutrition, injury prevention, diagnosis and treatment, and how to handle emergency situations. Students currently have a limited number of health and physical education courses to choose from. This course would expose students to

different careers as well as include and engage students on a daily basis while students interact and learn with each other.

6:30 to 8 p.m., ED 217 **Ryan Graville** *Faculty sponsor:* Adele Schepige

Title: Keyboarding Online

Abstract: Keyboarding Online is an online keyboarding program that is used at in high schools to help improve students typing. The teachers can take very hands off approach with teaching keyboarding with this program and let the student's type and learn on their own. Or they could demonstrate to the students how to properly type, make sure the students are using the correct form and be more involved in the typing experience. I compared both of these methods to see what helped improve students typing speed more. Preliminary data indicates that there is little difference between the two.

6:30 to 8 p.m., ED 217 Jillian Johnson Faculty sponsor: Adele Schepige

Title: Effects of Teaching Strategies on Students' Mathematical Anxiety Levels

Abstract: Mathematical anxiety is an increasing problem for today's students. It hinders students' abilities to perform mathematical tasks and ultimately limits their choices of courses and careers. This action research project examines ways that teachers can help reduce students' mathematical anxieties, and measures high school students' levels of math anxiety before and after these techniques have been implemented in an Algebra I classroom.

6:30 to 8 p.m., ED 217 Daniel Shelton Faculty sponsor: Adele Schepige

Title: Clarity of High School Grades to Students

Abstract: Grades are a big deal. There are a lot of stakeholders when it comes to a high school student: the teachers, the administration, the state government, the families, potential colleges, and let us not forget the students themselves. If grades are as significant as we all make them out to be, how clear is the system of grading to a typical high school student since the paradigm shift in education today?

6:30 to 8 p.m., ED 217 **Stacy Roberts** *Faculty sponsor:* Adele Schepige

Title: Curriculum Development: La historia de los Estados Unidos (History of the United States for Spanish Speakers)

Abstract: Native English speakers and long-time inhabitants of the U.S. often times take for granted the prior knowledge and linguistic skills that most English speakers have. These skills are not as readily available for our students who have recently immigrated to the United States. Often these students are not provided with enough support in their content classes. Yet, these students are required to pass U.S. history in order to graduate. For this reason I have created a U.S. history curriculum for Spanish speakers with the hope of making the content available for teachers teaching native Spanish speakers.

6:30 to 8 p.m., ED 217 Mandy Elder Faculty sponsor: Alicia Wenzel

Title: STEM-based, Next Generation Science Standard Biological Evolution: Unity and Diversity Curriculum Design

Abstract: Over the last decade, declining student test scores on national exams in math and science have caused concern among educative administrators. The question arises, what elements in a science curricula are needed to expand student knowledge necessary for success in science. The purpose of this curriculum development is to create a Next Generation Science Standard (NGSS) curriculum that emphasizes biological evolution in an effort to increase high school students' comprehension in scientific, technological, engineering, and mathematical (STEM) practices. This curriculum has been designed to equip students with skills necessary to perform STEM methods essential in real world biological evolution science.

6:30 to 8 p.m., ED 217

Kristen Balch Faculty sponsor: Alicia Wenzel

Title: Use of the Remind App and its Effect on Student Attitude and Performance in the Classroom

Abstract: Messaging applications, such as Remind, are designed to support students' independent management skills by providing teacher messages about additional content or upcoming assignments. This study examines the assumption that using these applications will increase student engagement and academic performance in the classroom. This study took place in a 9th grade physical science classroom over the course of approximately six weeks. Students were sent messages using Remind and data on student confidence in academic abilities, interest in science, and classroom performance were collected through pre- and post-surveys and typical classroom grading practices. Data analysis is ongoing.

6:30 to 8 p.m., ED 217

Brad Johnson

Faculty sponsor: Alicia Wenzel

Title: Ecology Curriculum Aligned with the Next Generation Science Standards

Abstract: This curriculum seeks to align an ecology curriculum with the new NGSS standards that are going to be a requirement for all science curricula in the coming years. This curriculum is designed to help student's learning by increasing engagement as well as increase expectations. This curriculum was created to address an ever-increasing drop in student engagement in science. It is aimed at students who have become disenfranchised about science, and it seeks to get those disenfranchised students to again want to learn science.

6:30 to 8 p.m., ED 217 Jared Wilcox Faculty sponsor: Alicia Wenzel

Title: Teaching German through Grammar-focused Tasks

Abstract: This curriculum development project includes lesson plans, which focus on teaching grammar in an introductory high school German course within a task-based instructional setting. For years language educators have debated whether grammar teaching is necessary. While task-based language teaching has been proven to effective, without explicit grammar teaching, learners lack essential grammatical skills needed for language proficiency. This leads to the following question: How can language learners obtain high levels of grammatical competence within task-based models? This project addresses this issue by creating grammar-focused lessons within the taskbased method according to the Willis' task-based approach.

6:30 to 8 p.m., ED 217 Kati Armstrong Faculty sponsor: Alicia Wenzel

Title: The 20th Century Through Film in Social Studies

Abstract: This professional project presents a curriculum that explores 20th century American history through the inclusion of film. Using film, the curriculum seeks to address issues of engagement and media literacy while creating another option for students to study history outside the normal curriculum. Technology, media, primary sources, and a collaborative approach help address the issue. Aimed at students who have not found success in the traditional curriculum model as well as students looking to study history through a new lens, the engagement levels of students will be increased by using film and popular media as a way to analyze history.

6:30 to 8 p.m., ED 217 Jon Pugsley Faculty sponsor: Alicia Wenzel

Title: Developing a High School Curriculum the Increases Civic Engagement Among Students through Service-Learning

Abstract: Civic engagement among young adults has declined rapidly over the last half-century. How can this trend be reversed? The purpose of this curriculum is to develop lessons developing students' understanding of civics, social activism and community involvement by embarking on a service-learning project to improve the communities in which the students live. This curriculum addresses the problem of low civic engagement by teaching McKay high school students the importance that civics has played in American society; giving them a foundation of learning upon which to build their service-learning projects.

6:30 to 8 p.m., ED 217 **Dawn Roden** *Faculty sponsor:* Heitho Reuter

Title: Reducing Math Anxiety for Students

Abstract: This study was conducted to help alleviate math anxiety with classical music. Anxiety can manifest in individuals with physical, psychological and/or behavioral disturbances in the classroom. More importantly math anxiety can curb a person's enthusiasm for school and can result in avoiding mathematical situations in the future. This study will observe and measure anxiety with self-assessments, observation and exit surveys that record an individual's stress level after listening to classical music. The data will be collected and interpreted to indicate whether or not a person's anxiety levels toward math are reduced by listening to classical music.

6:30 to 8 p.m., ED 217 Brynna Fuller Faculty sponsor: Heitho Reuter

Title: Interactive Anatomy: Utilizing Interactive iPad Apps in High School Human Anatomy Classroom

Abstract: Today's high school students are growing up in a society that values technical skills as well as college and career readiness. Interactive Anatomy: Utilizing Interactive IPad Apps in a High School Human Anatomy Classroom outlines a curriculum that is designed to increase levels of engagement and content understanding during a unit on the structure and function of the human skeletal system through the use of technology. The seven, ninety minute lessons included in this unit purposefully blend career and technical education with the use of interactive iPad apps to provide students with multiple opportunities to engage in critical thinking tasks.

6:30 to 8 p.m., ED 217 Ashley Taylor Faculty sponsor: Heitho Reuter

Title: Improving Social Interactions Through Dance Education

Abstract: The purpose of this study was to see if a dance education Unit would improve the social interactions of a Hispanic third grade class. This study took place in an elementary school physical education class. Data was collected prior, during and after the unit was taught. By using a tally system, student self-assessments and videos; data was collected to see if students' social interaction with their peers improved in their physical education class. The data shows how students felt about their social interactions, and showed if they treated others with more respect during class.

6:30 to 8 p.m., ED 217 Christopher Cramer Faculty sponsor: Heitho Reuter

Title: Can Deliberate use of Content Area-Literacy Components in Physical Education Improve Critical Thinking and High Order Thinking in 7th and 8th Graders?

Abstract: The purpose of this study was to use content-area literacy within a physical education curriculum to improve critical thinking skills of students. This study took place in a 7th grade physical education class in a soccer unit. Data was collected during small group discussions using observations by the teacher and an administrator, as well as video analysis. Students were evaluated using a critical thinking rubric. The data indicates that higher-level thinking skills can be improved within a physical education curriculum

6:30 to 8 p.m., ED 217 Lisa Rogers Faculty sponsor: Heitho Reuter

Title: Keeping High Achievers Engaged: An Investigation of Effective Strategies

Abstract: Student engagement is a hot topic in today's education world. In addition to supporting lower level and highrisk students in the classroom, we must keep our higher level students engaged and challenged as well. This case study on keeping high achievers engaged seeks to experiment with and determine effective strategies within a level one Spanish classroom. Over the course of four different class periods, the researcher implemented four different new strategies and collected data on their effectiveness in terms of student participation, level of engagement in the content, and level of being on-task during the activity.

6:30 to 8 p.m., ED 217 Sara Brown Faculty sponsor: Heitho Reuter

Title: Effects of Graphic Organizers on Student Writing: Strategies to Improve Student Writing

Abstract: Writing is an essential life skill that students will need throughout their education as well as when they enter the real world and work force. The purpose of this study was to determine if, through the use of graphic organizers, students' writing would show improvement in a 9th grade Language Arts class. Data collected for this study included students' perceptions about the usefulness of graphic organizers, student writing assignments (one not using a graphic organizer and one using a graphic organizer), and student engagement while using graphic organizers. Data was collected from February 23 to March 20, 2015.

THEATRE

Session title: Theatre Poster Presentations Session Chair: Michael Phillips Location: Werner University Center (WUC) Pacific Room

Posters

9 to 11 a.m., WUC Pacific Room Matthew Whitesell Faculty sponsor: Kent Neely

Title: Dramaturgy Protocol for John Patrick Shanley's Doubt

Abstract: An overview of what the field of dramaturgy typically is or can be, along with a pre-production dramaturgical notebook for John Patrick Shanley's Pulitzer Prize winning play, *Doubt.*

2 to 4p.m., WUC Pacific Room Bridget Rogers Faculty sponsor: Sandy Hedgepeth

Title: Designing Woman

Abstract: This costume design display will reflect Bridget Rogers' body of work for the Theatre/Dance department. From 2013 to 2015, Bridget developed her craft while designing productions such as *Spike Heels, Harmonic Fusion* in the Dance Concert 2014, and *None of the Above*. Her beautiful work skillfully creates the world of the play. Session title: *Frankie's Flights of Fancy* Session Chair: Michael Phillips Location: Rice Auditorium (RA)

Performance

2 to 3:30 p.m., RA

Student cast: Belladina Starr, Andrew De La Paz, Rebecca Bond, Edgar Lopez, Ken Tang, Madeline Brockman, Mike Johnston, Stephanie Kintz, and Andrew Thornton

Student design & technical staff: Andrew Thornton, Matthew Whitesell, Jade Rayner, Natalie Piper, Ian Knowland, Gabriel Elmore, Jodessa Chapa, Chanell Magee, and Jenny Dietrich

Title: Frankie's Flights of Fancy

Abstract: Frankie is your typical kid - bright eyed, curious, and always ready for action! So, when she finds a mysterious crate filled with lots of interesting things, her imagination runs wild, whisking her into strange and wonderful adventures. From the Old West to Japan, from the Circus to the Art Museum, Frankie's Flights of Fancy are all about childhood, curiosity, and most of all, imagination.

The 2015 Academic Excellence Showcase Planning Committee

Hamid Behmard, Stewart Boker, Brian Caster, Lisa Catto, Bryan Dutton, Myron Hoeckle, Sue Kunda, Ethan McMahan, Betty Orwick, Nathan Sauer

The Academic Excellence Showcase Planning Committee gratefully acknowledges the generous support of this program provided by President Mark Weiss and Provost 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 Myron Hoeckle and the Werner University Center staff for graciously accommodating all of our scheduling needs, especially at the WUC. Our appreciation is extended to Nathan Sauer and his staff for providing exceptional technologic support for the Showcase. We extend our gratitude to Leta Howell and her 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 and Betty Orwick from the Offices of Media Relations and Social Media, and Publications and Creative Services, respectively 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. 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 Visuaño 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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ACADEMIC EXCELLENCE SHOWCASE

THURSDAY, MAY 28, 2015

Proceedings of the 2015 Academic Excellence Showcase

Sponsored by: The Honor Society of Phi Kappa Phi and The Program for Undergraduate Research Experiences



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The Program for Undergraduate Research (PURE) invites you to submit your work to Western Oregon University's peer-reviewed undergraduate research journal: *PURE Insights*.

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 - Submissions have been cited by other publications, including peer-reviewed articles and theses.
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Submissions are accepted at any time but should be received on or before December 31 to be considered for inclusion in the spring issue.

The next online issue will be published May 2015

The current issue of *PURE Insights* is available online at: <u>http://digitalcommons.wou.edu/pure/</u>



Scan this to use your phone or tablet to view the journal online.

Complete Guidelines for Submissions and links for submitting work are available on the journal website. For questions about *PURE Insights* or the submission process, please contact Camila Gabaldón (<u>gabaldoc@wou.edu</u>).

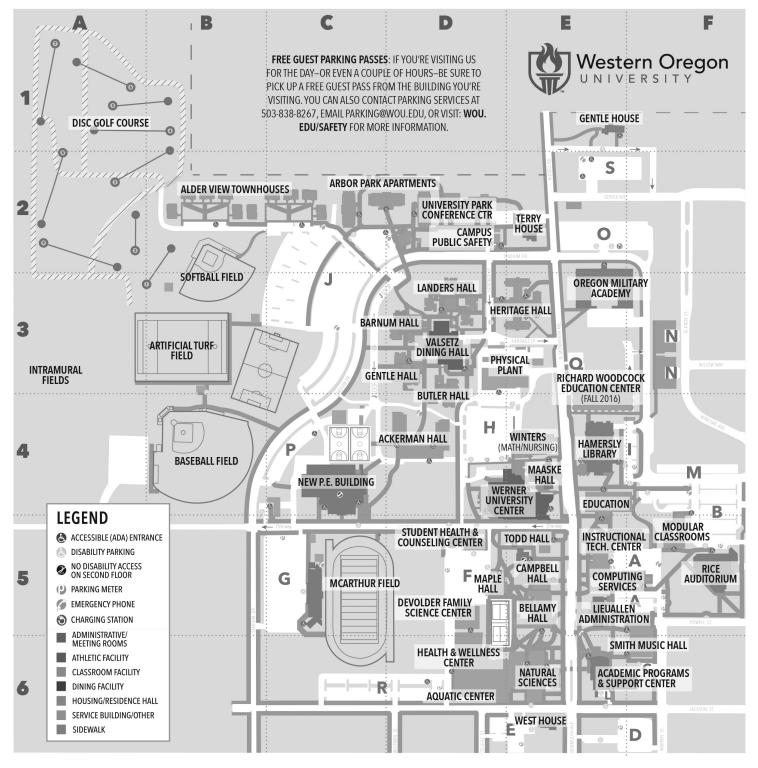
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West House E-6

7:30	7:00	6:30	6:00	5:30	5:00	4:30	4:00	3:30	3:00	2:30	2:00	1:30	1:00	12:30	12:00	11:30	11:00	10:30	10:00	9:30	9:00	8:30	8:00	
										M	ath													ACK 141
														٨	- e_ X7	CD								CH 101
														An	Art & VCD									CH 104
																Tea	cher E	Educa	tion					ED 204-5
	Т	eache	er Edi	ucatio	on	,						Deaf Studies & Professional Studies										ED 217		
															En	nglish	, Wri	ting &	& Lin	guist	ics			HL 107
																		Mo U						HSS 112
																		<u> </u>	Socio	ology		,		HSS 235
											Philo	sophy	7											HSS 336
									Eart	h & F	hysic	al Sci	ence											HWC 105
								•				H	ealth	& Exe	ercise	Scier	ice							HWC 203
												Spa	nish											HWC 204
										Co	mmu Stu	nicat dies	ion											HWC 205
						J	Co	mpute	er Scie	nce							A	nthro	polo	gy				ITC 211
																		Con	npute	er Sci	ence			ITC 3 rd Fl
]	Danc	e		Maple Hall
																	<u> </u>	Mat	hema	atics				MNB 104
											1	Cł	nemis	try						Ge		nors l Scier	nce	NS 101
						Biol	ogy							H	listor	у			1	<u>.</u>				NS 103
									Г	'heatı	e													Rice Aud.
										Мι	ısic				Mu	ısic	1							SH 121
										Mı	ısic	1												SH 122
																					Busi	iness		WUC Calapooia
															В	ehav	ioral S	Scienc	ce					WUC Calapooia
												Ab Ho	by's use						Spa	nish				WUC Santiam
								Pc	oster S	Sessio	ns									WUC Pacific				
																Mau	rice I	Prize						WUC Willamette
7:30	7:00	6:30	6:00	5:30	5:00	4:30	4:00	3:30	3:00	2:30	2:00	1:30	1:00	12:30	12:00	11:30	11:00	10:30	10:00	9:30	9:00	8:30	8:00	