The mission of the EWU Student Research and Creative Works Symposium is to promote student research, scholarship, and creative activity done in partnership with faculty as a vital component of higher education. Students, faculty, and administrators are invited to attend to hear and discuss undergraduate and graduate creative and scholarly work.

"When we all think alike then no one is thinking."

Walter Lippmann
Pulitzer Prize winning journalist
Eastern Washington University
12th Annual Student Research & Creative Works Symposium

Day One
Tuesday, May 19, 2009
5:00 p.m. – 9:10 p.m.
Creative Arts Complex

4:30 – 5:00 p.m. - Welcome and Presenter Check-In
Art Building, Entry (Art 1)

5:00 - 9:00 p.m. - Session 1: Art & Visual Communications Displays
Art Building, Gallery and Entry (Art 1)

4:30 – 8:00 p.m. - Appetizers and Refreshments Provided
RTV Courtyard

5:00 - 9:00 p.m. - Session 2: Music/ Music & Film Collaborations
Music Building, Recital Hall

5:10 - 7:50 p.m. - Session 3: Theatre
Theatre Building, University Theatre Lobby and Stage

5:10 - 8:30 p.m. - Session 4: Electronic Media & Film
RTV Building, Room 221
Eastern Washington University  
12th Annual Student Research & Creative Works Symposium

Day Two  
Wednesday, May 20, 2009  
8:00 a.m. – 6:00 p.m.  
Senior Hall

8:00 – 9:00 a.m. Welcome, Coffee and Pastries  
1st Floor

7:30 – 8:00 a.m. Presenter Check In  
1st Floor

8:00 a.m. – 4:00 p.m. Graduate Studies, EWU Library, HPPV Competition  
Visit the information tables located on the first floor

8:10 a.m. – 12:00 p.m. Morning Oral Presentations  
Rooms 101, 124, 201, 203, 204, 221, 243

9:30 a.m. – 11:30 a.m. Morning Poster Session  
2nd Floor Lounge and Room 306. Posters may be viewed throughout the day.

12:40 – 3:30 p.m. Afternoon Oral Presentations  
Rooms 101, 124, 201, 203, 204, 221, 243

1:00 – 3:00 p.m. Afternoon Poster Session  
Rooms 302/304 and 306. Posters may be viewed throughout the day

4:00 – 6:00 p.m. Keynote Address/ Awards Banquet*  
Pence Union Building, Multi-Purpose Room (PUB MPR)  
Dinner Provided

*Keynote Address by Dr. Tanya LaPier, EWU Department of Physical Therapy  
“An Accidental Researcher: It Could Happen to You Too”  
Please join us to recognize and celebrate the presenters and their faculty mentors as we present awards in recognition for outstanding presentations.
2009 Quote

Walter Lippmann

“When we all think alike, no one is thinking”

One of the key missions of the Student Research and Creative Works Symposium is to serve as a catalyst for sharing diverse forms of knowledge across varied disciplines at the University by providing a campus forum for encountering these many perspectives. This year the symposium committee has chosen this quote by journalist Walter Lippmann to exemplify that mission.

After graduating from Harvard University, Lippmann published *A Preface to Politics* (1913), a penetrating critique of popular prejudices. In 1914 he helped found the liberal *New Republic* magazine. His writings there influenced President Woodrow Wilson, who, after selecting Lippmann to help formulate his famous Fourteen Points and develop the concept of the League of Nations, sent him to the post-World War I peace negotiations for the Treaty of Versailles.

Lippmann began writing columns in 1921 for the reformist *New York World*, which he served two years (1929-31) as editor. Moving to the *New York Herald-Tribune*, he began his long-running column, "Today and Tomorrow." Eventually syndicated worldwide, the column won two Pulitzer Prizes and made Lippmann one of the most respected political columnists in the world.
Symposium Sponsors

EWU Office of the Provost  ▶ Graduate Studies
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McNair Scholars Program  ▶ Spokane Teachers Credit Union

Thank you to the generous individual donors

Ruth & Jerry Galm

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Tanya LaPier  ▶ Dean Jim Perez  ▶ Leslie Swannack

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Spokane Teachers Credit Union
for their generous donation towards
student awards, honorariums, and supplies

And to all students, judges, mentors, volunteers & departments
who have continually worked to make the symposium a success

♦♦♦♦

If you would like to contribute, envelopes are available in the Symposium office,
Showalter 217A.
Please make checks payable to: EWU Foundation, for Student Research & Creative
Works Symposium
Symposium Committee Members

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Mark Baldwin, Assistant Vice President, Undergraduate Affairs
Larry Briggs, Associate Vice President, Enrollment Services
Mindy Breen, Associate Professor, Visual Communication Design
Ron Dalla, Vice Provost, Graduate Education, Research, Academic Planning & Evaluation
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McNair Scholar Participants and Faculty Mentors

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Deseure DeBerry  Dr. Pui-Yan Lam, Social Work
Lilia Guillen  Dr. Robin Pickering, PEHR
Alexandria Harper  Dr. Philip Watkins, Psychology
Michelle Livengood  Dr. Jonathan Anderson, Psychology
Lisa Logan  Dr. Sally Winkle, Womens & Gender Studies
Natali Mendoza  Dr. Gina Petrie, Modern Languages & Literatures
Manee Moua  Dr. Amani El-Alayli, Psychology
Laura Preciado  Dr. Philip Watkins, Psychology
Amara Rieken  Dr. Jerry Galm, Anthropology
Matthew Scheffer  Dr. Robert Sauders, History
Marcus Walker  Dr. Gary Krug, Communications
Information Tables

EWU Library

EWU Libraries will have an information table available in the lobby of Senior Hall at the 2009 Creative Works Symposium. The table will hold information on library services such as RefWorks. The table will also provide information on upcoming library events such as Books2Eat and speakers, and other programs. The table’s main focus will be on RefWorks, an online footnoting and bibliography formatting feature of the Library Information System.

Graduate Studies

The EWU Graduate Studies Office will have an information table during the Symposium. Students considering advanced study beyond the bachelor’s degree will find information about more than 50 graduate programs offered at EWU, the application process, tuition and financial aid, contacts and deadlines, along with applications for admission. The friendly, professional staff members in the Graduate Studies Office are available to answer questions on the day of the Symposium and every weekday from 8 a.m. to 5 p.m. in 206 Showalter Hall, or by phone at 359-6297.

Human Powered Paper Vehicle (HPPV) Competition

Each year, Eastern Washington University (EWU) hosts the annual Intercollegiate Human Powered Paper Vehicle (HPPV) Engineering Competition. This engineering competition inspires students, challenges their engineering skill and creativity, and provides a format that limits the amount of money needed to field a competitive team. The basic concept is to construct a human powered vehicle out of 90% paper products (by weight). The remaining 10% can be any type of material and is limited only by the imagination of the designers. There are two parts to the overall competition, the first tests the vehicle’s performance while the second gauges the team’s presentation skills. These events are treated as separate portions of the overall competition with awards presented for each category, although participation in both events is required. On display will be vehicles from this year’s competition along with a video presentation capturing the performance trials and tribulations.
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<td>Session 9:</td>
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<td>Session 10:</td>
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<td>Session 11:</td>
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<td>Session 12:</td>
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- Morning Groups 1-4: \textsuperscript{2}nd floor lounge, Room 306 .......... 22-23
- Afternoon Groups 5-7: Rooms 302/304, 306 .................................................. 24-25

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As students and new graduates we often have a very specific and defined plan of what we want our career path to look like. As you gain professional experience you very likely will find yourself veering off that path, slightly or considerably. It is important to be open to a variety of career opportunities and challenges. I will share how my initial career aspirations of primarily clinical practice transformed over time to include research, teaching, and professional service. I will also discuss how these areas of professional work are overlapping and complementary to one another.

Biography

Tanya Kinney LaPier, PT, PhD, CCS, has been Distinguished Professor of Physical Therapy at Eastern Washington University for the past 5 years. She earned her BS in Physical Therapy from Ithaca College, MS in Exercise Physiology from the State University of New York at Buffalo, and PhD in Cardiovascular Physiology from Idaho State University. Dr. LaPier previously served on the faculty at Idaho State University for 8 years and the State University of New York at Buffalo for 2 years. She has worked in different clinical practice areas and has over eighteen years of experience as a physical therapist. Dr. LaPier is the only Board Certified Specialist in Cardiopulmonary Physical Therapy in Washington State. Dr. LaPier has published over 60 articles in peer-reviewed journals in the area of cardiovascular and pulmonary physiology and clinical practice. She currently is a member of the international World Confederation of Physical Therapy Summit on Global Health which is mandated to “identify physical therapy priorities in the 21st century and to base these priorities on the best international epidemiologic and global health indicators.” Dr. LaPier has also served as an Associate Editor for the Cardiopulmonary Physical Therapy Journal, Research Chair for the Cardiovascular and Pulmonary Section of the American Physical Therapy Association, and participant in the American Physical Therapy Association Clinical Research Agenda development. She has been the recipient of many prestigious awards including the Cardiovascular and Pulmonary Section Merit Award, Young Investigator Award at SUNY Buffalo, Graduate Faculty of the Year at Eastern Washington University, and Distinguished Researcher Award at Eastern Washington University.
Creative Works Presentation Schedule

Tuesday, May 19th 2009
Time: 5:00 – 9:10 p.m.

5:00 – 9:00 p.m. **Session 1: Art Exhibit***
*Art Building: Entry Foyer (Art 1) and Gallery*

5:00 – 9:10 p.m. **Session 2: Music**
*Music Building: Recital Hall*

5:10 – 7:50 p.m. **Session 3: Theatre**
*University Theatre: Lobby and Stage*

5:10 – 8:30 p.m. **Session 4: Film**
*Radio-Television (RTV) Building: Room 221*

* Both the B.F.A. Art Exhibit and Symposium Art pieces will remain on display in the Gallery throughout the day on the 20th.
Creative Works Session 1: Art Exhibit
Art Building, Entry Foyer (Art 1) and Gallery, 5:00-9:00 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Artist</th>
<th>Title</th>
<th>Mentor</th>
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</thead>
<tbody>
<tr>
<td>5:00 to 9:00</td>
<td>Andrew Taylor</td>
<td>Beautiful Ugly</td>
<td>Mindy Breen</td>
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<tr>
<td></td>
<td>Ariana Winger</td>
<td>To Set Foot on Seven Continents</td>
<td>Greg DuMonthier</td>
</tr>
<tr>
<td></td>
<td>Katie Irvin</td>
<td>Digital Painting</td>
<td>Greg DuMonthier</td>
</tr>
<tr>
<td></td>
<td>Sara Babcock</td>
<td>The Lost City of Popolac</td>
<td>Greg DuMonthier</td>
</tr>
<tr>
<td></td>
<td>Juventino Aranda</td>
<td>The Line in the Sand</td>
<td>Greg DuMonthier</td>
</tr>
<tr>
<td></td>
<td>Alyse Homan-Walker</td>
<td>The Devils Reject</td>
<td>Tom Askman</td>
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<tr>
<td></td>
<td>Jennifer Becker</td>
<td>Raging Waters</td>
<td>Shelley Murney</td>
</tr>
<tr>
<td></td>
<td>Maxine Holden</td>
<td>Release</td>
<td>Nancy Hathaway</td>
</tr>
</tbody>
</table>

Creative Works Session 2: Music, Music Building, Recital Hall, 5:00-9:10 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Composer/Filmmaker</th>
<th>Title</th>
<th>Mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:00</td>
<td>Natalya Lainhart</td>
<td>The Voyage</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>5:40</td>
<td>Alexander Wolfe</td>
<td>The Theory of Groove</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>6:00</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:15</td>
<td>Drew Stern/Jacob Powell</td>
<td>Romantic</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>6:35</td>
<td>Sam Neiland/Clancy Bundy</td>
<td>Toby Finally Gets It</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>6:55</td>
<td>Natalya Lainhart/JarreMarie Presley</td>
<td>Ode to Debbie</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>7:15</td>
<td>David Kobaly/Jeff Opdyke</td>
<td>One Sided</td>
<td>Jonathan Middleton</td>
</tr>
<tr>
<td>7:35</td>
<td>Break</td>
<td></td>
<td></td>
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<tr>
<td>7:50</td>
<td>Brian Burke/Melissa Pringle</td>
<td>Short Film</td>
<td>Jonathan Middleton, Don Goodwin</td>
</tr>
<tr>
<td>8:10</td>
<td>Christina Pendleton/Jason Baker</td>
<td>Fly Art</td>
<td>Jonathan Middleton</td>
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<tr>
<td>8:30</td>
<td>Brian Burke/Charles Howard-Fisch</td>
<td>Brownies</td>
<td>Jonathan Middleton, Don Goodwin</td>
</tr>
<tr>
<td>8:50</td>
<td>Nicholas Bailey/Spencer Peugh</td>
<td>Piece of Cake</td>
<td>Jonathan Middleton</td>
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</tbody>
</table>
## Creative Works Session 3: Theatre
University Theatre, Lobby and Stage, 5:10-7:50 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
<th>Title</th>
<th>Mentor</th>
</tr>
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<tbody>
<tr>
<td>Lobby 5:10 to 6:10</td>
<td>Baily Hollis</td>
<td>Make-up Portfolio</td>
<td>Sara Goff</td>
</tr>
<tr>
<td></td>
<td>Brandon Bogaert</td>
<td><em>The Dark at the Top of the Stairs</em></td>
<td>Don McLaughlin</td>
</tr>
<tr>
<td></td>
<td>Richy Lainson Jr</td>
<td><em>Sweeney Todd</em> A Complete Stage Design</td>
<td>Don McLaughlin</td>
</tr>
<tr>
<td>Stage 6:30</td>
<td>Jessica Johnson</td>
<td><em>The Discovery</em></td>
<td>Sara Goff</td>
</tr>
<tr>
<td>6:50</td>
<td>Tanya Amdal</td>
<td><em>The Promise</em></td>
<td>Sara Goff</td>
</tr>
<tr>
<td>7:10</td>
<td>Curtis Chandler</td>
<td><em>Tabula Rasa</em></td>
<td>Sara Goff</td>
</tr>
<tr>
<td>7:30</td>
<td>Grace Guenther</td>
<td><em>Hippies, Housewives and Watering Holes</em></td>
<td>Sara Goff</td>
</tr>
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## Creative Works Session 4: Film, RTV Building, Room 221, 5:10-8:30 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Filmmaker</th>
<th>Title</th>
<th>Mentor</th>
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</thead>
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<tr>
<td>5:10</td>
<td>Chris McLeneagan</td>
<td><em>Zombie Milk</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>5:20</td>
<td>Maggie Dority</td>
<td><em>Arabella</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>5:40</td>
<td>Tyler Cathey</td>
<td><em>The Upturned Face</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>6:00</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:10</td>
<td>Tyler Cathey, Nick Pearson</td>
<td><em>Thirteen</em></td>
<td>Tom Mullin</td>
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<tr>
<td>6:20</td>
<td>Christopher Clark</td>
<td><em>Junkie</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>6:40</td>
<td>Taylor Adams</td>
<td><em>And I Feel Fine</em></td>
<td>Tom Mullin</td>
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<tr>
<td>7:00</td>
<td>Break</td>
<td></td>
<td></td>
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<tr>
<td>7:10</td>
<td>Alex Magana</td>
<td><em>Summertime in the 50nine, In L.A., Serio Controla</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>7:25</td>
<td>Kevin Merritt</td>
<td><em>The Sofa Boys</em></td>
<td>Paul Lindholdt</td>
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<tr>
<td>7:40</td>
<td>Brittani Kelly</td>
<td><em>The Princess, The Prince &amp; the Enduring Darkness</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>7:55</td>
<td>Kiah Owen</td>
<td><em>Ghost Story</em></td>
<td>Tom Mullin</td>
</tr>
<tr>
<td>8:00</td>
<td>Tyler Cathey</td>
<td><em>The Caregiver</em></td>
<td>Tom Mullin</td>
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Oral & Poster Presentation Schedule

Wednesday, May 20th 2009
Time: 8:10 a.m. - 3:00 p.m.

Senior Hall

8:30 a.m. - 12:00 p.m.  Morning Oral Sessions: 1-7
(Rooms 101, 124, 201, 203, 221, 243)

9:30 a.m. - 11:30 a.m.  Morning Poster Session
(2nd Floor Lounge, Room 306; Groups 1-4)
* Posters will be available to view throughout the day.

12:40 - 3:30 p.m.  Afternoon Oral Sessions: 8-13
(Rooms 101, 124, 201, 203, 221, 243)

1:00 - 3:00 p.m.  Afternoon Poster Sessions
(Rooms 302/304, 306; Groups 5-8)
* Posters will be available to view throughout the day.

Pence Union Building (PUB)

4:00 - 6:00 p.m.  Keynote Address/Awards Banquet
Location: PUB Multi-Purpose Room (MPR)
Dinner will be served
### Oral Session 1: Psychology, Room 101, 8:30 a.m.-12:10 p.m.

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<td>8:30</td>
<td>Yvonne Daley</td>
<td>Perceptions of Social Support and Risk-Taking Behavior in People with HIV/AIDS</td>
<td>Kayleen Islam-Zwart</td>
</tr>
<tr>
<td>8:50</td>
<td>Shawn Pattison</td>
<td>Religion and Prejudice: The Role of Political Orientation, Religious Affiliation and Authoritarianism</td>
<td>Amani El-Alayli</td>
</tr>
<tr>
<td>9:10</td>
<td>Wendy Rosenau</td>
<td>Girls Gone Wild: The Effects of Parenting Practices on College Females’ Risky Behavior</td>
<td>Kurt Stellwagen</td>
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<td>9:30</td>
<td>Joel Renna, Kendra Anyan, Annelise Beaulieu, Velma Cruz</td>
<td>Posttraumatic Stress Disorder, Self-Disclosure and Gender</td>
<td>Kayleen Islam-Zwart</td>
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<tr>
<td>9:50</td>
<td>Angela Harmon</td>
<td>Relationship between Relational Aggression and Emotion Regulation</td>
<td>Kurt Stellwagen</td>
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<td>10:10</td>
<td>Break</td>
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<tr>
<td>10:30</td>
<td>Dani Schroeder, Laura Ruge, Tina Myers, Cindi Harding, Carley Cysensky</td>
<td>Depressant, Stimulant and Polysubstance Misuse as a Predictor of Neo Personality Traits</td>
<td>Kayleen Islam-Zwart</td>
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<td>10:50</td>
<td>Tina Myers, Cindi Harding, Nate Wareham, Kayla Grubaugh, Andrea Griechen</td>
<td>Malingering Proficiency as a Function of Emotional Intelligence and Cognitive Load</td>
<td>Kayleen Islam-Zwart</td>
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<td>11:10</td>
<td>Joanna Johnson</td>
<td>Does Gratitude Have Any Effect on an Individual’s Level of Self-Esteem?</td>
<td>Philip Watkins</td>
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<td>11:30</td>
<td>Lizabeth Stanley, Kellee Jarmin, Ashley Sprecher, Katie Jacot</td>
<td>Seeking Mental Health Services Are Influenced by Increasing Levels of Education and Moderate Religious Attendance</td>
<td>Kayleen Islam-Zwart</td>
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<td>11:50</td>
<td>Steven Carrasco</td>
<td>False Memory: How Accurate Is Your Memory?</td>
<td>Leonard Stern</td>
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### Oral Session 2: English I, Room 124, 8:30 a.m.-12:10 p.m.

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<tr>
<td>8:30</td>
<td>Matthew Gardner</td>
<td>A Stolen Child</td>
<td>Paul Lindholdt</td>
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<tr>
<td>8:50</td>
<td>Patty Rasmussen</td>
<td>A Critical Methodology for Approaching Chaucer’s Clerk’s Tale</td>
<td>Logan Greene</td>
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<tr>
<td>9:10</td>
<td>Dylan Medina</td>
<td>Contrasting Modes of Suffering in Poor Tom’s Soliloquy in King Lear</td>
<td>Paul Lindholdt</td>
</tr>
<tr>
<td>9:30</td>
<td>Julia Allen</td>
<td>Examining Female Empowerment in Anne Bradstreet’s Poetry</td>
<td>Judith Logan</td>
</tr>
<tr>
<td>9:50</td>
<td>Erica Morris</td>
<td>Devout but Nearly Silent Exploration: Mary Shelley’s Frankenstein</td>
<td>Christina Valeo</td>
</tr>
<tr>
<td>10:10</td>
<td><strong>Break</strong></td>
<td></td>
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</tr>
<tr>
<td>10:30</td>
<td>Frank Simpson</td>
<td>He Hallows in Order to Desecrate Byron’s Don Juan: A Critical Heritage</td>
<td>Christina Valeo</td>
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<tr>
<td>10:50</td>
<td>Max Hohner</td>
<td>Cathartic Social Rage: The Victorian Morality of Thomas Hardy’s Tragic Heroes</td>
<td>Beth Torgerson</td>
</tr>
<tr>
<td>11:10</td>
<td>Paul Lewis</td>
<td>Who Had the Better Trip? Comparing Thoreau’s Stay at Walden to Sal Paradise’s American Tour</td>
<td>Judith Logan</td>
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<tr>
<td>11:30</td>
<td>Alexis Hardy</td>
<td>Plath and Sexton’s Suicide: Depression or Social Oppression?</td>
<td>Beth Torgerson</td>
</tr>
<tr>
<td>11:50</td>
<td>Jessica Johnson</td>
<td>The Pain of Beloved: Confronting the Effects of the Past upon the Present</td>
<td>Judith Logan</td>
</tr>
</tbody>
</table>

### Oral Session 3: History and Art History, Room 201, 9:10 a.m.-12:10 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
<th>Title</th>
<th>Mentor</th>
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</thead>
<tbody>
<tr>
<td>9:10</td>
<td>Rachelle Malat</td>
<td>Transcendental Theology in Genesis and Exodus: God Is Not Part of the World</td>
<td>Georgia Bazemore</td>
</tr>
<tr>
<td>9:30</td>
<td>Kari McClure</td>
<td>The Collapse of the Athenian Empire</td>
<td>Georgia Bazemore</td>
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<tr>
<td>9:50</td>
<td>Lucas LeCaire</td>
<td>The Power of Visions and Miracles on the First Crusade: Peter Bartholomew and the Holy Lance</td>
<td>Georgia Bazemore</td>
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<tr>
<td>10:10</td>
<td>Allison Dittmar</td>
<td>Fountains Abbey: A Road towards Economic Success</td>
<td>Ann LeBar</td>
</tr>
<tr>
<td>10:30</td>
<td><strong>Break</strong></td>
<td></td>
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<tr>
<td>10:50</td>
<td>Blaine Wickham</td>
<td>A System of Control: A Look into Early Nineteenth Century Asylums and the Men That Ran Them</td>
<td>Laura Phillips</td>
</tr>
<tr>
<td>11:10</td>
<td>Adam Attwood</td>
<td>Walla Walla County Collections Cases and What They Indicated about the Credit System</td>
<td>Charles Mutschler</td>
</tr>
<tr>
<td>11:30</td>
<td>Matthew Scheffer</td>
<td>Islam, Secularism &amp; Nationalism: The Banning of the Hijab in Turkey</td>
<td>Robert Sauders</td>
</tr>
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</table>
# Oral Session 4: English II (TESL), Room 203, 8:30a.m.-12:10 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Amy Nickerson</td>
<td>Cesar Chavez: L2 Writers’ Response to Heritage, Language and</td>
<td>LaVona Reeves</td>
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<tr>
<td></td>
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<td>Culture in the Classroom</td>
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<tr>
<td>8:50</td>
<td>Daniel Ubaldo</td>
<td>“Walking through the Storm”: How ESL College Writers Respond</td>
<td>LaVona Reeves</td>
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<tr>
<td></td>
<td></td>
<td>to American Music</td>
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<tr>
<td>9:10</td>
<td>Huei Ting (Maggie) Lu</td>
<td>Embracing Diversity through Music in the ESL Writing Class</td>
<td>LaVona Reeves</td>
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<tr>
<td>9:30</td>
<td>Lance Chase</td>
<td>International Students in the American Classroom: How Visual</td>
<td>Tracey McHenry,</td>
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<tr>
<td></td>
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<td>Stimuli Can Help Bridge the Gap</td>
<td>LaVona Reeves</td>
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<tr>
<td>9:50</td>
<td>David Herman, Huei Ting (Maggie)</td>
<td>When East Meets West: A Look into the Challenges Faced by</td>
<td>LaVona Reeves</td>
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<tr>
<td></td>
<td>Lu</td>
<td>Chinese Students When Entering an American Classroom</td>
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<tr>
<td>10:10</td>
<td>Jessica Dinneen</td>
<td>Anomie in College ESL Writers: Exploring Ethnic &amp; Linguistic</td>
<td>LaVona Reeves</td>
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<td>Identity through Personal Narrative</td>
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<td>10:30</td>
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<td><strong>Break</strong></td>
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<tr>
<td>10:50</td>
<td>Natali Mendoza</td>
<td>Implications of Cultural Awareness on the Development of a</td>
<td>Gina Petrie</td>
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<td></td>
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<td>Distance Language Course</td>
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<tr>
<td>11:10</td>
<td>Andrea Whittemore</td>
<td>Computer-Mediated Communication and Student Discourse: Online</td>
<td>LaVona Reeves</td>
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<td>Discussion Boards as Pre-Speaking Resources</td>
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<td>11:30</td>
<td>Jillian Andre</td>
<td>Written Response to ESL Student Writing: An Exploration of</td>
<td>LaVona Reeves</td>
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<td>Issues and Implications for Practice</td>
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<tr>
<td>11:50</td>
<td>Elena Pipenko</td>
<td>Non-Native English-Speaking Teachers: Challenges and</td>
<td>LaVona Reeves</td>
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<td></td>
<td></td>
<td>Contributions to Profession</td>
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</table>
# Oral Session 5: Biology and Chemistry/Biochemistry

Room 204, 8:10 a.m.-12:10 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:10</td>
<td>Tonya Vanover</td>
<td>Visitor Impacts on Cave Entrances at Lava Beds National Monument</td>
<td>Suzanne Schwab</td>
</tr>
<tr>
<td>8:30</td>
<td>Michelle Warter</td>
<td>Study of Magnetization in Ag(pyz)$_2$(S$_2$O$_8$) (pyz=Pyrazine)</td>
<td>Jamie Manson</td>
</tr>
<tr>
<td>8:50</td>
<td>Mark Paluch</td>
<td>Movements of Bull Trout <em>Salvelinus confluentus</em> When Released Above a Dam</td>
<td>Allan Scholz</td>
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<tr>
<td>9:10</td>
<td>Katie Wagner</td>
<td>The Cost of Migration Distance: Comparing Swimming Performance of Reintroduced Coho Stocks of the Columbia Basin</td>
<td>Thomas Hancock</td>
</tr>
<tr>
<td>9:30</td>
<td>Candace Bennett</td>
<td>Study of Magnetization in Ag(pyz)$_2$(S$_2$O$_8$) (pyz=Pyrazine)</td>
<td>Margaret O’Connell</td>
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<tr>
<td>9:50</td>
<td>Cara Hulce</td>
<td>Movements of Bull Trout <em>Salvelinus confluentus</em> When Released Above a Dam</td>
<td>Rebecca Brown</td>
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<td>10:10</td>
<td>Break</td>
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<tr>
<td>10:30</td>
<td>Yohan Kim</td>
<td>Development of a Method for Culture of Thin Sections of Mammalian Ovaries</td>
<td>Charles Herr</td>
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<tr>
<td>10:50</td>
<td>Philip Baker</td>
<td>Research Directed toward an Improvement in <em>Drosophila melanogaster</em> Embryo Cryopreservation</td>
<td>Charles Herr</td>
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<tr>
<td>11:10</td>
<td>Michael Baker</td>
<td>Quantifying the Rates Achievable Using Different Methods of Liquid Nitrogen Cooling</td>
<td>Charles Herr</td>
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<tr>
<td>11:30</td>
<td>Cassandra Pharr</td>
<td>Phenotypic Plasticity: Genetic Variation and Environmental Effects</td>
<td>Thomas Hancock</td>
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<tr>
<td>11:50</td>
<td>Whitney Pinches</td>
<td>Examination of Polyhydroxypolyamines as Non-Viral Gene Delivery Agents in Mammalian Cells</td>
<td>Travis Denton</td>
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</tbody>
</table>
Oral Session 6: Women’s and Gender Studies, Children’s Studies, Sociology and Anthropology, Room 221, 8:30 a.m.-12:10 p.m.

<table>
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<th>Time</th>
<th>Author</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Lisa Logan</td>
<td>“French Twist’s” Loli as a Representation of the Lived Experience of Bisexual Motherhood</td>
<td>Sally Winkle</td>
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<tr>
<td>8:50</td>
<td>Daniel Bigler</td>
<td>Taming Children’s Wildness: The History of the American Playground</td>
<td>Sue Wright</td>
</tr>
<tr>
<td>9:10</td>
<td>Deseure DeBerry</td>
<td>African-American Women: Perspectives on Oppression and Resulting Activisms</td>
<td>Pui-Yan Lam</td>
</tr>
<tr>
<td>9:30</td>
<td>Cary Buchmann</td>
<td>The Effects of Capitalism on Social Structure</td>
<td>Julia Smith</td>
</tr>
<tr>
<td>9:50</td>
<td>Paul Brown</td>
<td>Wok Music</td>
<td>Natalie Kusz</td>
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<tr>
<td>10:10</td>
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<tr>
<td>10:30</td>
<td>Alice Mizer</td>
<td>Re-Thinking the Pitcairn Collapse</td>
<td>Julia Smith</td>
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<tr>
<td>10:50</td>
<td>Amber Pitzler</td>
<td>Is Tactile American Sign Language Its Own Language?</td>
<td>Jocelyn DeHaas</td>
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<tr>
<td>11:10</td>
<td>Michaela Hoban</td>
<td>Made By Hand: Modes of Consumption as Driven by Perceptions of Fashionability</td>
<td>Michael Zukosky</td>
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<tr>
<td>11:30</td>
<td>Ryan Johnson</td>
<td>Playing Soldiers: Lacking Economic Opportunities and Child Soldiers</td>
<td>Julia Smith</td>
</tr>
<tr>
<td>11:50</td>
<td>Emily Nisbet</td>
<td>Reconstructing Neanderthal Faces</td>
<td>Sarah Keller</td>
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</table>

Oral Session 7: Communication Studies Room 243, 9:30-12:10 p.m.

<table>
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<th>Time</th>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>9:30</td>
<td>Joy York</td>
<td>The Predictability of Chaos</td>
<td>Heather Robinson</td>
</tr>
<tr>
<td>10:10</td>
<td>Catherine Lyons-Holestine</td>
<td>E.V.E. – The New Disney Heroine</td>
<td>Heather Robinson</td>
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<tr>
<td>10:30</td>
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<tr>
<td>10:50</td>
<td>Paul Warner</td>
<td>Community and Content: Reinvigorating the Local Newspaper</td>
<td>Paul Lindholdt</td>
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<tr>
<td>11:10</td>
<td>Justine Kondo</td>
<td>The Turkish Media System and Its Significance in the Turkey-EU Accession Debate</td>
<td>Peter Shields</td>
</tr>
<tr>
<td>11:30</td>
<td>Dustin Massie</td>
<td>The Role of Anticipatory Programs in ‘Pushing-Out’ National Borders</td>
<td>Peter Shields</td>
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</table>
### Oral Session 8: Engineering and Design, Room 101, 12:40-3:30 p.m.

<table>
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<th>Time</th>
<th>Author</th>
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<tbody>
<tr>
<td>12:40</td>
<td>Jessica Earle</td>
<td>Design Ethics: Philosophy and Visual Communication</td>
<td>Mindy Breen</td>
</tr>
<tr>
<td>1:00</td>
<td>Paul Gorka, Sean Smith</td>
<td>Implementing Principles of Universal Design into a Classroom Desk</td>
<td>Donald Richter</td>
</tr>
<tr>
<td>1:20</td>
<td>Jessica Spurr, Bret Emry, Quinn Griffith, Robb Mann</td>
<td>Cardboard C.O.G.s: Experiments with Paper</td>
<td>Donald Richter</td>
</tr>
<tr>
<td>1:40</td>
<td>Justin Wagner</td>
<td>Implementation of DC Watermarking for Digital Audio Signals</td>
<td>Min-Sung Koh</td>
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<tr>
<td>2:00</td>
<td></td>
<td>Break</td>
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<tr>
<td>2:10</td>
<td>Patrick Boland, Juan Rivera</td>
<td>Demonstration of Fluid Pumps</td>
<td>Donald Richter</td>
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<tr>
<td>2:30</td>
<td>Adam Huson</td>
<td>Power Supply Design</td>
<td>Esteban RodriguezMarek</td>
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<tr>
<td>2:50</td>
<td>Sean Smith, Paul Gorka, Juan Rivera, Patrick Boland</td>
<td>Planning For and Competing in the Human Powered Paper Vehicle Competition</td>
<td>Donald Richter</td>
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### Oral Session 9: English III, Room 124, 12:40-3:30 p.m.

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<th>Time</th>
<th>Author</th>
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<tbody>
<tr>
<td>12:40</td>
<td>Quin Benzel</td>
<td>A Decade of Revision: American Directors as Auteurs</td>
<td>Paul Lindhold</td>
</tr>
<tr>
<td>1:00</td>
<td>Krista Beattie</td>
<td>The Freedom of Self-Reliance in America as Dictated by Famous Historical Writings</td>
<td>Judy Logan</td>
</tr>
<tr>
<td>1:20</td>
<td>Ryan Siemers</td>
<td>Exploiting Campbell’s Monomyth: America as Hero in Bush’s 2003 State of the Union Address and Obama’s 2009 Address to a Joint Session of Congress</td>
<td>Dana Elder</td>
</tr>
<tr>
<td>1:40</td>
<td>Peter Moe</td>
<td>The Aristotelian Rhetoric of Martin Luther King Jr’s Metaphors</td>
<td>Dana Elder</td>
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<tr>
<td>2:00</td>
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<td>Break</td>
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<tr>
<td>2:10</td>
<td>Erika Bronson</td>
<td>Selling Grizzly Bears: Civic Engagement and Service Learning in Introductory Technical Communication Courses</td>
<td>Teena Carnegie</td>
</tr>
<tr>
<td>2:30</td>
<td>Nicole Hardina</td>
<td>On Homelessness and Art</td>
<td>Natalie Kusz</td>
</tr>
<tr>
<td>2:50</td>
<td>Yvonne Lucero</td>
<td>Coming of Age in the Age of Communication</td>
<td>Natalie Kusz</td>
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### Oral Session 10: Philosophy, Room 201, 12:40-3:30 p.m.

<table>
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<tr>
<th>Time</th>
<th>Author</th>
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<tbody>
<tr>
<td>12:40</td>
<td>Josh White</td>
<td>A Critique and Definition: The Soul</td>
<td>Christopher Kirby</td>
</tr>
<tr>
<td>1:00</td>
<td>Jon Hilliard</td>
<td>Perspectives on Enlightenment: Plato and Aristotle</td>
<td>Christopher Kirby</td>
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<tr>
<td>1:20</td>
<td>Cristen Royce</td>
<td>Grotius Who?</td>
<td>Kevin Decker</td>
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<tr>
<td>1:40</td>
<td>Richard Devenport</td>
<td>Recovering the Relevance and Immediacy of Locke’s Property Theories: The Capitalist Exegesis and Critical Misunderstandings</td>
<td>Kevin Decker</td>
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<td>2:00</td>
<td><strong>Break</strong></td>
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<tr>
<td>2:10</td>
<td>Ryan Weldon</td>
<td>Riffs on Freedom in a Determined Universe: Spinoza Presents a Foundation for Democracy</td>
<td>Kevin Decker</td>
</tr>
<tr>
<td>2:30</td>
<td>Matthew Holmes</td>
<td>“From the Papers of One Still Convicted”: An Experiment in Double-Reflection as a Form of Philosophical Expression</td>
<td>Thomas Hawley</td>
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<tr>
<td>2:50</td>
<td>Bil Childress</td>
<td>The Problem(s) with Gettier Problems</td>
<td>Mimi Marinucci</td>
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<tr>
<td>3:10</td>
<td>Joseph DeLong</td>
<td>The Rhizomatic Panopticon</td>
<td>Kevin Decker, Mimi Marinucci</td>
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### Oral Session 11: English Panel Discussion, Room 203, 1:00-1:30 p.m.

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Summer Hess, Ross Carper, Brandon Getz, Luke Hammons</td>
<td>Writers in the Community: How EWU Writers Are Making a Difference in Spokane</td>
<td>Rachel Toor</td>
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</tbody>
</table>
Oral Session 12: Creative Writing, Room 204, 12:40-3:30 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>12:40</td>
<td>Manda Frederick</td>
<td>Process-Based Pedagogy</td>
<td>Natalie Kusz</td>
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<tr>
<td>1:00</td>
<td>Andrew Bartels</td>
<td>Developing a Personal Style: Voice, Image and Tone</td>
<td>Rachel Toor</td>
</tr>
<tr>
<td>1:20</td>
<td>Justin Abel</td>
<td>The Rise of the Graphic Novel on Screen</td>
<td>Paul Lindholdt</td>
</tr>
<tr>
<td>1:40</td>
<td>Brittani Kelly</td>
<td>Boys Don’t Cry: Hilary Swank’s Brandon Teena</td>
<td>Tom Mullin</td>
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<td>2:00</td>
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<tr>
<td>2:10</td>
<td>Aubra Godwin</td>
<td>Monster is Dead</td>
<td>Paul Lindholdt</td>
</tr>
<tr>
<td>2:30</td>
<td>Scott Eubanks</td>
<td>A Nonfiction Essay Unblemished</td>
<td>Rachel Toor</td>
</tr>
<tr>
<td>2:50</td>
<td>Claire Barnard</td>
<td>The Clown Wars</td>
<td>Paul Lindholdt</td>
</tr>
<tr>
<td>3:10</td>
<td>Melissa Lindstrum</td>
<td>Bird’s the Word: The Winged, The Flightless and Contemporary Poem</td>
<td>Christopher Howell</td>
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</table>

Oral Session 13: Government, Public Administration and Health Services Administration, Room 221, 1:00-2:20 p.m.

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Cara Myers</td>
<td>Micro-Credit in Bangladesh: A Sustainable Model for Poverty Alleviation</td>
<td>Vandana Asthana</td>
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<tr>
<td>1:20</td>
<td>Mark Peckham</td>
<td>Deadly Dividends: Pakistan’s Use of Non-State Proxies and the Deteriorating Security Situation in South Asia</td>
<td>Vandana Asthana</td>
</tr>
<tr>
<td>1:40</td>
<td>Colette Chenault</td>
<td>The Spirituality in Leadership</td>
<td>Robert Zinke</td>
</tr>
<tr>
<td>2:00</td>
<td>Amanda Haynes</td>
<td>Health Care: A Right or a Privilege in the United States – Health Care Should Be a Right and Not a Product Available Only to the Rich</td>
<td>Mary Ann Keogh-Hoss</td>
</tr>
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</table>
### Oral Session 14: Physical Therapy and Occupational Therapy
#### Room 243, 1:00-2:40 p.m.

<table>
<thead>
<tr>
<th>Time</th>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Cassie Malecha</td>
<td>Ergonomic Solutions for the Construction Industry: Development of an Online Database</td>
<td>Dan Anton</td>
</tr>
<tr>
<td>1:20</td>
<td>Justin Kitchen</td>
<td>Telephone Survey vs. On-Site Survey for Determining the Prevalence of Ergonomic Intervention Use in the Masonry Industry</td>
<td>Dan Anton</td>
</tr>
<tr>
<td>1:40</td>
<td>Paul Moraski</td>
<td>2-Mason Lift Technique Video on YouTube.com for Distribution of Ergonomic Masonry Study Results</td>
<td>Dan Anton</td>
</tr>
<tr>
<td>2:00</td>
<td>Megan Kranenburg</td>
<td>Gait Deficiencies in a Patient with Bipolar Schizoaffective Disorder</td>
<td>Kimberly Cleary</td>
</tr>
<tr>
<td>2:20</td>
<td>Kelly Bunkers, Nathan Miller, Don Rupe, Laura Smith, Marissa Williams</td>
<td>Notable Changes, from a Parent/Primary Caregiver Perspective, in Social Participation with Their Children Diagnosed with Autism Spectrum Disorder and Those with Like Symptoms Using a D.I.R./Floortime Based Occupational Therapy Program</td>
<td>Roberta Russell, Donna Mann</td>
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# Poster Session

**Rooms 302/304, 306 and 2nd Floor Lounge 9:00 a.m to 3:30 p.m.**

Presenters for Groups 1-4 will be available to discuss their posters 9:30-11:30 a.m.; Groups 5-8 from 1:00-3:00 p.m.

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<td>1. Psychology</td>
<td>Elizabeth Bradstreet, Tara McBride, Michelle Prunier-Smith, Denna Steinmetz</td>
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<td>Memory Self-Awareness Following TBI: Evaluating “Offline Assessment” and “Online Assessment” Methodologies</td>
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<td>Lisa Zawacki, Claire Collins</td>
<td>Generalized Anxiety Disorder as a Predictor of Religious Commitment</td>
<td>Kayleen Islam-Zwart</td>
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<td>Amy Lykes, Sara Boots, Cory Thayne</td>
<td>The Effects of Posttraumatic Stress Disorder and Socioeconomic Status on Religiosity</td>
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<td>Gratitude and Positive Memory Bias</td>
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<td>Gene Crow, Jeff Schell, Andrew Huffaker, Kim Hiatt</td>
<td>Marijuana Use as a Predictor of Marital Satisfaction</td>
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<td>Katrina Sugano, Kelsey Usher and Sheshana Mahmood</td>
<td>Psychosis Symptoms in Relation to Marijuana and Stimulant Use</td>
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<td>11. Psychology</td>
<td>Andrew Johnson, Akiko Uematsu, Carly Probasco, Denise Parham</td>
<td>Perceived Levels of Locus of Control When Subjected to Rape</td>
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<td>Leandra Shaver, Annette Hubbard, Jeff Bafus</td>
<td>Differences in Achievement on Washington Assessment of Student Learning Scores for Schools with High and Low Level Readiness in Response to Intervention</td>
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<td>15. Psychology</td>
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<td>Trends in Special Education Placement Rates Between Schools with High and Low Levels of Response to Intervention</td>
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<td>Amani El-Alayli</td>
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<td>Stacie Leech, Adrienne Anderson, Annette Hubbard, Nicole Schultz</td>
<td>Ethnicity as a Predictor to Number of Marriages Over One’s Lifetime</td>
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<td>Are Muslims Treated Differently by Rental Agents When Seeking Housing?</td>
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<p>| 20. Chemistry and Biochemistry | Gregory Herting | Characterization of the Human P32T RdgB Mutant Protein | Nicholas Burgis |
| 21. Chemistry and Biochemistry | Ayaka Mori | Site Directed Mutational Analysis of Human RdgB, a DNA Repair Enzyme | Nicholas Burgis |
| 22. Chemistry and Biochemistry | Katie Anderson | A Comparison of PCR Amplification Methods to Obtain DNA Profiles from UV Degraded DNA | Peter Bilous |
| 23. Chemistry and Biochemistry | Aaron Sachs, Tara Ransom | Comparative Evaluation of Activated Charcoal Products in the Analysis of Common Ignitable Fluids | Peter Bilous |
| 24. Chemistry and Biochemistry | Jael Johnston, Crystal Decker | Is Your Tea Safe? | Peter Bilous |
| 26. Biology | Dava Lomax | Hormone Induced Oogenesis in Out-of-Season Rana pipiens | Charles Herr |</p>
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Presenter Abstracts
(In Alphabetical Order)

The Rise of the Graphic Novel on Screen
Justin Abel, Undergraduate
Paul Lindholt, English

The presentation will focus on the adaptation of the graphic novel into film. I will give proof that a winning adaptation of the graphic novel into cinema is dependent upon the filmmakers understanding of the graphic novel as art with integrity. I will examine particular aspects of adaptation such as the use of the art of the graphic novel as a reference for storyboarding, and a basis for mise en scene in film adaptations. In this, I will illustrate the contrasts and similarities between both visual mediums, and the fragility of translation from page to screen. I will also address how the graphic novel’s characterization and story translates into film, the challenges and failures of recent film adaptations of the graphic novel, as well as recent successful adaptations. Finally, I will examine Alan Moore’s *Watchmen* and its recent film version. *Watchmen* is considered to be the highest masterpiece in the genre of the graphic novel, and the presentation will demonstrate the artistic integrity of both works alone and relative to each other. I will first exemplify *Watchmen* as a comprehensive artistic triumph, and then compare the adaptation to it.

Are Muslims Treated Differently by Rental Agents when Seeking Housing?
Rasmiah Abou-Ammo, Graduate
Azra Grudic (co-author)
Amani El-Alayli, Psychology

Employment and housing discrimination against Muslims has increased since 9-11-01. The present study investigated housing discrimination against Muslims in Spokane. Since discrimination has become subtler over time, we examined how encouraging rental agents were when speaking to potential renters, rather than specific responses about apartment availability. Male and female research assistants called various rental agents and provided a Muslim or Christian name when inquiring about apartments. Coders (blind to the experimental condition) listened in and rated how satisfied they were with the information provided by the agent and kept track of how much information the rental agent provided to the caller. Results suggested that, for female callers, the rental agents provided equal or greater information when she used a Muslim name, whereas the reverse was true for male callers. One possible explanation is that, due to the area’s history of being tested for housing discrimination, the rental agents attempted to avoid discriminating against the female Muslim caller, resulting in them being more informative. However, their motivation to avoid discriminating was not strong enough to outweigh their prejudice towards Muslim males.

And I Feel Fine
Taylor Adams, Undergraduate
Tom Mullin, Electronic Media and Film

It's the end of the world as we know it, and all Zeke wants to do is bury his sister Sara. Adapted from Stephen Crane's *The Upturned Face*.
Examining Female Empowerment in Anne Bradstreet's Poetry
Julia Allen, Undergraduate
Judith Logan, English

As one of the earliest American poets, and as a Puritan, critics have examined Anne Bradstreet’s poetry through the lens of her religion rather than that of her gender. Studies of Bradstreet’s work tend to neglect her exploration of gender in favor of her relationship with God, or claim she wrote of her gender negatively due to the Puritan emphasis on female inferiority. I argue not only that Anne Bradstreet presented a nuanced and empowered view of femininity throughout her body of work, but also that did so because she adhered strictly to the Bible and the Puritan ideal of Total Depravity.

The Promise
Tanya Amdal, Graduate
Sara Goff, Theatre

My abstract is a one person 15 minute performance of the most important moments of my life. I have entitled the piece The Promise because I focus on the difficulties I have experienced with my mother and at the end I promise my daughter that I will strive to be a better mother to her. I spend time dealing with difficult subjects like my mom's affair, when she slapped me, and getting kicked out of the house, but in the end during my difficult delivery of my own daughter my mom was there to support at the most important time. My theatrical performance is not light hearted, but through the tough subject matter I show that all moms make mistakes and all we can do is learn from them and try not to repeat them.

A Comparison of PCR Amplification Methods to Obtain DNA Profiles from UV Degraded DNA
Katie Anderson, Undergraduate
Peter Bilous, Chemistry and Biochemistry

DNA isolated from crime scene evidence is often degraded due to environmental factors such as heat, sunlight, & microbial growth. The purpose of this research was to determine which method or combination of methods would yield the best DNA profiles from degraded DNA samples. Human DNA samples were exposed to UV radiation for different periods of time then amplified using PCR-based DNA amplification kits from Applied Biosystems (ABI). DNA profiles were obtained using the ABI 310 capillary-gel electrophoresis instrument. Two Short Tandem Repeat (STR) amplification kits, AmpF™STR® Profiler Plus® and AmpF™STR® MiniFile™, were compared. In addition, two other kits were evaluated for their possible beneficial effects: a PCR amplification enhancement reagent, STRboost (Biomatrica®), and a post-amplification clean-up kit, MiniElute (QIAGEN®).

Teenage Marijuana Use – A Personal Experience
Brittney Andrade, Undergraduate
Paul Lindholdt, English

The illegal use of marijuana in teenagers is extensive and increasing each year that passes. I have gone through a personal experience with my younger brother which resulted in different family problems. I used my personal experience as a starting point for my research and intertwined research within my personal experiences with the drug.
Written Response to ESL Student Writing: An Exploration of Issues and Implications for Practice
Jillian Andre, Graduate
LaVona Reeves, English

“Written Response to ESL Student Writing: An Exploration of Issues and Implications for Practice” will discuss the current issues in teacher response to ESL student writing, specifically as they relate to written commentary. This presentation will provide a brief survey of past and present debates and studies in both native English-speaking and English as a Second Language composition programs and their influence on current ESL composition instruction, specifically in the area of written commentary to student writing. Suggestions will be made, based on interpretations of these studies and debates, for a general guideline for effective written commentary on ESL student papers. The main goal of this presentation will be to cater especially to questions that first-year composition teachers ESL programs have about addressing content and conventions in their students’ papers. An additional expectation is that the suggestions in this research may also provide insights for novice mainstream English composition teachers when responding to papers of ESL students that are enrolled in their courses.

The Line in the Sand
Juventino Aranda, Undergraduate
Greg DuMonthier, Art

A video installation of mixed media and its relationship between high Art and low Art.

Toward the Synthesis of Novel, Biodegradable, Absorbent Polymeric Hydrogels Using Varied Hydrocarbon Chain Length Diamines, Polyamine Crosslinkers and Methyl glucarate-1,4-lactone
Marcus Arieno, Undergraduate
Travis Denton, Chemistry and Biochemistry

Polymer chemistry has traditionally been the province of the oil industry. Materials such as plastics, styrofoam and absorbant gels are not typically biodegradable or environmentally friendly. The ultimate goal of this research is to synthesize novel, biodegradable, absorbent polymeric gels that can be implemented to absorb and sequester spills. Another use of the gels is to provide a matrix for time-release drug delivery. Since the structure of the gel is crosslinked, other applications include the production of new types of electrophoresis gels which can have selective pore sizes by modulating the crosslink density. This project investigates the method to produce copolymer crosslinks of varying hydrocarbon chain length, which employs use of the Michael reaction between diamines and acrylonitrile along with subsequent hydrogenation techniques. Small stoichiometric amounts of crosslinker will be added to diamine and methyl glucarate-1,4-lactone and allowed to condense under microwave conditions. The results of these experiments will be discussed.
Walla Walla County Collections Cases and What They Indicated about the Credit System, 1860-1861
Adam Attwood, Graduate  
Charles Mutschler, History  
William T. Youngs, History

The Frontier Justice records stored in the Washington State Archives-Eastern Branch contain information about the local economy during Washington's frontier days as a Territory. Civil cases on promissory note defaults and collections provide a means of examining the early 1860s credit economy in Walla Walla County. These cases indicate that there was a vibrant credit system. When either a business or an individual citizen defaulted, plaintiffs usually won. Discussion will also include how this research was accomplished via a combination of digital and paper archives.

Virtual Water and the Fungibility of the Global Water Supply
Brendan Ault, Undergraduate  
Robert Sauders, Anthropology

Water consumed in the production process of an agricultural or industrial product has been called the virtual water contained in the product. If one country exports a water intensive product to another country, it exports water in virtual form. In this way water rich countries support countries that are water scarce. Virtual water thus creates a flow of primarily agricultural goods which represents the flow of water resources to the consumer through these products. While the vast majority of liquid water remains with the producer, the importer is able to import these goods to sustain increasing population densities and urbanization in regions which are water stressed or water scarce. This creates a special resource situation that transforms water into a fungible good. Much like oil, there is an equal, and easily replaceable supply of food exports from all over the world. My poster examines the flow of virtual water across the globe and relates this flow to the increase in population densities and urbanization in areas which are extremely water scarce.

The Lost City of Popolac
Sara Babeock, Undergraduate  
Greg DuMonthier, Art

The city of Podujevo, located in Eastern Europe, once had a sister city called Popolac. The city was lost after a great tragedy in which most of its citizens perished. Archaeologist William Schmitz found the remaining evidence of Popolac's existence in 1889.
**Piece of Cake**
Nicholas Bailey, Undergraduate
Spencer Peugh (Filmmaker)
Jonathan Middleton, Music

For this project, I collaborated with Spencer Peugh of the EWU film department to write the score for his film *Piece of Cake*. In the film you see a woman struggling to bake a cake we don't know why. We see her nearly have a nervous breakdown in the process. Eventually she gives up and relaxes on a couch where she sees a teddy bear and decides to give it another go. My first reaction to this was that the overall meaning of the film was that "it's the thought that counts," idea not the act. My creative process for this piece was to take a pre-composed piece of music (given the time constraints) and adapted to the film. The director (Spencer) said that he wanted strings or piano used as instrumentation. I gave him the idea of solo guitar; he agreed. I chose classical guitar because of its warm timbre. To sync the music with the film I simply recorded myself playing while watching the film. I felt that this was the best method because it was less time consuming and I didn't need to be concerned with midi synthetic guitar timbres.

**Quantifying the Rates Achievable Using Different Methods of Liquid Nitrogen Cooling**
Michael Baker, Graduate
Charles Herr, Biology

Solid water can be ice, the crystalline form; or a glass-like amorphous solid. The amorphous form is said to have been vitrified. Ice harms cells if formed during cryopreservation. The current method to vitrify cells involves freezing small sample sizes, generally less than 50 µL, at an accelerated rate of cooling using slush nitrogen (-207 °C.). The accelerated cooling prevents ice by cooling faster than crystals can form. Our goal was to quantify the cooling rate of 25 µL of pure water plunged into five different systems for liquid nitrogen cooling. These systems include liquid nitrogen, liquid nitrogen vortex, slush nitrogen, slush vortex and turntable slush. Each treatment was performed at least 20 times, except for the slush vortex, which existed too transiently. Slush nitrogen provided the fastest cooling rate (max rate 16,775 °C/min), but rates were inconsistent. Both liquid nitrogen and liquid nitrogen vortex provided a rate slower than the slush nitrogen, but had great consistency in cooling rates. The new turntable slush method had increased cooling rate and provided a consistency between trials compared to just slush nitrogen.
Research Directed Toward an Improvement in *Drosophila melanogaster* Embryo Cryopreservation

Philip Baker, Graduate

Charles Herr, Biology

A practical need exists to indefinitely store *Drosophila melanogaster* embryos in liquid nitrogen (-196 °C.). Since the first genetic studies, which began in 1906 and continue until today, more than 30,000 strains of *D. melanogaster* are now maintained. Successful cryopreservation would substantially reduce the associated cost of food, labor, and facilities needed to maintain these strains. Improving *D. melanogaster* embryo cryopreservation requires improvements and understanding of its three procedural components: (i) the removal of the waxy vitelline, which facilitates the uptake of cryoprotectants, needed to be improved to decrease lethality; (ii) chill injury that might have occurred during cooling to just above freezing temperatures needed investigation; and (iii) the cryopreservation methodology needs to be made more conducive to survival. Our lab has completed the first two components. We now work to improve the methodology for cryopreservation of embryos. Comparisons between different freezing rates, cryoprotectants and thawing procedures are being investigated to improve the efficacy of the cryopreservation methodology. A novel cooling technology recently developed in our laboratory will also be applied.

*The Clown Wars*

Claire Barnard, Undergraduate

Paul Lindholdt, English

I will present a creative non-fiction essay called *The Clown Wars*. The essay centers on my experiences working as a clown in the Pacific Northwest, beginning with the years I worked as a clown’s apprentice under my father, “Corky.” There are many peculiarities of clowning and many sub-cultures. A definite hierarchy exists between wig clowns and street clowns, for instance. Growing up in the clown world, I became aware of a rivalry between these groups. My father belonged to the latter. My essay also explores the themes of loyalty, class, and family dynamics. Here is a selection: “Mrs. Buttons was Corky’s chief rival during the years he worked as a gig clown. The missionary street clowns who trained my dad were all back in Tacoma, and, dodgy, hungry-looking men with names like Gideon and Job, they wouldn’t have been much competition anyway. So for a long time, while he was starting out, we could only unite in our hatred of the unnecessarily-diligent-carnival-security-staff or the rich-looking-couple-who-wanted-complicated-balloon-hats-and-didn’t-tip. Now, we had Buttons. I hated her before ever meeting her. I imagined she must have been stiff as a Shriner, her jokes mushy and too sweet like hospital food.”

*Developing a Personal Style: Voice, Image and Tone*

Andrew Bartels, Undergraduate

Rachel Toor, English

I know there are certain risks involved in reading poetry aloud to an audience, particularly with an audience who has never read the poetry before hearing it. I say this even as a moderately experienced poetry audience member and poet. With these considerations in mind, I would like my presentation to balance between a discussion of the elements present in my poetry, and the poetry itself. I will define the key terms, Style, Voice, Image, and Tone, and share my thoughts on the importance of each, how they interact, and in what ways I have tried to develop and understand each within the specific poems I have chosen. I would also like to talk about various poetic influences, influences that include an eclectic variety of poets, mostly those recommended and discussed by the poetry professor and poet, Christopher Howell. I plan to speak extemporarily on the above mentioned stylistic aspects of poetry, and read my poetry aloud. I will also provide printed versions of my poems for the audience.
The US-VISIT Program: Helping or Harming?
Ashley Baxter, Undergraduate
Peter Shields, Communication Studies

In the years after 9/11, an entry/exit program called US-VISIT emerged to enhance immigration control and combat terrorism. The purpose of my research was to establish if this program is making the country safer from perceived security threats. The program requires foreigners traveling to the US to submit biometric identifiers, such as a fingerprint scan. Traveler information is then compared against terrorist watchlists and entered into databases. Those with a positive hit are not issued a visa to travel to the US. Findings indicate that fingerprinting systems have an unreliable accuracy rate and there is evidence that travelers are being wrongly flagged as suspects. As a consequence, the program may have damaged relationships with other countries. Moreover, the massive amount of data collected through the program raises important privacy questions. My conclusions are that this program, contrary to its stated goals, does not protect our country for perceived security threats.

The Freedom of Self-Reliance in America as Dictated by Famous Historical Writings
Krista Beattie, Undergraduate
Judy Logan, English

There is a similar thread woven through the historical writings of 18th century authors J. Hector St. John de Crevecoeur, and Benjamin Franklin, as well as 19th century poet and essayist Henry David Thoreau, that points to self-reliance as the key to true self-help and freedom. The nature of this self-reliance is rooted in the foundation of independence, and independence, when applied, is freedom, starting with external factors and moving to an internalized self-reliant freedom. This Independence is furnished by a government which allows its subjects benefit from their own labor and consequently through self-reliance these subjects are able to capitalize on that freedom. The external freedoms of religion and thought must also be internalized through self-reliance. Self-reliance allows one to subjectively process through the often fictitious group opinion about thought and beliefs and therefore have true internal freedom. The crux of these writings is that the cultivation of self-reliance reaps a harvest of freedom.

Raging Waters
Jennifer Becker, Undergraduate
Shelly Murney, Art

Digital print of 35 mm film scan.
Coyote (*Canis latrans*) Abundance Across an Urban-Wildland Gradient in Northeastern Washington

Candace Bennett, Graduate

*Margaret O'Connell, Biology*

Coyote populations across the United States increased during the past century due in part to 1) the decline of large carnivores (e.g., wolves) and 2) coyotes’ ability to adapt to human-modified habitats. However, increasing urbanization and recent recolonization of wolves in parts of the west might have negative impacts on coyote abundance. To address this issue, I am examining coyote abundance on the urban-wildland gradient in northeastern Washington. Given recent advances in bioacoustic technology, this study will use simulated wolf vocalizations to estimate coyote abundance from return vocalizations. Abundance will be sampled in five land-use categories, with eight replicates for each category. Landscape features will be measured at each site to examine which factors are associated with coyote abundance. My presentation will demonstrate “howl survey” methodology and present preliminary results.

A Decade of Revision: American Directors as Auteurs

Quin Benzel, Undergraduate

*Paul Lindholdt, English*

The film industry is, by nature, a money making machine. The early days of American film producers were concerned with entertainment made quickly and monetary gain. “Auteurism,” developed by French film director Francois Truffaut in 1954, attempts to analyze a film’s integrity by how much of the director’s artistic contribution is evident within the work itself - privileged American director/producers inspired Truffaut’s term. The director of a film should be as the author of a novel; he or she should be in complete creative control of the film’s creative development. French films of the 60s were highly stylized depictions of the director’s creative eye, and with a new breed of American visionaries drawing influence from foreign films, domestic cinema of the 70s saw radical changes in the craft and prestige of filmmaking.

Taming Children's Wildness: The History of the American Playground

Daniel Bigler, Undergraduate

*Sue Wright, Sociology*

Throughout history, children's play has always remained a constant-a given dispensation for children everywhere, in every civilization. But while the deeper nature of play may remain the same, we can chart over different time periods wildly different responses to it from adults - from suppression to allowance to today's commodification of children's play. The Playground represents a token landmark in American history, a visible symbol of the past century's response by adult society to children's play. Through historical and sociological research, the physical environment of the Playground speaks loudly about the purposes and conceptions placed by adults on play. Playgrounds can represent, from a critical perspective, not havens or enablers of play - but tools of social segregation, to separate kids and their play from broader life and culture; and carefully devised environments to contain children's play and even perhaps benefit from it. But in considering American society's 20th century construction of the Playground, we must ask ourselves: can we ever really tame children's inner wildness?
The Dark at the Top of the Stairs
Brandon Bogaert, Undergraduate
Don McLaughlin, Theatre

My project is a technical design for “The Dark at the Top of the Stairs” written by William Inge. I will be presenting: a ground plan, working drawings, light plot, instrument schedule, front and back renderings, and a poster. Every document of mine has been previously designed, and critiqued by a member of theatre faculty.

Demonstration of Fluid Pumps
Patrick Boland, Undergraduate
Juan Rivera (co-author)
Don Richter, Engineering and Design

The second portion of our senior project, assigned by the mechanical engineering technology department, was to design a demonstration lab for the fluid mechanics course. For this project we were to design a way to display 3 different pumps in order to visualize the internal gears and mechanics of the pumps. First we had to do research on each pump to figure out its common applications and the purpose of each pump. Since each pump has a unique design, we had to figure out the best way to machine each pump for its application without damaging the integrity of the pump.

Trends in Special Education Placement Rates Between Schools with High and Low Levels of Response to Intervention Readiness
Stephanie Bowman, Graduate
Sara Mork, Dusty Horn and Annelise Beaulieu (co-authors)
Susan Ruby, Psychology

Students with disabilities in schools are often placed in special education services. In the past decade, rates of placement in special education have increased at an alarming rate. Response to Intervention (RTI) is the use of research-based instruction and interventions to students who are at risk and who are suspected of having specific learning disabilities (Wrights Law, 2008). In order to make high stakes educational decisions for students, schools must implement high quality instruction and/or intervention plans delivered with integrity, as well as, appropriate tools for monitoring students’ level of performance and/or achievement over time. Schools that are adopting an RTI approach aim to improve achievement for all students. The study involved 91 schools in the Pacific Northwest that completed readiness inventories. This research study examines the level of readiness over time and a trend towards increases or decreases of special education placement rates. It is hypothesized that high levels of readiness will be associated with decreasing numbers of students qualified for special education services over time.
Parental Alcohol Abuse Effects on Lifelong Antisocial Conduct
Elizabeth Bradstreet, Graduate
Tara McBride, Michelle Prunier-Smith and Denna Steinmetz (co-authors)
Kayleen Islam-Zwart, Psychology

The purpose of this study was to look at alcohol use in one or both parents as a predictor of antisocial conduct. We predicted that alcohol use in both parents as a function of gender would be associated with higher levels of antisocial behavior in participants. The study utilized archival data collected as part of the National Comorbidity Survey (Kessler, 2000). Participants included a household sample of 5,191 respondents 15-54 years of age. Participants completed a structured interview assessing antisocial conduct, demographic data, and parental alcohol abuse. As predicted, results showed a significant increase in antisocial conduct in homes where both parents used alcohol. Men were also more likely to engage in antisocial behaviors than women. Our research displays how alcohol abuse in parents impacts lifelong antisocial behavior. This research clearly shows the importance of early intervention for children in homes with parental alcohol abuse.

Selling Grizzly Bears: Civic Engagement and Service Learning in Introductory Technical Communication Courses
Erika Bronson, Graduate
Teena Carnegie, English

This presentation examines service learning’s potential to increase civic engagement in introductory technical communication students through a review of the literature, analysis of anonymous student surveys taken at the beginning and the end of the quarter, and examination of students’ coursework. Past qualitative research guiding the study suggests that students exhibiting increased civic engagement during and after service-learning projects demonstrate the ability to understand other cultures and beliefs and to show moral and critical social consciousness. Using this framework, the presenter analyzes qualitative and quantitative findings of a campus-community partnership teaming students with a local environmental group to educate a resistant audience about endangered species and the group’s efforts to protect habitat while supporting local economies and community values. The article reveals insight into how service-learning in technical communication can fulfill “pragmatic” and civic objectives.

Wok Music
Paul Brown, Graduate
Natalie Kusz, English

When we go out to eat, we expect certain things from a kitchen. Obviously we expect good food, but is there something more that stays behind the doors to all that heat and noise? What else emerges from the creation of food-art? More than five years of kitchen experience has led me to realize that this all depends upon the materials of that workspace and the workers themselves. Everything, every movement in a kitchen comes with some kind of sound. When put together they make a rhythm. The wok-centered kitchen of PF Chang's presents a unique opportunity to explore the musical nature of Chinese cuisine. The quirky, individual employees also permit a close study of powerful personalities in a working environment. The final result becomes closely attuned to the music and people rather than the food and pointless noise.
The Effects of Capitalism on Social Structures
Cary Buchmann, Undergraduate
Julia Smith, Anthropology

This paper discusses how the spread of capitalism affects the social structures of indigenous people. With the shift to a world economy, capitalism has been forced on nearly every culture in every part of the world. Many of these cultures don’t have government-provided social safety nets and the people count on extended families to fill that role. As capitalism grows and large corporations expand, so does the need for cheap labor. One way to create a larger force of cheap labor is to displace farmers and other indigenous people from their land. The corporations take control of land where farmers once had made their living and in turn hire displaced farmers and other indigenous people as cheap labor in corporate factories and on corporate farms. Often men have to migrate to other cities and many times to other countries to try to survive in a world capitalistic economy. The breakup of the extended family removes the safety net, so their only options are to toil for corporations. Even though capitalism has much to offer to some, it offers many others nothing but misery and the collapse of their cultural social structure. In many underdeveloped countries, the corporations count on the exploitation of poor people by giving them the expectations that capitalism will improve their lives.

Gender and Regional Influence on Help Seeking Behavior
Catherine Bunch, Undergraduate
Nicole Menko-Levite, Tristan McKay and Erin Kamien (co-authors)
Kayleen Islam-Zwart, Psychology

The purpose of this study was to determine if demographic differences such as gender and geographic region significantly influenced people’s tendencies to seek help for emotional problems. The tendency to seek help was measured by asking 3 separate questions regarding comfort and embarrassment in help-seeking. A 2 (male vs. female) X 4 (Northeast vs. Midwest vs. South vs. West) MANOVA was calculated on archival data from the National Comorbidity Survey (Kessler, 2000). We predicted that women would be more likely than men to seek help regardless of region. It was also expected that there would be regional differences in help-seeking. Results revealed significant differences in help-seeking for gender and region. Implications and future directions will be discussed.
Notable Changes, From a Parent/Primary Caregiver Perspective, in Social Participation with Their Children Diagnosed with Autism Spectrum Disorder and Those With Like Symptoms Using a D.I.R./Floortime Based Occupational Therapy Program
Kelly Bunkers, Graduate
Nathan Miller, Don Rupe, Laura Smith and Marissa Williams (co-authors)
Roberta Russell, Occupational Therapy
Donna Mann, Occupational Therapy

Evaluating the efficacy of the D.I.R./Floortime model has proven difficult partly due to a lack of measures quantifying responses related to social participation following intervention. In this qualitative pilot study, questionnaires were given to parents or primary caregivers of children on the autism spectrum or with related symptomology upon completion of Rosemary White's Friendship Camp. This program uses D.I.R. techniques to improve peer interactions. The questionnaires captured changes in the children as observed by their primary caregivers. While a small sample of 8, grounded theory principles of analysis identified 5 themes to describe these changes: increased interaction, improved verbal communication, increased confidence, increased awareness, and changed play patterns. These results could help future researchers identify key outcomes and help create an assessment of social participation changes attributable to this intervention model.

Brownies, a Short Film by Charles Howard-Fisch, Music by Brian Burke
Brian Burke, Undergraduate
Charles Howard-Fisch (Filmmaker)
Jonathan Middleton, Music
Don Goodwin, Music

Brownies being a silent film, I knew I would be composing music for almost the entire length. After a bit of YouTube research, I set about composing themes based on the characters and emotions in the film. As I saw it, there were three main points the music should make to line up with the film's emotional flow. One happy, schmaltzy, and up-beat; a second tense and uncertain; and a third menacing, highly tense and driven (while retaining the cheesy and comedic silent movie-era sound). The director, Charles Howard-Fisch gave me the freedom to create as I wished; one of his only indications was to make it sound like a silent movie.

Short Film by Melissa Pringle, Music by Brian Burke
Brian Burke, Undergraduate
Melissa Pringle (Filmmaker)
Jonathan Middleton, Music
Don Goodwin, Music

Melissa's movie immediately caught my attention; the story was one of sadness, anger, betrayal, forgiveness, anxiety, and uncertainty, not necessarily in that order. I found the prospect of composing a score intriguing and was excited to accentuate some of these emotions through musical themes and motifs. The melodies came naturally, organically, and flowed with a tangible and urgent anxiety. The subject matter is of quite a serious nature, and writing material to match it was a rewarding challenge. The themes, I knew, had to have a personal and immediate closeness and to emphasize this I chose to use the piano, which I felt had the right innate emotional quality. My collaboration with Melissa was back-and-forth at times, and I believe it brought out the best in both of us.
Synthesis of a Biodegradable, Non-Viral Gene Delivery Agent for Use in Chemotherapeutics
Alicia Caldejon, Undergraduate
Travis Denton, Chemistry and Biochemistry

Cancer is one of the leading causes of death in the world. Chemotherapy is the most frequent treatment for a range of cancers, but this method is often extremely invasive and causes many devastating side effects. In order to avoid these severe consequences, it is of significant importance to develop a non-viral gene delivery agent that can selectively import toxic genetic material into tumor causing cells without destroying healthy surrounding cells. It has been shown that poly(beta-amino esters) are promising for their ability to condense DNA into nanoparticles, for their low toxicity, and biodegradability via hydrolytic cleavage of ester groups. The primary goal of this project is to synthesize novel poly (beta-amino esters) by catalytic hydrogenation of dinitriles to diamines followed by the Michael reaction with diacrylate esters. Methods and parameters used in synthesizing these molecules will be discussed.

False Memory: How Accurate is Your Memory?
Steven Carrasco, Undergraduate
Leonard Stern, Psychology

False memory can be seen in the medical community, eyewitness testimony, and in our personal lives. The accurate recall of events is critical in our society, and has prompted research to further investigate this phenomenon. False memory can be reliably demonstrated in the laboratory using what is known as the DRM procedure. This entails presenting a series of priming words for study (e.g., note, sound, piano, etc.) that are related to a non-presented critical word (e.g., music). Our research explores variations on the DRM procedure by presenting words in massed, spaced, varied, and identical conditions to better understand the mechanisms behind false memory recall. The outcomes of a recognition test were consistent across the studies and not all easily accounted for by the activation-monitoring view even though each priming list activated a non-presented word nine times, most false memory occurred when words were massed and in the context of different words (varied).

Representation of Black Masculinity in Hip Hop Music
Marcus Castro-Walker, Undergraduate
Gary Krug, Communication Studies

Conduct literature review of existing research into representations of black masculinity as they appear within discourses of power and meaning. Specifically, I will examine the forms of black masculinity as it appears in hip hop music videos and their promotion. This research will explore theoretical constructions of the discourses of blackness and masculinity, as well as the separate category of black masculinity.
The Caregiver
Tyler Cathey, Undergraduate
Tom Mullin, Electronic Media and Film

A man journeys through a toxic world eerily similar to our own in a quest to find beauty.

The Upturned Face
Tyler Cathey, Undergraduate
Tom Mullin, Electronic Media and Film

A soldier is haunted by the presence of death. Adapted from the short story by Stephen Crane.

Thirteen
Tyler Cathey, Undergraduate
Nick Pearson (co-creator)
Tom Mullin, Electronic Media and Film

A closer look at two of the worst hitmen of the 1970's.

Tabula Rasa
Curtis Chandler, Undergraduate
Sara Goff, Theatre

Tabula Rasa, written by Curtis Chandler, is a 10-minute performance by Curtis discussing life, philosophy, and relationships. Stemmed from an assignment in his directing class to perform an autodrama, this is a 10-minute version of how Curtis views life. Mature Content Warning: There is adult language in this performance.

International Students in the American Classroom: How Visual Stimuli Can Help Bridge the Gap
Lance Chase, Graduate
Tracey McHenry, TESL
LaVona Reeves, TESL

The presenter will focus on how the brains of some ESL and international students may organize information, considering their native languages. He will then present information on how visual stimuli and viewing activities can improve learning in the classroom. Finally, activities which can be used in many university classrooms will be discussed. While the presenter will focus primarily on Asian students from China and Japan, generalizations can certainly be made to groups of other international and ESL students as well as Americans.
The Spirituality in Leadership
Colette Chenault, Gradute
Robert Zinke, Business and Public Administration

This examination will trace the connection between the spiritual values and governmental leadership abilities of President Barack Obama, Martin Luther King, Mahatma Gandhi, and Abraham Lincoln. Leaders, be they spiritual or governmental, are responsible for the forming of opinion and guiding public policy for everything from our economy, our freedom, and our education to our well being. It would benefit the American People to understand how the spiritual process motivates and guides public action and decision making.

The Problem(s) with Gettier Problems
Bil Childress, Undergraduate
Mimi Marinucci, Modern Languages, Literature and Philosophy

We begin with a traditional conception of knowledge as justified true belief. In this traditional account, a justified true belief is both necessary and sufficient for knowledge. That is, in every instance where a subject S knows a proposition p, p is true, S believes that p, and S is justified in believing that p. In 1963, Edmund Gettier published his seminal paper, “Is Justified True Belief Knowledge?” In this paper, Gettier offered two cases which appear to destroy, once and for all, the notion of the sufficiency of justified true belief as a condition for propositional knowledge. These Gettier cases appear to show a scenario in which a subject has a justified true belief about a proposition, yet fails to know the proposition. I believe that Gettier’s problems do not exemplify cases of justified true belief. I will demonstrate this failure using logical proofs and semantic analysis. I will examine the two cases, and I will prove that both the justificatory and the truth component fail to obtain. The propositions under discussion are not known, but not for the reasons Gettier suggests.

Junkie
Christopher Clark, Undergraduate
Tom Mullin, Electronic Media and Film

A day in the life of a young couple, whose addictions spiral out of control and culminate in a heinous act.

The Sports Attraction
Chelsea Clinton, Undergraduate
Kelley Cullen, Economics

College applicants consider a variety factors when deciding to which institutions to apply. Practical issues, such as tuition and class size, are typically of concern to applicants. However, other factors also attract potential students. Previous research shows that schools with successful NCAA Division I men’s basketball or football programs tend to attract a larger pool of applicants. The actual cause of the increase may be attributable to the institutions increased exposure during its successful athletic season. This advertising reaches millions of potential applicants. However, not all sports receive this kind of exposure. Certainly sports such as women’s rowing and men’s swimming receive far less media attention. Yet success in these sports contributes to an overall successful athletic program. This study seeks to discover if overall successful athletic programs attract more applicants than schools with less successful athletic programs. This study also examines the quality of applicants to institutions with successful athletic programs. The study will explain the appeal of a successful broad-based athletic program to college-bound students.
Marijuana Use as a Predictor of Marital Satisfaction
Gene Crow, Undergraduate
Jeff Schell, Andrew Huffaker and Kim Hiatt (co-authors)
Kayleen Islam-Zwart, Psychology

Divorce rates are on the constant rise in the United States. They are caused by a countless number of marital problems. One frequent cause of marital problems is substance abuse. Through the analysis of archival data collected as part of the National Comorbidity Survey (Kessler, 2000) we examined the impact of frequency of marijuana use on marital dissatisfaction. Results showed a significant difference between users and non-users, with non-users showing the least amount of marital dissatisfaction among all groups. There were no differences as a result of gender with no interactions. This study was done to discover if marijuana is a predictor of marital dissatisfaction.

Perceptions of Social Support and Risk-Taking Behavior in People With HIV/AIDS
Yvonne Daley, Graduate
Kayleen Islam-Zwart, Psychology

Social networks seem to be related to avoidance of HIV risk-behaviors (Reiley & Woo, 2004). This study investigated the connection between perceptions of support from HIV+ friends, HIV- friends, family, and significant others and its impact on the reduction of HIV risk-behaviors. Measures were created by the author and were adapted from the HIV Risk-Taking Behavior Scale and the Multidimensional Scale of Perceived Social Support (MSPSS) (Darke et al., 1991; Zimet et al., 1990). Participants were 197 individuals with HIV/AIDS recruited through the Internet with a questionnaire that was posted on surveymonkey.com. Hierarchical multiple regression was conducted to examine the impact of perceived social support on HIV risk behaviors. Overall results were not significant to produce change within the model but higher perceptions of social support from HIV+ friends did result in the greatest impact on HIV risk-behaviors. This suggests that higher perceptions of social support should be cultivated within the HIV/AIDS community.

African-American Women: Perspectives on Oppression and Resulting Activisms
Deseure DeBerry, Undergraduate
Pui-Yan Lam, Sociology

The literature used in my research includes works which pertain to Black Feminist Theory and the intersecting social categories of race/class/gender. It will also focus on the inequalities faced by African American women in various social realms (primarily the workplace). In reviewing such works, I want to address issues that African American women continue to face in the midst of progress made towards race/class/gender equality through the theoretical lens of Black Feminist Thought. I will discuss the implications of alternative suggestions made in Patricia Hill Collins’ “Social Construction of Black Feminist Thought” (1989) towards the application of qualitative inquiries regarding Black women’s perspectives on oppression and activism. I will apply Collins’ alternative suggestions to my research as a means to emphasize African American women as subjects and not objects in research involving their constant struggles in American society.
The Rhizomatic Panopticon
Joseph DeLong, Undergraduate
Kevin Decker, Modern Languages, Literature and Philosophy
Mimi Marinucci, Modern Languages, Literature and Philosophy

This essay is written in a time when every action is recordable, a time where the past can become the present, a time where the multiplicity of disciplinary institutions serve as the only mediums for existence. Subjugation to these disciplinary systems is no longer a thing of choice but is required for life as it is commonly experienced. No longer is it only those incarcerated that get to enjoy living in an ever-present state of observation and fear. With the passage of time and the development of technology, everyone has become a victim of their own repression and of their own torture. Michel Foucault in, *Discipline and Punish*, tracks the growths and developments of this phenomena; he looks extensively at the evolution of certain penal institutions and how they affect the social realm. I will be referencing this work to assists me in the accomplishment of defending and developing my own thesis: The development of, and dependence on, technology has inadvertently rendered the human experience being one plagued by fear.

Development of an Audio Visual Tool to Teach Patient Interview Skills
Jeffrey Demmert, Graduate
Edward Flamand and Christie McMurtrie (co-authors)
Kimberly Cleary, Physical Therapy

The purpose of this project was to create an audiovisual teaching tool to help graduate physical therapy (PT) students learn to conduct thorough and appropriate patient interviews. A script was written by graduate PT students and approved by their faculty mentor. The script demonstrated 3 degrees of interview quality, and allowed student interaction and problem solving. Location for filming was procured, and filming equipment was provided by the PT department. The set was designed to mimic the different types of patients and settings relevant to PT practice. Editing was a group effort between the graduate students and their faculty mentor, and video processing was carried out using commercial software. Video clips were converted to play in a standard DVD player as well as embedded power point objects. The teaching tool was incorporated into the course on differential diagnosis and screening for medical referral for first year Doctor of Physical Therapy students. Informally, students enjoyed the learning activity, and the video clips were a helpful supplement to existing course content on conducting patient interviews.

Recovering the Relevance and Immediacy of Locke's Property Theories: The Capitalist Exegesis and Critical Misunderstandings
Richard Devenport, Undergraduate
Kevin Decker, Modern Languages, Literature and Philosophy

Philosophers and political theorists often note the premier importance of John Locke’s theories on the right to property. When we consider Locke’s basic rights of “Life, Health, Liberty, or Possessions” we may recognize the synonymy of those upheld in our own Declaration of Independence. Chapter 5 of Locke’s *Second Treatise of Government* fully outlines his thoughts on the subject, though often seems contradictory and confusing. Locke’s writing benefits from adumbration by secondary sources because, as Bertrand Russell wrote, “It is easy to misrepresent him by one-sided quotations.” It is no surprise that Locke’s interpreters have held frequent debates on his meanings and the consequence of his theories. In this essay I hope to recover the relevancy of Locke’s thought by exploring critical interpretations and contemporary American notions of property. In order to do so I will employ C.B. Macpherson’s capitalist interpretation, explore the notion of private property in general and also urge what may be called the “creative misreadings” of other Locke interpreters to transcend some of Locke’s shortcomings.
Anomie in College ESL Writers: Exploring Ethnic & Linguistic Identity through Personal Narrative
Jessica Dinneen, Graduate
LaVona Reeves, English

Simple writing activities have the potential to place students on a path of examining the personal and cultural values they had developed in their home country. We must first know our own culture and our place in it before we can begin to relate to the people and perspectives of another culture. Narratives can be a vehicle through which newcomers can ground themselves in the known as they assume the challenge of integrating into the new culture and finding their place and voice within it. ESL students may be feeling as if they need to reinvent themselves in America. However, they will benefit far more from both adopting the lifestyles and values of the new culture while maintaining those of their homeland. Otherwise, the upheaval they have experienced can leave them feeling as if they have lost themselves due to a sense of alienation or a language barrier. Understanding how identity struggles can cripple ESL students in class and away from school, ESL instructors can help them through the difficult and often painful transition of acculturation. In this presentation, I explore the role personal narrative can play in an academic setting and its benefits, as well as how instructors might create spaces within their classrooms and curriculum to facilitate student exploration and experimentation. To this end, I will analyze EWU international students’ personal narratives about identity and change in their college lives in the United States.

Fountains Abbey: A Road towards Economic Success
Allison Dittmar, Undergraduate
Ann LeBar, History

Fountains Abbey is considered to have been the wealthiest and most powerful Cistercian house in England. Located in the North Yorkshire region, the monastery was established in 1132 and suppressed by Henry VIII in 1539. The prosperity of Fountains flourished due to the grange system utilized by the Cistercian monks, thus arising questions of how the Abbey received all the territory needed for the granges. The monks were meticulous for keeping records that survive today and archaeological evidence supports the information for research on most any aspect of the Abbey’s history. There were many changes throughout the 500 years of monastery operation. The majority of the changes began around 1265, producing an influential and vigorous economic management site by the 1400s. The economic control of Fountains can be traced back to the many land grants that were given to the house for the reason of spiritual benefits, creating more granges, making a surplus in goods and the ability to mass produce trade with both exported and imported items. Production would ensure that more materialistic objects, supplies, and property could be gathered making Fountains Abbey involved with an economic revolution.

Arabella
Maggie Dority, Undergraduate
Tom Mullin, Electronic Media and Film

Arabella is a filmic adaptation of the short story, Araby by James Joyce.
Design Ethics: Philosophy and Visual Communication
Jessica Earle, Undergraduate
Mindy Breen, Visual Communication Design

Visual communication design has been around for hundreds of years. It is used to inform, persuade and provoke. Just think of how many times a day humans are bombarded with some form of visual communication, whether it’s advertisements, signs, brochures, billboards or even menus. Design surrounds us, it has become an integral and essential part of our lives. The concept of design ethics is one that is new to the industry. It is common to see design articles about business practices and design practices but not about the moral and ethical nature of design. As designers we have a unique position where we must be both true to content, client and demographic. Who are we designing for and how does the design effect them? All too often we get in a rut where we are more focussed on the aesthetic nature of the design or appealing to our peers and we forget to impact that our designs have. Like any other industry we must be held to standards. The point of this presentation is to take a philosophical approach to what it is to be an ethical designer. It is important as designers to realize that our work touches people every second of everyday especially with the rise of internet usage and the booming web design industry.

Unblemished
Scott Eubanks, Graduate
Rachel Toor, Creative Writing

This piece is about a teenager dealing with acne, the physical and emotional repercussions. It is a nonfiction essay that will be part of a larger work.

Poly-Quaternary Amines as Anti-Bacterial Agents
Chris Evans, Undergraduate
Travis Denton, Chemistry and Biochemistry

The evolution and adaptation of bacteria to our chronic over and often misuse of antibiotics has lead to the accelerating spread of drug resistant bacteria. With the CDC reporting 18,650 deaths due to drug resistant bacteria annually, there is an ever present need for new anti-bacterial agents. The research I am conducting is on the synthesis of specific anti-biotics known as quaternary ammonium biocides, or polyquats. In particular, the presentation will focus on the synthesis of the di-amine intermediate that can be used to synthesize a library of different quaternary ammonium molecules.
The Effect of Involvement in an Adapted Sports Program on Self-Efficacy and Participation in Occupations
Amanda Faire, Graduate
Nathan Hartley, Krista Frahm and Eric Waters (co-authors)
Wendy Holmes, Occupational Therapy

This descriptive study examined the characteristics, self-efficacy, and daily activities of fifteen youth ages 8-21 with physical disabilities who participate in Team St. Luke’s adapted sports program in Spokane, Washington. Athletes completed three written instruments: A demographic survey; the Self-Efficacy Questionnaire for Children (SEQ-C); and the Children’s Assessment of Participation and Enjoyment and the Preferences for Activities of Children (CAPE/PAC). Results described characteristics of youth with disabilities who participate in adapted sports programs, barriers impeding participation, and patterns of self-efficacy. Results also identified daily activities in which athletes are currently involved and other activities which are desired.

The Relationship between Eversion Ankle Sprains and Pes Planus Feet- A Case Study
Catherine Fairgrieve, Undergraduate
Chelsea Lackey and Amy Eagon (co-authors)
Garth Babcock, Physical Education, Health and Recreation

There is a known connection between all parts of the musculoskeletal system. This case study explores the instance of an eversion ankle sprain, a somewhat uncommon injury, in an athlete with severe pes planus (flat feet). We studied both published articles concerning this subject as well as the athlete himself; observing gait, speed, and skeletal posturing of the foot and ankle. Through our analysis we determined that the level of pes planus seen in this athlete was connected to his injury, and could also be related to many other lower extremity injuries.

Analysis of a Large Sand Bar Deposited in the West Plains by an Ice Age Flood Approximately 13,000 Years Ago
Matt Fassel, Undergraduate
Richard Orndorff, Geology

An Ice Age glacial flood deposited a sand-rich sediment bar east of Deep Creek in the West Plains, to the south of the Spokane River drainage. This deposit is composed primarily of sand and covers about 35 km2 in area. Ongoing studies show that the sand bar has a maximum thickness of 50 meters, in buried, pre-existing channels. Sand is visible in numerous roadcuts and quarries; sedimentary structures include braided channel systems, large forests, and giant current ripples. The ripples are unusual in that most places such features are composed of gravel. Based on elevations of the sand bar and local high-water marks, it appears that floodwaters reached a depth of 100 m in this area. The goal of this project is to analyze the mineralogical and distributional characteristics of the deposit to better understand the origin and the transport history of the sand. We used standard ASTM sieve analysis of samples taken from multiple locations in the deposit to determine the particle size distribution. We used dilute hydrochloric acid to identify the presence of calcite. A binocular microscope was used for mineral identification and relative mineral abundance.
**Process-Based Pedagogy**

*Manda Frederick, Graduate*

*Natalie Kusz, English*

“To essay,” when first used regarding writing, literally meant “to try.” It is in this spirit that a modern creative non-fictionist is taught to use the personal essay as a mode of being and thinking—a writer should use the essay to probe all those ideas and experiences in the hidden places of her mind and heart; in this way, she attempts to learn about the world and herself, she witnesses her “mind in the marvels and miseries of its makings.” But how does this understanding of the essay as a genre translate into the composition classroom, where the “personal essay” is assigned freely—maybe even carelessly? In her essay “Process-Based Pedagogy,” an essayist—who is in her first quarter of teaching—confronts the challenges of negotiating the tension between the essay as a creative process compared to the essay as a formal rhetorical tool. She discovers the potential tensions created when asking other people, especially young students, to “probe” the hidden places of their minds and hearts. She questions if the intellectual and emotional process of teaching the personal essay is a lot like that of writing the personal essay—for better or for worse.

**Late Period Adaptations as They Relate to Fluctuating Climatic Conditions on the Columbia Plateau**

*Tiffany Fulkerson, Undergraduate*

*Jerry Galm, Anthropology*

New interpretations of the Late Prehistoric Record (ca. 2,500-200 BP) of the Columbia Plateau reveals growing evidence of a significant degree of variability in climate. Faunal remains, soils and alluvial stratigraphic records, pollen data, and fire histories from upland sites in central and eastern Washington and the Yakima Training Center provide proxy evidence of paleoclimatic change during this interval. The emerging pattern is marked by rapid shifts from cool-moist to warm-dry conditions and are of a magnitude likely to have produced corresponding adjustments among native groups on the Plateau.

**A Stolen Child**

*Matthew Gardner, Undergraduate*

*Paul Lindholdt, English*

In Irish folklore it was believed that fairies would sometimes kidnap infants and replace them with sickly fairy children who would quickly die. It is not difficult to see how this myth might have arisen as an explanation for infant mortality. In *A Stolen Child* I will attempt to apply this myth to suicide. Through stream of consciousness narration, the suicidal protagonist’s fears of death, doubts about his decision and depression will be explored in the form of nightmarish hallucinations brought on by an attempted drug overdose. As the drugs gain a firmer hold on his mind and he descends into an infantile powerless state, he will face a cruelly warped image of himself and embodiment of his depression which berates him even as it encourages his suicidal aim. Eventually, this “changeling” mirror image overwhelms and replaces his fractured consciousness.
**Monster is Dead**  
**Aubra Godwin, Undergraduate**  
*Paul Lindholdt, English*

Death is familiar to everyone. We’ve all lost a loved one, or a pet. We’ve squashed bugs inadvertently and on purpose, hit a bird with our car when it flew too close to the grill, split a worm with a shovel in the garden. It’s not something we can avoid; not even through tears and pleading. I would like to read my literary non-fiction essay, “Monster is Dead,” about the first experience my children had with death. Before presenting the essay I will briefly go over what exactly literary non-fiction is. I will also explain the process I took in writing the essay, go over some of the techniques one can use while writing, as well as the mistakes often made which may derail a good essay.

**Preliminary Analysis of Ergonomic Alternatives to Lifting Concrete Blocks Over Rebar Wall Supports in the Masonry Trade**  
**Stephen Goldrick, Graduate**  
*Ryan Mizner, Physical Therapy*  
*Dan Anton, Physical Therapy*

To determine the effectiveness of two ergonomic interventions of high lift grouting and open ended H block designed to reduce awkward shoulder postures while lifting block over rebar. Lifting block over rebar required a significant amount of overhead work by masons. Overhead work is associated with increased risk of musculoskeletal injury. Ergonomic controls have been suggested to decrease risk for musculoskeletal injury in these individuals. Preliminary analysis of 7 experienced masons was performed. Masons were asked to build walls using control and ergonomic alternative techniques. Motion analysis was captured throughout the trials. Peak shoulder elevation was analyzed using 3D motion capture systems. Row 6 on the wall was similar across conditions. Row 7 was found to reduce peak shoulder elevation using H-block and high-lift techniques. Row 8 did not reach statistical significance in reducing peak shoulder elevation. Implications: H-block and High-lift show good promise in reducing peak shoulder elevation associated with lifting block over rebar.

**Implementing Principles of Universal Design into a Classroom Desk**  
**Paul Gorka, Undergraduate**  
*Sean Smith (co-author)*  
*Donald Richter, Engineering and Design*

Universal Design is a philosophy which allows access of everyday products to a wider variety of people. There are seven principles of Universal Design that guide designers in the formulation of products that will allow access for people of all types. Our assignment was to create a cost efficient desk that could be placed in a classroom without having it stick out as a “disabled person desk” and could perform functions like height adjustment with just a push of a button. Other features become more convenient for those with certain disabilities, like USB ports and plug-ins for laptops at a more accessible location. Also, we designed the desk to be portable with a rechargeable battery for ease of use and a broader range of applications. This project has significantly influenced the way we make design decisions. We now look at our designs and see how they conform to the principles of Universal Design.
Hippies, Housewives and Watering Holes
Grace Guenther, Undergraduate
Sara Goff, Theatre

A ten minute comedic play that tells the story of a rancher and his wife and how their world gets turned upside-down when an unexpected visitor shows up at their door.

The Knowledge Within: Pregnant and Postpartum Women
Lilia Guillen, Undergraduate
Robin Pickering, Physical Education, Health and Recreation

Various studies have indicated that excessive weight gain during pregnancy is associated with health complications. According to Galtier-Dereure et al. (2000), obesity was recognized as a risk factor for: diabetes, hypertension, and heart disease during pregnancy more than 50 years ago. Research indicates that certain racial groups need even more education in the areas of weight gain, nutritional intake, and health behaviors as they are more likely to have less nutrition knowledge (Boulanger, Perez-Escamilla, Himmelgreen, Segura-Millan, & Halademan, 2002; Papakonstantinou, Hargrove, Huang, Crawley, & Canolty, 2002; Parmenter, Waller, & Wardle, 2000). This literature review will draw attention to non-Hispanic white, non-Hispanic black, and Hispanic in identifying if certain subgroups (SES, ethnicity, age) are more likely to have access to accurate information regarding weight gain, nutritional intake, and health behaviors. Given that non-Hispanic black and Hispanic women are more likely to have lower nutrition knowledge and greater postpartum weight retention; a possible correlation could exist between level of knowledge regarding caloric intake and excess or insufficient weight gain demonstrating a need for future research (Nuss, Freeland-Graves, Clarke, Klohe-Lehman, & Milani, 2007). Additional individualized intervention programs need to be accessible for pregnant and postpartum women based that there are differences between these women in the areas of SES, race, ethnicity, current dietary habits, and beliefs.

Sex Acts and Condom Use
Carisssa Gusman, Undergraduate
Ryan Sain, Counseling, Educational and Developmental Psychology

High risk sexual behavior includes not using condoms, especially with multiple partners. Given that in college high risk behavior increases substantially, we researched the relationship between sex acts, condom use and condom attitudes in EWU students. Over the quarter when the research was done we presented students with 20 hours of an education intervention that includes behavior modification and self-management techniques that focused on the positive effects of condom use and safer sex acts. We found a relationship between all of the above variables and it is presented here.
On Homelessness and Art
Nicole Hardina, Graduate
Natalie Kusz, English

“The poor are always with us.” But for many people, interaction with the poor may be limited to seeing them on the street, or reading the words of their signs, held up at intersections and freeway off-ramps. This essay explores the distance between the “us” and “them” implied by the timeless maxim, in terms of city life and human relationships, and how, in the face of hard winter storms and a struggling economy, the distance between “us” and “them” may shrink to a thin, but definitive barrier: a roof.

Misogynistic Munch
Alexis Hardy, Undergraduate
Barbara Miller, Art

The fin-de-siecle was a time of change. Among those changes was the development of the “New Woman” which entailed giving women a stronger sense of freedom and independence. The public reacted with subduing forces in art and literature, creating the femme fatale which portrayed these independent women as fatal seductresses bringing men to their downfall. An artist that continually used the femme fatale was Edvard Munch; however most critics overlook the overtly present misogynistic overtones of Munch’s paintings. I will be showing several slides of his work that demonstrate the femme fatale and will discuss the misogynistic qualities within those paintings.

Plath and Sexton's Suicide: Depression or Social Oppression?
Alexis Hardy, Undergraduate
Beth Torgerson, English

Sylvia Plath and Anne Sexton are two 20th Century American women who found themselves with incredible passion and brilliance in writing. However, the reputation of their work has been deemed “dark” or “depressing” because of their suicides and these labels are demeaning to the true quality of their poetry. Women, at the time of Plath and Sexton’s deaths, were not encouraged to pursue a career and these two women were overpowered by men in their field. They struggled greatly to overcome their societal obligations of the mother and housewife role which, as shown through their poetry, were directly causing depression. I plan to demonstrate through Plath and Sexton’s poetry the frustration and anger with society’s expectations of women and the relation to their depression and suicides.
Relationship between Relational Aggression and Emotion Regulation

Angela Harmon, Graduate
Kurt Stellwagen, Psychology

This study looks at the relationship gender plays in both emotion regulation and relational aggression. The construct of relational aggression could be defined as the intent to hurt others through deliberate manipulation of their social status or social relationships. Emotion regulation can be defined as the ability of the person to control emotions, and reactions to stimulus. The hypothesis of the study is that females who score lower on scales measuring emotion regulation will score higher on relational aggression scales. The population used in this study were junior high aged children from the Midwest area. The measurements used were self report measures called the Emotion Regulation Checklist, and the Assessment of Relational and Physical Aggression.

Gratitude and Positive Memory Bias

Alexandria Harper, Undergraduate
Joanna Johnson (co-author)
Philip Watkins, Psychology

The purpose of this study was to evaluate the relationship between trait gratitude and positive autobiographical memory bias (AMB). Previous research has found that gratitude has a strong positive relationship with happiness, as those who are grateful tend to be happy. We hypothesized that individuals who are grateful will recall more positive memories than those who are less grateful. Participants completed a packet of questionnaires containing emotional well-being measures, and measures of trait gratitude (GRAT-R, GQ-6). To determine the type of memories recalled, participants were asked to list as many significant memories as possible from the past 3 weeks (recent), and from before those 3 weeks (remote). Participants then rated their memories for valence, and emotional impact of each memory. As predicted, grateful individuals recalled more positive memories. Grateful individuals rated their memories as having more of a positive emotional impact presently than in the past. The same trend was found with the emotional impact of remote positive memories. In this study we found that trait gratitude is correlated with happiness, and the recall and emotional impact of positive memories.

Health Care: A Right or a Privilege in the United States - Health Care Should Be a Right and Not a Product Available Only to the Rich

Amanda Haynes, Graduate
Mary Anne Keogh-Hoss, Health Services Administration

The development of health policy in the United States has been complicated by disagreement as to whether health care is a right or a privilege. Health care in the United States today is a product that not every individual can afford to pay for, which makes it a privilege by definition. The United States’ failure to recognize health care as a human right is damaging to the economy, makes a mockery of our international leadership, and is a contradiction of our core values. Health care should be a right and the country needs to take steps to make that possible. This can and should be accomplished by lowering health care costs and making difficult decisions about how much health care is enough.
When East Meets West: A Look into the Challenges Faced by Chinese Students When Entering an American Classroom
David Herman, Graduate
Huei Ting (Maggie) Lu (co-author)
LaVona Reeves, English

Traditionally, education in China is approached very differently than education in America. As a result, Chinese students studying in the United States may find that cultural and academic differences can impede social and scholastic success. This presentation will inform on a few classroom issues, such as behavior, learning styles, and teaching strategies, that can cause frustrations for both the Chinese students and their American instructors. Examples will mostly be based on experience working with adult speakers of Chinese in both America and abroad. The purpose of this presentation will be to inform instructors in both general education and English as a Second Language classes of the issues their Chinese students may be facing so that they may mediate the problems and work to aid in their students’ social and academic success.

Reducing Obesity: Can Small Dietary Changes Increase Energy Expenditure?
Jillian Hernandez, Graduate
Karen Carlberg, Biology

The prevalence of obesity in humans has increased significantly, with many negative consequences, including type 2 diabetes, elevated blood pressure, and musculoskeletal disorders. Reducing obesity has therefore become an important health care objective. One approach to achieving this objective could be making small dietary changes that increase the energy expenditure associated with processing food—the thermic effect of food. To test this, I compared the thermic effect of white and whole-wheat bread. Whole-wheat has the outer bran layer intact, and it seems likely this outer layer would require more energy to process. Energy expenditure was measured by indirect calorimetry for five minutes every half hour for six hours in four subjects (23.25 years ± 1.89 SD), on separate days, in counterbalanced order. A time-energy expenditure curve was created, and the thermic effect was calculated as the area under this curve. Although there was no difference in the thermic effect of white (1.13 kcal/min ± 1.14 SD) and whole-wheat (0.95 kcal/min ± 0.74 SD) bread, further research is needed. This component of energy expenditure may play an important role in reducing obesity.

Characterization of the Human P32T RdgB Mutant Protein
Gregory Herting, Undergraduate
Nicholas Burgis, Chemistry and Biochemistry

The RdgB protein is thought to exclude noncanonical deoxynucleotide triphosphates (dNTP’s) from DNA replication precursor pools. Deoxyinosine triphosphate (dITP) is a noncanonical dNTP which is hydrolyzed by RdgB. Metabolites of the immunosuppressant drug azathioprine can form 6-thio-inosine-5’-triphosphate, a substrate for RdgB. Patients treated with this drug may suffer from adverse drug reactions if they have an RdgB deficiency. Individuals with a homozygous P32T mutation lack any RdgB activity. The nature of this deficiency is currently unclear, but may result from alternate splicing at the mRNA level or alteration of RdgB structure. Biochemical assays using dITP as a substrate indicate that the P32T has 55% of the non-mutant activity. In vivo experiments showed that the P32T mutant can compliment Escherichia coli cells for activity against noncanonical dNTP’s. Therefore, it appears that the P32T RdgB is a functional protein. This data supports that the deficiency seen in homozygous P32T individuals is most likely a result of alternate splicing. Our current research aims to model the structure of the P32T mutant RdgB protein using computer modeling.
Writers in the Community: How EWU Writers Are Making a Difference in Spokane
Summer Hess, Graduate
Ross Carper, Brandon Getz and Luke Hammons (co-authors)
Rachel Toor, English

Writers in the Community (WITC) is a collaborative project that places MFA students as creative writing teachers in public schools, alternative schools, hospitals, corrections facilities, factories, halfway houses, nursing homes, and other locations throughout the Spokane area. Now, after fifteen years of helping writers become involved in their community, WITC also facilitates poetry slams and adult writers forums. The most important aspect of WITC is the way it encourages a stronger relationship between the university and the community. It also provides MFA students opportunities to share their passion for creative writing and to gain practical teaching experience. In addition to their teaching hours, MFA students are asked to write personal essays that express their pedagogical revelations and reflect on their personal growth. Today’s presenters will share their experiences and field questions about the continued success of one of Eastern Washington University’s most vibrant programs.

Perspectives on Enlightenment: Plato and Aristotle
Jon Hilliard, Undergraduate
Christopher Kirby, Modern Languages, Literature and Philosophy

There are many ways to attempt to gain knowledge. Beyond characterizations, Plato and Aristotle differ widely in their approach to enlightenment and the acquisition of knowledge. The methodological differences in their pedagogy are a heuristic for distinguishing their theories of knowledge and education. It is through the dialectic that Socrates is able to bring forth knowledge, which resides within. In the case of The Apology, Socrates’ claim to knowledge is negative insofar as his epistemic knowledge is absent. His virtue lies in his awareness of his own ignorance. Through Plato’s dialectic, an extraction of (epistemic) knowledge yields greater awareness. However, Plato’s dialectic never quite gets his students to a full state of awareness. He merely idealizes his notion of truth in a roundabout fashion. Truth diminishes the individual in its magnanimous state. The great concept, know thyself, becomes lost. Aristotle’s perspective offers the first account in Western philosophy for a systematized ontology, which serves as the overall schema for a logical approach to knowledge. He demonstrates the syllogism and makes a case for the habituation of proper abstractions in order to obtain theoretical knowledge.

Made By Hand: Modes of Consumption as Driven by Perceptions of Fashionability
Michaela Hoban, Undergraduate
Michael Zukosky, Anthropology

I interviewed twenty-five Chinese women in the fabric markets of Urumqi about the practice of giving and receiving cloth as gifts on the occasion of weddings and funerals, and found that this practice has been largely supplanted by the practice of giving money and mass-produced goods as gifts and the perception that giving a handmade item reflects poorly on the giver and is suggestive of poverty. This in contrast with the current Western trend toward rejecting the mass-produced and the increase in the production of handmade goods on the personal level. The purpose of this paper is to explore the reasons behind these two different viewpoints, and concludes that the Chinese push for modernity which is partially manifested through increased consumption of modern mass-produced goods and the Western resurgence in crafting, repurposing and upcycling as a means to reduce consumption and increase sustainability are both being largely driven by the marketing of each of these modes of consumption as "fashionable."
Cathartic Social Rage: The Victorian Morality of Thomas Hardy's Tragic Heroes
Max Hohner, Undergraduate
Beth Torgerson, English

The three major elements of Shakespearean Tragedy, stature, flaw, and catharsis, as defined by Shakespearean authority A.C. Bradley, can also be found in the prosaic works of Victorian novelist Thomas Hardy. Most readers argue that while present in Hardy's novels, these tragic components do not rise in his books to the level of stature that they did in Shakespeare's plays. Through examples from three novels, The Mayor of Casterbridge, The Return of the Native, and Jude the Obscure, it is shown how Hardy uses the three main aspects of Shakespearean Tragedy to move his characters through a downfall that ends with them in the throes of Victorian oppression. The imposed Victorian morals lead the protagonists, or “tragic heroes,” of each novel to an absolute truth, crisis in faith, or preconceived gender role. A correlation is drawn between these Victorian issues and the Shakespearean tragic flaws of vanity, jealousy, and ambition. Although his characters do not suffer in exactly the same way as Shakespeare's, Hardy uses the moral issues they face in their Victorian plight to raise the level of their stature. Instead of drawing catharsis through redemptive actions, deaths, or dialogue, he does so by pointing out the errs of Victorian morality in their final fate.

Release
Maxine Holden, Undergraduate
Nancy Hathaway, Art

When I began my painting entitled “Release,” I freed myself from self-scrutiny and allowed my emotions to flow without restraint. I expressed my deepest feelings of sadness, desperation, loneliness, joy and contentment. If viewed closely, it can be seen that many of the colors are layered upon one another and then wiped away; this layering represents how emotions might be masked by one another, and how scratching beneath the surface reveals hidden feelings. When I was priming the canvass, I left the lower left corner un-primed in order to create a sense of being incomplete. I wished to fully immerse myself in the painting, so I covered my clothing in paint and laid upon the canvass. I then began painting with my hands to blend and layer the paint, and material in order to create texture. The final touches I added to my painting were the white, yellow, and lime green splashes which represent joy and balance amongst the other emotions. I attempted, by taking these steps, to represent the complexity of the human spirit.

Make-up Portfolio
Baily Hollis, Undergraduate
Sara Goff, Theatre

Make-up Portfolio, a presentation of past and present work done by a make-up artist that shows a full range of design. This includes research, design and production of theatrical make-up. usually presented in an artistic, professional way.
"From the Papers of One Still Convicted": An Experiment in Double-Reflection as a Form of Philosophical Expression

Matthew Holmes, Undergraduate
*Thomas Hawley, Modern Languages, Literature and Philosophy*

Soren Kierkegaard, a Danish philosopher from the nineteenth century, produced one of the largest and most unique bodies of work in Western Philosophy. An outspoken critic of German Idealism, he sought to convey the importance of subjective experience in the way we make sense of ourselves and the world around us. Such an idea, he found, could not be communicated in the traditional way, through systematic reflection. Instead, Kierkegaard pioneered a unique form of communication called "Double Reflection," in which the author uses various literary techniques, such as pseudonyms and narratives to obscure the relationship between the author and the work. By creating this distance, Double Reflection intimately involves the reader in the content of the work and creates a subjective context. Because Double Reflection is meant to obscure the author's intent, it is impossible to develop a real understanding of Kierkegaard's method simply by reading his works. The only way to truly understand it is to actually make use of the method in creating a philosophical work. Having conducted such an experiment, this presentation is a reflection on that experience and the resulting insights into the purpose, method, and value of Double Reflection as a form of philosophical expression.

**The Devils Reject**

Alyse Homan-Walker, Undergraduate

*Tom Askman, Art*

For this creative symposium I will create a painting, which uses the iconography of one serial killer. I am interested in shifting the persona revealed in snapshots (sometimes expressionless empty faces) to those in a conceptual framework including changes in stylization, texture, humor and deep inner turmoil and darkness. From an emotional standpoint, my primary interest is to create works that offer opportunities for the viewer to see serial killers as human beings, not just the “devil’s rejects” of society. I want to present the underlying humanness of serial killers, breaking the mold that they are only monsters. I want to tap into the viewer; peeling away layers of judgment and opening the possibility for pathos towards those we all see as “deviates” but for whom I believe are born free from abhorrent thinking yet end up where we all have the capacity to go. By not revealing on first viewing the portraits are of serial killers, the audience’s mind will not be clouded with contempt prior to investigation. After the initial encounter the identities will be exposed. Viewers will then have the opportunity to re-investigate the art from a completely different perspective.
Vegetation Colonization and Seed Bank Analysis of Lake Mills Deltas
Cara Hulce, Graduate
Rebecca Brown, Biology

Removal of Glines Canyon dam on the Elwha River in Olympic National Park, Washington will leave >13 million m³ of exposed sediment in the bottom of Lake Mills. I studied vegetation succession on exposed deltas within Lake Mills to gain insight into how exposed sediments will revegetate following dam removal. Vascular plant species composition (current vegetation and seeds in soil) and environmental variables (soils, topography, ground water) were surveyed in 43 100-m² vegetation plots stratified across a 8- to 57- year gradient of time since sediment deposition. Sediment grain size increased with time since sediment deposition. Vegetation succeeded along the same gradient with herbaceous vegetation greatest on more recently deposited sediment and lessening as vegetation progressed into shrub (e.g., Salix sitchensis) then forest (e.g., Alnus rubra) on earlier deposited sediment. Analysis examining the potential relationship between environmental variables and the absence of black cottonwood (Populus trichocarpa) on the deltas is underway. Soil seed bank and current exotic species diversity were greatest on finer-grained, more-recently deposited sediment suggesting that newly-exposed impoundment sediment may experience an initial increase in exotic species diversity that will decrease over time.

Power Supply Design
Adam Huson, Undergraduate
Esteban Rodriguez-Marek, Engineering and Design

In Microelectronics I the operational characteristics of power diodes and zener diodes is extensively studied. This lab experiment employed the aforementioned material by designing an efficient power supply using a zener diode to regulate voltage from a rectified AC power source. The topology for the circuit was provided, but values for circuit elements were determined as part of the exercise. The specification required the 5.0V output voltage must not vary by more than 0.25V when the high-current load of 200σ was applied. Computer simulations were performed using PSPICE to verify the initial calculations, and the resulting circuit exceeded the original design criteria.

Digital Painting
Katie Irvin, Undergraduate
Greg DuMonthier, Art

Two digital prints to be shown along with fine arts group exhibition.

Postpartum Activities for a Division I Female Collegiate Basketball Athlete
Hilary Ishii, Undergraduate
Brittney Doran and Carla Walter (co-authors)
Jeff Kawaguchi, Physical Education, Health and Recreation

The concerns of a postpartum athlete during rehabilitation back to competitive division I sport competition are unique from common athletic injuries. Medical concerns include metabolic changes in the athlete, laxity of connective tissues, and emotional/mental stability. The athletic trainer should try to be flexible concerning scheduling, sensitive to hormone fluctuation, and open to utilizing specialists when necessary. We present an individual case study on a postpartum division I female collegiate basketball athlete beginning about four months after birth to full return to play. With the use of modalities, aggressive core and pelvic rehabilitation exercises, and a lumbar stabilizer the athlete was successfully released to full participation.
Alcohol Use and High Risk Behaviors
Paula Jensen, Undergraduate
Charalambos Cleanthous, Counseling, Educational and Developmental Psychology

In college, the chances of a student participating in high risk behavior increases substantially. Over a six month period we have been researching the alcohol use of EWU students. Our research will provide evidence of the relationship between alcohol use and high risk behavior, including sex acts and condom use. Over the quarter, we presented students with 20 hours of an education based intervention including behavior modification and self-management techniques that demonstrated to them the effects of alcohol use and it’s relation to high risk behaviors. Depending on the behavior in question a relationship between alcohol use and risk taking is evident.

Perceived Levels of Locus of Control When Subjected to Rape
Andrew Johnson, Undergraduate
Akiko Uematsu, Carly Probasco and Denise Parham
Kayleen Islam-Zwart, Psychology

Postraumatic Stress Disorder can have a lasting impact on an individual’s view of his or her external environment. Locus of control relates to how much emphasis a person places on internal or external outcomes and the degree of responsibility they hold. This study utilized archival data from 5,708 individuals who participated in the National Comorbidity Survey (Kessler, 2000). Eight questions were used to measure an individual’s locus of control. We hypothesized that individuals with a history of rape would report more external locus of control than individuals with no history of rape. As expected, results showed that rape victims exhibit a higher external locus of control in comparison to individuals who have not experienced the trauma of rape. Findings support that rape has life changing impacts on individuals’ feelings of control, which likely also impacts behaviors.

The Discovery
Jessica Johnson, Undergraduate
Sara Goff, Theatre

The Discovery is an autobiographical performance piece, written, acted, and directed by Jessica Johnson, which explores the constant presence and necessity of art throughout her life. A creative, and at times surreal journey, this piece explores several different incarnations of art, ranging from theatre, to literature, and visual art, and their impact upon the individual striving for beauty, truth, and purpose.

The Pain of Beloved: Confronting the Effects of the Past Upon the Present
Jessica Johnson, Undergraduate
Judith Logan, English

Toni Morrison’s Beloved explores slavery and its aftermath primarily through the psychological effects of the past upon the present. In Beloved, the characters Sethe and Paul D are freed slaves held captive in an ongoing mental slavery which cannot be overcome as long as they continue to ignore the past and disassociate themselves from their experiences. However, with the appearance of Beloved, they are forced to confront their pain by projecting their own fears and insecurities upon her. Only through confrontation can Sethe and Paul D recognize the truths of their past and reconcile them with the present in order to create of themselves free individuals.
Does Gratitude Have Any Affect on an Individual’s Level of Self-Esteem?
Joanna Johnson, Undergraduate
Philip Watkins, Psychology

The purpose of this study was to discover whether self-esteem has an impact on trait gratitude if all of the variance explained by big five personality traits, has been accounted for. Little is known about the effect of gratitude on self-esteem. Through this study we hope to show that when individuals experience gratitude implicitly they acknowledge others caring for them which enhances the perceptions of social support, resulting in the cultivation of self-esteem. Using the Hexaco and the Rosenberg Self-Esteem Scale, we measured the correlation between trait gratitude and self-esteem. If gratitude does enhance self esteem, it should show significance above the big five personality traits.

Playing Soldiers: Lacking Economic Opportunities and Child Soldiers
Ryan Johnson, Undergraduate
Julia Smith, Anthropology

One of the greatest tragedies of recent years is the rise of the child soldier. Driven into military service, children under fifteen years of age have become a standard sight on battlefields from Northern Ireland to sub-Saharan Africa to Afghanistan. Often the popular focus is on the conscription of children, but all too often the children enlist willingly. Why? Why do children who have seen the atrocities of war first hand enlist to become the perpetrators? This paper explores economic reasons why children become soldiers. Child soldiers overwhelmingly come from impoverished or disadvantaged populations. For example, people who have been caught in the war zones and isolated from family and home often have few economic opportunities other than to join a military faction. They can also come from populations who feel discriminated against and kept from equal access to wealth and resources. Finally, these children often join the military out of a lack of other job skills: when war is all you know how to make, then that is your future. Children in these situations often feel trapped and given little alternative but to willingly enlist.

Is Your Tea Safe?
Jael Johnston, Undergraduate
Crystal Decker (co-author)
Peter Bilous, Chemistry and Biochemistry

Recent media reports of children’s toys containing lead-based paint, bacterial contamination of peanut butter, and the presence of melamine in milk products has resulted in a general concern about the safety of food & other consumer products. This study evaluated the potential health risks of drinking tea by testing the tea leaves for the presence of any toxic heavy metals. Twenty five assorted tea samples were bought locally and analyzed specifically for the lead content by using X-ray fluorescence (XRF) and Flame Atomic Absorption spectrometry(FAAS). Samples were analyzed by XRF with and without pretreatment and by FAAS after an acid extraction. The presence of lead was detected in approximately 30% of the tea samples surveyed. The amount of lead detected varied from sample to sample, however, the quantities present have the potential of yielding a tea drink which would exceed the daily intake limits for drinking water set by the EPA of 10ug/dL. So should you be concerned about drinking tea?
Boys Don't Cry: Hilary Swank's Brandon Teena
Brittani Kelly, Undergraduate
Tom Mullin, Electronic Media and Film

Based on real events, the film Boys Don't Cry (Peirce 1999) tells the story of a girl living life as a boy. I analyze how actress Hilary Swank provides an effective portrayal of the complex Brandon Teena, balancing the female body and masculine persona.

The Extraordinary Tale of the Princess, The Prince, & The Enduring Darkness
Brittani Kelly, Undergraduate
Tom Mullin, Electronic Media and Film

A modern fairytale exploring body image.

Molecular Dynamics Simulation of Phospholamban: Effects of Membrane Phosphorylation and Aggregation
Falza Khan, Undergraduate
Yao Houndonougbo, Chemistry and Biochemistry

We report results of molecular dynamics (MD) simulations of phospholamban (PLB), a 52-residue integral membrane protein that inhibits calcium ATPase in the cardiac sarcoplasmic reticulum. The Simulations indicate that PLB retains its helical secondary structure in solution and membrane bilayer, with transmembrane helix perpendicular to the bilayer plane. Internal dynamics of PLB involves hinge-bending, twisting and flexing of the two helical domains. Simulations of membrane-bound PLB phosphorylated at Ser-16 and Thr-17 yielded qualitatively similar structure and dynamics as regular PLB. Additionally, we modeled PLB pentamers in membrane, where transmembrane helices formed stable left-handed coiled-coils. The results are in good qualitative agreement with NMR data and fluorescence experiments, and provide interesting insights into the mechanism of ATPase regulation by the membrane protein.

Development of a Method for Culture of Thin Sections of Mammalian Ovaries
Yohan Kim, Graduate
Charles Herr, Biology

Cell culture -- which has impacted medicine and science -- usually relies on the culture of single cells. Such cell culture is limited because one cannot observe changes of cells within tissues. My research aims to develop a new system for culturing live, thin sections of mammalian ovaries while cells are still in intact tissues. Cat and dog ovaries will be sectioned with vibratome; and placed in a microscope stage incubator which is equipped with temperature and gas controllers. Three different kinds of media will be tested for a long-term culture: Mesenchymal Stem Cell Expansion Medium, Tissue Culture Medium 199, and the mixture of both. With a successful culture system, a time-lapse digital imaging microscopy will be used to record and learn from cellular changes and interactions. So far, we have been successful in making an optimal thinness of sections using vibratome (300–400 µm). This technique will contribute to the understanding of changes of cells, like oogenesis, and therapeutic cloning research by providing a number of oocytes with advanced research.
Telephone Survey vs. On-Site Survey for Determining the Prevalence of Ergonomic Intervention Use in the Masonry Industry

Justin Kitchen, Graduate
Dan Anton, Physical Therapy

Musculoskeletal injuries in the workplace are common and cause decreased productivity and increased costs. Because of high physical demands, musculoskeletal injuries are especially common in the construction industry, with masonry one of the leading trades for injury. Ergonomic interventions have been devised to reduce the risk of musculoskeletal injury among masons. However, many of these interventions are not commonly utilized throughout the US. Over 100 masonry contractors were surveyed about the use of ergonomic interventions by telephone. The stated use of interventions from the telephone survey was then compared to the actual use of interventions observed at masonry worksites. This presentation will discuss the methodological considerations of this study and present preliminary data comparing the two survey methods.

One Sided
David Kobaly, Undergraduate
Jeff Opdyke (Filmmaker)
Jonathan Middleton, Music

Working backwards, I began where the emotional/creative energy was highest (the ending) and worked my way back, writing the densest thematic moments first, then changing and reusing them earlier to help lead the story and maintain cohesion. There is no music in the first third of the film. Both the director and I agreed that the simple opening scenes might have been made “hokey” by the premature entrance of music. Also note the breadth of the music relative to the film. I tried to look beyond the simple actions of the characters and find their underlying emotions and feelings. The film shows real people in real life, giving it an honest, organic feel. Yet much of the underlying emotions can be lost behind the simple, unremarkable everyday actions of the characters. I attempted to draw out these elements and bring them to the forefront. I thus wrote music that is somewhat “large.” I wanted to increase the scope of the film through my music, creating high emotional potential without undermining the director’s real life vision.

Collegiate Women's Soccer Athlete with an Accessory Navicular Stress Reaction
Taka Koide, Undergraduate
Katie Finnie, Caitlin Kokot and Melissa Spacek (co-authors)
Garth Babcock, Physical Education, Health and Recreation

Stress reaction is a bone’s response in the initial stages of stress application. This condition can progress to stress fracture due to repetitive stress to the bone. In some people who have the condition of stress reaction, there may also be an associated accessory bone. In this case study, we present a stress reaction injury of the navicular bone with an accessory bone, located at the proximally medial aspect of the middle foot. An accessory navicular is a congenital anomaly. It is said that about 2-12% of population has this variant. This case study focuses on a 21 year-old female soccer athlete who has an accessory navicular bone and shows stress reaction with some complications, including arthritis and tendinitis. Other topics reviewed are surgical removal for full return to play as a final choice, as well as symptomatic treatment, and preventative rehabilitation or something we have done for her injury.
The Turkish Media System and Its Significance in the Turkey-EU Accession Debate
Justine Kondo, Undergraduate
Peter Shields, Communication Studies

The first of the two paper objectives is to track the evolution of the Turkish media system and investigate its current state. The second is to analyze the consistency of Turkey’s media system with European Union principles and expectations for both current and potential Member States concerning their media operations. This analysis is made in the context of the debate on whether Turkey should join/be accepted into the EU and is based on sources including EU policy documents, relevant scholarly literature, and various news articles. This paper concludes with an exploration of options for media reformation in Turkey which can be considered by the government if it continues to move toward EU accession.

Gait Deficiencies in a Patient with Bipolar Schizoaffective Disorder
Megan Kranenburg, Graduate
Kimberly Cleary, Physical Therapy

Patients with schizophrenia show a decreased ability to regulate stride length. Similarly, patients with bipolar disorder show significantly increased variability in swing time. The use of neuroleptic medications can sometimes worsen these effects, but research shows that the illness alone is the primary cause for the altered gait patterns. The patient described in this case report was a 56-year-old caucasian female admitted to an inpatient psychiatric hospital with a diagnosis of bipolar schizoaffective disorder and multiple comorbidities. The gait deficiencies she exhibited matched closely with those expected for her mental illness based on research. She reported being extremely sedentary in the three years prior to admit and had become generally deconditioned. Physical Therapy interventions for this patient addressed stability and conditioning using aquatic therapy and cycling. In two weeks (10 sessions), this patient improved her Berg Balance Score from 45 to 56. Her unpredictable gait was unimproved. More research is needed to examine the effects of therapeutic exercise on gait dysfunction in patients with psychiatric illness. Information about these disease-specific dysfunctions should be incorporated into entry-level physical therapist education in order to fully prepare the direct access physical therapist for screening and referral.

Scaphoid Fracture Fixation Using an Allograft in a Male Collegiate Tennis Player
Michelle Krischel, Undergraduate
Jake Ritter and Jared Mumley (co-authors)
Jeff Kawaguchi, Physical Education, Health and Recreation

A 22-year-old male collegiate tennis player at Eastern Washington University suffered a scaphoid fracture in his left wrist during the spring of 2008. The injury was initially misdiagnosed as a wrist sprain and was treated with conservative management techniques. The athlete continued to participate in activity and upon returning in the Fall of 2008. He continued to experience pain and discomfort, which ultimately affected his ability to perform. The athlete was referred to a physician for re-evaluation and diagnostic imaging and was diagnosed with a scaphoid fracture to his left wrist. The athlete underwent surgery receiving an allograft to repair the fracture and has completed the rehabilitation process and returned to full participation in his activity.
The Effect of Marijuana Use and Gender on Antisocial Behavior
Ali Kristiansen, Undergraduate
Allyse DiRe-Day and Catherine Garrow (co-authors)
Kayleen Islam-Zwart, Psychology

Marijuana is the most commonly used illicit drug in the United States among all age groups (Rumbaugh-Whitesell, Beals, Mitchell, Novins, et al., 2007). Individuals who use marijuana are thought to exhibit more deviant behaviors than nonusers. Previous research also suggests females who use marijuana on a frequent basis show more antisocial tendencies than males who display the same pattern of use (Novins & Mitchell, 1998). In the current study, it was predicted that after controlling for age, frequency of marijuana use and gender would be related to antisocial behavior. This study utilized archival data from 8,077 individuals collected as part of the national Comorbidity Survey (Kessler, 2000). Findings indicated age, gender, and marijuana use are all predictors of antisocial behavior. This has important implications for intervention and educational strategies in regards to prevention of marijuana use and antisocial behavior.

The Voyage: A Music View, Through Symbolism, of Mankind's Gaining of Knowledge
Natalya Lainhart, Undergraduate
Jonathan Middleton, Music

This piece follows a ship as it sets off to sea, gathers information and experience, and is ultimately sunk by its own accomplishment. The ship itself represents mankind and its voyage demonstrates the gaining of knowledge and experience that is evident within the lifetime of every human being. The sea is the physical representation of all information that could ever be known by mankind. The philosophy states that any advancement mankind makes is a part of the ocean; all advancements in knowledge belong to it. The instrumentation is as follows: Alto Flute; Clarinet; a string quintet; two percussionists and one vocalist. The melodic variation and development tells the symbolic story of the voyage through the music, while the vocalist recites words from a poem that embody the true meaning of the symbolisms. The concept is that all knowledge that one gains is, symbolically, a droplet of water, which, when put into a tangible form and then understood, is returned back to the “sea.”

Ode to Debbie
Natalya Lainhart, Undergraduate
Jarre Marie Presley (Filmmaker)
Jonathan Middleton, Music

Ode to Debbie is a documentary about a man who dresses as women. There is no dialogue, only Bob, slowly transforming into his female counterpart, Debbie. My goal in adding music to this film was to instill a feeling of comfort in the audience while supporting the visual aspects. There is nothing so comforting as being yourself, especially when you are in your own house, as Bob is during his transformation, away from all judgment and ridicule. The music should not make the audience feel sorry for this character, but rather help them to understand him as a person through seeing what makes him feel complete. The music develops as the character does from the confident, male Bob, into the demure and sweet, Debbie. Every person has the ability to find happiness within themselves, though no two people find it the same way. Bob’s character demonstrates one path to balance and happiness; the music should aid in guiding the audience to this conclusion.
A complete design for *Sweeney Todd* including... Scenic design with rendering & ground plan. Lighting design with light plot, magic sheet, section view, & instrument schedule. Costume designs for 5 lead characters. Lastly a poster design.

In the 11th century, a lowly peasant on the First Crusade claimed to have received a holy vision which was believed would lead the crusaders to victory over the Muslims. Peter Bartholomew’s visions instructed him to find in Antioch the lance that was thrust into the side of Christ by Longinus during crucifixion, known as the Holy Lance. When the Holy Lance was indeed discovered and Peter’s visions thus confirmed, he used the popularity of his visions to acquire a following of supporters. His followers truly believed that Peter was the communication link between God and the Crusaders. Despite Peter’s strong following, there was also a party that was skeptical of the authenticity of the Holy Lance and the belief that Peter had ever had a vision. This presentation will examine one individual who took advantage of the devout nature of the Christians at this time to obtain authority and political power on the First Crusade.

Marriage requires certain components to be successful and satisfying. There are certain ethnic groups that may be happier in their marriages when compared to others. This study utilized archival data collected as part of the National Comorbidity Survey (Kessler, 2000). We looked at how ethnicity plays a role in the number of times individuals will marry during their lifetime. There are certain ethnic groups that may be happier in their marriages when compared to others. Information gathered can be applied for strategies to relationships. Results showed a significant difference in the number of times an individual has been married as a result of race. Specifically Caucasian groups reported a significantly higher number of times married than other ethnic groups.
Developing a Less Toxic Drug Cocktail for Treating Multiple Myeloma
Brian Lewis, Undergraduate
Nicholas Burgis, Chemistry and Biochemistry

Multiple myeloma is an incurable but treatable cancer of the blood cells. Cancer cells divide at an alarming rate in comparison to noncancerous cells; therefore many chemotherapeutic treatments aim to stop DNA replication. Current research aims to develop a cocktail that is less toxic than current regimens. To this end, our cocktail employs a three pronged approach to stop cell division which includes melphalan, a proteasome inhibitor and a lysosome inhibitor. Melphalan is a DNA damaging agent which prevents cell division by halting DNA replication. Proteasome inhibitors stop chemical activity of a large molecule required for protein metabolism, while the lysosome inhibitors are used to inhibit the lysosome, an organelle that is involved in another aspect of protein metabolism. This research project is geared toward the idea of modifying cellular protein metabolism and stopping DNA replication as a central theme to anticancer research. Our current research aims to test the effectiveness of a three drug cocktail to treat multiple myeloma that is less toxic than current regimens.

Who Had the Better Trip? Comparing Thoreau’s Stay at Walden to Sal Paradise’s American Tour
Paul Lewis, Undergraduate
Judith Logan, English

After reading the novel Walden in my American history class I compared it with another American novel about self discovery, the Beat epic On the Road. Despite the differences in the novels I found that each is essentially a story about finding yourself through a way of living. In my piece I will make the claim that the journey of Sal Paradise in On the Road is an exercise in living irresponsibly, without any plans or goals, which makes his trip thoroughly entertaining but, only leaves him searching for more meaning in his life. In contrast I will show how Thoreau’s deliberate planning and keeping to his transcendentalist philosophy established before heading to Walden made his journey into the wilderness, maybe less entertaining then Paradise’s romp, but also kept Thoreau focused on finding a way to live his life to the fullest, achieving his stated goal at the beginning of the novel.

Bird's the Word: The Winged, The Flightless and the Contemporary Poem
Melissa Lindstrum, Graduate
Christopher Howell, English

Part of us wants to fly, and so there are birds. Still, we cannot get off the ground. This presentation will explore the placement and function of the winged and the flightless in the contemporary poem. I will look at birds as metaphor, image, and setting details in the works of contemporary poets James Grabill, Lucia Perillo, and Christopher Howell, as well as in some of my own bird poems.
Late Paleoindian Subsistence and Settlement at Sentinel Gap (45KT1362)
Jamie Litzkow, Graduate
Jerry Galm, Anthropology

Faunal remains from the Late Paleoindian Sentinel Gap site have been analyzed to determine the combined kilocalories provided through meat supplies over the course of a single episode of occupation. Using a range of proportional plant: animal kilocalorie ratios, the total caloric intake for resident groups of varying sizes are presented based on average RDA calorie requirements. Factors including site size (m²) and artifact/feature distributions are then used in conjunction with caloric data as proxy indicators of potential group size and the duration of occupation. This analysis permits a new interpretation of Late Paleoindian subsistence-settlement dynamics in central Washington including important contrasts with coeval Windust Phase settlements on the Columbia Plateau.

Memory Self-Awareness Following TBI: Evaluating “Offline Assessment” and “Online Assessment” Methodologies
Michelle Livengood, Undergraduate
Jonathan Anderson, Psychology

We examined memory self-awareness individuals with moderate to severe traumatic brain injury (TBI) using “online assessment” and “offline assessment” methodologies. Twenty-three participants with TBI and 23 matched controls participated in this study. “Offline assessment” of memory involved contrasting TBI patient self-ratings of memory functioning with assessments from controls and objective memory tests. “Online assessment” of memory was assessed by comparing the predicted amount of information participants would remember following trial 1, trial 5, and a 20-minute delay with actual memory performance on list-learning and visual-spatial memory tests. As expected, TBI participants displayed poorer recall for newly learned information than controls, but no significant group differences emerged in the “online assessment” of memory self-awareness. Counter to expectations, the TBI group provided similar ratings of their memory functioning as knowledgeable informants. These findings suggest intact memory self-awareness following TBI during the early stages of recovery.

"French Twist's" Loli as a Representation of the Lived Experience of Bisexual Motherhood
Lisa Logan, Undergraduate
Sally Winkle, Womens and Gender Studies

Motherhood is an aspect of bisexual women’s lives that has been marginalized both as a topic of social science research and as a subject of film. My research reveals how the portrayal of a bisexual mother in Josiane Balasko’s film, "French Twist" ("Gazon Maudit") (1995) intersects with and diverges from the lived experience of bisexual mothers. This French film is unique because it is among the few films that portray motherhood as a visible aspect of bisexual women’s lives. I will illustrate several myths, stereotypes and cultural attitudes toward bisexuality and highlight how these are reproduced and challenged in "French Twist." My literature review examines factors that contribute to the neglect of bisexual mothers as a topic of social science research. In my analysis of the film, I discuss how the invisibility faced by bisexual people impacts the representation of bisexual mothers. With no social support network for bisexual mothers in most geographic regions, film, as a cultural representation, can reflect bisexual motherhood as a valid identity.
Hormone Induced Oogenesis in Out-of-Season *Rana pипiens*

Dava Lomax, Graduate  
*Charles Herr, Biology*

Many amphibian species are facing extinction. Our laboratory develops reproductive technologies useful for propagation of amphibians. This project studied oogenesis in out-of-season frogs induced with a series of hormone injections. Thirty-eight frogs were assigned to 1 of 5 treatments. One treatment served as a no-hormone control where frogs were administered saline solution. In the following 4 treatment groups, frogs in two treatments received every other day injections of synthetic gonadotropin-releasing hormone (sGnRH 25ug/mL) a dose that increased weekly from 0.05mL, to 0.1mL, and then 0.2mL. The day after the last sGnRH dose, frogs in the 4 treatments received 0.1mL of pregnant mare serum gonadotropin (PMSG 30 IU/mL). Four days post the PMSG; frogs were injected with 0.15mL of human chorionic gonadotropin (500 IU/mL). Frogs in two of the treatments; one group that received sGnRH and one that did not, also received an injection of 0.5mL of progesterone (2.5 mg) 4 days after the last sGnRH injection. Subsequently, frog egg masses were weighed and photographed. Although results await full analysis, our conclusion is oocyte maturation is inducible in *R. pипiens*.

Embracing Diversity through Music In the ESL Writing Class

Hui Ting (Maggie) Lu, Graduate  
*LaVona Reeves, English*

This presentation addresses issues of diversity in the U.S. and how international students and their teachers create personal narratives about sacrifice and discrimination in their responses to Stevie Wonder's "Ebony and Ivory" and Miss Saigon's "I'd Give My Life for You." This action research project is the focus of Lu's master's thesis on the value of music in the teaching of biography in the ESL college writing class to build community and create spaces for self-expression. Through dialogue journaling the instructors can get to know their students better, and when instructors journal with their students, the students also get to know them. In brief, this interactive reader-response approach to teaching writing increases writers' fluency, self-confidence, and ability to express themselves in a foreign language.

Coming of Age in the Age of Communication

Yvonne Lucero, Graduate  
*Natalie Kusz, English*

From mother to daughter, woman to woman, and girl to girl, so are passed the secrets of our bodies, and with them our sense of self. But what happens when our communication is influenced or subverted by industry and the institutions we trust? What happens when communication becomes hostile, nonexistent or relegated to the privacy and secrecy of the Internet? This reading and discussion looks, through the lens of personal experience and insightful research, at the interplay of communication and self-esteem. Both humorous and poignant, this discussion is not for women only, but for anyone who cares about the health and well-being of women and girls.
The Effects of Posttraumatic Stress Disorder and Socioeconomic Status on Religiosity
Amy Lykes, Undergraduate
Sara Boots and Cory Thayne (co-authors)
Kayleen Islam-Zwart, Psychology

In times of great stress and poor life conditions such as poverty or trauma it is possible that many people find means to cope and gain strength by turning to spirituality. We sought out to find if Posttraumatic Stress Disorder (PTSD) and Socioeconomic Status (SES) were predictors of individuals’ self-reported importance of religion in their life and the extent they seek comfort through their religious practice. This study utilized archival data collected as part of the National Comorbidity Survey (Kessler, 2000). It was hypothesized that individuals with PTSD would be less likely to turn to religion than individuals without PTSD and that a lower SES would predict higher levels of religiosity. Results revealed, as expected, that a lower SES is a predictor of higher religiosity. In contrast to our prediction, we found that individuals with PTSD reported higher religiosity than individuals without PTSD. There was no interaction between SES and PTSD on reported religiosity. These findings suggest that religion may be a coping mechanism for individuals facing struggles such as the experiences of traumatic events and living in poverty. Future research is necessary to expand our understanding of the benefits religion has on one’s life.

E.V.E. - The New Disney Heroine
Catherine Lyons-Holestine, Graduate
Heather Robinson, Communication Studies

E.V.E. is a new, dynamic female character. She breaks free from the visual and behavioral gender stereotypes Disney has reinforced through animated movies since the premier of Snow White and the Seven Dwarfs in 1937. E.V.E., the lead female character in the 2008 release of Disney Pixar’s WALL-E, is the latest in a series of animated lead female characters which have been successively attempting to break through gender stereotypes. Compared to traditional Disney princesses like Snow White, Cinderella, Belle, Ariel and Mulan, E.V.E. is the first animated female character to break social norms which have become a hallmark for animated movie princesses. E.V.E. is a heroine, not a princess. E.V.E. does not wait for a male character to safeguard or protect her. She doesn’t watch from the sidelines as male characters struggle for dominance and ultimately dominance of herself. The visual image of E.V.E. is probably more startling than her actions. She doesn’t appear to be anything like the traditional princesses. She does not have a fitted gown or long flowing hair. E.V.E. is non-descript upon first glance, but she is ultimately female.
Decision Making During the Driving Evaluation: Exploring the Clinical Reasoning of Occupational Therapists

Amanda Mackey, Graduate
Shannon Finck, Dan Mills and Erin Stone (co-authors)
Wendy Holmes, Occupational Therapy

Driving has been found to be integral to quality of life. Whether by injury or typical aging, many individuals experience impairments that may affect their ability to drive. There is limited research describing the clinical reasoning of the occupational therapist during the driving evaluation process. This qualitative study, examined both the thought process during the in clinic driving evaluation, the decision to progress to an on-road evaluation, and development of recommendations. The methodology included a focus group of four local occupational therapy driving evaluators of varying experience. Results identified major themes including the intuition of therapist, the consequences of decisions made, the clinical setting, the past experiences of the therapist, and the presence of red flags in performance. These results will support and build upon current research in the area of driving evaluation.

In L.A.
Alex Magana, Undergraduate
Tom Mullin, Electronic Media and Film

Music video showing you can leave the city of Angeles but Los Angeles never leaves you. Directed by Alex Magana

Serio Controla
Alex Magana, Undergraduate
Tom Mullin, Electronic Media and Film

Music video following one man's revenge. Directed by Alex Magana

Summertime in the 50nine
Alex Magana, Undergraduate
Tom Mullin, Electronic Media and Film

Music video highlighting a summer in Spokane. Directed by Alex Magana

Transcendental Theology in Genesis and Exodus: God is Not Part of the World
Rachelle Malat, Undergraduate
Georgia Bazemore, History

This paper seeks to examine the nature of the Divine as portrayed in the Old Testament. Manifestations of God will be examined through the eyes of the writers of Genesis and Exodus, the first two of the initial five books of the Old Testament known as the Torah in Hebrew, Pentateuch in Greek. These five books are considered the holiest of the Old Testament because they alone are believed to have been written by Moses himself. Further, Genesis and Exodus alone concentrate upon and thus describe the various ways in which God is manifested to humans on earth. It will be noted that each manifestation of the Divine is accomplished by and accomplished through super-natural events. It will be concluded that the Old Testament representation of the Divine is outside of nature and does not obey nature’s laws.
Ergonomic Solutions for the Construction Industry: Development of an Online Database
Cassie Malecha, Graduate  
Dan Anton, Physical Therapy

Musculoskeletal injury rates in the construction industry are among the highest of any occupation. Research is constantly being conducted to improve workplace ergonomics. Despite efforts to create ergonomic tools and techniques, many construction contractors and workers may not be aware of new innovations in the field. The CPWR Construction Solutions website is a resource for owners, contractors, and workers to access and find new innovations. The website identifies hazards for various construction work activities and offers solutions for these hazards. Ideas for new solutions are obtained by reviewing current research, trade magazines, websites, and visiting worksites. The presentation will briefly describe the website layout, how to navigate the website, and give specific examples of hazards and possible solutions.

The Role of Anticipatory Programs in 'Pushing-Out' National Borders
Dustin Massie, Undergraduate  
Peter Shields, Communication Studies

Action taken in the Post 9/11 era has ushered-in the creation and implementation of programs designed to facilitate border patrol and protection through the newly established Department of Homeland Security. Former methods of screening individuals at borders and ports of entry have been supplemented by sophisticated anticipatory programs that virtually push-out a nation’s border beyond its traditional jurisdiction. In this paper I seek to investigate the new methods being used to perceive and thwart threats before they enter U.S. territorial boundaries and to consider how these methods have been implemented to facilitate the flow of commerce and travel of legitimate individuals. I reached the conclusion that although the high degree of border protection secured by these programs has increased international cooperation, their explicit aim of preventing the realization of future terrorist acts is questionable. At the same time, new procedures have not adequately assisted the entry of law abiding citizens and trustworthy trading partners, often hindering these processes.

The Collapse of the Athenian Empire
Kari McClure, Graduate  
Georgia Bazemore, History  
Julia Smith, Anthropology

In 404 BC, Athens fell to Sparta; defeated after twenty-seven years of fighting, Athens was a broken, deserted, and literally starving specter of the mighty polis that only seventy-five years earlier defeated the great Persian army of Xerxes. There are some scholars that argue that Athens did not collapse and that the hiatus following the war was so short lived that the term collapse does not apply; but an examination of the evidence shows that Athens did collapse—suffering failings in her economics, politics, and religion. The Peloponnesian war created multiple crises in the polis that Athens was simply not prepared to meet. In the case of Athens, the Tainter model of collapse, the increase of complexity and diminishing marginal returns, offers a decent framework in which to view the Athenian collapse. A close look at the years prior to and during the Peloponnesian War reveals that increased complexity of the Athenian Empire may have reached a critical point of diminishing marginal returns in resource production, economic productivity, and sociopolitical control and specialization. Evidence shows that Athens reached a crisis point early in the war and was incapable and perhaps unwilling to innovate greater marginal returns to avoid collapse.
The Medicinal Chemical Investigation Towards the Development of the Next Generation of Nicotine Replacement Therapies
Steven McDaniel, Undergraduate
Marcus Annable (co-author)
Travis Denton, Chemistry and Biochemistry

Worldwide it is estimated that 4.9 million people die each year of smoking related diseases. About 35% of people who smoke try to quit each year, but only 3-5% are successful. Nicotine is metabolized by cytochrome P450 2A6 (CYP2A6) and it has been shown that individuals who have defective CYP2A6 genes metabolize nicotine more slowly and have a greater likelihood of quitting. The project to be described is aimed towards building a library of nicotine mimics in the hope of inhibiting CYP2A6 in order to create a smoking cessation agent. The library is created using synthetic medicinal chemical techniques. Specifically, 3-cyanopyridine is reacted with various diamines in an ultrasonic bath in the presence of elemental sulfur as an oxidant. The products of these reactions will be further functionalized by alkylation and subsequent reduction. The current results of these steps will be discussed.

Zombie Milk
Chris McLenegan, Undergraduate
Tom Mullin, Electronic Media Theatre and Film

The eternal cat and mouse conflict between milk and cookies leads to grave results.

Contrasting Modes of Suffering in Poor Tom’s Soliloquy in King Lear
Dylan Medina, Undergraduate
Paul Lindholdt, English

In the medieval aristocracy, hierarchy orders society, and rank within that hierarchy defines the individual’s existence and determines honorable action. Individuals in that society look to the higher ranks to find inspiration. Without that rank an individual disconnects from society and suffers exile. In King Lear, Shakespeare presents the characters Edgar and King Lear who lose their rank by the treachery of their kin. Without their ranks, Edgar and Lear suffer a disconnection from society. Edgar witnesses Lear suffering the same fate. In witnessing a higher rank share his isolation Edgar ceases to be the solitary individual and finds inspiration to act to end the suffering. Shakespeare emphasizes this movement from solitary, inactive suffering to action through formal aspects of Edgar’s Poor Tom soliloquy at the end of Act 3, Scene 6.
Implications of Cultural Awareness on the Development of a Distance Language Course
Natali Mendoza, Undergraduate
Gina Petrie, Modern Languages, Literature and Philosophy

This paper describes a qualitative study in which the notions of social and psychological distance (Schumann, 1990)—theories about the impact of cultural comfort on language acquisition—were explored in the creation of an English as a foreign language distance course. This course was created to instruct university students in Iraq in the skill of writing English through the technologies of Podcasting, iTunesU and Blackboard. The researcher chose this course to explore social and psychological distance between the U.S. instructors and the Iraqi students because two factors suggested potential barriers: media portrayal created a misinterpretation of information, and the course context was also full of unknowns that later became fears. The researcher carried out ethnographic interviews with six participants who played various roles in the course development including the interim English language program director, English program course developer, instructional technology specialist, educational outreach staff member, and an online course developer. Interviews were transcribed and analyzed along with meeting notes and course documents. It was discovered that the course developers experienced tension and fear at various levels according to the amount of exposure and experience they had in dealing with the Iraqi population. This led to different approaches in creating the course, and varied the nature of individual involvement in the project. It is hoped that this presentation will aid in the future development of English language distance courses.

The Sofa Boys
Kevin Merritt, Undergraduate
Paul Lindholdt, English

A story of three boys who have a bonding experience during a high school band trip. This is based on a true story, and the film explores how relationships and bonds are forged in the midsts of potentially dangerous situations.

Re-Thinking the Pitcairn Collapse
Alice Mizer, Undergraduate
Julia Smith, Anthropology

This paper challenges important pieces of Jared Diamond’s account of the situation on Pitcairn Island as presented in his book Collapse: How Societies Choose to Fail or Succeed. It will argue that an environmental explanation doesn’t completely account for the Pitcairn collapse. After the initial collapse on Pitcairn, not enough time had passed to allow the environment to replenish before it became inhabited by the Bounty Mutiny mutineers. Pitcairn Island remains inhabited today despite its small size and lack of natural resources, because the economy has never been dependent on the island alone— but on the surrounding islands for their natural resources and trade with passing ships as well.
The Aristotelian Rhetoric of Martin Luther King Jr.’s Metaphors
Peter Moe, Graduate
Dana Elder, English

Aristotle writes that “all people carry their conversations with metaphors,” and noting the prevalence of metaphor in the writings of Martin Luther King, Jr. many critics have recently begun analyzing King’s use of metaphor. Such analyses tend to focus on how King’s metaphors are archetypal and therefore easy to decode as well as how the metaphors act as a means by which King gains credibility with his audience. While these analyses are insightful, analysis of King’s rhetoric of metaphor through the lens of a four-part heuristic based upon Aristotle’s metaphor theory yields a greater understanding of why King’s discourse resonates. This heuristic, when applied to King’s metaphors, will aid writers as they turn to their own discourse, able now to craft more powerful rhetoric via a rhetoric of metaphor.

2-Mason Lift Technique Video on YouTube.com for Distribution of Ergonomic Masonry Study Results
Paul Moraski, Graduate
Dan Anton, Physical Therapy
Ryan Mizner, Physical Therapy

Masonry workers are at increased risk for developing low back disorders compared to other occupations. Repeated heavy lifting and awkward back positions likely contribute to risk of injury among masons. Some masonry apprenticeship programs teach the use of 2-mason lift teams while handling heavier concrete block, which has been found to be effective at reducing the risk of musculoskeletal injury. Getting study results implemented into the construction industry has proven difficult in the past, and incorporating research into practice is a vital part in making the study relevant. In order to maximize awareness of the information, the internet was utilized. A four-minute instructional video on the 2-mason lift technique was shot, edited, and uploaded to YouTube.com using results from the study. Included in the video is a comparison of 1-mason versus 2-mason lifting, instructions on how to use the technique, and the benefits of doing so.

Site Directed Mutational Analysis of Human RdgB, a DNA Repair Enzyme
Ayaka Mori, Undergraduate
Nicholas Burgis, Chemistry and Biochemistry

When incorrect bases are incorporated into the DNA during replication, DNA damage and genomic instability can occur. 6-N-hydroxyaminopurine (HAP) acts as a DNA precursor for the deoxy-HAP-triphosphate (dHAPTP). HAP is mutagenic because it can form hydrogen bond ambiguously with either thymine or cytosine. The human RdgB protein has the ability to distinguish between canonical and non-canonical bases, which will be helpful to eliminate dHAPTP from the collection of DNA precursors by hydrolyzing it to the monophosphate form. X-ray crystallography experiments have determined the three dimensional structure of human RdgB. Our research aims to determine the specific residues involved in substrate specificity. To this end, we have employed site-directed mutagenesis to investigate the role of Arginine 178 in discrimination between canonical and non-canonical bases; namely adenine plus HAP.
Devout but Nearly Silent Exploration: Mary Shelley’s *Frankenstein*

Erica Morris, Graduate  
*Christina Valeo, English*

Virtually from the moment the then sixteen-year-old Mary Godwin ran away from her father’s home with Percy Bysshe Shelley in 1814, until 1822, the year Percy Bysshe Shelley died, Mary Shelley was either pregnant, nursing a baby, or mourning the death of one of her children. The physical and emotional toll these pregnancies and maternal disappointments had on her psyche rendered Mary Shelley the “devout but nearly silent listener” (viii) she calls herself in the introduction to the 1831 edition of *Frankenstein*. Yet, while the men of the Shelley party who are privy to Byron’s challenge “We will each write a ghost story” (vii) set forth immediately to show each other up, Mary takes her time and subtly mines her brain for the thoughts and ideas forged in her silences while listening to the men speak, and I believe it is these thoughts, these silences, which eventually coalesce to become her novel *Frankenstein*.

“LOL, R U Serious? ROFL” The Effects of High Technology Communication Modes on Verbal Skills

Manee Moua, Undergraduate  
*Amani El-Alayli, Psychology*

While informal writing and verbal abilities are slowly deteriorating among students, the use of high technology (“high-tech”) and its new language is increasing. We hypothesized that the more frequent use of high-tech communication modes (e.g. text message, chatting on-line, e-mailing and blogging) would relate to lower verbal skills among students. For this study, college students took a number of verbal tests and reported the extent to which they send text messages, emails, and chat on-line. Frequency of text messaging was associated with lower sentence structure, grammar, and vocabulary. Significant correlations found with chatting frequency and perceived carefulness with lower grammar and sentence structure, and vocabulary abilities. Frequency e-mailing was associated with perceived carefulness in punctuation, grammar and sentence structure. Our findings for the modes of communication vary among the verbal and vocabulary ability tests. We discuss the implication of these findings for better understanding of this generation’s new culture of technology and its developing language among students.

Prevalence of Functional Limitations and Disability in Older Patients with Coronary Heart Disease

Charity Mull, Graduate  
*Ashley Guy (co-author)  
Tanya LaPier, Physical Therapy*

Exercise is important for patients with coronary heart disease (CHD) for prevention of reoccurrence, treatment and management. Often, those individuals who could benefit most from exercise are least able. The purpose of this study was to identify and determine prevalence of specific functional limitations and disabilities in patients with CHD. We used the Late Life Function and Disability Instrument (LLFDI), a self-report outcome measure for older adults. Of the 32 participants, more than half felt limited in their ability to manage household responsibilities and take part in recreational activities. These results suggest that even “functioning patients” with CHD experience difficulty with some basic and instrumental activities of daily living.
Micro-Credit in Bangladesh: A Sustainable Model for Poverty Alleviation
Cara Myers, Undergraduate
Vandana Asthana, Government

In the 1970’s, the development of Grameen Bank in Bangladesh by Muhammad Yunus created a revolution in the fight against poverty. This bank initiated the first ever large-scale micro-credit program as a means by which the poor could overcome extreme poverty. Micro-credit is defined as providing small loans to very poor people for self-employment and income-generating projects and it has now been spread to dozens of countries around the world, both developing and developed. We will examine the various causes that brought about the creation of micro-credit, especially the influence of NGO’s and state actors. Then we will evaluate the success micro-credit has had and its remaining limitations. This will include a study of the group of people principally affected by micro-credit and how economic empowerment can benefit other aspects of society as well. We will also investigate why Bangladesh remains among the poorest countries in the world, and the existing challenges to economic development in Bangladesh such as environmental conditions. Finally, we will speculate the future role of micro-credit in Bangladesh and beyond as a key instrument of economic development at the grass-roots level.

Malingering Proficiency as a Function of Emotional Intelligence and Cognitive Load
Tina Myers, Undergraduate
Cindi Harding, Nate Wareham, Kayla Grubaugh and Andrea Griechen (co-authors)
Kayleen Islam-Zwart, Psychology

Malingering involves faking mental or physical problems in order to receive a benefits (e.g., monetary, compensatory, or a reduction of consequences). Malingering is estimated to occur in 15%-17% of forensic cases. While measures exist to detect malingering, it is necessary to find ways to make them more effective. This study was conducted to explore the impact of cognitive load and emotional intelligence. Cognitive load is the demand on mental resources to complete a task and was expected to negatively affect malingering. Emotional intelligence involves empathy and the ability to use social encounters to the individual’s advantage and was expected to have a positive impact on malingering performance. Results and discussion will be presented.

Toby Finally Gets It
Sam Neiland, Undergraduate
Clancy Bundy (Filmmaker)
Jonathan Middleton, Music

This presentation is the combination of two separate individuals working together on one piece of complete work. Toby Finally Gets It is a film created and directed by Clancy Bundy with a musical soundtrack created by Sam Neiland. The film addresses a story of a young teenager trying to figure out life, people, and love; a typical coming of age story. The music was composed in sight to how the different the characteristics of all the people in the film group are, by their age (teenagers, parents, etc) maturity, and style. The soundtrack is comparable to modern pop music, but still has a level of dynamics that make it both interesting and fitting to the purpose and themes of the film.
Collegiate Football Athlete With a Grade II Lisfranc Sprain
Dana Neudorfer, Undergraduate
Kevin Cadiente, Kailynn Dolph, Chris Williams and Erek Arnold (Co-Authors)
Garth Babcock, Physical Education, Health and Recreation

This will include a case study report of a 20 y.o. Eastern Washington University Athlete with a Grade II Lisfranc sprain. This study will explain the pertinent anatomy associated as well as the common mechanism of injury when the initial evaluation occurred. A description of how to determine the different medical concerns will be addressed under differential diagnosis. Further discussion will include current status and continued treatment for return to play standards. A detailed description of the rehabilitation processes and tactics used to help return the athlete to bilateral strength and stability. The athlete must maintain 90 percent in the uninjured metatarsals as well as a return to play MRI to check for proper healing. Athlete may return to play upon these conditions.

Cesar Chavez: L2 Writers' Response to Heritage, Language and Culture in the Classroom
Amy Nickerson, Graduate
LaVona Reeves, English

This presentation will analyze L2 writers' responses to journal prompts about the biography of Cesar Chavez. The L2 writers were students in English 112 (writing for international students) during winter quarter of 2009 when the data was collected by the instructor (myself), who also served as the primary investigator. All journal prompts and curriculum activities based on the biography of Cesar Chavez are original works of the instructor and will also be shared during this session.

Reconstructing Neanderthal Faces
Emily Nisbet, Undergraduate
Sarah Keller, Anthropology

Over the years, Neanderthals, our closest relatives, have been variously depicted as lumbering, brutish, and ape-like, despite being obligate bipedal and having a brain case larger than ours. The purpose of my research has been to review the literature for the ways in which Neanderthals have been reconstructed in the past and then create a reconstruction of my own, following the assumptions of their creators, where possible. Then, after practicing on two anotomically modern sapiens (AMS) skull casts, I attempted my own reconstructions, using a plaster cast of the La Chapelle-aux-Saints skull. Because the majority of Neanderthal remains originate in European and circum-Mediterranean Middle and Upper Paleolithic contexts, I used the tissue depth markers for modern European populations. After the initial placement of clay strips connecting the markers, I subsequently filled in the musculature and adipose tissue as neutrally as possible. I then made a second reconstruction in keeping with the glacial period date and location of La Chappelle-aux-Saints, reflecting a colder climate adaptation. It should be noted that this particular ancient individual’s skull is more divergent from AMS specimens than many other Neanderthal remains. I then compared my findings with other reconstructions to determine how and why my attempts vary from the majority of conventional ones.
FitFlops: Fitness Innovation or Flop
Christine Olsen, Undergraduate
April Axtell and Ami McBride (co-authors)
Matthew Silvers, Physical Education, Health and Recreation

FitFlops, a shoe company, claims their flip flops give the wearer a workout while walking. The purpose of the study was to determine if Fitflops (FIT) increases oxygen consumption (VO$_2$) compared to regular flip flops (FLIP) and athletic shoes (SHOE). Four female subjects (age 25.8 ± 4.8) performed a 6-min treadmill trial at 30% heart rate reserve (HRR) for each footwear condition. VO$_2$ was continuously measured for each trial. A one-way ANOVA (alpha level p < 0.05) was used to examine statistical differences in VO$_2$ between conditions. There were no statistically significant differences in VO$_2$ (p=0.98) between conditions (FIT x=13.3 ± 3.4, FLIP x=13.7 ± 2.8, SHOE x=13.3 ± 3.2). A small sample size and non-standardized treadmill speeds may have contributed to the lack of statistical significance. Further study is warranted.

Ghost Story
Kiah Owen, Undergraduate
Tom Mullin, Electronic Media and Film

A young, homeless, heroin addict spends her day trying to get enough money to get a hit.

Movements of Bull Trout *Salvelinus confluentus* When Released Above a Dam
Mark Paluch, Undergraduate
Allan Scholz, Biology

Dams built without a means of fish passage block fish migration to their natal tributary. Albeni Falls Dam, constructed in the early 1950s, is not equipped with a fish ladder therefore, entrained fish cannot return upstream. Four bull trout were captured below the dam in 2008. Each fish was surgically implanted with a transmitter and released above the dam. Genetic analysis was used to determine probable tributary of origin. Movements were monitored using radio and acoustic telemetry. All four fish passed by the receiver stations leading into Lake Pend Oreille. One of the fish transmitters was recovered in the tributary corresponding with the results of the genetic test. Another fish was located in the vicinity of its home tributary, which was impassable due to low water discharge at its mouth. Two fish have not been located since entering the lake. Providing passage upstream form dams protects genetic diversity of threatened bull trout.

Religion and Prejudice: The Role of Political Orientation, Religious Affiliation and Authoritarianism
Shawn Pattison, Undergraduate
Amani El-Alayli, Psychology

The purpose of this research is to examine the relationship between the authoritarian personality, political orientation, religious orientation, and prejudice directed toward atheists. Introductory psychology students and other voluntary participants (N=83) were asked to complete a questionnaire packet relating to their views on a variety of social, political, and personality traits. Greater degrees of prejudice were expected for participants who scored higher on measures of the authoritarian personality trait as well as political conservatives.
Deadly Dividends: Pakistan's Use of Non-State Proxies and the Deteriorating Security Situation in South Asia
Mark Peckham, Undergraduate
Vandana Asthana, Government

Pakistan has a history of supporting non-state actors as proxies against its enemies. It has done this in Kashmir, in Afghanistan, and in the case of the Khalistan movement. In the cases of Afghanistan and Kashmir the Pakistani military and intelligence establishment has coupled this strategy of proxy war with one of promoting a pan-Islamic Jihad. Events in the last few months show a strong foothold of these groups not only in the NWFP but also making inroads in Punjab. A failing and unstable Pakistan in the hands of the Jihadis is not in the interests of the region or the United States. At the same time reports confirm the ISI' intention to support the Taliban as a back up against India in the event of a US withdrawal from Afghanistan and India's growing relations with the country. The Indian intelligence reports that there are several terrorists waiting to cross the line of control as India's go to the polls. This paper explores the unintended and deadly consequences of taking what were essentially nationalist struggles and turning them into Holy wars and the implication these have for the regional and global environment.

Fly Art: Collaboration of Music and Film
Christina Pendleton, Undergraduate
Jason Baker (Filmmaker)
Jonathan Middleton, Music

Fly Art, by Jason Baker, is a comical short about an aspiring artist being distracted and annoyed by the various insects inhabiting his studio. Musically my goal was to create a whimsical and funny atmosphere and to give each character/insect a musically represented personality. With the help of the film's director, Jason Baker, we identified the personality of each character, from the sneaky cockroach to the bumbling and annoyed artist. With these characters' personalities identified I could begin my creative process. I assigned an instrument or group of instruments to each character to give them an instrumental identity/counterpart. With the instruments assigned to a character, I then wrote a musical motif or set of motifs that could be used together to create a musical reflection of this art studio world where all of the characters interact. With the goal of enhancing the film through musical comedy and characterization with musical motifs, I drew upon my childhood memories of comical music from television programs I used to watch. i.e. Looney Tunes, Gilligan's Island, I Dream of Jeannie, Etc. By incorporating these childhood memories into my creative process I composed the musical score for Jason Baker's short comedy, Fly Art.

Synthesis of Polymeric Quaternary Biocides for Medical Applications
Alex Pentecost, Undergraduate
Travis Denton, Chemistry and Biochemistry

Infections acquired from various contaminants within a hospital are referred to as nosocomial infections (NIs). These infections are of growing concern in the practice of medicine. There are approximately two million cases of NIs a year in the United States of America, which translates to about one every three minutes. Eliminating these infections by the use of novel polymeric quaternary biocides (PQBs) is the goal of the presented research. Previous research has shown some polymeric quaternary molecules have proven antibiotic properties including PQBs I have synthesized. The major goal of this project is to synthesize PQBs for medical uses. Some medical applications are the production of various tools such as sutures and catheters completely from the new PQBs or by blending the PQBs into existing materials. The PQBs inside the materials will potentially decrease the ability for foreign bacteria to grow, thus, reducing the occurrence of NIs.
HPPV: A New Spin on Old Technology
William Persons, Undergraduate
Joe Roberts, Matt Smock and Rich Kimpel (co-authors)
Donald Richter, Engineering and Design

HPPV- Human Powered Paper Vehicle- is a contest EWU puts on yearly. Requirements for this competition, is to research, design and build a vehicle 75 lbs or less made of paper, not more than 10% being non-paper weight. The teams are judged on their Time around a 300m obstacle course, Innovation, Team spirit, and Presentation. Our beginning concept was to build the bike for speed however; we wanted it to be innovative so our final design/ build reflected these two parameters. The vast majority of the parts were researched, designed and fabricated by the team Great effort was made to avoid “off the shelf” parts; this required us to do research on material and design concepts to be used. These innovations included: a cardboard free hub, Tube and web designed frame, an HDPP crank, truck bed liner to increase traction on the wheels, Fabrication of a spoke rear wheel to reduce weight, increase acceleration, maintain strength, and look cool. A tensioner designed for a belt driven pulley system, and a cross-drilled frame and front wheel to add strength. Our finished bike weighed 61 lbs, with a non-paper weight of 4.1 lbs. We successfully completed the course with minimal issues.

St. Helens: 1980
Ty Pfundheller, Undergraduate
Jonathan Middleton, Music

St. Helens: 1980 is a three movement, contemporary chamber piece inspired by the eruption of Mt. St. Helens in May of 1980. This work is not only an impressionistic view of the event, but rather a combination of real life information, (consisting of seismic data recorded prior to the eruption of Mt. St. Helens), and my own impressions of the mountain resulting in St. Helens: 1980. Each movement represents a section of the massive upheaval of Mother Nature. The first movement, Frantic Misfortune, depicts life on the mountain, pre-eruption, with an underlying sense of something unstable lurking in the shadows. The second movement, Pandemonium Principle, is a depiction of the eruption itself, and the third movement, New Life, represents the broken and wounded struggle of an entity freshly out of battle, desperately trying to recover from near annihilation, and flourish into the earthly god it once was. St. Helens: 1980 is a tale of renaissance if you will, a tale of finding unimaginable beauty in something so destructive and violent, a tale of the circle of life continuously rejuvenating our planet constantly reminding us of a greater force at work.

Phenotypic Plasticity: Genetic Variation and Environmental Effects
Cassandra Pharr, Graduate
Thomas Hancock, Biology

Phenotypic plasticity is the effect the environment has on an organism that causes variation in the phenotype. Phenotypic plasticity allows organisms to change their morphology, physiology, and behavior to adapt to variable habitats and is most pronounced during development. For example, in many fish species the number of muscle fibers that form during development is dependent on temperature, which can affect adult swimming ability. It is often assumed that a specific genotype results in a specific phenotype, but this is an exception. However, the ability to utilize phenotypic plasticity is genetically determined. The environmental variables that change the phenotype are species specific, and those in variable environments tend to have a genotype where phenotypic plasticity is expressed. My investigation focuses on water velocity as an environmental variable that can vary for fish in freshwater streams. Water velocity will be manipulated during development in juvenile salmonids (Oncorhynchus kisutch and Oncorhynchus nerka kennerlyi). This is hypothesized to alter juvenile salmonid characteristics and permanently affect their morphology, physiology and swimming ability through phenotypic plasticity.
Examination of Polyhydroxypolyamines as Non-Viral Gene Delivery Agents in Mammalian Cells
Whitney Pinches, Graduate
Travis Denton, Biology

It is of unparalleled importance to develop non-viral, tumor targeting gene delivery agents capable of delivering a highly toxic cargo to the tumor cells while minimally affecting the surrounding, essential, healthy and fast growing cells of the human body. In light of this, novel polyamines must be strategically developed for use as the gene transport vectors. The objective of the presented research is 1) to develop and optimize methods for the preparation of polyhydroxypolyamines (PHPamines), 2) use these materials to condense plasmid DNA containing specific selected genes into polyplexes and, 3) ultimately, treat eukaryotic cells with the polyplex solutions and assess the transient transfection efficiency and cell toxicity induced by the polyplexes. Current results will be presented.

Non-Native English-Speaking Teachers: Challenges and Contributions to Profession
Elena Pipenko, Graduate
LaVona Reeves, English

This work is devoted to investigation of existing works about non-native teachers, differences among the perceptions of students and teachers themselves are studied, challenges and contributions that non-native teachers bring to the classroom are discussed. As a non-native English-speaking teacher, the author draws some examples from her own teaching experience. This topic has recently gained popularity in the TESOL world as there has long existed a stereotype that takes for granted that native English-speakers are better teachers of English than non-natives, non-native speakers of English find it hard to compete with native speakers on equal terms and non-native teachers are often disadvantaged and discriminated against, they have unequal job opportunities with natives. However, recently the situation has been changing as more and more researches are carried out in order to find out differences between these two categories of teachers of English, teachers as well as students are starting to value the work of non-native English speaking teachers and realize that there exist certain challenges for them, but there is a lot that non-natives can contribute to the profession.

Is Tactile American Sign Language Its Own Language?
Amber Pitzler, Undergraduate
Jocelyn DeHaas, Anthropology

American Sign Language or ASL is a known and well studied visual language used by the deaf community in America. Less well known and studied is Tactile American Sign Language or Tactile ASL, a language used by the deaf/blind community. This paper argues that Tactile ASL is going through the same processes of change that are commonly observed in auditory/verbal languages, including both internal and external changes. The modifications caused by these processes of change between Tactile ASL and ASL are significant enough that they are creating substantial differences between the two. This paper further argues that through these divergences it is apparent that Tactile ASL is not just a dialect of ASL but is in fact a distinct language. Finally the paper examines the transformation of Tactile ASL and its relationship to ASL in the framework of language divergence and change.
Is Reaching Happiness Possible Through Material Means?
Laura Preciado, Undergraduate  
*Philip Watkins, Psychology*

The acquisition of happiness has long been a lingering interest held in the public mind and recently psychology has brought it back to the forefront. The purpose of the current study is to discover why individuals attempt to purchase their happiness despite their knowledge of where they have previously encountered it. The study also examined why individuals believe that certain experiences or material purchases bring more happiness to them, compared to other individuals. This phenomenon is explained through an illumination of the self-serving bias. Responses given by approximately 170 Eastern Washington University students were included and analyzed through a 3 X 2 between subjects factorial design. Our hypothesis was that individuals rating for themselves, both for the now and a year-from-now time conditions, would give higher ratings to predicted happiness than those rating for others. Our findings suggest that individuals believe that others are more materialistic than they are and that individuals believe that others would experience a higher happiness change due to the material or experiential benefit. The results of the current study refute past research done based on the self-serving bias and materialism.

A Critical Methodology for Approaching Chaucer's "Clerk's Tale"

Patty Rasmussen, Graduate  
*Logan Greene, English*

Throughout *The Canterbury Tales*, Geoffrey Chaucer draws on other medieval works to support his own themes and ideas. For example, Chaucer refers to Boethius’ *Consolation of Philosophy* and its ideas related to Fortune and the law of love in *The Knight’s Tale*. I propose that Chaucer did a similar borrowing of ideas from William of Ockham, a medieval philosopher who died several years after Chaucer’s birth. Ockham wrote a series of books called *Summa Logicae*, which defines Ockham’s theory of terms known as nominalism. Using Part I of Ockham’s *Summa Logicae*, I will advocate that Chaucer purposefully used Ockham within his writing. To accomplish this, I will analyze Chaucer’s *Clerk’s Tale* using Ockham’s definition of logic, proposition, sign, term, intention, and universal. In so doing, I will provide a new meaning to a tale that is often misrepresented and disregarded because of its negative presentation of the female gender, and I will show that *The Clerk’s Tale* is another of Chaucer’s great accomplishments in terms of hiding a deeper meaning behind his words. However, this deeper meaning is reserved only for those willing to wade through the superficial muck in order to find the gold that lies beneath.
Posttraumatic Stress Disorder, Self-Disclosure and Gender
Joel Renna, Undergraduate
Kendra Anyan, Annelise Beaulieu and Velma Cruz (co-authors)
Kayleen Islam-Zwart, Psychology

This study utilized archival data collected as part of the National Comorbidity Survey (Kessler, 2000) and was intended to investigate self-disclosure as a function of gender among individuals with Posttraumatic Stress Disorder (PTSD). Researchers hypothesized that males diagnosed with PTSD would report less self-disclosure and decreased expressiveness whereas females would report more. Participants (n = 284; male = 91, female = 193) responded to 4 questions assessing self-disclosure and expressiveness. Participants answered 2 direct questions (e.g. “When you have a problem or worry, do you let your partner know about it?”) and identified with 2 item statements (e.g. “I am nervous if anyone gets too close to me”). Findings for the direct questions yielded significant results. Males were less likely to tell others or a spouse about a concern and females were more likely to. Results for the remaining statements did not yield significant differences. No other study has been identified that addresses how PTSD affects self-disclosure and expressiveness by gender. Findings could prove invaluable for PTSD interventions and further understanding of how the symptoms of PTSD are unique between the genders.

Cahokia and the Mississippian Period, AD 800-1350
Amara Rieken, Undergraduate
Jerry Galm, Anthropology

The alliance of powerful chiefdoms present in the Eastern U.S. around AD 800 ushers in a period of elevated cultural development with no significant parallels in North American prehistory. Fueled by the expansion of agricultural practices characterized by cultivation of the “three sisters”- corn, beans, and squash- people of the Mississippian Tradition develop planned communities, major and minor ceremonial centers, and highly developed religious and political systems. As the capitol of the Mississippian world, Cahokia was the largest and most influential of these centers. Major features of the Mississippian lifestyle and empire are reviewed in this presentation along with consideration of its ultimate collapse.

Girls Gone Wild: The Effects of Parenting Practices on College Females’ Risky Behavior
Wendy Rosenau, Graduate
Kurt Stellwagen, Psychology

Girls Gone Wild is a recent phenomenon that has received much attention but little investigation. This study explores the association between college females’ risky sexual and substance use behavior and the quality of their parental relationships; specifically, the extent to which daughters perceive their parents as supporting and encouraging their independence and self-reliance. Previous research has shown that daughters of psychologically controlling (as opposed to autonomy supportive) parents take more risks sexually and are more likely to have problems with alcohol use (Patock-Peckham & Morgan-Lopez, 2007; Rodgers, 1999). Participants will respond to two self-report questionnaires: the Perception of Parental Support (POPS) and the 2007 Wyoming Youth Risk Behavior Survey (WYRBS). It is believed that the more females consider their parents to be supportive of their autonomy strivings, the less likely they will be to engage in risky behaviors.
The Effects of Narcissistic Personality Traits and Entitlement on the Perpetration of Sexual Coercion
Andrew Rowley, Undergraduate
Dan Mackay (co-author)
Russell Kolts, Psychology
Philip Watkins, Psychology

The current study sought to extend past research supporting the narcissistic reactance theory of rape proposed by Bushman, Baumeister, & Van Dijk (2003). The narcissistic reactance theory of rape states that narcissism is associated with a higher likelihood of engaging in sexually coercive behaviors, especially when narcissists feel entitled to sexual activity. A sample of 63 male undergraduates were assessed and grouped with regard to narcissism and exposed to an audio vignette depicting a progressively building sexually coercive situation. Participants were instructed to imagine themselves as the male in the vignette and terminate the situation when they actually would as opposed to when they believed it was appropriate. Past research was not supported until five individuals scoring very high on the Narcissistic Personality Inventory were excluded. Once these five cases were removed, significant differences were noted between the amount of time that high and low narcissism groups allowed the vignette to run. Additionally, higher narcissism scores were associated with higher levels of rape myth acceptance and lower levels of empathy for rape victims.

Grotius Who?
Cristen Royce, Undergraduate
Kevin Decker, Modern Languages, Literature and Philosophy

In the 17th century, Hobbes is usually given credit for being the chief promoter of absolute sovereignty and contract theory. Yet equally important in this regard is the philosophy of Hugo Groot (aka Grotius), a Dutch historian and jurist who lived from 1593-1645. This paper will give an account for this knowledge gap by answering two questions. (1) Why is Grotius not studied in depth in the History of Modern Philosophy course taught at Eastern Washington University? The answer is that the legacy, scope, epistemology and metaphysics of Grotius are atypical of the cannon of modern philosophers. (2) If we did study Grotius as a philosopher, what would an introductory understanding focus on? It would be important to understand his attempt to solve the age-old problem of practical philosophy: How do we build and maintain a just society? This paper will present Grotius’ theory, as well as its classic criticisms, in terms of his definitions of motivation and justice, the role of natural and civil law, and the subsequent status of sovereignty and rights.

Comparative Evaluation of Activated Charcoal Products in the Analysis of Common Ignitable Fluids
Aaron Sachs, Undergraduate
Tara Ransom (co-author)
Peter Bilous, Chemistry and Biochemistry

Forensic analysis of fire debris from arson involves detection of minute quantities of ignitable fluids that may be present in a sample. Many laboratories use activated charcoal strips to concentrate ignitable fluids that may be present in fire debris. The purpose of this study was to compare the efficiency of two activated charcoal products: Strips from Albrayco Technologies® and Disks from ScienceWare®, with the latter costing considerably less. Passive headspace concentration procedure was used to compare the efficiency of the products. A gas-chromatograph, flame ionization detector (GC-FID) was used to detect the presence of ignitable fluids in the extract. Neat and weathered samples of gasoline and diesel were tested. Results indicate that the two products are similar in sensitivity. Thus, disks are more cost effective than the strips.
Islam, Secularism & Nationalism: The Banning of the Hijab in Turkey
Matthew Scheffer, Undergraduate
Robert Sauders, History

This study explores how secularism and nationalism have affected the country of Turkey. The driving question behind the research is, “why would a nation, which is approximately 99% Muslim, make it illegal for Muslim women to wear a headscarf (hijab) in universities and government buildings?” Turkey’s nationalistic military generals vigorously guard and defend the secularization & the westernization of the country, while tensions rise from Muslim men and women who believe that their ability to practice their religion is being openly suppressed. Nationalism and secularism have affected Muslim countries from Morocco to Egypt to Lebanon, but Turkey has arguably become the most secular and the most nationalistic of all. The dispute over women being allowed to wear the hijab has been hotly debated by individuals, landing on both sides of the issue, who all consider themselves devout Muslims.

Depressant, Stimulant, and Polysubstance Misuse as a Predictor of Neo Personality Traits
Dani Schroeder, Undergraduate
Laura Ruge, Tina Myers, Cindi Harding and Carley Cysensky (Co-Authors)
Kayleen Islam-Zwart, Psychology

Previous research on substance misuse supports that certain personality characteristics are correlated with specific substance misuse; however, there are limitations to this research. In the current study it was hypothesized that individuals who used specific substances would exhibit certain personality characteristics. One hundred and ninety-five participants completed a Demographics Questionnaire, the NEO-PI-R (Costa & McCrae, 1992), and the CDDR (Brown et al., 1998). Results revealed that individuals who reported depressant and polysubstance misuse scored lower on Agreeableness. Individuals who used without problem scored about the same on Openness as those who abused depressants; however, those who reported abusing polysubstances scored highest on Openness and Extraversion. This research shows the importance of understanding a substance user’s personality and the substance of choice to aid in designing programs for prevention and recovery.

Differences in Achievement on Washington Assessment of Student Learning Scores for Schools with High and Low Level Readiness in Response to Intervention
Leandra Shaver, Graduate
Annette Hubbard and Jeff Bafus (co-authors)
Susan Ruby, Psychology

Response to Intervention (RTI) is the use of research-based instruction and interventions to students who are at risk and who are suspected of having specific learning disabilities (Wrights Law, 2008). In order to make high stakes educational decisions for students, schools must implement high quality instruction and/or intervention plans, as well as, appropriate tools for monitoring students’ level of performance and/or achievement over time. Schools that are adopting an RTI approach aim to improve achievement for all students. The Washington Assessment of Student Learning (WASL) is a standardized educational assessment system that is also used as a high school graduation requirement in the state of Washington. The study involved 91 schools in the Pacific Northwest that completed readiness inventories. This research study examines differences between schools reporting high readiness and low readiness for RTI on WASL achievement over time.
Exploiting Campbell’s Monomyth: America as Hero in Bush’s 2003 State of the Union Address and Obama’s 2009 Address to a Joint Session of Congress
Ryan Siemers, Graduate
Dana Elder, English

Conducting a rhetorical analysis of two presidential speeches before congress, I conclude that the rhetors considered owe much of their persuasive effectiveness to enthymemes garnered from Joseph Campbell’s heroic monomyth. Exploiting this topos, Bush and Obama cast America in the role of hero opposing the Burkean devil terms “terror” and “crisis,” respectively. They also position their audience, the American people, in relation to the hero: Bush as defenseless children and Obama as spiritual helpers. In both cases, what Campbell identifies as the “cosmogonic cycle” serves to remind the audience of past successes and ensures future victories. Campbell’s monomyth as a rhetorical topos exhibits a great deal of persuasive potential when united with nationalism to create a metaphorical nation-hero.

"He Hallows in Order to Desecrate" Byron's Don Juan: A Critical Heritage
Frank Simpson, Undergraduate
Christina Valeo, English

In this presentation I hope to encourage my audience to explore Lord Byron’s poem Don Juan through discussion of its background and rich critical heritage. I will introduce my presentation by providing the background of Byron’s life which was fraught with adventure and scandal. To provide for those not familiar with the text I will give a brief plot overview of the seventeen cantos and discuss the intertextual elements of the poetic form ottava rima. I will also examine critical response during the nineteenth century and methods which are currently used to interpret the work. Finally I will demonstrate two critical approaches to the work. In the first example I will demonstrate the biographical elements of canto one. This will demonstrate how a biographical reading can illuminate meaning in the text. In the second reading I will examine the relationship between Haidee and Juan from a post-colonial perspective. I will close with a reading of Virginia Woolf’s words on the poem. The montage of approaches should interest both newcomer and the experienced reader of Byron’s poetry.

Planning For and Competing in the Human Powered Paper Vehicle Competition
Sean Smith, Undergraduate
Paul Gorka, Juan Rivera and Patrick Boland (co-authors)
Donald Richter, Engineering and Design

As part of our senior project we formed a team to compete in the annual Human Powered Paper Vehicle competition. Since our grade was based on our performance we had to come up with a design that not only was innovative, but competitive and robust enough to finish the race. With extensive planning and time management skills put in place, team Rolling Papers overcame many setbacks that usually plague participants in the Human Powered Paper Vehicle competition. Despite our regimented approach we too experienced failures on race day, but were still able to capture a third place finish and a second place medal in the presentation portion of the competition.
Cardboard C.O.G.s: Experiments with Paper
Jessica Spurr, Undergraduate
Bret Emry, Quinn Griffith and Robb Mann (co-authors)
Donald Richter, Engineering and Design

The limits of our society’s creations tend to extend only to what one may consider a proper or common use of an object. Cardboard, a paper product, is commonly used for packaging. Properties of cardboard include strength and adaptability, while our constraints consisted of weight and material limitations. Our task was to build a cardboard vehicle; less than 75lbs. A maximum of 10% of the total weight was permissible for non-paper. Our team consisted of four unique individuals with separate lives and schedules. Cooperation and teamwork were of the utmost importance. Many late nights were spent in the machine and woodworking shops, sanding, grinding, sawing and machining each individual piece of the bike. Manipulation of the cardboard to sustain the weight of the heaviest rider was a challenge. Computer programs, such as Solid works, were used to check our stress points which proved extraordinarily useful. Redesign of the front fork, for example, was done entirely on the computer. All in all, teamwork, collaboration, as well as technology were quintessential to our success.

Seeking Mental Health Services Are Influenced by Increasing Levels of Education and Moderate Religious Attendance
Lizabeth Stanley, Undergraduate
Kellee Jarmin, Ashley Sprecher and Katie Jacot (co-authors)
Kayleen Islam-Zwart, Psychology

Previous research shows spirituality is an important aspect of mental health as it applies to professional help-seeking behaviors (O'Reilly, 2004). Religious attendance has also been associated with lower levels of emotional problems (Schieman, 2008). The purpose of this study was to examine the relationship between likelihood to seek professional help for emotional problems and an individual's levels of education and religiosity. This study utilized archival data collected as part of the National Comorbidity Survey (Kessler, 2000). We hypothesized that as education increases, likelihood of seeking professional help for emotional problems would also increase. We further hypothesized that as frequency of attending religious services increased, seeking professional help would decrease. Results indicated that moderate attendance to religious services and increasing levels of education are positively associated with seeking professional help for emotional problems.

“Romantic” Film Score
Drew Stern, Undergraduate
Jacob Powell (Filmmaker)
Jonathan Middleton, Music

I composed the score for the film, “Romantic” directed by Jacob Powell. The film is about a girl who is a hopeless romantic who wants more than anything to find a boyfriend, and in the process of looking for love she gets set up on a fake date by one of her friends. My goal for the soundtrack was to complement the movie and to bring out the emotional depth of the protagonist. I accomplished this by using a limited instrumentation of only piano and guitar and used a simpler harmonic language, focusing on only a few different chords throughout the movie. Another important aspect of the music is the repetition of themes and how they are developed as the movie progresses. Overall, the music was designed to add another dimension to the film and help the viewer understand how the main character felt.
Psychosis Symptoms in Relation to Marijuana and Stimulant Use
Katrina Sugano, Undergraduate
Kelsey Usher and Sheshana Mahmood (co-authors)
Kayleen Islam-Zwart, Psychology

Drugs have been known to effect the brain in extensive ways; some even permanent. Brain chemistry change is theorized to provoke psychotic symptoms, but individuals who have such symptoms may also be more likely to seek out certain drugs. The current study hypothesized that people who had used marijuana or stimulants one or more times would be more likely to report psychotic symptoms than those who had not. Archival data was used from 202 individuals completing the National Comorbidity Survey (Kessler, 2000). Results were examined using a 2 (stimulant use vs. not) X 2 (marijuana use vs. not) ANOVA. Users of stimulants and users of marijuana did not differ from those who did not use in report of psychotic symptoms. Although not significant, results are important because they contradict the assumption that use of substances causes psychotic experiences. Further discussion will be provided.

Beautiful Ugly
Andrew Taylor, Undergraduate
Mindy Breen, Engineering and Design

A screen printed pop art interpretation of the punk ideal of beautiful ugly.

Second Impact Syndrome
Kimberly Tevis, Undergraduate
Alex Smyth and Julie Wight (co-authors)
Jeff Kawaguchi, Physical Education, Health and Recreation

Second impact syndrome can have serious consequences. It occurs when an individual has not fully recovered from an initial concussion. It can leave this individual mentally and/or physically impaired for life, or worse it can cause death. Second impact syndrome can occur in any sport but most commonly occurs in football and other contact sports. It can occur at any age; the younger the individual the greater the chance of more serious and longer lasting consequences. Second impact syndrome can easily be prevented most of the time, simply by taking the proper precautions. It is important for players, parents, and coaches to be aware of the seriousness of concussion; as well as train them on the signs and symptoms, and treatment for concussions. Education and follow through is the first step in reducing the number of incidents of second impact syndrome.

"Walking through the Storm": How ESL College Writers Respond to American Music
Daniel Ubaldo, Graduate
LaVona Reeves, English

When ESL college writers listen to American music, they indicate that they are learning important lessons about American culture, diversity, and language while increasing their vocabulary and grammatical repertoire (Parker, 2008). This oral presentation focuses on writers' responses to songs such as "You'll Never Walk Alone" and "Dance With My Father." In listening and responding to the music, their peers' journals, and instructors' writing, they connect their own lives to the Eleanor Roosevelt biography they are reading while increasing inter-textual ties (Chiu, 1999) needed for academic writing. Ubaldo will present the literature on expressive writing and analyze learners’ journals to suggest how expressive writing may increase second language acquisition.
Visitor Impacts on Cave Entrances at Lava Beds National Monument
Tonya Vanover, Graduate
Suzanne Schwab, Biology

Human activity above and within caves has reduced the biodiversity within cave ecosystems. The potential loss of biodiversity in cave entrances has been overlooked. Many similar caves at Lava Beds National Monument (LBNM) in northeastern California provided a rare opportunity to investigate the relatively unknown effects of human activity on the cover, species diversity and richness of lichens and mosses. I inventoried and surveyed the lichens and mosses in the entrances of 8 high (HA) and 8 low access (LA) caves with an 8-section cover scale. This survey added 42 lichens and 7 mosses to the list of 16 lichen and no moss species previously recorded within LBNM. Thirty-two lichen and 5 moss species were common to all surveyed cave entrances. Two lichen and 2 moss species were specific to HA entrances, while 13 lichen and no moss species were specific to LA entrances. Average cover, species diversity and richness in HA caves were 67%, 75% and 64% less than it was in LA entrances, respectively. I conclude that human activity has significantly reduced the cover, species diversity and richness of cave entrance flora.

Implementation of DC Watermarking for Digital Audio Signals
Justin Wagner, Undergraduate
Min-sung Koh, Engineering and Design

Copyright protection of audio content has become a lively topic in recent years. Digital watermarking of these signals is one way of encoding this copyright protection onto the audio file without degrading its quality. A system for encoding and decoding, named the DC watermarking scheme, was investigated and methods of implementation were researched. Both the successes and limitations of the DC watermarking scheme are presented.

The Cost of Migration Distance: Comparing Swimming Performance of Reintroduced Coho Stocks of the Columbia Basin
Katie Wagner, Graduate
Thomas Hancock, Biology

Coho salmon (*Oncorhynchus kisutch*) were extirpated from many upper Columbia Basin tributaries in the 1980s. To rehabilitate stocks, the Yakama Nation and Nez Perce Tribe have reintroduced coho into upper tributaries of the Columbia and Snake rivers, respectively. The basal stock of coho used for reintroduction primarily originates from the Clackamas River of the lower Columbia. Consequently, reintroduced stocks must migrate significantly further than the basal stock and traits should be selected for to overcome the physical difficulty of longer migration distances. Reintroduced stocks have now reproduced for several generations. To evaluate the rehabilitation efforts and determine if selection is occurring, I analyzed critical swimming speed ($U_{crit}$), a measure of maximal swimming speed, using a Blazka-type swim tunnel respirometer. $U_{crit}$ measurements were compared between juvenile hatchery coho salmon derived from returnees of the Mid-Columbia, Snake, and Clackamas rivers. $U_{crit}$ was lower in reintroduced Mid-Columbia stocks, as measured in upper Fraser River coho juveniles, indicating a tradeoff of sprint speed for endurance swimming, which is necessary to traverse these longer distances.
Local newspaper journalism is -- and arguably for some time has been -- experiencing a massive decline in quality and readership. The result is layoffs and less investigative reports that benefit the community. News organizations state the economy, politics and technology all play a role in local journalism's current plight. To a degree, that is true. However, the Web and related technology still rely on journalists who gather news for traditional media and more often than not, media owners don’t want to spend money on sometimes-expensive investigative reporters and sometimes-time-consuming newsgathering for investigative articles. Non-investigative journalists stop creating meaningful news and instead give up control over the source of news, gathering and reporting news that has been spoon-fed by media relations professionals and is of questionable value to the community. Now that news consumers are able to pick and choose among many sources that they trust and find most personally meaningful, local news organizations/journalists in order to survive and stay relevant, need to (re)establish themselves as integral members of the community, investigative reporters and civic watchdogs.

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Study of Magnetization in Ag(pyz)$_2$(S$_2$O$_8$) (pyz = Pyrazine)
Michelle Water, Undergraduate
Jamie Manson, Chemistry and Biochemistry

The dark red-brown compound, Ag(pyz)$_2$(S$_2$O$_8$), was synthesized and studied using many different techniques to determine the crystal structure and magnetic properties. X-ray powder diffraction was used to determine the structure. Once the structure was deciphered, magnetic properties were measured to compare to other similar molecular magnets. The magnetization, which is a measure of how magnetic electrons interact, determined as a function of temperature and magnetic field, show a preferred anti-parallel orientation of the Ag$^{2+}$ electrons. Large magnetic fields can overcome this opposing alignment and force the electrons to align in a parallel fashion.

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Peroneal Tendinitis in a Collegiate Volleyball Athlete: A Case Report
Tatsunori Watanabe, Undergraduate
Venessa Nersten and Travis Laird (co-authors)
Garth Babcock, Physical Education, Health and Recreation

Overuse injuries from participating sports and activities have been common recently due to technical errors and prolonged practice periods. Among those overuse injuries, peroneal tendinitis is a rare injury, and thus, it is often missed or misdiagnosed by health care providers and can eventually lead to lateral ankle sprain. During the 2008 Eastern Washington University (EWU) volleyball season, two out of sixteen female volleyball athletes had injured their peroneal tendons. Peroneal tendinitis may develop from either acute or chronic overloading of the tendon, and it should be differentially diagnosed from lateral ankle sprain or stress fracture of the fibula. This case report spotlights a Division I volleyball player at Eastern Washington University (EWU) who sustained a peroneal tendinitis on September 30th, 2008. The injury was initially treated by an attending athletic trainer with follow up evaluation by the team physician. The patient underwent an extensive rehabilitation and has successfully returned to play.
Riffs on Freedom in a Determined Universe: Spinoza Presents a Foundation for Democracy
Ryan Weldon, Undergraduate
Kevin Decker, Modern Languages, Literature and Philosophy

The foundations of liberal democracy are most often ascribed to Locke. His guarantee of “inalienable rights” is the precursor, in language and in spirit, to the United States Declaration of Independence. Baruch Spinoza, by contrast, includes several elements in his philosophy which would seem counter to that freedom of the individual which democracy espouses. He is, after all, a determinist. The free choice so inherent in our modern idea of democracy balks at the thought of preconditions. People have the freedom to act according to their own conscience. In positing a deterministic universe, however, Spinoza does not negate this freedom of conscience. His argument for God undercuts the argument for hierarchical rule via divine right. His discussion of human nature, and the rights which proceed from that nature, actually bolsters the freedom for the individual to act according to a justification by reason in tandem with desire. He thereby promotes a model for a modern, egalitarian, and plural society.

A Critique and Definition: The Soul
Josh White, Undergraduate
Chris Kirby, Modern Languages, Literature and Philosophy

The soul: an ethereal specter floating inside our bodies or is it something else? This topic has been on the lips of many philosophers and students alike for many years. At this point in time, though, I will be focusing on the two most influential philosophers ever to grace philosophy: Plato and Aristotle. These two men have single handedly driven the biggest movements in philosophy that we can account for; much of their teaching has influenced almost every philosopher from their age to today. In this paper though, I will be defining their views on one particular subject: the soul. Their beliefs and views of the soul are very different from each other, as they each define the beginning and purpose of the soul. As both of their points and views are very convincing, I believe that they do fall short, and in my opinion fail to fully define the soul in their own ways; Plato believing the soul to be too far into the eternal realm and Aristotle being to naturalistic. This point will come at the end of this paper, as first I need to define how Plato and Aristotle each specifically view the soul. In doing this we can see the full spectrum as to how these two men of wisdom define the soul, and to where I find holes in their philosophy, thereby setting the stage for my own view of the soul which includes aspects from both Plato and Aristotle but ultimately my own beliefs.

Computer-Mediated Communication and Student Discourse: Online Discussion Boards as Pre-Speaking Resources
Andrea Whittemore, Graduate
LaVona Reeves, English

Many non-native speakers of English are faced with a barrage of communicative input, but in classroom discourses they may tend toward minimal output. Based on previous computer-mediated communication studies involving second language classroom discourses, data has been collected from an integrated classroom where discussion boards were utilized as a preparatory tool for in-class dialogues related to course work. By examining discussion board posts and student journals, as well as participant-observer notes, ideas for practice and application can be employed to assist second language students in integrated classrooms with native speaking peers.
A System of Control: A Look into Early Nineteenth Century Asylums and the Men That Ran Them
Blaine Wickham, Graduate
Laura Phillips, History

In the nineteenth century there was a movement that swept across the United States and Canadian asylums. The Moral Treatment Movement, as it was called, was a series of failed policies, promises, and practices that began before the Association of Medical Superintendents of American Institutions for the Insane adopted and implemented such procedures. The practices used before the movement were corrupt and morally inept; and the practices during the movement were well-meaning, yet doomed to failure. They did, however, leave an impact that lasted for over one hundred years. It is my purpose through this essay to show why asylum’s “failed” or “flawed” superintendents put these failed policies into effect.

The Bedouin of the Negev
Laura Willis, Undergraduate
Robert Sauders, Anthropology

In Israel, human rights violations are being perpetuated against the Bedouin of the Negev desert. This special population of formally nomadic Arabs is being systematically targeted by the Israeli government because their traditional lands in the Negev are in the way of Jewish settlement. Through an analysis of the series of laws created by Israel to strip the Bedouin of their land, this poster presents a discussion on what has happened to the Bedouin and what needs to be done to stop these human rights violations from continuing. Through the laws, the Israeli government is permitted to demolish homes and force the Bedouin to live in unrecognized villages that receive no infrastructure or state services. The international community has been largely ignoring this situation, so little progress has been made to stop the demolition of homes and forced relocation. The best possible solution for this is to have Israel recognize the villages and to begin to provide basic infrastructure like roads, wells, and schools. This is only going to happen if the international community as well as the citizens of Israel puts pressure on the Israeli government for the fair treatment of the Bedouin.

Caspian Sea Oil Development and Littoral State Disputes
Dan Wilson, Undergraduate
Robert Sauders, Anthropology

This research poster analyzes the current development of hydrocarbon resources within the Caspian Sea and provides data based around possible contingencies for an equilateral disbursement model. It will argue that the impact of equally shared development costs and revenue increases stability in the region with minimal impact of the littoral states’ Gross Domestic Product. This is demonstrated through calculating the distribution of hydrocarbon resources of each state and the maximum yield of the Caspian Sea oil reserves, as well as the portion of each state’s revenue that is generated through this oil development. The data compiled reveals that ranking of each country will experience little change while pacifying some countries and creating a coalition of states with hydrocarbon resources and development which could rival the authority of OPEC. This consortium could greatly impact world oil prices and create an economically stable region. The research also recognizes the obstacles of difficult political relationships between the littoral states and what each country can bring to the development of a regional coalition.
To Set Foot on Seven Continents
Ariana Winger, Undergraduate
Greg DuMonthier, Art

This work looks at the way we interact with the world through our dreams. We spend time going through our daily activities, dreaming about what we want to do but not actually doing it. This piece is about gaining the determination to achieve one's dreams.

The Theory of Groove
Alexander Wolfe, Undergraduate
Jonathan Middleton, Music

There is a hypothesis among musicians that in the realm of popular and dance music the melodic and harmonic content of a given piece is irrelevant as long as there is a good groove, feel, or beat to the music. The piece “The Theory of Groove” -set for funk band- tests this hypothesis by removing all melodic and harmonic content from the written page. The players are then free to choose any notes they care to within the written rhythms of the piece. The piece then tests whether a good groove and rhythms idiomatic to funk are all that is truly necessary to make the song pleasant.

The Predictability of Chaos
Joy York, Graduate
Heather Robinson, Communication Studies

The limitations of the Newtonian scientific paradigm to provide precise predictions stimulated research by quantum physicists into complex and non-linear systems. This research led to the development of Chaos Theory which demonstrates that seemingly random occurrences are actually part of an underlying order that will emerge over time. In contrast to natural living systems that adapt to new situations, human organizations tend toward structure and control. Chaos Theory reveals the futility of control over future outcomes and promotes an approach to organizational leadership and life that is open to the changes in the environment as adaptation and the learning that results are the key to survival in an uncertain environment. Further implications of Chaos Theory to human organizations and the relationships between leaders and followers are explored. A practical application of Chaos Theory as mediated by relationships and effective communication for leadership is proposed.

The Geology Beneath the Middle East and Its Significance
Sarah Yount, Undergraduate
Robert Sauders, Anthropology

Contemporary political and economic situations in the Middle East are directly linked to the geography and geology of the region. Examining the geologic processes, including the earth’s layers, plate tectonics, the types of plate boundaries, and the formation of oil reserves, explains how the modern natural resources of the region were formed. The particular geologic processes are explained and then linked to the resulting contemporary political and economic situations. For example, the Zagros mountains formed as compression folded mountain ranges by the continual crust of the Arabian plate being pulled down after the Tethys seaway had significantly closed. The deformation caused by this subduction has proven invaluable to creating the traps necessary for oil reserves which are predominate in the region. These lay the foundation and context for an examination of a specific contemporary event dealing with the politics of oil in the Middle East.
Generalized Anxiety Disorder as a Predictor of Religious Commitment
Lisa Zawacki, Undergraduate
Claire Collins (co-author)
Kayleen Islam-Zwart, Psychology

Individuals diagnosed with generalized anxiety disorder (GAD) have pervasive anxiety and worry that everyday life events will cause significant impairment in their lives. The purpose of our study was to examine whether those with GAD would be more or less likely to seek comfort in religion than those without GAD. This study utilized archival data collected as part of the National Comorbidity Survey to analyze the relationship between generalized anxiety disorder and religious commitment (Kessler, 2000). Results indicate that those with GAD do endorse a stronger religious commitment than those without GAD, contrary to our hypothesis. Implications will be discussed.

Structural and Functional Abnormalities Accompanying Iliotibial Band Syndrome
Kathryn Zemek, Undergraduate
Claire Irvine and Irene Lowe (co-authors)
Jeffrey Kawaguchi, Physical Education, Health and Recreation

Iliotibial Band syndrome is a common problem in athletics. Many athletes experience this syndrome in sports such as track and field, cross country and soccer. The Iliotibial Band begins as the tensor fascia lata muscle which passes over the femoral epicondyle and inserts on Gerdy’s tubercle on the tibia. As an athlete flexes and extends the knee, the ITB will “pop” and slide over the femur causing irritation and pain. In distance runners where constant knee flexion and extension is required, the ITB can become irritated easily. During the fall season of cross country and track and field, we experienced four athletes with ITB irritations. We decided to explore why so many runners were experiencing this problem. We found out each athlete had a different reason for the irritation and pain at the femoral epicondyle. Knowing this, we were able to rehabilitate the athlete to the fullest based on their individual abnormality.
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