We are pleased to announce Ma'ikwe Schaub Ludwig as the Dennis M. Beagen Undergraduate Symposium Keynote Speaker for the 35th event. Ludwig is the Director of Ecovillage Education US and the lead teacher for ecovillage education courses at Dancing Rabbit, an ecovillage and model of sustainable living located in northeast Missouri. She has done sustainability education work for over two decades, teaching skills such as consensus building and cooperative group facilitation. She backs her teaching experience with 17 years of intentional community living to create holistic, practical education experiences.

Over years of environmental activism, Ludwig has emerged as a powerful spokesperson for sustainability. A regular contributor to Communities Magazine, she is also the author of Passion as Big as a Planet: Evolving Eco-Activism in America, published in 2007.

"Sustainability," she insists in her 2013 TED talk at Carlton College, "does not need to suck." Instead, it can be fun and lead to creativity; to personal and communal growth.

Her insights about the crucial place of cooperation and teamwork, as well as her wide range of experiences in implementing and sustaining intentional communities speak to some of the most important skills needed for global citizens of the 21st century—skills in collaboration, mutual understanding, and personal introspection.

Ludwig received her BA from EMU in 1992, with an interdisciplinary degree in multicultural gender studies. An honors student, Ludwig was active in EMU's LGBT community, a promising scholar, and presenter at the 13th Undergraduate Symposium. Dr. Elisabeth Däumer, her Symposium faculty sponsor in 1993, says, “Ma'ikwe has found her calling in life, and EMU can be proud to count her among its alumni.”

We are pleased to welcome Ma'ikwe Ludwig back to Eastern Michigan University.

DEAN'S WELCOME

Welcome to the 35th Undergraduate Symposium!

This day of presentations of scholarly and creative activities by our undergraduate students is the culmination of a year-long collaboration between the students and their faculty mentors. The many presentations, posters, performances and exhibits illustrate an impressive level of accomplishment as a result of these relationships.

We will see the participation of 488 students and 187 faculty members in this year's Symposium. Additionally, donors and friends of EMU now support 31 Symposium Undergraduate Research Fellows. As you explore the extraordinary breadth and depth of student scholarly and creative activity, you will discover the special synergy of teaching and learning that powers this year's Symposium program.

Eastern's Undergraduate Research Symposium is one of the longest standing events of its kind in the country. In 1980, provost and professor of chemistry, Dr. Ronald Collins, conceived the idea of presenting undergraduate student research to the University community, which was supported by president Dr. John W. Porter. The first event began with a handful of students and faculty mentors from the College of Arts and Sciences. Each president and provost since has supported the Undergraduate Symposium and acted to enhance its stature.

Many faculty and staff have worked hard to make this Undergraduate Symposium a success. I gratefully acknowledge the efforts of the volunteer Symposium Planning Committee and its chair, Dr. Harriet Lindsay, Event Coordinator Wendy Kivi and the staff of the College of Arts and Sciences Office of the Dean.

The faculty sponsors of the student presenters are the expert core of the Symposium. They deserve special recognition for their voluntary efforts. I also want to recognize the families of the students, and the many sponsors and guests who provided essential support for this event and who are committed to the success of our students in their academic pursuits.

Most especially, my congratulations to you, our students, who are presenting today!

Thomas K. Venner, Dean
College of Arts and Sciences
SCHEDULE OF EVENTS

Friday, March 27, 2015
EMU Student Center

► Oral Presentations

First Floor Room 104
Second Floor Room 204, Auditorium, Student Art Gallery
Third Floor Rooms 301, 304, 320, 330, 350, 352, Kiva

Session A  8:30-9:45 a.m.
Session B  10-11:15 a.m.
Session C  1-2:15 p.m.
Session D  2:30-3:45 p.m.

► Poster Presentations

Third Floor Room 310 A/B
Room closed over luncheon

Group 1  8:30-10 a.m.
Group 2  10:30-11:15 a.m. & 1-1:45 p.m.
Group 3  2:15-3:45 p.m.

► Design Expo: Crossing Lines

Third Floor Room 300 and 302

Gallery  9 a.m.-3:45 p.m.
Exhibit

► Symposium Luncheon

First Floor Ballroom

Luncheon  11:30 a.m.-12:45 p.m.

Keynote speaker:  Ma’ikwe Schaub Ludwig
Student emcee:  Kerri Musick
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## College of Technology

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SESSION A

Room 104
Moderator: Angela Lukomski

8:45 a.m.  
Sleep with a Dozen Maniacs: Institutional Care for PTSD-Afflicted Civil War Veterans, 1860-1890  
*David Matthew Jones*  
Linda Pritchard  ▷  Faculty Mentor  
History and Philosophy

9:00 a.m.  
Early Exposure to General Anesthesia May Lead to Developmental Deficits in Pediatric Patients  
*Sylvie Yaacoub*  
Angela Lukomski  ▷  Faculty Mentor  
Nursing

9:15 a.m.  
Is the Radiation Dose from Medical Imaging Worth the Risk?  
*Marc Monahan*  
Diane Jacobs  ▷  Faculty Mentor  
Physics and Astronomy

9:30 a.m.  
The Future of Health Insurance: What Can the Bismarck Model Teach Us about Obamacare?  
*Jessica Wenzel*  
Margrit Zinggeler  ▷  Faculty Mentor  
World Languages

Room 204
Moderator: Jesse Kauffman

8:30 a.m.  
Effects of Parent Expectation, the Home Environment, and Parent Behavior on Child Literacy Interest  
*Tammy Matvichuk*  
Heather Janisse  ▷  Faculty Mentor  
Psychology

8:45 a.m.  
Understanding Malignant Self-Regard and Its Relationship to Achievement Striving  
*Carly Evich*  
Natalie Dove  ▷  Faculty Mentor  
Psychology
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<td>Hitler's Demands and Poland's Dilemma</td>
<td>Amber Kinder, Jesse Kauffman Judaism and Philosophy</td>
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<td>9:15 a.m.</td>
<td>The Resistenza’s Dichotomy: Women in the Italian Resistance Against the Nazis</td>
<td>Katherine Kapas, Jesse Kauffman Judaism and Philosophy</td>
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<td>9:30 a.m.</td>
<td>A Defensive Doctrine: The Fall of France in World War II</td>
<td>Janine May Driver, Jesse Kauffman Judaism and Philosophy</td>
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**Room 301**
Moderator: Susan Booth

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<td>Case Study in Building Strong Economies Through Arts and Culture</td>
<td>Casey Margaret O’Connor Business and Administration</td>
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<td>8:45 a.m.</td>
<td>Economic Development Through Cultural Tourism</td>
<td>Jonathan Skidmore, Susan Booth Business and Administration</td>
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<td>9:00 a.m.</td>
<td>Feasibility Study for a Center for Creative Practice at Eastern Michigan University</td>
<td>Hailey Rishoi, Susan Booth Business and Administration</td>
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<td>I AM DETROIT: How to Attract College Graduates to the City of Detroit</td>
<td>Nicole Martin, Ashlen Olive, Sheila Sasser Business and Administration</td>
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9:30 a.m. College Students Experiencing Homelessness
*Brialle Ringer*
Marcia Bombyk ▶ Faculty Mentor
Social Work

Room 304
Moderator: Rebecca Sipe

8:30 a.m. Interpersonal and Intrapersonal Relationships in King Lear
*Ashley Powers*
Patricia Williams-Boyd ▶ Faculty Mentor
Teacher Education

8:45 a.m. Attitudes on Aging: It's Really as Bad as It Seems!
*LaToya D. Brown*
Caroline Gould ▶ Faculty Mentor
Teacher Education

9:00 a.m. Do People Become More Religious as They Age?
*Ashley Gallaher and Kyle Dube*
Caroline Gould ▶ Faculty Mentor
Teacher Education

9:15 a.m. Hoarding and Its Connection to Aging
*Angela J. Binns and Mirissa Couture*
Caroline Gould ▶ Faculty Mentor
Teacher Education

9:30 a.m. Issues in Organ Donation
*Aaron Decker, Emily A. Batdorff, Jonathan Dickey, Kristen Yutzy and Nicole M. Steep*
Caroline Gould ▶ Faculty Mentor
Teacher Education
Room 320
Moderator: Jeffrey Bernstein

8:30 a.m.  
Student Voices: When Do They Matter?  
Anjali T. Martin, Isabelle McCormack, Maya Rich and Mary Perrotta  
Jeffrey Bernstein  ▶  Faculty Mentor  
Political Science

8:45 a.m.  
Developing Microtargeting in University Marketing Campaigns: Fraser University  
Kerri Anne Musick  
Jeffrey Bernstein  ▶  Faculty Mentor  
Political Science

9:00 a.m.  
Don't Judge Leadership by Its Cover  
Courtney BrieAnn Morris  
Robbya Green-Weir  ▶  Faculty Mentor  
Health Sciences

9:15 a.m.  
How TRUEMU are You: The Relationship Between Personality and Student Experiences  
Caitlin Baumer  
Natalie Dove  ▶  Faculty Mentor  
Psychology

9:30 a.m.  
Emich Events: A Virtual Calendar for Eastern’s Organizations  
Samantha Lynne Stymiest, Mahdi Alkadib and Wookyung Youn  
Yaman Roumani  ▶  Faculty Mentor  
Computer Information Systems

Room 330
Moderator: John Palladino

8:30 a.m.  
Punishing a Disease: The Strange History of the Response to Substance Abuse in the U.S.  
Helena Kuznia  
Marcia Bombyk  ▶  Faculty Mentor  
Social Work
8:45 a.m. Reducing Recidivism: New Approaches in Prison Management and Rehabilitation
Jillian Summer Brown
Kendra Smith ▷ Faculty Mentor
Sociology, Anthropology and Criminology

9:00 a.m. A Generation at Risk: The Ties Between Zero Tolerance Policies and the Cradle to Prison Pipeline
Mikki Lachelle Smith
Janet Reaves ▷ Faculty Mentor
Social Work

9:15 a.m. Debunking Michigan K-12 Anti-Bullying Policies: Subjects or Subjectivity?
Jeannie Woerner
John Palladino ▷ Faculty Mentor
Special Education

9:30 a.m. Needs Assessment for Community Involvement in Public Housing
Christa Marie Hughbanks
Russell Olwell ▷ Faculty Mentor
History and Philosophy

Room 350
Moderator: Raymond Rosenfeld

8:45 a.m. The Anti-Human Trafficking Movement: An Old Social Movement Theory Perspective
Stephanie Rosalyn Reynolds
Anke Wolbert ▷ Faculty Mentor
Communication, Media & Theatre Arts

9:00 a.m. Understanding Rape Culture Through a Critical-Visual Perspective of Rhetorical Criticism
Natasha Lynn Wickenheiser
Nick Romerhausen ▷ Faculty Mentor
Communication, Media & Theatre Arts

9:15 a.m. Congressional Campaigns: On the Trail and by the Book
Kellie A. Majcher
Edward Sidlow ▷ Faculty Mentor
Political Science
9:30 a.m.  Addressing Low Voter Turnout in America  
*Andrew Stephen Kocis*  
Raymond Rosenfeld ▶ Faculty Mentor  
Political Science

Room 352  
Moderator: Regina Luttrell

8:30 a.m.  Shinola Integrated Marketing Communications  
Branding Campaign Reinventing Detroit  
*Dean O’Neill, Alex Johnson, Blake Hayes, Philip Christopher, Paulina Islas and Sheri Manfre*  
Sheila Sasser ▶ Faculty Mentor  
Marketing

8:45 a.m.  Social Media Branding: The Effect of Persuasion Theory on *YouTube* Ratings  
*Dakoda Johnson*  
Chong Oh ▶ Faculty Mentor  
Computer Information Systems

9:00 a.m.  The Role of Social Media in the Kraft A.1. Rebranding Campaign  
*Andrea Mellendorf and Danita Tatum*  
Regina Luttrell ▶ Faculty Mentor  
English Language and Literature

9:15 a.m.  How Teens, Millennials, and Social Media Shaped the “Share A Coke” Campaign  
*Sarah Hart and Elizabeth Ruffino*  
Regina Luttrell ▶ Faculty Mentor  
English Language and Literature

9:30 a.m.  Apps are Everywhere in Public Relations  
*Emily Hiett*  
Regina Luttrell ▶ Faculty Mentor  
English Language and Literature
ORAL SESSION A

Auditorium
Moderator: John Dorsey

8:30 a.m.  Folksong and Culture in Bartók's Romanian Dances
Anna Elkins
Joel Schoenhals ▶ Faculty Mentor
Music and Dance

8:45 a.m.  The Trobairitz or Female Troubadours: The First Female Secular Composers of Western Music
Shayla Rose McDermott
David Pierce ▶ Faculty Mentor
Music and Dance

9:00 a.m.  Rachmaninoff: A Collaboration of Cello and Piano
Anthony David Joseph Marchese
Diane Winder ▶ Faculty Mentor
Music and Dance

9:15 a.m.  Chaminade's Flute Concertino: A Glimpse at Women's Rights in Music
Mary Rose Nieman
Julie Stone ▶ Faculty Mentor
Music and Dance

9:30 a.m.  Allegro from Concerto in E-flat Major by Joseph Haydn
Kiersten Jonkman
Carter Eggers ▶ Faculty Mentor
Music and Dance

Kiva
Moderator: Sam Shen

8:30 a.m.  The Tyra Banks: Analyzing Supermodel Perception and Development of Eating Disorders in Young Women
Tiffany Nicole Browne, Kayla Boyd, Kyana Dixie and Victoria Fisher
Heather Neff ▶ Faculty Mentor
English Language and Literature
8:45 a.m.  Am I Beautiful Yet: A Communicative Guide to Eating Disorder Prevention
Jo Cook
Cara Jurado  ▶  Faculty Mentor
Communication, Media & Theatre Arts

9:00 a.m.  Young Girls' Self-Esteem: An Action Plan
Andraya M. Goodwin
Kendra Smith  ▶  Faculty Mentor
Sociology, Anthropology and Criminology

9:15 a.m.  Deception: Love and Lies
Haley Elizabeth Berry
Sam Shen  ▶  Faculty Mentor
Communication, Media & Theatre Arts

9:30 a.m.  Word Association and Nonverbal Communication
Samantha Baldwin
Sam Shen  ▶  Faculty Mentor
Communication, Media & Theatre Arts

Student Art Gallery
Moderator: Yvette Colon

8:30 a.m.  A Policy Analysis of the Early College Alliance
Dallas K. Colligan
Joseph Ohren  ▶  Faculty Mentor
Political Science

8:45 a.m.  Understanding Japan: Evaluating and Maximizing the Study Abroad Experience Using the LESCANT Model
Yukiko Julliette Roy
Motoko Tabuse  ▶  Faculty Mentor
World Languages

9:00 a.m.  Dual Student Teaching as a Powerful Shared Experience of Teaching and Learning
Ally Kristensen
Wendy Burke  ▶  Faculty Mentor
Teacher Education
9:15 a.m. Let's Talk About Sex: The Sexual Competency of University Students
Gloria Tonks
Yvette Colon ▶ Faculty Mentor
Social Work

9:30 a.m. Profiling Campus Crime 2007-2014
Katelyn Coberley, Alex Heath and Jason Johnson
James Banfield ▶ Faculty Mentor
Information Security & Applied Computing

SESSION B

Room 104
Moderator: Judith Kullberg

10 a.m. Doing Diplomacy: Reflections of an Aspiring Diplomat
Anjali T. Martin
Judith Kullberg ▶ Faculty Mentor
Political Science

10:15 a.m. Stem-Bending in Trees: Adaptations Power
Miles J. Gerou
W. John Koolage ▶ Faculty Mentor
History and Philosophy

10:30 a.m. Can Creationism Evolve into a Science?
Michael V. Georgizas
W. John Koolage ▶ Faculty Mentor
History and Philosophy

10:45 a.m. Cost-Benefit Analysis of Red Light Cameras
Katy Kembitzky
Kemper Moreland ▶ Faculty Mentor
Economics

11 a.m. U.S. Diplomacy: Just How Effective is It?
Anjali T. Martin
Lisa Laverty ▶ Faculty Mentor
Political Science
**Room 204**
Moderator: John McCurdy

10 a.m.  
**Examining the Silent Space: A Rhetorical Criticism**  
Covering Josey Greenwell and Nate Green  
Timothy R. Ward  
Nick Romerhausen ▶ Faculty Mentor  
Communication, Media & Theatre Arts

10:15 a.m.  
**A Piece of Queer Feminist Porn: A Case Study of Salacious Magazine**  
Frankie M. Konieczki  
John McCurdy ▶ Faculty Mentor  
History and Philosophy

10:30 a.m.  
**The Dark Closet: Responses to Homosexuality in Heavy Metal Subcultures**  
Daniel Arthur Martinez  
John McCurdy ▶ Faculty Mentor  
History and Philosophy

10:45 a.m.  
**The History and Advancement of Transgender Healthcare**  
Connor Rivera  
John McCurdy ▶ Faculty Mentor  
Women's and Gender Studies

11 a.m.  
**(Wo)men Who have Sex with Men: Problematizing Behavior-Based Models in HIV/AIDS Research**  
Samuel Teeple  
Elizabeth Currans ▶ Faculty Mentor  
Women's and Gender Studies

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**Room 301**
Moderator: Mary-Elizabeth Murphy

10 a.m.  
**Eugenics and Action for Sterilization of Women**  
Kelsey A. Reider  
Mary-Elizabeth Murphy ▶ Faculty Mentor  
History and Philosophy
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<td>Elizabeth E. Clark</td>
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<td>Mary-Elizabeth Murphy</td>
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<td>10:30 a.m.</td>
<td>What's the &quot;A&quot; Stand for Anyway: The Use and Development of Asexual Vocabulary Online</td>
<td>Dominique Canning</td>
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<td>Eric Acton</td>
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<td>10:45 a.m.</td>
<td>What is Yo Talking About?: The Challenge of Gender-Neutral Communication Within the English Language</td>
<td>Austin James Wright</td>
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<td>Communication, Media &amp; Theatre Arts</td>
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<td>Amy Johnson</td>
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<td>11 a.m.</td>
<td>Gender and Communication: Beyond the Binary</td>
<td>Yasmine Luna Lennon</td>
<td>Faculty Mentor</td>
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<td>Anke Wolbert</td>
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**Moderator: Diane Fenske**  

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<td>Where is Our Gloria Steinem?</td>
<td>Renee Smolinski</td>
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<td>Diane Fenske</td>
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<td>10:15 a.m.</td>
<td>Media Literacy and the Middle-Aged Woman</td>
<td>Heather V. Irvine</td>
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<td>Geoff Hammill</td>
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<td>10:30 a.m.</td>
<td>Why Middle-Ageism is the Precursor of Aging in America and Why Both are Here to Stay</td>
<td>Carolyn M. Manasseh</td>
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<td>Caroline Gould</td>
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10:45 a.m. Surviving the Middle-Age Tug of War  
*Nicholas Drews, Brandon Boehmer, Julie Tartarian and Tiffany Walker*  
Caroline Gould  ▶  Faculty Mentor  
Teacher Education

11 a.m. From Depression to ReInvention: The Mid-Life Crisis  
*Loni B. McGackin*  
Caroline Gould  ▶  Faculty Mentor  
Teacher Education

Room 320  
Moderator: David Crary

10 a.m. Federal Reserve Policy Making  
*Gabrielle Ann Spagnuolo*  
David Crary  ▶  Faculty Mentor  
Economics

10:15 a.m. The Effects of Cryptocurrencies on the Modern Banking System and Monetary Policy  
*Gannon LeBlanc*  
James Saunoris  ▶  Faculty Mentor  
Economics

10:30 a.m. Empirical Study of Antecedents of E-Commerce Sales  
*Ilkhomjon Amanov*  
Priyanka Meharia  ▶  Faculty Mentor  
Accounting and Finance

10:45 a.m. The Great Data Breach  
*DeAndre Maurice Brown*  
Regina Luttrell  ▶  Faculty Mentor  
English Language and Literature

11 a.m. Cross-Cultural Brand Microblogging Project  
*Won Sang Son, Ahmad Madani, Chrystal Robinson, Sean Tseng, Fanlin Zeng and Mahdi Alkadib*  
Chong Oh  ▶  Faculty Mentor  
Computer Information Systems
Room 330
Moderator: Khairul Islam

10 a.m.  Modeling Laser Tweezers: The Rotation of Microscopic Calcite Particles
Leo Nofs
Ernest Behringer  ▶ Faculty Mentor
Physics and Astronomy

10:15 a.m.  Characteristics of the Post-9/11 Airline Industry
Peter Adomas Rusenas
Khairul Islam  ▶ Faculty Mentor
Mathematics

10:30 a.m.  Civil Space Travel: The Way of the Future
Weston MacRitchie
Christina Wall  ▶ Faculty Mentor
Technology & Professional Services Management

10:45 a.m.  Childhood is No Longer Victim to Inevitability: Implications of the Current Serious World
Katelyn Pyles
Jeremy Proulx  ▶ Faculty Mentor
History and Philosophy

11 a.m.  The Sternberg Triangular Theory of Love: A Critique
Natalie Elizabeth Anschuetz
W. John Koolage  ▶ Faculty Mentor
History and Philosophy
Room 350: PANEL
Faculty Mentor and Moderator: Megan Moore
Sociology, Anthropology and Criminology

10 a.m.
Spondyloysis in a Medieval French Population: Incidence Rates with Changes in BMI and Geometry
Henry Alexander Hakamäki

Reconstructing Ancient Diet Through Stable Isotope Analysis of Human Dental Calculus
Linda M. Harrison

Manifestations of Linguistic Diversity as Evidenced by the Mental Spine
Hannah Hilbert

Dental Enamel Hypoplasia in an Early Medieval French Population: Age of Stress Event
Taylor BL Kirchoff

Room 352
Moderator: Bettie McGowan

10 a.m.
Quantifying Organizational Failure and Stakeholders’ Perceptions of Intercollegiate Athletics
Erin E. Traczek and Nicole K. Repetto
Thomas Cieslak ▷ Faculty Mentor
Management

10:15 a.m.
Small Businesses Working Together for Success
Stephanie Spiggle
Christine Day ▷ Faculty Mentor
Management

10:30 a.m.
How Culture Affects Management: An Application of Hofstede’s Dimensions on China and Germany
Brock Foster
David Victor ▷ Faculty Mentor
Management
10:45 a.m.  The Conditions in North Korea: Kim Jong-il to Kim Jong-un Today
_Deanna Jasmine Bumphus_
Bettie McGowan  ▪  Faculty Mentor
Sociology, Anthropology and Criminology

11 a.m.  Racial Profiling Cross Culturally
_Justin Smith_
Bettie McGowan  ▪  Faculty Mentor
Sociology, Anthropology and Criminology

**Auditorium**
Moderator: John Dorsey

10 a.m.  The Lads in Their Hundreds
_Danielle Lee Clevenger_
Phil Simmons  ▪  Faculty Mentor
Music and Dance

10:15 a.m.  _Bling Bling_ for Clarinet and Piano by Scott McAllister
_Sara DeDonà_
Sandra Jackson  ▪  Faculty Mentor
Music and Dance

10:30 a.m.  Music Therapy as Communication for an Individual with a Cognitive Impairment: A Case Study
_Cassie Reyna_
Theresa Merrill  ▪  Faculty Mentor
Jody Stark  ▪  Faculty Mentor
Music and Dance

10:45 a.m.  The Subtext of the Human Mind Explained in _A Hand of Bridge_
_Jaylon Sims, Clarice Weiseman, Dominique Williams and Rebecca Myers_
Robert Peavler  ▪  Faculty Mentor
Music and Dance

11 a.m.  Tchaikovsky's Ballet _The Sleeping Beauty_
_Audrey Impellizzeri_
Andrew Kuster  ▪  Faculty Mentor
Sherry Wilkinson  ▪  Faculty Mentor
Music and Dance
**ORAL SESSION B**

Kiva

**Moderator:** Elisabeth Daumer

**10 a.m.**

*The Hidden Harlem in F. Scott Fitzgerald's The Great Gatsby*

Rachael Beth Crain

Elisabeth Daumer  ▶  Faculty Mentor

English Language and Literature

**10:15 a.m.**

*Money and Love: The Struggle for Identity in Hurston's Their Eyes Were Watching God*

Stephanie Rosalyn Reynolds

Elisabeth Daumer  ▶  Faculty Mentor

English Language and Literature

**10:30 a.m.**

*Marriage, Misogyny, and Transformation in Gertrude Stein’s Tender Buttons*

Averett Robey

Rob Halpern  ▶  Faculty Mentor

English Language and Literature

**10:45 a.m.**

*Rhetorical Veiling: Concealment as Production in Oscar Wilde’s The Picture of Dorian Gray*

Molli Shomer

Abby Coykendall  ▶  Faculty Mentor

English Language and Literature

**11 a.m.**

*Fifty Percent Illusion: Failure of the Feminine Mask in Williams’ A Streetcar Named Desire*

Sarah Turchanik

Abby Coykendall  ▶  Faculty Mentor

English Language and Literature

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**Student Art Gallery**

**Moderator:** Amanda Allen

**10 a.m.**

*Personal Space Invasion: A Study of How Gender and Position Affect the Violation of Personal Space*

Katlyn Dudek

Anke Wolbert  ▶  Faculty Mentor

Communication, Media & Theatre Arts
10:15 a.m. You're Too Close: Effect of Sex and Ethnicity in Personal Space Intrusion  
Brandon Scott Larkins  
Sam Shen ▶ Faculty Mentor  
Communication, Media & Theatre Arts

10:30 a.m. The Yazyk Project: Mapping the Languages of Russian History  
Sr. Peter Joseph Wardlaw  
Kelly Victor-Burke ▶ Faculty Mentor  
Geography and Geology

10:45 a.m. Persepolis: A Graphic Dichotomy of the Insider and Outsider in the Iran-Iraq War  
Elyse Rianne Giddings  
Amanda Allen ▶ Faculty Mentor  
English Language and Literature

11 a.m. Creating E-Safe PSAs  
Jake Weber  
Keith Damron ▶ Faculty Mentor  
Communication, Media & Theatre Arts

SESSION C

Room 104  
Moderator: Bettie McGowan

1:00 p.m. The Black Cherokee Indians: The Invisible Americans  
Demarco Shauntez Johnson  
Bettie McGowan ▶ Faculty Mentor  
Sociology, Anthropology and Criminology

1:15 p.m. Tribal Education: The Development of the Pokagan Potowatomi Education System  
Amber Morseau  
Bettie McGowan ▶ Faculty Mentor  
Sociology, Anthropology and Criminology

1:30 p.m. The Effects of Colonization and Global Capitalism on the Indigenous Tribes of East Africa  
Nyambura Njee  
Bettie McGowan ▶ Faculty Mentor  
Sociology, Anthropology and Criminology
1:45 p.m. The Taino Indians: Centuries of Injustice
Tatiana Lauren Rodriguez
Bettie McGowan ▷ Faculty Mentor
Sociology, Anthropology and Criminology

2:00 p.m. Across Culture Dominicanas de Pura Sepa
Rosaly Maldonado
Yvette Colon ▷ Faculty Mentor
Social Work

Room 204
Moderator: Barry Pyle

1:00 p.m. Operation Inherent Resolve: The International Response to ISIL
Nicholas Beaton
Kathy Peterson ▷ Faculty Mentor
Political Science

1:15 p.m. Domestic Oil Production: At What Cost?
Nicholas James McFadden
Kathy Peterson ▷ Faculty Mentor
Political Science

1:30 p.m. Russia’s Use of Rhetoric in the Conflict in Ukraine
Curtis Leland Allain
Judith Kullberg ▷ Faculty Mentor
Bernie Miller ▷ Faculty Mentor
Political Science & English Language and Literature

1:45 p.m. Burwell v. Hobby Lobby Analysis
Paul Taske
Barry Pyle ▷ Faculty Mentor
Political Science

2:00 p.m. A Bayesian Account of Communication Strategy Selection
Donielle Lee Clevenger
W. John Koolage ▷ Faculty Mentor
History and Philosophy
Room 301  
Moderator: James Holoka

1:00 p.m.  
Exploring the Use of Emojis as a Pictographic Language in Written English  
Rachel Bishop  
T. Daniel Seely ▷ Faculty Mentor  
English Language and Literature

1:15 p.m.  
The Forgotten Heroes: Greek and Roman Voices of Reason, Their Caregivers, Mentors and Protectors  
Yolanda Trentadue  
James Holoka ▷ Faculty Mentor  
World Languages

1:30 p.m.  
What has Nashville to Do with Rome? The Influence of the Classics on the Twelve Southerners  
Sr. Peter Joseph Wardlaw  
Richard Nation ▷ Faculty Mentor  
History and Philosophy

1:45 p.m.  
Unapologetically Staking Dracula: An Examination of Reliance on Moral Binaries  
Jasmyn C. Barringer  
Andrea Tange ▷ Faculty Mentor  
English Language and Literature

2:00 p.m.  
A Christmas Story: An Autopsy  
Kaitlin Lorraine Browne  
Rob Halpern ▷ Faculty Mentor  
English Language and Literature

Room 304  
Moderator: Andrew Cornett

1:00 p.m.  
Age at Menarche, Body Shape, and Competitive Success in Female Athletes  
Samantha M. White  
Non-presenting, co-author: Erica Smith  
Andrew Cornett ▷ Faculty Mentor  
Health Promotion and Human Performance
<table>
<thead>
<tr>
<th>Time</th>
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<th>Presenters</th>
<th>Faculty Mentor</th>
<th>Department</th>
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<tbody>
<tr>
<td>1:15 p.m.</td>
<td>Age and Event Distance in American Swimming</td>
<td>Larkin Grant Schwarz</td>
<td>Andrew Cornett</td>
<td>Health Promotion and Human Performance</td>
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<td>Non-presenting, co-author: Erica Smith</td>
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<td>Andrew Cornett ▶ Faculty Mentor</td>
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<td>1:30 p.m.</td>
<td>A Comparison of the Physical Fitness of American Children: 1985 vs. 2010</td>
<td>Dirk Peeters</td>
<td>Andrew Cornett</td>
<td>Health Promotion and Human Performance</td>
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<td>Andrew Cornett ▶ Faculty Mentor</td>
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<tr>
<td>1:45 p.m.</td>
<td>The Language of Aging</td>
<td>RaeAnne M. DeBest</td>
<td>Caroline Gould ▶ Faculty Mentor</td>
<td>Teacher Education</td>
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<tr>
<td>2:00 p.m.</td>
<td>What is Aging and is There a Double Standard?</td>
<td>Samantha Galinis and Camen Gill-Williams</td>
<td>Caroline Gould ▶ Faculty Mentor</td>
<td>Teacher Education</td>
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Room 320
Moderator: Martha Baiyee

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<th>Time</th>
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<th>Department</th>
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<tbody>
<tr>
<td>1:00 p.m.</td>
<td>The Influences of Social Media</td>
<td>Taylor Kennedy</td>
<td>Chong Oh ▶ Faculty Mentor</td>
<td>Computer Information Systems</td>
</tr>
<tr>
<td>1:15 p.m.</td>
<td>Is Twitter Psychic?</td>
<td>Stephanie Yergeau, Mahdi Alkadib and Yujin Woo</td>
<td>Chong Oh ▶ Faculty Mentor</td>
<td>Computer Information Systems &amp; Marketing</td>
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<td>Chong Oh ▶ Faculty Mentor</td>
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<td>Micah Murphy ▶ Faculty Mentor</td>
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<td>1:30 p.m.</td>
<td>Viral Videos, Endorsements, and Hashtag Activism: A Look at Invisible Children, Inc.</td>
<td>Dylan McPhee</td>
<td>Anke Wolbert ▶ Faculty Mentor</td>
<td>Communication, Media &amp; Theatre Arts</td>
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<td>1:45 p.m.</td>
<td><em>I Love Lucy</em> Project</td>
<td>Allie Romero, Keith Damron</td>
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<td>Faculty Mentor, Communication, Media &amp; Theatre Arts</td>
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<tr>
<td>2:00 p.m.</td>
<td>Water is Life: First World Problems are Not Real Problems</td>
<td>Lydia Renee Seale, Regina Luttrell</td>
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<td>Faculty Mentor, English Language and Literature</td>
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Room 330
Moderator: Maria Milletti

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<th>Time</th>
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<tr>
<td>1:00 p.m.</td>
<td>Effects of a Bulky Substituent on the Stereoselectivity of a Reaction Leading to Acylpyrrolidines</td>
<td>Alyssa Winkler, Maria Milletti</td>
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<td>Faculty Mentor, Chemistry</td>
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<td>1:15 p.m.</td>
<td>A Study of the Relationship Between Impedance Behavior and Alcohol Structure or Concentration</td>
<td>Philip Ewing, Donald Snyder</td>
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<td>Faculty Mentor, Chemistry</td>
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<td>1:30 p.m.</td>
<td>Computational Study of PAI-1 and a Potential Inhibitor</td>
<td>Mordechai Goode Sadowsky</td>
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<td>Faculty Mentor, Chemistry</td>
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<td>1:45 p.m.</td>
<td>Examining the Strength of Interactions Between PAI-1 and a Polyphenolic Inhibitor</td>
<td>Brittany M. Jewell, Maria Milletti</td>
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<td>Faculty Mentor, Chemistry</td>
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<tr>
<td>2:00 p.m.</td>
<td>Effects of Invasive Wetland Plant Leachates on Streams and Responses of Microbial Biofilms</td>
<td>Jarred Lobbestael, Kristin Judd</td>
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<td>Faculty Mentor, Biology</td>
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</tbody>
</table>
Room 350: PANEL
Faculty Mentor and Moderator: Dave Pawlowski
Physics and Astronomy

1:00 p.m.

High Altitude Ballooning: Humidity of the Upper Atmosphere
Angelika H. Cardew and Natalie Pellerito

Investigating the Atmospheric Temperature Structure Using a High Altitude Weather Balloon
Ryan Dzanbazoff and Xhon Shameti

Integration and Testing of an Accelerometer Onboard a High Altitude Balloon
Jeffrey Flegal and Samir Webster

Near-Space Exploration Using a High-Altitude Weather Balloon
Hans J. Harff and Mark Price Jr.

Measuring Pressure as a Function of Altitude Using a High Altitude Weather Balloon
Brandon Laycock

Studying the Atmospheric Ozone Concentration Using a High Altitude Balloon
Susan Vivier and Matthew P. Davis

Room 352
Moderator: Christine Clark

1:00 p.m.

A Survey of Willow Metropark, Wayne County, Michigan
Ashlee Jed
Bradley Ensor Faculty Mentor
Sociology, Anthropology and Criminology
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<td>1:15 p.m.</td>
<td>Testing Historical Site Interpretations</td>
<td>Alicia Williams</td>
<td>Bradley Ensor</td>
<td>Sociology, Anthropology and Criminology</td>
</tr>
<tr>
<td>1:30 p.m.</td>
<td>Geology and Paleontology of Wells Cave, South-Central Kentucky</td>
<td>Eric Fiorentino</td>
<td>Steve LoDuca</td>
<td>Geography and Geology</td>
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<tr>
<td>1:45 p.m.</td>
<td>Exploring the Association of Massive Pegmatites and Supervolcanoes</td>
<td>Nicholas Guiffre</td>
<td>Christine Clark</td>
<td>Geography and Geology</td>
</tr>
<tr>
<td>2:00 p.m.</td>
<td>Flexibility of the Boron Site in Tourmaline</td>
<td>Connor J. Vandivier</td>
<td>Christine Clark</td>
<td>Geography and Geology</td>
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**Auditorium**

**Moderator: John Dorsey**

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<tr>
<td>1:00 p.m.</td>
<td>Vietnamese Classical Opera and Western Music: The Connection</td>
<td>Trang Vo</td>
<td>Gary Pedersen</td>
<td>Music and Dance</td>
</tr>
<tr>
<td>1:15 p.m.</td>
<td>Suite Populaire Bresilienne for Solo Guitar</td>
<td>Nick Martin</td>
<td>Nelson Amos</td>
<td>Music and Dance</td>
</tr>
<tr>
<td>1:30 p.m.</td>
<td>Obliterating the Commercialization of Dead Black Boys</td>
<td>Tristan Taylor</td>
<td>Wallace Bridges</td>
<td>Communication, Media &amp; Theatre Arts</td>
</tr>
</tbody>
</table>
1:45 p.m.  Eulogy to a Moment: A Series of Poems
Influenced by Norman Fischer's The Strugglers
Emma Lynne Mayhood
Carla Harryman  ▪ Faculty Mentor
English Language and Literature

2:00 p.m.  Constraints Evoking Creation: "Standing"
Alyssa Tomasita Martinez
Carla Harryman  ▪ Faculty Mentor
English Language and Literature

Kiva
Moderator: Richard Stahler-Sholk

1:00 p.m.  Reforming the Computer Fraud and Abuse Act
Spencer Belko
Ray Quiel  ▪ Faculty Mentor
Communication, Media & Theatre Arts

1:15 p.m.  Disabilities, Discomfort, and Discourse Online: A
Revival of Kenneth Burke and the Human Body
Casey Sabella
Nick Romerhausen  ▪ Faculty Mentor
Communication, Media & Theatre Arts

1:30 p.m.  Mothers of Plaza de Mayo: Maintaining
Momentum Through Youth Influence
Melissa Ann Dreffs
Richard Stahler-Sholk  ▪ Faculty Mentor
Political Science

1:45 p.m.  The Power of Cultural Expression and Its
Varying Role During Revolutionary Change
Lauren Grossman
Richard Stahler-Sholk  ▪ Faculty Mentor
Political Science
Student Art Gallery
Moderator: Victor Okafor

1:00 p.m.  
Re-Presenting Muslim women: (Un)Veiling the Muslim Woman in Muslim Women's Narratives  
*Molli Shomer*
Elisabeth Daumer  
Faculty Mentor  
English Language and Literature

1:15 p.m.  
9/11 and the Backlash Against Muslim-Americans  
*Shahana Ahmed Chumki*
Bernie Miller  
Faculty Mentor  
English Language and Literature

1:30 p.m.  
*Cataluña*: Spain's Economic Powerhouse and a Political and Cultural Leader  
*Sr. Mercedes Torres*
Ronald Cere  
Faculty Mentor  
World Languages

1:45 p.m.  
Racism Is Not Dead, Just Redesigned  
*Eden Zimak*
Victor Okafor  
Faculty Mentor  
Africology and African American Studies

2:00 p.m.  
Colorism: The Decomposition of the Black Community from the Inside Out  
*Brandon Charles Harrison*
Thomas Fahlstrom  
Faculty Mentor  
Communication, Media & Theatre Arts

SESSION D

Room 104
Moderator: Ronald Rich

2:30 p.m.  
Religion as Agency: Chukchi Cosmology Through Change  
*Daniel Scrochi*
Ronald Rich  
Faculty Mentor  
Sociology, Anthropology and Criminology
<table>
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<td>2:45 p.m.</td>
<td>Religion as Agency: Cuban Santeria and Social Change</td>
<td>Danielle Julien, Ronald Rich</td>
<td>Sociology, Anthropology and Criminology</td>
<td></td>
</tr>
<tr>
<td>3:00 p.m.</td>
<td>Religion as Agency: Witchcraft and Change in Papua New Guinea</td>
<td>Adam Moody, Ronald Rich</td>
<td>Sociology, Anthropology and Criminology</td>
<td></td>
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<tr>
<td>3:15 p.m.</td>
<td>Parallel Theologies of Buddhism and Catholicism</td>
<td>James Pope, Mark Whitters</td>
<td>History and Philosophy</td>
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</tr>
<tr>
<td>3:30 p.m.</td>
<td>Was Buddha an Empiricist?</td>
<td>Mandy Mak, Margaret Crouch</td>
<td>History and Philosophy</td>
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**Room 204**

**Moderator:** Phil Smith

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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Retinopathy of Prematurity</td>
<td>Gabrielle Kwalton, Alicia Li</td>
<td>Faculty Mentor</td>
<td>Special Education</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>Deconstructing Attention-Deficit/Hyperactivity Disorder</td>
<td>Dylan Burrows, Phil Smith</td>
<td>Faculty Mentor</td>
<td>Special Education</td>
</tr>
<tr>
<td>3:00 p.m.</td>
<td>Ten Lesson Unit: &quot;Coming of Age&quot; Based on Time Period (&quot;The Past&quot;)</td>
<td>Erica Mehlberg, Patricia Williams-Boyd</td>
<td>Faculty Mentor</td>
<td>Teacher Education</td>
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</tbody>
</table>
3:15 p.m.  12th Grade English Unit: Through a Critical Lens-
Featuring *Brave New World* by Aldous Huxley
*Jenny DeBoer*
Patricia Williams-Boyd ▶ Faculty Mentor
Teacher Education

3:30 p.m.  Beyond the Lesson Plan: Experience,
Differentiation, and Connection
*Joelle Kalee Laginess*
Patricia Williams-Boyd ▶ Faculty Mentor
Teacher Education

Room 301
Moderator: Dennis Patrick

2:30 p.m.  A Textual Analysis of LGBT Characters
in Popular Video Games
*Lucas McCauley*
Dennis Patrick ▶ Faculty Mentor
Communication, Media & Theatre Arts

2:45 p.m.  Gaming and Gender: Toward a New
Marketing and Participation Paradigm
*Stephanie Yergeau*
John Cooper ▶ Faculty Mentor
Communication, Media & Theatre Arts

3:00 p.m.  Video Games and Keeping Women in the Kitchen:
Reactions to Online Sexual Harassment
*Troy G. Deskins*
Rusty McIntyre ▶ Faculty Mentor
Psychology

3:15 p.m.  Graphical Simulation of Multi-Agent Systems
*Robert John Savel*
Suchindran Maniccam ▶ Faculty Mentor
Computer Science

3:30 p.m.  Developing an Easier Approach to Java
*Edward Gurnee*
Susan Haynes ▶ Faculty Mentor
Computer Science
Room 304
Moderator: Beverly Goodman

2:45 p.m. Decreasing the Gender Gap Through STEM Engagement: A Program to Help Young Women and Their Parents
Abigail Kemp
Russell Olwell ▶ Faculty Mentor
History and Philosophy

3:00 p.m. Were There Prenasalized Stops in Old Japanese?
Leah Hicks
Beverly Goodman ▶ Faculty Mentor
English Language and Literature

3:15 p.m. Differences Abroad: Studying French in France vs. Studying French in Québec
Anjali T. Martin and Barry Anderson
Genevieve Peden ▶ Faculty Mentor
World Languages

3:30 p.m. Underline This: Progress in Reading Comprehension for an International Student Over One Semester
Bethany Angelina Preston
Ildiko Porter-Szucs ▶ Faculty Mentor
World Languages

Room 320
Moderator: Tanweer Shapla

2:30 p.m. Characterization of a Wind Tunnel Built by Physics Capstone Students
Danielle Moit and Paul Amell
Dave Pawlowski ▶ Faculty Mentor
Physics and Astronomy

2:45 p.m. Designing a Subsonic Wind Tunnel for Use in Research and Undergraduate Labs
Brendan Jacob Pickard and Lee Warner
Dave Pawlowski ▶ Faculty Mentor
Physics and Astronomy
3:00 p.m.  Pushing the Envelope: Limits and Capabilities of Sherzer Observatory  
Timothy Aaron Fletcher  
Norbert Vance  ▶ Faculty Mentor  
Physics and Astronomy

3:15 p.m.  Greenhouse Gases and Global Warming  
Ashleigh Noel Walters  
Khairul Islam  ▶ Faculty Mentor  
Mathematics

3:30 p.m.  The Effect of Global Warming on the Arctic Sea Ice Extent: An Application of Regression Models  
Quynh Nhu Hoang Vu  
Tanweer Shapla  ▶ Faculty Mentor  
Mathematics

Room 330  
Moderator: Margrit Zinggeler

2:30 p.m.  How the Slow Food Movement Impacts Society: Comparing Culinary Traditions of Germany and Southeast Michigan  
Michelle Renee Drescher  
Margrit Zinggeler  ▶ Faculty Mentor  
World Languages

2:45 p.m.  Soul Food: Death on a Plate  
Constance Chege  
Ray Quiel  ▶ Faculty Mentor  
Communication, Media & Theatre Arts

3:00 p.m.  Feared Foods: A Survey of Abnormal Eating Attitudes and Behaviors  
Tiffany Michelle Kincaid  
Karen Saules  ▶ Faculty Mentor  
Psychology

3:15 p.m.  Genetically Modified Crops and Use of Agricultural Pesticides May Determine Adverse Health Effects  
Shahana Ahmed Chumki, Mariah Brito, William Clarence Trice III and Larry Borum  
Heather Neff  ▶ Faculty Mentor  
English Language and Literature
3:30 p.m. I Got 99 Problems and Nutrition is One: A Closer Look at Food Deserts in Ypsilanti, Michigan
Brialle Ringer, Gwen Dean, Nyambura Njee and Gloria Tonks
Heather Neff ▶ Faculty Mentor
English Language and Literature

Room 350: PANEL
Faculty Mentors and Moderators: Chong Oh and Sheila Sasser
Computer Information Systems & Marketing

2:30 p.m. The Process of Developing a Strategic Marketing Plan: EMU Tweet Bowl 2015
Amanda Samantha Jones

Engaging with the Student Body: Creating a Dynamic Social Media Campaign
Nicole Martin, Jermain Gilmore, Michael Campbell and Shelby Adkins

The Best Practices of Planning a Social Media Event: EMU Tweet Bowl 2015
Megan Spencer, Catherine Rowley, Shelby Gilbert and Srikiran Narra

Social Media Analytics: EMU Tweet Bowl 2015
Nicholas A. Jordan, Jesse Burrison, James Dubinsky and Randy Gussan

Room 352
Moderator: Lisa Laverty

2:30 p.m. The Promises of the United Nations
Marla Beretta Bastien
Richard Stahler-Sholk ▶ Faculty Mentor
Political Science

2:45 p.m. Securitization of Public Health: Ebola and United States Foreign Policy
Amanda Goulet
Lisa Laverty ▶ Faculty Mentor
Political Science
3:00 p.m. Executive Power in the 18th and 21st Centuries: Assessing Security Threats and the Modern Presidency
Steven A. Cole
Barry Pyle — Faculty Mentor
Political Science

3:15 p.m. An International Analysis of Corporate "Personhood" Rights vs. Responsibility
Vanessa R. Bishop
Volker Krause — Faculty Mentor
Paul Leighton — Faculty Mentor
Political Science & Sociology,
Anthropology and Criminology

3:30 p.m. Democracy in Suffrage: The Despair of the American Voter
Anthony Gonzalez
Beth Henschen — Faculty Mentor
Political Science

Auditorium
Moderator: Carol Schlagheck

2:30 p.m. Womanhouse in Context and Reactions
Heather Nicole Zink
Ellen C. Schwartz — Faculty Mentor
Art

2:45 p.m. Image and Text: Dorothea Lange’s FSA Photographs
Catherine D. Coulter
Mary-Elizabeth Murphy — Faculty Mentor
History and Philosophy

3:00 p.m. How the New Deal Gave Women Artists a Chance at Success
Jesse Yaeger
Linda Pritchard — Faculty Mentor
History and Philosophy

3:15 p.m. Corsetry from 1875 to 1880 in England and America
Julia Czekaj
Melanie Schuessler — Faculty Mentor
Communication, Media & Theatre Arts
3:30 p.m.  How the Evolution of Fashion Journalism from Print to Online is Affecting Young Women  
Kayla Boyd  
Carol Schlagheck  ▶  Faculty Mentor  
English Language and Literature

Kiva  
Moderator: Nick Romerhausen

2:30 p.m.  Alternative Narratives and the Holocaust in Markus Zusak’s The Book Thief  
Meghan Hickman  
Ramona Caponegro  ▶  Faculty Mentor  
English Language and Literature

2:45 p.m.  Misogynoir in the Media  
Faith G. Williams  
Thomas Fahlstrom  ▶  Faculty Mentor  
Communication, Media & Theatre Arts

3:00 p.m.  Traumatic Nationalism and the Rhetoric of Anti-Semitism in Rural France  
Spencer Belko  
Nick Romerhausen  ▶  Faculty Mentor  
Communication, Media & Theatre Arts

3:15 p.m.  The Homeless Orthodox Jewish Woman: A Model for Building Female Spaces from Masculine Places  
Molli Shomer  
Elizabeth Curran  ▶  Faculty Mentor  
Women’s and Gender Studies

3:30 p.m.  Presentation of Self: How Jewish Women Shaped the Societal View of their Culture Through the Arts  
Andrea Nicholson, Kasey Donnelly and Kristin McSweeney  
Jeffrey Bernstein  ▶  Faculty Mentor  
Political Science
Student Art Gallery
Moderator: Anke Wolbert

2:30 p.m.  Magic and Science vs. the Catholic Church During the Italian Renaissance
Kevin Leistner
Lee Stille ▶ Faculty Mentor
Communication, Media & Theatre Arts

2:45 p.m.  Yes We Can: An Analysis of a Political Advertisement During Obama's 2012 Campaign
Toni M. Hughes
Anke Wolbert ▶ Faculty Mentor
Communication, Media & Theatre Arts

3:00 p.m.  Ted Kennedy Communicates Religious Tolerance
Breann Nicole Tidwell
Anke Wolbert ▶ Faculty Mentor
Communication, Media & Theatre Arts

3:15 p.m.  Gregor the Overlander and the Implications of Leadership in Children's Literature
Dominic DiCarlo Meo
Ramona Caponegro ▶ Faculty Mentor
English Language and Literature

3:30 p.m.  You Can't Just Pick One: Analyzing Biracial Protagonists in Children's Literature
Tiffany Nicole Browne
Ramona Caponegro ▶ Faculty Mentor
English Language and Literature
Since the 2008 presidential election of Barack Obama, many Americans have tended to operate under an illusion that we now live in a post-racial society. In fact, this is one of the most insidious myths perpetuated about contemporary race relations in America. A closer look at the failures of affirmative action and the criminal “justice” system shed light on racism as it exists today. This type of racism is particularly destructive because it is systematic, covert, and pervasive. Claims of a post-racial America hinder progress toward equality because they deny the existence of a significant social problem.

Humans have been working with clay for more than 20,000 years. Students in beginning ceramics learn to make a variety of utilitarian vessels; some are large pots like those made for storage for at least 1,000 years. This display includes storage jars as well as Maiolica platters, both made of low-fire terra cotta. Low-fire ware was made by most of civilization until the people of the Far East developed high temperature kilns. Maiolica glaze was invented in 9th century Persia and spread all over the world. It probably reached its zenith in 16th century Italy. The baking dishes presented are terra cotta with a contemporary design twist.

We live in an age where nearly every action we take can be digitally recorded, stored, duplicated, and systematically analyzed. Former contractor for the U.S. National Security Agency Edward Snowden disclosed documents that revealed numerous global mass surveillance and digital information collection programs such as PRISM and XKeyscore on June 5, 2013. The current project focuses on the creation of different forms of informative propaganda material to mimic the state of constant surveillance created and maintained by government intelligence agencies.

This project encompasses the branding and identity, including the website, program, and a variety of digital and printed promotional materials, for the 2015 Undergraduate Symposium. The overlapping patterns of the design were inspired by the layers of research students complete. The triangles symbolize the repetition of trial, error, and the persistence of researching and creating. The implied lines of the letterforms represent a final outcome being shaped.
Grandma’s Ellipse
Molly Marie Doak
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

This bench was handcrafted from walnut wood using wood turning and bending techniques. The fabric for this bench was hand-woven in a jewel twill pattern on a floor loom.

Tacca Chantrieri
Kristin Edelbrock
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Based on a shade-loving rainforest plant, this lingerie set was made using silk dupioni, silk satin, natural dyes, and screenprinting inks.

Midtown Madness
Kristin Edelbrock
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

This piece of silk habotai was wrapped around rusted farm equipment and left in thickened dye for 24 hours. After the fabric was rinsed, it was stretched and painted using dyed gutta and silk paints.

Absinthe After Alphonse
Kristin Edelbrock
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

This piece of silk habotai was painted by using a dye resist called gutta, and several washes of color. The design is a pattern created by merging elements from textiles before 1800 and after 1900. It was inspired by works by the artist Alphonse Mucha, early 1900s absinthe advertisements, and Japanese fabric from the 1400s.

Ghost World Poster
Chloe Renee Menser
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Ghost World is a movie that perfectly describes that lost feeling that high schoolers feel when they have finally graduated. The characters find themselves searching for a meaning to life and also trying to find who they really are. The type in my poster reflects this tension between dark and bold with girly and pretty, just like the main character’s struggle to be something she is not. The poster features a quote from the movie that perfectly captures a moment in which the main character is trying to explain her style.
LOMO: A Collection of Wearable Wood

Lauren Mleczko and Molly Marie Doak

Design Expo Exhibit

John DeHoog, Faculty Mentor

Room 300—9 a.m. to 3:45 p.m.

In this project we are designing a collection of fashion accessories using woods (veneers, solid, and plywood) as the primary construction materials. Through the use of exotic veneers, bentwood, and alternative methods of woodworking and construction, this collection explores their translation into fashion design. While we both have a background in textile design, our aim is to see how wood can be used as an expressive and experimental alternative to soft materials. The challenge is to show off the beauty of wood while coaxing its structural qualities to conform to the body. The finished objects will include both body adornment and fashion accessories.

Detroit, 1920

Lauren Mleczko

Design Expo Exhibit

Brooks Stevens, Faculty Mentor

Room 300—9 a.m. to 3:45 p.m.

For ARTS 341 Intermediate Surface Design we were tasked with creating a piece that described our alter ego. I believe my past life was spent in Detroit during the 1920s as a flapper. I created a tabard style dress to describe the glamorous times on the Detroit River during that time period. For this piece, I dyed silk crepe-de-shine, learned basic pattern making techniques to create a garment from a pre-existing article of clothing, and hand beaded and screenprinted the fabric to create the skyline of the city and its reflection on the river.

Rust

Lauren Mleczko

Design Expo Exhibit

Brooks Stevens, Faculty Mentor

Room 300—9 a.m. to 3:45 p.m.

Using a historic textile resist dyeing process with a contemporary approach, I created rust marks on silk in combination with silk painting techniques. The rusted areas allowed me to react to the open spaces mimicking how rust molecules look under a microscope.

Crinkled & Constricted

Kirsten Leigh Sambrook

Design Expo Exhibit

Brooks Stevens, Faculty Mentor

Room 300—9 a.m. to 3:45 p.m.

This piece is a visual representation of my experiences with anxiety. For me, anxiety is a simultaneous feeling of exploding nerves and constriction in the chest. I chose to represent anxiety as a wearable piece because much like clothing, people wear their emotions.
Pained/Drained
Kirsten Leigh Sambrook
Brooks Stevens, Faculty Mentor

This piece is a wearable representation of my experiences feeling depressed. I chose to represent depression as a wearable piece because much like clothing, people can carry their depression wherever they go.

Ypsilanti Meals on Wheels: Branding and Identity Package
Mason Spencer Sultana and Christopher Stewart
Ryan Molloy, Faculty Mentor

Ypsilanti Meals on Wheels is a local non-profit that specializes in delivering prepared meals to the homebound elderly, disabled, and ill. The task at hand was to redesign Y.M.O.W.’s graphic identity. The redesign includes a new logo, letterheads, business cards, t-shirts, and vehicle graphics all designed to have a unifying look and appeal.

Internal Body Parts as Imagery for Jewelry
Briana L. Wickoff
Gretchen Otto, Faculty Mentor

My research intentions are to design jewelry that directly relates to and is inspired by internal body parts and functions. I am interested in the shapes and forms from inside the body and how jewelry can represent and be worn in relation to those parts. The displayed necklace is a good example of how I have been inspired by the way the collarbone is shaped and moves in relation to the sternum and ribcage. It demonstrates the execution of my craftsmanship, design style, and attention to detail.

3-D Printed Cartoon Typeface
Jason Williams
Ryan Molloy, Faculty Mentor

This project utilized 3-D modeling software to create a typeface for use on screen, in print media, and in 3-D print. The typeface rendered each letter as a cartoon face. After each letter was digitally sculpted, skin, hair, and any necessary textures were mapped onto the surface of the digital model. The typeface is displayed both as a poster and as a set of physical objects, 3-D printed letters.
The Aspect Ratio and Pushing the Boundaries of Cinema

Adam Kevin Wright
Chris Reilly, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

As a relatively new medium, film's full capabilities are yet to be realized. Rarely do films ever deviate from the widescreen format or utilize different aspect ratios throughout their duration to help serve the narrative or add artistic meaning. The goal of this project is to create a film that uses multiple aspect ratios, including the vertical frame—often viewed as taboo in cinema—to present narrative and artistic meaning in new ways. Young artists and filmmakers often lack funds to be on the cutting edge of film because it is an expensive medium to work in, but this approach is an example of methods that are still available to everyone yet often overlooked.

Womanhouse in Context and Reactions

Heather Nicole Zink
Ellen C. Schwartz, Faculty Mentor
Oral Session D
Auditorium—2:30 p.m.

Womanhouse was a real house renovated into an art gallery that included installation and performance art pieces. It was created by 21 women in the first Feminist Art Program at the California Institute of the Arts in 1972. These artists were on a social mission to make the public aware of inequalities and reinforce that women are not alone in their experiences. This groundbreaking project challenged patriarchal standards and worked to support equal rights for all at a time when social change, experimentation, and activism were at their peak. It is important to remember these women artists for their contributions and to continue their fight against inequality and erasure.

Department of Biology

Identification of Adherence Mechanisms in Human Gut Microbes

Jamal Ahmed Alhabeil
Daniel Clemans, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

The Human Gastrointestinal Tract (GIT) contains an estimated 100 trillion bacteria making up the diverse gut microbiome. Due to their beneficial role in human health, examining the interactions between the numerous microbial species is vital. Within the GIT, various microorganisms coaggregate with each other and often form biofilms, a grouping of microbes protected by an outer layer of slime. Coaggregation is the specific recognition and adherence of genetically distinct microorganisms. The goal of our research is to identify the interactions between representative gut microbes and to classify the various membrane-bound adhesins that allow them to do so.
Effect of Lampricide Application Technique on Mortality of the Mudpuppy, *Necturus maculosus*

Cristina Bugescu
Katherine Greenwald, **Faculty Mentor**

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

The sea lamprey, *Petromyzon marinus*, has invaded the Great Lakes with catastrophic effects on the ecosystem and native fish species. Lampricide, 3-trimethyl-4-nitrophenol (TMF), is used to control this invasive species; however, TMF is toxic to numerous vertebrate taxa. We use a Fish and Wildlife Service long-term data set (1960 to 2013) to explore the effects of lampricide application on the mudpuppy, *Necturus maculosus*. Since 1990 both stream pH and alkalinity were considerations in the amount of lampricide applied, allowing for less lampricide to be used. We examine whether this change in application technique reduced mudpuppy mortality in recent years.

Understanding Concepts of Heredity Among Undergraduates

Chipo Michelle Chavanduka
Chiron Graves, **Faculty Mentor**

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Students often come to class with preconceptions about how the world works and these preconceptions play an important role in the learning process. For this study, we investigated the preconceptions about heredity held by undergraduate students enrolled in biology courses. Participants were asked to provide a written response to two different prompts about heredity. We analyzed their responses and classified them as either 1) accurate conceptions, 2) naive conceptions, 3) misconceptions, or 4) not enough information provided to evaluate. My poster presents the results of this analysis as well as a discussion of how these results inform future instruction for this topic.

Analysis of Replication Fork Stalling in Fragile Site-Containing YACs

Shahana Ahmed Chumki
Anne Casper, **Faculty Mentor**

Poster Group 1
Room 310—8:30-10 a.m.

Several models have been proposed to explain why human fragile sites are unstable under replication stress, including replication fork stalling and origin paucity. We present analysis of replication dynamics that affect instability through the technique of DNA combing, focusing on replication fork stalling. We hypothesize that replication fork stalling occurs more frequently in fragile site-containing DNA than in non-fragile control DNA. To test this hypothesis, we are using yeast artificial chromosomes (YACs) carrying human insert DNA and YACs carrying only control DNA. Fluorescent antibodies are used to track replication dynamics along the YAC DNA molecules.

Investigating Gene Conversion Stimulation by Fragile Site FS2

Mikael Dunn
Anne Casper, **Faculty Mentor**

Poster Group 1
Room 310—8:30-10 a.m.

Partial inhibition of DNA polymerase causes breaks at specific sites called fragile sites. We hypothesize that instability at fragile site FS2 in *Saccharomyces cerevisiae* cells under replication stress is repaired by homologous recombination (HR), resulting in gene conversion (GC). To test this, we identified cells that repaired a break by HR during mitosis. For this identification, we used a system that when the cell has repaired a break by HR, it produces a colony with a white half and a red half. We screened 20,225 colonies and found 158 sectored colonies, of which 13 are GCs. This supports our hypothesis that GC events happen, although they are not frequent at fragile sites.
Identifying and Using Student Preconceptions to Plan High School Biology Lessons
Nicholas Greene  
Chiron Graves, Faculty Mentor

An effective science teacher meets the requirements set by the curriculum while simultaneously catering to the needs of 140+ students. A teacher must plan engaging instructional activities that relate scientific information to the everyday lives of the students. This project takes a learner-centered approach to planning a biology unit for student teaching. First, high school students' interests and prior knowledge is identified through pre-assessment activities. This data is then used to plan instruction that builds upon students understanding about biology topics so they are able to meet the current state and national science standards.

Characterization of Candidate Proteins Potentially Involved in the Synthesis of GDP-Glucose
Nadeen Majdi Habbas-Nimer  
Aaron Liepman, Faculty Mentor

Glucomannan, a carbohydrate consisting of the sugars glucose and mannose, is found in cell walls of many plants and as energy reserves in some. Glucomannan synthesis requires the nucleotide sugar substrates GDP-mannose and GDP-glucose, however proteins involved in the synthesis of GDP-glucose are unknown. It is hypothesized that GDP-mannose pyrophosphorylase proteins have dual substrate activity and the ability to produce GDP-mannose and GDP-glucose. Analyses of candidate GDP-mannose pyrophosphorylase enzymes from Arabidopsis thaliana, expressed as recombinant proteins in Escherichia coli, and assayed using High Performance Liquid Chromatography are presented.

Egg Development and Genetic Make-Up in Unisexual (All Female) Ambystoma Salamanders
Marisa Chavez Hildebrandt  
Katherine Greenwald, Faculty Mentor

Unisexual Ambystoma salamanders reproduce via kleptogenesis, in which they “steal” sperm from males of one of several sexual species. Typically, unisexuals reproduce asexually in a process known as gynogenesis. However, offspring can also be created either by replacing one of the maternal genomes with a paternal version, or by adding the male genome to the full female complement of chromosomes (ploidy elevation). We compared numbers of gynogenetic to ploidy-elevated eggs, comparing egg DNA to that of the parents to see if the paternal genome was added. We also looked at developmental stages to find whether gynogenetic or ploidy-elevated eggs develop more successfully.
Evolutionary Analysis of the Rodent mysTR Endogenous Retrovirus
Alexand Elizabeth Hofmann
David Kass, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Endogenous retroviruses (ERVs) are genetic elements that potentially generate new heritable copies in the genome. The mysTR element is an active ERV in cricetid rodents. This ERV is related to the MYSERV element in murid rodents. We propose these elements were derived from a common ancestral retroviral integration. To address this hypothesis we are investigating the evolutionary history of this element in genomes of Cricetidae, Muridae and other rodent families.

Identification, Development, and Applications of a Multi-Allele Human Dimorphic Alu Element
Aiden Jones
David Kass, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Alu elements represent a family of short interspersed elements (SINEs) that comprise roughly 11% of DNA sequences in the human genome. “Younger” elements can be assessed based on their similarity to a consensus sequence. A portion of these elements is not fixed in the human genome, providing useful presence/absence DNA markers. Analyzing one such marker in detail unveiled additional variants that were found to make it more informative. We therefore have identified sequence variants in a second Alu-based marker, referred to as Alu9, and we are in the process of developing a simple to use assay to detect various alleles for applications in human population studies.

The Effects of Salinity on Stratification of Inland Lakes in Southeast Michigan
Hallee Kansman
Kristin Judd, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Recent studies show that road salt affects aquatic ecosystems. With the addition of salt to freshwater lakes, density differences increase between surface and bottom waters, and more energy is needed to cause turnover. The aim of this study was to determine if lakes with high salt concentrations in their bottom waters had reduced seasonal turnover. We measured oxygen and temperature in four lakes to determine the degree of turnover, and then measured nutrients and chlorophyll in the epilimnion, metalimnion, and hypolimnion. We found that stratified lakes had greater nutrient concentrations in the bottom water. Repeated sampling in the spring is needed to better understand impacts of salt.

Does Hybridization Occur Among Michigan Species of Juncus Section Ozophyllum?
Ashley Rose Keesling
Gary Hannan, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Juncus is a widely distributed genus with a complex history of classification because of extensive morphological variation within species. Juncus articulatus (in Section Ozophyllum) is particularly variable, with presumed hybridization adding to this variation. Several named hybrids have been proposed, but may not occur in Michigan. We used multivariate analyses to examine morphological characteristics of J. articulatus and four other Michigan species within Section Ozophyllum reported to hybridize with J. articulatus to look for evidence of hybridization and to identify characters that are useful in distinguishing between those species.
Analysis of Short Interspersed DNA Elements in Peromyscus

Nathan Clark Kilian
David Kass, Faculty Mentor

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Short interspersed DNA elements (SINEs) represent a type of retrotransposon (mobile genetic element). SINEs provide a molecular fossil record because genomic integration events are stable, and because of the improbability for the same integration event to occur independently. Therefore, shared SINE integrations are identical by descent, and highly useful in phylogenetic studies. We are using a PCR-based assay to test for the presence or absence of presumably ‘young’ SINEs in order to address controversies regarding the relationship of Peromyscus species (deer mice and their relatives), and to identify evolutionary time points of increased SINE activity.

Effects of Invasive Wetland Plant Leachates on Streams and Responses of Microbial Biofilms

Jarred Lobbestael
Kristin Judd, Faculty Mentor

Oral Session C
Room 330—2:00 p.m.

In the high velocity environment of lower order streams, little primary productivity occurs and dissolved organic carbon (DOC) is an important energy source for microbial biofilms that support higher trophic levels. Although streams have varied sources of DOC, the strongest predictor of DOC concentration is the amount of wetlands drained in the catchment area. Senescing wetland macrophytes leach DOC which could be an important source of DOC to stream biofilms. In this study, we examined the composition and effect of leachate from two invasive wetland plant species, Phragmites australis and Typha X glauca on the activity of local stream biofilms developed on ceramic tiles.

Does Environmental Complexity Impact Tarantula Behavior?

Samantha Ann Malley
Cara Shillington, Faculty Mentor

Poster Group 1
Room 310—8:30-10 a.m.

Personality, age and environment impact animal behavior. Behavior over a lifetime can vary as conditions change. Behaviors fall on a spectrum of bold to shy. Bold behaviors include extensive exploration and fast prey capture, while shy behaviors include timid exploration and reluctant prey capture. We tested influence of environmental complexity and age on tarantula personality by housing two age groups in either enriched or control environments. Control environments contained only substrate while enriched habitats were supplemented with plastic plants. Prey capture speeds and exploratory behaviors were compared to determine if there was an association between environment and personality.
Stinger Use in Prey Capture by Young Emperor Scorpions (*P. imperator*)

Justin Nolan  
Cara Shillington, Faculty Mentor

Poster Group 1  
Room 310—8:30-10 a.m.

Scorpions are known for their claws and hypodermic-like stinger, both of which are used in prey capture. Studies show that stinger use varies between species and with prey type. Emperor scorpions (*Pandinus imperator*) seldom use their stinger in prey capture as adults, but higher rates are reported with juveniles. We examined the roles of experience and prey size on stinger use in prey capture behavior in juveniles. For feeding trials, naive scorplings were randomly placed in one of three prey-size groups (25, 50, 75% of scorpion weight). Individual prey capture behaviors and stinger use were recorded. We compared data among the three prey-size groups and across consecutive trials.

Analysis of Scientific Terminology Use in Student Preconceptions About Heredity

Rebecca Pindzia  
Chiron Graves, Faculty Mentor

Poster Group 2  
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Students often come to class with preconceptions about how the world works, and these preconceptions play an important role in the learning process. For this study, our lab investigated the preconceptions about heredity held by EMU undergraduate students enrolled in three different non-majors biology courses prior to receiving course instruction on the topic. Participants responded to two different prompts. For my project, I analyzed the length of participant responses, and the frequency of scientific terminology used in their explanations. My poster presents the results of my text analysis as well as a discussion of how these results inform our future instruction for this topic.

Olfactory Sensory Deprivation as a Model for Neuronal Plasticity

Jacob Elliot Reiss  
Thomas Mast, Faculty Mentor

Poster Group 3  
Room 310—2:15-3:45 p.m.

Olfactory sensory neurons (OSN) send ‘smell’ information into a brain structure called the olfactory bulb (OB). Loss of smell (anosmia) reduces OB dopamine and tyrosine hydroxylase (TH) levels. This plasticity has unknown mechanisms. Current methods to study OB plasticity are incompatible with behavioral studies. We hypothesized that nasal irrigation with a dilute detergent solution will reversibly damage OSNs and induce OB plasticity. Detergent treatment lowered OB dopamine levels (N=4), TH levels (N=2), and induced reversible anosmia (N=9). Ongoing experiments are investigating the role that common signaling molecules, such as neurotrophins, play in regulating OB plasticity.
Tissue Preparation for Viewing the Mouse Nasal Epithelium Using the Scanning Electron Microscope

Andrew Edward Rinke

Olfactory epithelium (OE) damage induces a loss of smell (anosmia) and is associated with clinical depression. We chose scanning electron microscopy (SEM) to visualize this damage, as it is difficult to view with conventional light microscopy. A standard SEM protocol uses HMDS as a drying agent but no published data exist for its use with the OE. We tested SEM protocols with either HMDS or a more difficult drying method called critical point drying. We found HMDS to be ineffective with the OE. This newly developed protocol can be used to investigate OE damage from either trauma or intranasal drug delivery—a promising treatment of mental disorders.

Coaggregation of Lactobacilli with Bacteroides of the Mammalian Gastrointestinal (GI) Tract

Samuel Jeffrey Schotten

The GI tract of mammals is host to a rich diversity of bacteria, which interact by coaggregation to form biofilms. Bacteroides fragilis (Bf) and Bacteroides thetaiotaomicron (Bt) are two of the most abundant occupants of the human GI tract. These may interact with the probiotic strain, Lactobacillus rhamnosus GG (Lr), which improves host immunity and nutrient metabolism and absorption. The purpose of this study is to characterize the coaggregation interaction of Lr with wild-type and encapsulated Bt, as well as Bf. The data describe scoring of coaggregation partners and the analysis of the interacting cell surface molecules.

Crayfish Olfactory Response to Hepatotoxin Microcystin-LR

Adam Smiddy

Microcystin is a hepatotoxin released by cyanobacteria in freshwater lakes and ponds. The purpose of this study was to examine the behavior of several species of Crayfish to find indicators of responsiveness to the toxin Microcystin-LR. To do this we observed the rate of movement of the Crayfish olfactory appendices in response to treatment and control trials. While results of this initial investigation showed that the Crayfish do respond to this odorant, further research is needed to understand the meaning of the response, as the results were indistinguishable from the control group.
The Origin of *mys*: An Active Retrotransposon in the *Peromyscus* Genus

Ashlee Smith

David Kass, *Faculty Mentor*

Room 310—2:15-3:45 p.m.

Transposable elements (TEs) comprise over 40% of human DNA sequence and genomic integrations have been associated with various disorders. *Mys* is a rodent retrotransposon that generates new copies in the genome via an RNA intermediate. We hypothesize that *mys* originated more recently than reported, possibly derived from the newly identified *mysRS* element in the Reithrodontomini tribe of cricetid rodents. A retrotransposon limited to a small taxonomic group of mammals provides a unique opportunity to gain insights into the origins and evolution of TEs. Interestingly, *mys* appears to have become highly active within a clade of *Peromyscus* species.

Common Fragile Site Flexibility Peak Does Not Strongly Induce Mitotic Recombination in Yeast

Valerie Sponyoe

Anne Casper, *Faculty Mentor*

Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Common fragile sites (CFS) are specific loci on chromosomes that display instability when exposed to conditions of replication stress. CFS are associated with the deletion of tumor suppressor genes and the amplification of oncogenes. It has been shown that breaks at a yeast fragile site stimulate repair through homologous recombination (HR) events that lead to loss of heterozygosity. Here, we have examined whether a sequence motif known as a flexibility peak found in a human CFS stimulates HR events when inserted onto a chromosome of the yeast *Saccharomyces cerevisiae*. Overall, it does not appear that the inserted human CFS flexibility peak induces HR in yeast.

Department of Chemistry

Random Mutagenesis of Autophagy Related Protein 9 (Atg9)

Ahmed Nidal Abuzoor and Bridget T. Kennedy

Steven Backues, *Faculty Mentor*

Room 310—2:15-3:45 p.m.

Autophagy is a mechanism used to rid eukaryotic cells of malfunctioning proteins and organelles by sending them to the lysosomes to be degraded. Autophagy thus acts as a cellular “garbage disposal” that helps prevent neurodegenerative diseases like Parkinson’s and Alzheimer’s. Despite its importance for human health, no one really understands how autophagy works. One key autophagy protein conserved across species is Atg9. We are preparing to do random mutagenesis followed by a yeast screen to determine which amino acids of Atg9 are the most important. We are beginning with site-directed mutagenesis to target a specific, particularly interesting region of Atg9 for the screen.
Regulation of Protein Interactions by the Alzheimer’s Survival Peptide Humanin

Zeinab Alsheemary
Deborah Heyl-Clegg and Hedeel Evans, Faculty Mentors

▸ Humanin is encoded in the mitochondrial genome and is a small 21 or 24 amino acid, peptide. Its neuro- and cytoprotective effects in diseases such as Alzheimer’s are being recognized. How the peptide exerts its protective effects likely involves its modulation of the IGFBP-3-importin B-1 interactions. Solid phase peptide synthesis and purification, competitive ligand dot blotting, co-immunoprecipitation, and ELISA-based binding assays were used to investigate how humanin and its analogs affect IGFBP-3-importin B interaction in vitro. Better understanding of this mechanism may provide clues for therapeutic drug development against Alzheimer’s disease in the future.

Computational Study of the Interaction Between PAI-1 and One of Its Inhibitors

Caitlin Baumer
Maria Milletti, Faculty Mentor

▸ Plasminogen Activator Inhibitor-1 (PAI-1) is a large protein involved in the process of breaking down blood clots in the body. Inhibiting the action of PAI-1 is important because of its relationship with both acute diseases such as myocardial infarction and chronic disorders like cancer, atherosclerosis and type-2 diabetes mellitus. In this work we use a mix of quantum and molecular mechanics methods to analyze how the polyphenolic inhibitor CDE-008 interacts within the binding site of PAI-1.

Inhibition Activity of Ethacrynic Acid Analogues on Biologically Important Enzymes

Sean Blackburn
Ingo Janser, Faculty Mentor

▸ Ethacrynic Acid is known to weakly inhibit the activity of urease and the phase II detoxification enzyme glutathione-S-transferase pi (GSTP). Inhibiting these enzymes could potentially be used in treatments for peptic ulcers and cancer, respectively. According to the literature, Ethacrynic Acid analogues with modifications to the β-carbon of the reactive α,β-unsaturated carbonyl functional group present in the molecule can modify the inhibition potential of the analogue. The research described in this project involves the comparison of inhibition potentials of various Ethacrynic Acid analogues with modifications to the α-carbon as well as to their general structures.
Selection of Aptamers for Small Molecules
Using Capillary Electrophoresis

Mariah Brito
Jeff Guthrie, Faculty Mentor

Aptamers are single-stranded, synthetic DNA sequences that have high affinity to bind to a certain target. One method of aptamer selection is using an in vitro selection process combined with capillary electrophoresis (CE). A synthetic random sequence DNA library is incubated with the target and CE is used to separate bound from unbound sequences. Selection continues until only a few strongly binding sequences remain. It is difficult to select aptamers for small targets when using CE. This research attempts to address this problem by conjugating small molecules to fluorescent nanoparticles, which will aid in separating DNA-target sequences from DNA that has not bound to the target.

Synthesis of Mixed-Amine Analogs of the Asymmetric Platinum(IV) Complex, fac-[Pt(NH$_3$)$_2$Cl$_3$NO$_2$](CPA$_7$)

Cristina Bugescu
James D. Hoeschele, Faculty Mentor

Gliomas represent 30% of all brain tumors and 80% of all malignant brain tumors. Our previous antitumor research has focused on CPA-7, fac-[Pt(NH$_3$)$_2$Cl$_3$NO$_2$], an antitumor agent which inhibits the Stat3 signal transduction pathway. While active against mouse gliomas in vitro, in vivo tests indicate CPA-7 is unable to cross the blood-brain barrier in adequate amounts to provide a therapeutic dose to treat gliomas. We will synthesize, characterize, and test a series of primary mixed amine CPA-7 analogs, fac-[Pt(NH$_3$)$_2$(RNH$_2$)Cl$_3$NO$_2$], in hopes that the more lipophilic character of these complexes will enhance transport across the blood-brain barrier thus providing more effective glioma treatment.

Exploring the Effect of an Electron-Withdrawing Substituent in an aza-Cope—Mannich Reaction

Andrew Durden
Maria Milletti, Faculty Mentor

We model the stereoselective synthesis of acyl pyrrolidines from a substituted oxazolidine starting material. We consider two substrates with an electron-withdrawing tosylate group and either a secondary or tertiary carbinol carbon and compare the resulting reaction profiles to that for a substrate with an electron-donating substituent. We find that the tosylate group destabilizes the iminium cation reaction intermediate, increasing the activation barrier for the initial oxazolidine-opening step and causing the product to form in a single concerted step. The activation barrier for this step is larger in the case of the tertiary carbinol carbon, which may improve stereoselectivity.
Design, Synthesis, and Evaluation of Small-Molecule Inhibitors of Plasminogen Activator Inhibitor-1

Philip Elukunle Elugbemi                  Poster Group 2
Cory Emal, Faculty Mentor                Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Plasminogen activator inhibitor-1 (PAI-1) is a mammalian serine protease inhibitor and a key regulator of the body’s ability to dissolve blood clots. Certain individuals with higher levels of active PAI-1 display an increased risk of heart attack, stroke, and other health conditions. Lowering the levels of circulating active PAI-1 with a PAI-1 inhibitor may decrease this risk. The focus of this research is to extend a novel class of hydrazide-based PAI-1 inhibitors identified from a high-throughput screen. Synthesis methods and data related to the structure-activity relationships of these PAI-1 inhibitors will be presented.

A Study of the Relationship Between Impedance Behavior and Alcohol Structure or Concentration

Philip Ewing                                        Oral Session C
Donald Snyder, Faculty Mentor                    Room 330—1:15 p.m.

A novel method has been studied for the possible identification of specific alcohols and determination of their concentration in liquid solutions based on measuring changes in the impedance and the phase angle delay of CV response, as a function of molecular size and hydroxyl position. This work represents an application to chemical analysis of the Impedance behavior of microscopic interdigitated electrode (IDE) arrays in media of varying dielectric constants.

Development of a Structure-Activity Relationship of Inhibitors of Plasminogen Activator Inhibitor-1

Rakeenja S. Fluellen                               Poster Group 2
Cory Emal, Faculty Mentor                        Room 310 —10:30-11:15 a.m. & 1-1:45 p.m.

Plasminogen activator inhibitor-1 (PAI-1) is a naturally-occurring serine protease inhibitor that is vital to the regulation of the fibrinolysis pathway in mammals. As elevated levels of PAI-1 have been correlated with ailments and conditions such as atherosclerosis, obesity, stroke, and certain types of cancer, the identification of novel inhibitors of PAI-1 may provide a route to new treatments. A series of novel inhibitors of PAI-1 have been synthesized and screened for biological activity. The design, synthetic route, and structure-activity relationships of these compounds will be addressed.
Compare the Outcomes of the Aza-Cope—Mannich Reaction of Two Chemically Similar Reactants
Christopher Lloyd Friebe
Harriet Lindsay, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

We have developed a Lewis-acid catalyzed version of an organic chemistry reaction called the aza-Cope rearrangement—Mannich cyclization. This reaction has the potential to form a specific three-dimensional structure even though multiple 3-D structures are possible. We are now comparing two chemically similar starting materials for the reaction and investigating how their slight differences in composition affect the 3-D structure of the reaction products. Additionally, we are trying to optimize the formation of both the reactant molecules and their respective reactions to see which one has the most potential use for synthesizing core structures for pharmaceuticals.

A Free Periodic Table App for Teaching High School Chemistry
Nicholas Greene
Larry Kolopajlo, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

The purpose of this project is to create a free periodic table App to be used by high school chemistry teachers and students, and to develop a tutorial to train teachers to develop their own customized teaching Apps. Although periodic table Apps abound, most cost money, are very limited in scope, and may download spyware onto the computer. A student/teacher generated App has enhanced security, is customizable, and like a Wiki, is expandable, allowing student generated work as an ongoing project, adding for example, history. In this project, a user merely clicks on the element block to see a screen containing physical and chemical properties, as well as the electron configuration.

Examining the Strength of Interactions Between PAI-1 and a Polyphenolic Inhibitor
Brittany M. Jewell
Maria Milletti, Faculty Mentor
Oral Session C
Room 330—1:45 p.m.

PAI-1 is a protease inhibitor involved in several biological processes, including fibrinolysis. Elevated plasma levels of PAI-1 have been associated with acute diseases and chronic disorders like cancer and type-2 diabetes. Recent work has shown that polyphenolic short chain compounds can be effective inhibitors of PAI-1. Here we use combined classical molecular mechanics and quantum mechanics methods to examine the interaction between PAI-1 and a polyphenolic inhibitor with two hydroxyl substituents. The results indicate that this inhibitor does not bind well with the protein but is more available for interactions with surrounding water molecules.

Computational Analysis of the Stereoselective Synthesis of Substituted Pyrrolidines
Diamond Jones
Maria Milletti, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

We use molecular modeling methods to investigate the mechanism of a reaction leading to substituted pyrrolidines. We examine the effect of placing an electron-withdrawing protective group at the iminium center and an aromatic substituent at the adjacent position on the stereoselectivity of the reaction by mapping the reaction energy profile for each stereoisomer. Results are used to determine how the electronic characteristics and position of substituents influence stereoselectivity.
Exploring Different Methodologies to Teaching Chemistry to Non-Science Majors

Zubin Khan
Amy Flanagan Johnson, Faculty Mentor

The challenge of teaching a subject outside of a student’s major can typically be summed up in one statement commonly spoken by many frustrated college students: “I am never going to use this again!” To tackle this issue, an innovative course design was adopted to help non-science majors understand and appreciate the comprehensive role that chemistry plays within their everyday lives. Examples of methodologies utilized throughout the course include problem based learning, journaling, modeling, and extensive collaborations with students from a course in a different scientific discipline. Assessment and attitudinal data will be presented along with plans for future modifications.

Efficient Production of an Acyl Pyrrolidine via Aza-Cope Rearrangement—Mannich Cyclization

Ahmed J. Oudeif
Harriet Lindsay, Faculty Mentor

Pyrrolidines are molecules that are often used as backbones of many pharmaceuticals. The current methods for pyrrolidine synthesis require multistep reactions, causing high cost and waste production. However, we are able to produce a certain useful pyrrolidine using a reaction called the aza-Cope—Mannich reaction. Production efficiency was enhanced by eliminating the need for groups of atoms called protecting groups, resulting in lower waste production. To accomplish this, many variables such as type of Lewis acid catalyst, reaction solvent and temperature were manipulated. Ultimately, the results of this project could help to decrease production cost of medicines and other materials.

Modification to Cysteine-Deleted Tachyplesin (CDT) to Increase Antimicrobial Activity

Yeji Abigail Park, Yllka Vladaj and Jennifer Garvey
Deborah Heyl-Clegg, Faculty Mentor

Tachyplesin is an antimicrobial peptide found in horseshoe crabs. In previous studies, a linear analog, cysteine-deleted tachyplesin (CDT), showed enhanced antimicrobial activity and cell specificity. CDT permeabilizes the bacterial cell membrane and eventually leads to bacterial cell lysis. This bactericidal mechanism significantly reduces bacterial resistance, and therefore, CDT is often addressed as a potential key to antibiotic development. In this study, several modifications to CDT were implemented and each analog’s antimicrobial activity, as well as unwanted hemolytic activity against mammalian cells, were examined.
Effects of Additional Reactant Substituents on the Formation of Acyl Pyrrolidines

Jamie M. Reder
Harriet Lindsay, Faculty Mentor

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

The objective of this research is to investigate a reaction that is designed to form molecules called acyl pyrrolidines in a particular 3-D orientation. These molecules are of interest because they share a common core structure with many medically active chemical compounds. Using our methodology, acyl pyrrolidines are produced through a 3-step process. First we synthesize an amino alcohol and from that we synthesize an oxazolidine. The new oxazolidines will then undergo a reaction called the aza-Cope—Mannich reaction to form acyl pyrrolidines. We have analyzed the effects of an extra atom chain on aza-Cope—Mannich reaction product yields and preference for one 3-D structure over another.

Synthesis of Cisplatin Analogs Using a Microwave-Assisted Approach

Toya Alexis Rodriguez and Alyssa Nakmali
James D. Hoeschele, Faculty Mentor

Poster Group 2
Room 310—10:30-11:45 & 1-1:45 p.m.

Cisplatin is an important antitumor drug approved by the FDA in 1978 for the treatment of solid tumors. Recently, its synthesis was accomplished via a microwave-assisted approach. The goal of our research is to evaluate the generality of the microwave-assisted approach in synthesizing Cisplatin analogs of the generic structure, \( \text{cis-Pt(RNH}_2\text{)Cl}_2 \), wherein R represents primary alkyl amine ligands. The illustrated synthetic approach is: \( \text{K}_2\text{PtCl}_4 + [\text{RNH}_3\text{]}\text{OAc} + \text{KCl} \rightarrow \text{cis-Pt(RNH}_2\text{)Cl}_2 \). The compounds are being prepared, purified, and characterized.

Investigation of Water Quality at EMU

Toya Alexis Rodriguez and Remell Sophia Thomas
Jose Vites, Faculty Mentor

Poster Group 1
Room 310—8:30-10 a.m.

Water quality is essential to all organisms. All humans need to replenish their water by an average intake of 2.5 liters per day. A substantial amount of our water intake comes from tap water; therefore, it is important to be aware of the quality of this water, as some substances can have a negative impact or disrupt the normal function of our cells. We report the results of our studies of water samples collected from a variety of drinking sources around the EMU main campus. Our analyses include parameters such as pH, alkalinity, buffer capacity, concentration of metals such as iron, and the EPA Standard Method 300.0 for the determination of inorganic anions by ion chromatography.

Computational Study of PAI-1 and a Potential Inhibitor

Mordechai Goode Sadowsky
Maria Milletti, Faculty Mentor

Oral Session C
Room 330—1:30 p.m.

PAI-1 is a key protein involved in fibrinolysis, the process of blood clot breakdown. Inhibition of PAI-1 increases the rate of fibrinolysis and it has been shown to correlate with better recoveries from several cancers. In this work, we model the interaction between PAI-1 and one of its inhibitors computationally and we examine the effect of varying the initial molecule position within the protein binding site. The position of the inhibitor is optimized and then the strength of molecular interaction is calculated. The main goal is to identify the molecular factors that determine the effectiveness of inhibitors in order to better inform the drug discovery search.
Chalcone Derivatives, Containing the Michael System, as Stable Radical Scavengers (Antioxidants)

Chelsea Marie Swanson
Ingo Janser, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Reactive oxygen species (ROS) are highly reactive molecules which are produced naturally in the body. If not trapped, these molecules are extremely harmful to cells because they damage DNA. Compounds such as chalcones can help neutralize these harmful radicals. In this project, novel chalcone derivatives are synthesized and evaluated for their antioxidant activity. The synthesis includes the introduction of a phenyl group and the reestablishment of the Michael system. The long term goal of this project is to discover compounds that can exist as highly stable radicals, which act as radical scavenging species, thereby eliminating the harmful radicals from the body.

Integration Sites of Feline Leukemia Virus

Andre Tackett, Alexa Salsbury
and Brianna Sohl
Non-presenting co-author: Hosam Issa
Heather Holmes, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Feline Leukemia Virus (FeLV) consists of three genetically distinct strains, and causes cancerous tumors, severe anemia, and immunodeficiency. It is always fatal. Like other retroviruses, FeLV integrates its harmful genetic code into host DNA, but no correlation has yet been found between viral insertion site and disease progression. Using PCR, all three subtypes were identified in blood samples. Amplicons were sequenced, and genome walking is currently being used determine integration sites in samples of tissue including mammary tumor, lymph node, and brain, in which the presence of FeLV-A and FeLV-B was confirmed by PCR.

Effects of a Bulky Substituent on the Stereoselectivity of a Reaction Leading to Acylpyrrolidines

Alyssa Winkler
Maria Milletti, Faculty Mentor
Oral Session C
Room 330—1:00 p.m.

Density functional methods are used to model the key steps of a reaction leading to a substituted acylpyrrolidine. The effect of a substituent at the vinylic position of the substrate is considered with respect to optimizing stereoselectivity. Activation barriers for the aza-Cope rearrangement and a series of C-C bond rotations are calculated for each of the four possible iminium cation stereoisomers and compared to those of the unsubstituted pyrrolidine. The activation barriers for the rate-determining step are used to ascertain the substituent effects on stereoselectivity for each substituted acylpyrrolidine.

3-D Control in the Formation of Simple Acyl Pyrrolidines Using the Aza-Cope—Mannich Reaction

Brandie Yambrosic
Harriet Lindsay, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

The aim of this research is to form molecules called acyl pyrrolidines in an efficient manner and in a certain 3-D orientation. We utilize the aza-Cope rearrangement—Mannich cyclization reaction to accomplish this. This reaction has been used in the past for the formation of complex molecules and has had been successful in control of the 3-D orientation. However, the control of 3-D orientation seems to diminish with decreasing complexity of the product molecules. To address this issue, we have developed a new approach that involves treating a very simple, symmetrical molecule with a zinc catalyst in an effort to form a symmetrical acyl pyrrolidine product in a particular 3-D orientation.
**Department of Communication, Media & Theatre Arts**

**Jake Weber, Student: A Documentary**

Jamal Ali and Rodney Jones  
Keith Damron, *Faculty Mentor*

Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

MEET US is a series of interviews of notable EMU students and faculty produced by students. In this installment you will meet Jake Weber, an inspiring, multi-talented student at Eastern Michigan University. He shares his successful experience while working for the EMU IT Department and talks about his work in film, graphic animation, and music production.

**Darius Harris**

Karine Bagoumian and Emily Samar  
Keith Damron, *Faculty Mentor*

Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

MEET US is a series of interviews of notable EMU students and faculty produced by students. In this installment you will meet Darius Harris, a senior and Presidential Coordinator at Eastern Michigan University. Darius is a student ambassador and has been the host of many Eastern Michigan events and the coordinator behind events hosted on our campus. His important job and unique character made him the perfect candidate for our short interview, in which we talk with him about his passions, his responsibilities on our campus, and his plans for the future.

**Word Association and Nonverbal Communication**

Samantha Baldwin  
Sam Shen, *Faculty Mentor*

Oral Session A  
Kiva—9:30 a.m.

Using the seven main emotions (surprise, anger, disgust, fear, interest, sadness, and happiness) along with positive and negative phrases, this study looks at individuals' initial nonverbal reaction to verbal word cues. Participants are paired and recorded to ensure accuracy within the research. The purpose of this study is to discover different combinations of emotions through the use of verbal and nonverbal communication.

**Scenic Design in Theatre**

Rowan Violet Barrie  
Jeromy Hopgood, *Faculty Mentor*

Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

The scenic designer is responsible for creating the physical appearance or setting of a theatrical production. Accomplishing this involves knowledge of art, art history, construction, architecture, and literature. Utilizing all of these areas is necessary in order to ground the action of a performance in a space.
Reforming the Computer Fraud and Abuse Act

Spencer Belko

Ray Quiel, Faculty Mentor

Oral Session C

Kiva—1:00 p.m.

The Computer Fraud and Abuse Act is a law enacted in 1985 that has ramifications extending far beyond its intended reach. Vague language choices in the act have led courts to determine that it is a felony to do harmless things like share your passwords with anyone or borrow someone’s computer. The CFAA even makes it a felony to create a Facebook account for your cat. The law is outdated and ripe for reform, and this analysis seeks to determine the problems, causes, and solutions to fixing this outrageous law.

Traumatic Nationalism and the Rhetoric of Anti-Semitism in Rural France

Spencer Belko

Nick Romerhausen, Faculty Mentor

Oral Session D

Kiva—3:00 p.m.

This presentation focuses on the small town in France named La Mort aux Juifs, which translates to English as “Death to the Jews.” Using Lee Pierce’s research entitled “A Rhetoric of Traumatic Nationalism in the Ground Zero Mosque Controversy,” this rhetorical criticism applies Lee Pierce’s theoretical assertions to contemporary discourse regarding a town’s controversial name. The analysis reveals critical implications regarding how the name of a small community in France affects local and global perceptions of religious identity, freedom of expression, and social hostility.

Deception: Love and Lies

Haley Elizabeth Berry

Sam Shen, Faculty Mentor

Oral Session A

Kiva—9:15 a.m.

The purpose of this research is to identify the effect that deception has on long-term relationships. Deception is defined at its simplest as: the act of making someone believe something that is not true. The study is based on interviews of couples and tests of both their deception skills and their ability to detect whether or not their partner was deceiving them. This is a qualitative view of two people in a relationship and the long-term consequences of deception. The study allows for individualized perception of deception and may direct future research on the dangers of being deceptive in a relationship.

Room with a View

Anne Bourdua and Melina Fuentes

Keith Damron, Faculty Mentor

Design Expo Exhibit

Room 300—9 a.m. to 3:45 p.m.

MEET US is a series of interviews of notable EMU students and faculty. In this installment you will meet Norbert Vance, director of the Sherzer observatory, and learn about the astronomy program and the three computerized telescopes that were recently acquired.
Texting and Attachment Theory: Promoting Romantic Relationships via Texting
Jewel Cannon
Sam Shen, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

This critique discusses the attachment styles of people in relationships and how their attachment affects their texting style and frequency. Those with secure attachments have less attachment avoidance. On the other hand, those with insecure attachments or anxious attachments have more attachment avoidance. It has been shown that texting plays a role in relationships, and this paper investigates whether we can use attachment styles to explain individual texting styles.

Soul Food: Death on a Plate
Constance Chege
Ray Quiel, Faculty Mentor
Oral Session D
Room 330—2:45 p.m.

A Johns Hopkins study notes that the rate of heart disease and illness in the black community is 50 to 90 percent higher than any other ethnic group. This may be due to the popularity of soul food, which can be traced back to the diet of slaves in the south. More often than not, slaves were given undesirable leftovers from the house of the master that were paired with homegrown vegetables. Soul food began as a means for survival and sustenance, but today it is killing many. This begs the question: is it time to put down the fork and knife on this culinary tradition?

The Birthday Party: Lighting Design
Tyler M. Chinn
Jeremy Hopgood, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

The Birthday Party is an interesting show in the sense that a lot of things go awry quickly and snap back even more quickly. I tried my best to capture this in my design, which involves a mixed use of incandescent and LED fixtures to create drastically different moods. The conventional lighting gives the feeling of absolute realism. When the LED lights are introduced, the absurdism of the play is ushered in. As the play continues, there is a fight for balance between the LED and conventional lighting that soon settles as the absurdism leaves the world of the show. I wanted this to seem like waking up from a dream.

Am I Beautiful Yet: A Communicative Guide to Eating Disorder Prevention
Jo Cook
Cara Jurado, Faculty Mentor
Oral Session A
Kiva—8:45 a.m.

Eating disorders, a potentially lethal form of mental illness, are prevalent in nearly 30 million people in the United States. This statistic can be attributed to the way we think about ourselves, the way we view others, and the social pressures implemented by subliminal and not-so-subliminal messaging. Research and personal narrative illuminate the horrors of eating disorders and their relationship to human communication. By promoting simple yet powerful communicative changes, we can change the dialogue and speak up for eating disorder prevention.
Corsetry from 1875 to 1880 in England and America

Julia Czekaj
Melanie Schuessler, Faculty Mentor

Oral Session D
Auditorium—3:15 p.m.

This paper analyzes the corsets worn by women between 1875 and 1880 in England and America by focusing on the technological innovations and fashion changes of the time. Fashion plates from magazines are used to draw conclusions about fashion ideals. Major technological shifts of the time are also explained, and the cause-and-effect nature of technology and fashion changes is explored.

Personal Space Invasion: A Study of How Gender and Position Affect the Violation of Personal Space

Katlyn Dudek
Anke Wolbert, Faculty Mentor

Oral Session B
Student Art Gallery—10:00 a.m.

Society is ruled by unspoken yet well-known rules: where to stand in an elevator when you’re the second or third person on, how long to hold eye contact, where to sit in a lounge, etc. Because following these rules comes so naturally to us, we think nothing of them until one of them is broken. The norm is that, when choosing a seat, one does not sit in close proximity to a stranger if there are other seats available. This observational study examines the breaking of social norms regarding seating in a public area and also examines the impact that gender and positioning (beside or across from the subject) have on the reaction to this violation.

House of Brews

Christopher Eicher, Anne Bourdua and Melina Fuentes
Keith Damron, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

House of Brews is a documentary about the Arbor Brewing Company Microbrewery and its relationship with Eastern Michigan University’s Biology department featuring interviews with Matt Greff, the creator/owner of Arbor Brewing Company, and Dr. Jim VandenBosch, Professor of Biology at EMU. It investigates the beginnings of the brewery, its relationship with the community, and how the relationship began. The documentary also explores craft brewing and the rise in demand for craft beer.

Eastern Weekly

Melina Fuentes and Christopher Eicher
Keith Damron, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Eastern Weekly is a news broadcast that is produced by and for students. The crew for Eastern Weekly is committed to reporting the news of Eastern Michigan University’s campus and local Ypsilanti happenings. Hot topics, sports, entertainment, and engaging in our community are top priority for the news broadcast, and students actively participate in the hands-on live-to-tape production of a weekly show. Crew members are dedicated to cross-training for each position and helping out with every aspect of the show. The production of Eastern Weekly would not occur if we did not have a dedicated team of students who love what they do.
Properties Design in Theatre
Brittney Morgan Gillespie
Jeromy Hopgood, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

The properties designer is the person responsible for selecting and creating the objects and props for a theatrical production. More than any other designer, the props designer must collaborate to ensure that their aesthetic doesn’t conflict with the overall look of the production. As a properties designer, one must work particularly closely with the scenic designer (responsible for the physical setting of the show) to make a cohesive, fully realized play.

Colorism: The Decomposition of the Black Community from the Inside Out
Brandon Charles Harrison
Thomas Fahlstrom, Faculty Mentor
Oral Session C
Student Art Gallery—2:00 p.m.

From the Willie Lynch Letter and the creation of the house and field Negroes in the early 18th century to the paper bag tests of the early to mid-20th century to the #lightskin versus #darkskin of today, colorism inculcates the fabric of society. Starting off as a ploy to keep slaves divided and conquered, driving a wedge between lighter-skinned and darker-skinned blacks has been a method of manipulation for over 200 years. Because of the binary created by the use of rape and genetic manipulation, the dismantlement of the black community by colorism is an inside job that relieves white members of society from much of the responsibility.

Yes We Can: An Analysis of a Political Advertisement During Obama’s 2012 Campaign
Toni M. Hughes
Anke Wolbert, Faculty Mentor
Oral Session D
Student Art Gallery—2:45 p.m.

The powerful rhetoric of political advertisements contains a wealth of information. This analysis of an advertisement from Barack Obama’s 2012 campaign explains the different stages of political advertisements, examines aspects of negative advertisements and the potential they have for hurting or helping a political campaign, discusses the language of the advertisement and its implications, and evaluates a few common political language devices and their appearance in the advertisement.

Media Literacy and the Middle-Aged Woman
Heather V. Irvine
Geoff Hammill, Faculty Mentor
Oral Session B
Room 304—10:15 a.m.

Forty years ago literacy signified the basic ability to read and write. In each decade since, the volume of influential, complex messages has increased exponentially. As we are bombarded from directions we never before thought possible, media literacy has become an essential skill. This presentation spotlights the role media has played in the life of one woman, shown through the lens of her experience. It examines how she believes mediated messages have affected her throughout her lifetime and have shaped her own personal locus. This presentation is an examination of the impact of media on our society and how media literacy can help us better understand who we are.
Amplifying the Arts Student Organization Presents

*The Elapsing Cities: A Public Art Show*

Chloe Keene, Nicholas McFadden-Keesling and Elizabeth Smith  
Susan Booth, Faculty Mentor

*The Elapsing Cities* is a public art project with the goal of stimulating awareness of global climate change by encouraging student artists to create artwork related to this important issue. A project in the EMU Arts Administration program and the AMP! Student Organization, this project was made possible through funding from EMU Student Government and the Office of Academic Service-Learning. Images of the North American continent showing loss of arctic sea ice and rising sea levels (as predicted by scientists) are airbrushed on student models and documented through photos.

You’re Too Close: Effect of Sex and Ethnicity in Personal Space Intrusion

Brandon Scott Larkins  
Sam Shen, Faculty Mentor

This paper examines why a female student is more comfortable with a female student invading her personal space in the academic setting and why men are more comfortable with a female invading their space. It also investigates the important variable of ethnicity when it comes to intruding on personal space.

Costume Design for *The Velveteen Rabbit* and *The Birthday Party*

Kevin Leistner  
Melanie Schuessler, Faculty Mentor

This display details the design process and finished costumes for the Fall 2014 children’s touring production of *The Velveteen Rabbit* and the Winter 2015 mainstage production of *The Birthday Party*. Research images, sketches, color renderings, photos, and costume pieces document various stages of the design and production process.

Magic and Science vs. the Catholic Church During the Italian Renaissance

Kevin Leistner  
Lee Stille, Faculty Mentor

As shown in the play *Doctor Faustus* by Christopher Marlowe, the practice of magic and the practice of science were considered almost interchangeable during the Renaissance, particularly in Italy. The Catholic Church of the time frowned on many of the activities of both scientists and magicians, as they both committed what the Church considered heresies. Those snared by the Church included scientists practicing astronomy, chemistry, and medicine, as well as people practicing magic in areas such as astrology, alchemy, and divination. This paper surveys Church policies and recounts the experiences of both scientists and magicians during the Italian Renaissance.
Western civilization seems to be stuck in psychologist theorist Piaget’s pre-operational stage of development, specifically, being egocentric in the mindset that it only considers gender and identity from its own point of view. Two cultures on the gender map, the Kanaka Maoli of Hawaii and the Bugi people of Indonesia, stand as great historical cultural paradigms on gender identity that our own culture could stand to emulate instead of propagating its own two-gender system. Gender cannot simply be divided into two, and our own culture must move toward acceptance that persons may branch out from the archetypal male-female characteristics we are taught in our current society.

This study is an examination of how LGBT characters are portrayed, positively and negatively, in popular video games from the 1980s to the present day. There has recently been an explosion of LGBT representation in games. While early depictions were often negative and heterosexist, some current games give players the option to choose the sexual orientation of their characters. Characters today are also more well-rounded and are not solely defined by their sexual orientation or gender identity.

On March 5, 2012, Invisible Children, Inc. released a video titled Kony 2012. Within three days of its release, the 30-minute video amassed 47 million views on Youtube.com and Vimeo.com. This was the beginning of what would be one of the most viral, short-lived, and controversial campaigns by a social movement organization. This paper uses the Rhetoric of Agitation and Control by Bowers, Ochs, & Jensen to understand how Invisible Children, Inc. gained this rapid social support. The analysis also evaluates the strategies of solidification so that critical conclusions about the organization’s ultimate failure can be drawn.

Cultural organizations are an integral part of revitalizing communities. There are multiple economic and social strategies these organizations use to achieve these goals. Write A House is a Detroit-based organization that renovates vacant properties and awards them to writers who meet certain criteria. Write A House is a new venture, awarding their first house at the end of 2014. Examining the growth of this group as they work toward improving property values through cultural involvement provides a unique opportunity to evaluate the implementation and effectiveness of this particular strategy.
Cosmetics of the Elizabethan Era

Nicolette Pietron
Melanie Schuessler, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

During the reign of Elizabeth I in 16th century England, the standard of beauty focused on emulating the queen. Despite aiming to look young and flawless, most of the substances used as cosmetics were found to be toxic and ultimately destroyed the user's body and complexion. This study aims to elaborate on this fact by providing research about the aforementioned substances to better explain their toxicity and consequences. In addition, it provides an overview of these cosmetic and beauty trends and their effect on society through a look at descriptions, period works of art, and some primary accounts.

Studio E

David Pilon
Keith Damron, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Studio E is a show produced by students of CTAT 432: Advanced Video Production and Direction. It features musical talent from the EMU student body and crosses genres such as pop, folk, and hip-hop. The show was a product of a unit that taught the skills needed to produce entertainment-based techniques for in-studio television production. Excerpts of the production are showcased.

The Anti-Human Trafficking Movement: An Old Social Movement Theory Perspective

Stephanie Rosalyn Reynolds
Anke Wolbert, Faculty Mentor

Oral Session A
Room 350—8:45 a.m.

Old social movement theory offers a framework through which the anti-human trafficking movement can be analyzed. The anti-human trafficking movement began sometime in the late 90s and continues today. Despite anti-trafficking campaigns, many attempts at gaining the attention of mass media and at solidifying followers, the movement remains in its early stages. In order to gain and sustain momentum, the anti-human trafficking movement should consider planning unusual, controversial events that capture the attention of mass media and earn the movement a platform from which they can publicize their ideologies.

Feasibility Study for a Center for Creative Practice at Eastern Michigan University

Hailey Rishoi
Susan Booth, Faculty Mentor

Oral Session A
Room 301—9:00 a.m.

While in college it is important to participate in applied extracurricular activities that give students real-life experience. Many universities have student-run enterprises that involve the development of their students' business skills and encourage them to become entrepreneurs. Eastern needs a space that lets students from many different disciplines come together to create, learn, and collaborate. Creating a space for student-run enterprises, a business incubator, or maker space for artists would allow for many different types of students to broaden their range or to study outside of their specific program.
I Love Lucy Project
Allie Romero
Keith Damron, Faculty Mentor
Oral Session C
Room 320—1:45 p.m.

I Love Lucy was a television production that set the foundation for the sitcom shows that we all enjoy today. The I Love Lucy Project is an opportunity for students interested in television production to gain experience in producing a sitcom show. This project takes the historic practices of making this original sitcom production into our very own Ford Studio, including some first-hand experiences of working with a two-room set, choreographed camera work, new audio set up, and producing a 30-minute television screenplay.

Disabilities, Discomfort, and Discourse Online: A Revival of Kenneth Burke and the Human Body
Casey Sabella
Nick Romerhausen, Faculty Mentor
Oral Session C
Kiva—1:15 p.m.

Last July, NPR published a series of photographs that attempted to foster awareness for aging caregivers by featuring Justin Lee, an individual with severe disabilities, being carried by his father. The article garnered over 20,000 comments, both negative and positive, because Justin was only wearing an adult brief. Debra Hawee investigates social discourse and the human body through the recovery of theories that were written by Kenneth Burke more than 50 years ago but that are virtually absent from his scholarly legacy. This rhetorical criticism uses Hawee’s revival of Burke’s theory of the body to analyze reactions to images of disability.

Exploring the Creative Process of Graphic-Based Sequential Storytelling
Anthony Saylor
Jessica ‘Decky’ Alexander, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

The goal of this project is to explore the creative process as it applies to the creation of the script for a children’s graphic novel. Under the mentorship of professional artist Jesse Rubenfeld, the project explores the synergistic relationship between the writer/story creator of a graphic novel and the visual artist who will interpret the writer’s words and story. In this project, the writer examines methods of formulating ideas and finding inspiration, practices different visual storytelling techniques, investigates how written text and visual art influence each other, and experiences the actual process of creating a script for the children’s graphic novel, Shining Shadows.

Economic Development Through Cultural Tourism
Jonathan Skidmore
Susan Booth, Faculty Mentor
Oral Session A
Room 301—8:45 a.m.

Cultural tourism is a key component of developing a strong economic backbone in local communities. Communities are now using “creative placemaking” to help revitalize local economies and create cultural tourism. This presentation will help explain how cultural tourism is now helping to make a positive impact in communities through economic stimulation.
Obliterating the Commercialization of Dead Black Boys
Tristan Taylor  
Oral Session C  
Wallace Bridges, Faculty Mentor  
Auditiorium—1:30 p.m.

Emmett Till, Michael Brown, Eric Gardner, and thousands of others are nothing more than faces that tell the same story of injustice and tragedy in America. On November 17, 2014, Huffington Post correspondent Dr. Mark Lamont Hill stated, “The death of unarmed black boys has become nothing but the modern day minstrel show.” The constant exploitation of their deaths through media has caused hate and fear but not justice or change. This dynamic is exemplified through interpretive performance and Afro-jazz dance used as a protest against the commercialization of dead black boys, for their deaths should not be an American phenomenon, but a signpost for change.

The Birthday Party Sound Design
Joshua Wayne Thorington  
Design Expo Exhibit  
Jeromy Hopgood, Faculty Mentor  
Room 300—9 a.m. to 3:45 p.m.

The Birthday Party is a show presented by EMU Theatre and the Entertainment Design and Technology program. This mainstage production differs from most because the design staff was composed entirely of students. In the hands of EMU students, Harold Pinter’s The Birthday Party becomes a once-in-a-lifetime production, set in the 1970s with a stylistically ‘mod’ look. The design team amplifies the performers’ energy and works towards a performance that is surreal, but mimics real life in ways that are almost painfully true. The sound design for the show provides a period feel and emotional texture to the overall story.

Ted Kennedy Communicates Religious Tolerance
Breann Nicole Tidwell  
Oral Session D  
Anke Wolbert, Faculty Mentor  
Student Art Gallery—3:00 p.m.

The immense power of narrative makes it especially imperative that critics uncover how narratives function in particular instances. Ted Kennedy’s speech “Faith, Truth, and Tolerance in America” can effectively be analyzed from a narrative perspective. Furthermore, it is an extremely powerful rhetorical form that propelled Kennedy in creating a sense of commonality with his audience, while serving as a model for action. This 1983 speech is an excellent example of Kennedy’s use of language and style and his techniques for working with a hostile audience.

Examining the Silent Space: A Rhetorical Criticism Covering Josey Greenwell and Nate Green
Timothy R. Ward  
Oral Session B  
Nick Romerhausen, Faculty Mentor  
Room 204 —10:00 a.m.

The proud LGBT country music singer Josey Greenwell in late 2013 deleted his social media accounts and only a few months later he re-emerged as Nate Green, marketing himself as a country star and teen heartthrob. Through Henry Giroux’s article, “Neoliberalism: The Biopolitics of Disposability,” I will explore how this artist was able to make this change to his identity and the silence that surrounds the omission of his former life. Socially, this artifact brings into question communities and their effects on shaping identities. I will draw conclusions about LGBT rhetoric in the context of country music as a form of business.
Creating E-Safe PSAs

Jake Weber
Keith Damron, Faculty Mentor

Oral Session B
Student Art Gallery—11:00 a.m.

- The E-Safe Public Service Announcements run on iTunesU and ETV and are designed to generate awareness of safe Internet practices. These three PSAs are part of the larger E-Safe campaign. This presentation covers the steps involved in creating the E-Safe PSAs, including pre-production, production, and post-production.

Cyber Security Awareness (E-Safe) Campaign Documentary

Jake Weber, Rosalie Read and Ricky Hurston
Keith Damron, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

- Our presentation will detail the process of creating our documentary for the cyber security awareness campaign (E-Safe), including the steps we took from pre- through post-production.

Dying to be Thin: An Exploration and Analysis of Pro-Anorexia and Pro-Bulimia Websites

Alexis Wells
Dennis Patrick, Faculty Mentor

Poster Group 1
Room 310—8:30-10 a.m.

- Starvation-based eating disorders can result in side effects such as seizures, osteoporosis, and organ failure, and if not treated, can eventually lead to death. Despite this, there are still a number of individuals who actively promote the eating disorder lifestyle. This research focuses on the chat rooms, images, discussion boards, and online articles found on pro-anorexia and pro-bulimia websites, where social media becomes a way for individuals to support one another in maintaining eating disorders of this type. Users of these sites frame the disorder in positive ways and legitimize the illness to themselves and others.

Understanding Rape Culture Through a Critical-Visual Perspective of Rhetorical Criticism

Natasha Lynn Wickenheiser
Nick Romerhausen, Faculty Mentor

Oral Session A
Room 350—9:00 a.m.

- Critical-visual rhetoric, which originates from the philosophies of Michel Foucault and Roland Barthes, creates a useful perspective to analyze the 2012 Steubenville rape case. This incident, in which two high school football players sexually assaulted a young woman and posted content about the act on social media, divided the public into two separate groups supporting either the victim or the defendants. Application of Foucault and Barthes's rhetorical tenets reveal how people’s experiences change social discourse about rape. To combat this pressing issue, critical intervention strategies must be implemented to change the language used to talk about sex, consent, and sexual assault.
**Misogynoir in the Media**

Faith G. Williams  
Thomas Fahlstrom, *Faculty Mentor*

Oral Session D  
Kiva—2:45 p.m.

Misogynoir (also known as anti-black misogyny) is present in all forms of media, yet the majority of media consumers are unaware of its existence and psychological harm. Misogynoir is translated as the hate of black women, and when it is implemented in the media, it is hidden in the form of stereotypes and gross misrepresentations of black women. This has the effect of dehumanizing them, making it easier for them to hate themselves individually or to hate others collectively. This presentation aims to educate others about how misogynoir began, how it affects all Americans, and how to limit and eventually destroy its presence in the media.

**What is Yo Talking About?: The Challenge of Gender-Neutral Communication Within the English Language**

Austin James Wright  
Amy Johnson, *Faculty Mentor*

Oral Session B  
Room 301—10:45 a.m.

Since its inception the English language has lacked a gender-neutral pronoun. Recently a group has produced a promising solution to this dilemma, the new word “yo,” which functions as a third person, singular, gender-neutral pronoun. This research explores the challenges of living in a gender-fluid society that lacks language that allows gender neutrality.

**Gaming and Gender: Toward a New Marketing and Participation Paradigm**

Stephanie Yergeau  
John Cooper, *Faculty Mentor*

Oral Session D  
Room 301—2:45 p.m.

Many studies have been done about the inequitable treatment of women in the media, but one medium that has been under-analyzed is video gaming. Research suggests that women are an undervalued constituency in all forms of gaming, from MMORPGs to mobile games you can carry on your tablet. This paper proposes that shifts in the production, marketing, and usage patterns of video games could be a first step in placing men and women on a more level playing field and examines new ways to serve this important gaming group.

**Department of Computer Science**

**“Get Out of Jail Free” Using Cryptocurrency**

Quentin Chambers  
Elsa Poh, *Faculty Mentor*

Poster Group 2  
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

A cryptocurrency is a medium of monetary exchange that uses cryptography to secure transactions and create new monetary units. This type of system protects the user's privacy by providing full anonymity. The real benefit to crypto-currency comes from the fact that it is a peer-to-peer system that does not rely on any central authority or bank. As such, this type of currency does not allow for any one group to control the monetary system.
Developing an Easier Approach to Java
Edward Gurnee
Susan Haynes, Faculty Mentor
Oral Session D
Room 301—3:30 p.m.

The Java programming language is one of the most popular programming languages in use today, running on everything from laptops to game consoles, from smartphones to televisions and everything in between. As the value for people to learn Java is apparent, it can be a bit overwhelming for beginners. This project aims to lessen the difficulty of that first step in learning Java through the creation of a programming language composed of a subset of Java instructions and simplification of some of the more complex Java concepts, but still retains much of the look and feel of the Java programming language.

Graphical Simulation of Multi-Agent Systems
Robert John Savel
Suchindran Maniccam, Faculty Mentor
Oral Session D
Room 301—3:15 p.m.

This work studies opinion forming and game playing agents using computer modeling, simulation, and graphics. In opinion formation we study how the opinions compete and spread among the agents under various environments. In game playing we study how the strategies of the players evolve under various conditions. The modeling and simulation are done using Javascript language. The graphics and animation are done using Webgl graphics library.

Cost-Benefit Analysis of Red Light Cameras
Katy Kembitzky
Kemper Moreland, Faculty Mentor
Oral Session B
Room 104—10:45 a.m.

Red light photo enforced intersections are growing in popularity throughout the United States. As more and more cities install these cameras, controversies and debates over the benefits seem to follow. Are the photo enforced intersections truly worth it? This study takes an economic approach to analyze the total benefits and costs of the installation and running of the red light camera located at the intersection of 72 and 31 in West Dundee, IL. The purpose of this study is to determine whether or not the camera should be reinstalled after road construction on the intersection. Based on the cost-benefit analysis of the camera, I will give a recommendation on the reinstallation of the camera.

The Effects of Cryptocurrencies on the Modern Banking System and Monetary Policy
Gannon LeBlanc
James Saunoris, Faculty Mentor
Oral Session B
Room 320—10:15 a.m.

Cryptocurrencies like Bitcoin have potential to cause significant changes in the modern banking industry and monetary policy for not only the U.S., but for the entire world. By examining the history of the modern banking system and how it has come to be, with special attention to the Federal Reserve and its dangerous downsalls, this study will highlight how cryptocurrencies will answer those downsalls. This study will give a brief history of cryptocurrencies, how they work, what they do, and where they get their value. This study will forecast the revolutionary changes that cryptocurrency will bring to the future banking industry, monetary policy and individuals around the world.
The decision making process at the Federal Reserve regarding Monetary Policy will be discussed as it relates to current economic conditions. After over six years of record low interest rates, it is expected that the Federal Reserve will soon start raising interest rates as the U.S. economic performance continues to improve. Measures of economic performance that will influence the policy decision will be discussed including unemployment, inflation, employment and output growth, and other economic and financial developments in the U.S. and rest of the world. The need to base policy decisions on expected movements in these variables as well as their current levels will also be discussed.

Department of English Language and Literature

The Childhood Kit

Every child around the world should have all the necessities in life. This Childhood Kit includes symbolic objects of some rights every child should have, according to the United Nations Convention on the Rights of the Child. One of the many objects in the kit is a small globe. As we hold the globe in our hands, we need to realize it is our responsibility to ensure that all children around the world have these rights. Other objects within this kit include a book that represents education and a “hello my name is” sticker that represents identity. Together, these objects remind us that all children around the world should feel happy, safe, healthy, and loved!

Russia’s Use of Rhetoric in the Conflict in Ukraine

This paper examines the use of rhetoric by Russia during the conflict in Ukraine. It argues that Russia has been able to manage and minimize the international response to its invasion and annexation of Crimea largely through the use of rhetoric. Russia’s diplomatic strategy will be analyzed to determine whether such an approach is particularly effective in contemporary international society, with its high level of economic interdependence. Specifically, is fear of disruption to the global economy leading to the appeasement of Russia?
Unapologetically Staking Dracula: An Examination of Reliance on Moral Binaries

Jasmyn C. Barringer
Andrea Tange, Faculty Mentor
Oral Session C Room 301—1:45 p.m.

During the course of Dracula, Abraham Van Helsing must create a dominant discourse founded by religious binaries. Jeffrey R. Seul explains that religion provides a stable psychological environment, while religious tradition upholds this stability when external forces threaten the established order. “Unapologetically Staking Dracula,” explores the discourse used to categorize Count Dracula as “Other” and emphasize the Count's opposing traits of damnation, his inability to express unconditional love, and vampirism. By examining these characteristics, Dracula is “effectively perceived as morally deficient and dangerous,” rendering his demise a necessity.

Exploring the Use of Emojis as a Pictographic Language in Written English

Rachel Bishop
T. Daniel Seely, Faculty Mentor
Oral Session C Room 301—1:00 p.m.

Emojis are quickly becoming commonplace in electronic communication around the globe. Sometimes they are used only to enhance a message, such as adding :) or :P to good news or a joke, or (to something sad. In other cases, the entire message can be made of just emojis. This study focuses on the prevalent use of emojis within the electronic communication of English speakers, and will provide detailed analysis of the linguistic features that are similar to, and different from, features of modern written English. It will explore whether emojis are becoming a pictographic language with its own grammar, or if they remain a paralinguistic feature of electronically written English.

How the Evolution of Fashion Journalism from Print to Online is Affecting Young Women

Kayla Boyd
Carol Schlagheck, Faculty Mentor
Oral Session D Auditorium—3:30 p.m.

Traditionally, women have turned to fashion magazines to know what is trending, how they should dress, and what beauty tips they should try. However, in this generation, print magazines are becoming less relevant due to blogs, smartphones, social media, and other digital sources. “The web has made it possible for ordinary consumers to reach a mass audience” (McQuarrie, Miller, & Phillips, 2013). Fashion influence is no longer just coming from advertisers and models with unobtainable features, it’s coming from “regular” people. Through literature review, this qualitative research will attempt to display how the evolution of fashion journalism is affecting young women.

The Great Data Breach

DeAndre Maurice Brown
Regina Luttrell, Faculty Mentor
Oral Session B Room 320—10:45 a.m.

Operating a business in the 21st century requires organizations to be prepared for the worse. Sapriel (2003) claims, in today’s world, organizations must take a holistic view and establish solid business contingency plans (BCP), of which crisis management is but one element. Further, crisis management must be used to better prepare to respond to new and unimagined risks. Failure to adopt a crisis plan is disastrous and could result in the failure of the organization. The aim of this study through benchmark and best practices is to analyze the crisis communication strategies used by Target Corporation.
You Can’t Just Pick One: Analyzing Biracial Protagonists in Children’s Literature
Tiffany Nicole Browne
Ramona Caponegro, Faculty Mentor
Oral Session D
Student Art Gallery—3:30 p.m.

In recent years, a notable increase of diverse texts has entered the field of Children’s Literature helping to represent a racially comprehensive audience. One area that does not garner as much attention is biracial Children’s Literature, with little emphasis falling on novels with biracial protagonists. According to Walker S. C. Poston, biracial adolescents often experience crisis and alienation as they are forced to choose an identity that does not fully encompass their racial background. This research will analyze authorial depictions of biracial characters in young adult novels and the effect these depictions have on character advancement and identity development.

A Christmas Story: An Autopsy
Kaitlin Lorraine Browne
Rob Halpern, Faculty Mentor
Oral Session C
Room 301—2:00 p.m.

In the wake of John Crawford III and Tamir Rice, the author interprets the classic film A Christmas Story into a sequence of poems that asks the question “when does a toy become a weapon?” Inspired by the poetic and theoretical concepts of Jean-Jacques Lecercle, Franco Berardi, and Laura Elrick, she interrogates the invisible threads of the film by analyzing visual images while juxtaposing them with autopsy and media reports. Prosodically, she advances stanza by stanza, pressuring my verses at the level of the morpheme in an attempt to challenge the “common sense” that constructs a world in which a BB-gun can both be a toy and a deadly weapon.

The Tyra Banks: Analyzing Supermodel Perception and Development of Eating Disorders in Young Women
Tiffany Nicole Browne, Kayla Boyd, Kyana Dixie and Victoria Fisher
Heather Neff, Faculty Mentor
Oral Session A
Kiva—8:30 a.m.

For years, women have set impossible standards for their appearance based on their perceptions of supermodel portrayals in the media. According to Garbe, Ward, and Hyde (2008) nearly 50 percent of girls and undergraduate women are dissatisfied with their body. This research will serve to educate women on the dangers of striving for supermodel standards through a literature review and analysis of an existing quantitative study conducted by Stice, et. al. (1994) on the prevalence of women’s eating disorder symptomatology. We will strive to replicate Stice’s result to show a positive correlation between supermodel perceptions and the development of eating disorders in young women.

What’s the “A” Stand for Anyway: The Use and Development of Asexual Vocabulary Online
Dominique Canning
Eric Acton, Faculty Mentor
Oral Session B
Room 301—10:30 a.m.

Asexuality, as a self-imposed identity, is a sexual orientation that’s recently come to light with the creation of the Asexual Visibility and Education Network, or AVEN, in 2001. This project addresses the following questions: 1) Does the existence of a term affect identity development? 2) What are some ways the terms are used? 3) What, if any, positive or negative attributes are associated with the vocabulary used?
9/11 and the Backlash Against Muslim-Americans
Shahana Ahmed Chumki
Oral Sessions C
Bernie Miller, Faculty Mentor
Student Art Gallery—1:15 p.m.

The events of 9/11 changed the very foundation of the United States and its effects ricocheting throughout American culture and society. Those who lost their lives should always be remembered, but what rarely crosses the minds of many Americans is the backlash: the backlash of hate, fear, and unfounded judgment directed toward millions of Muslims around the modern world. The aim of this presentation is to examine how Muslims in the U.S. responded to the backlash, how the hatred affected their daily lives, and most importantly, why the dignity of the Muslims people has become the collateral damage in the war on terror.

Genetically Modified Crops and Use of Agricultural Pesticides May Determine Adverse Health Effects
Shahana Ahmed Chumki, Mariah Brito, William Clarence Trice III and Larry Borum
Oral Session D
Room 330—3:15 p.m.
Heather Neff, Faculty Mentor

Genetically modified organisms (GMO) are artificially selected to display favorable traits through the process of genetic splicing. Minute alterations in formation and structure of different proteins in the plants thus allow for pesticide resistance. We will analyze certain GMOs to determine the health liability for human consumption. We hypothesize that the residual pesticide resistance may be source of adverse health effects. Protein assays and consumption analysis done with mice will be used to experiment residual pesticide resistance in relation to GMOs.

The Hidden Harlem in F. Scott Fitzgerald’s The Great Gatsby
Rachael Beth Crain
Oral Session B
Elisabeth Daumer, Faculty Mentor
Kiva—10:00 a.m.

F. Scott Fitzgerald’s The Great Gatsby takes place during an era that was immensely influenced by the African American cultural presence, most notably the Harlem Renaissance. In this presentation, the author explores the masked African American presence within the novel in terms of narrative choice, the aesthetics of jazz, as well as stylistic and linguistic choices.

The Fracking Mit: An Investigation into Hydraulic-Fracturing in Michigan
Jonathan Davis
Poster Group 3
Carol Schlagheck, Faculty Mentor
Room 310—2:15-3:45 p.m.

Over a three-month period, this investigation looked at several fracking yards across Michigan, collecting accounts from towns people, scientific professionals, and fracking yard officials. At the core of this journalistic news story is a store owner and 30-year resident of Kalkaska and his troubles with a new fracking yard that was built right next to his home. Other interviews feature an EMU professor/climatologist who discussed the benefits and dangers of hydraulic-fracturing, and a guarded but enlightening interview with a public relations representative from the Kalkaska fracking yard. The project shows the micro and macro effects of fracking and can educate Michiganders on a highly polarized topic.
Pain Tour of Ypsilanti: An Exploration of the Struggle Between Existentialism and Hope
Meghan Endahl
Christine Hume, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

This video essay explores the philosophy of existentialism in relation to personal (physical, emotional, and mental) and civic boundaries. When we see personal and geographic boundaries as limitations, we often lose sight of hope and faith. In this video, a tongue-in-cheek narrator takes us on a tour through the city of Ypsilanti in order to discover the lengths at which we go to break through those boundaries, and find hope in the bleakest of places.

Persepolis: A Graphic Dichotomy of the Insider and Outsider in the Iran-Iraq War
Elyse Rianne Giddings
Amanda Allen, Faculty Mentor
Oral Session B
Student Art Gallery—10:45 a.m.

This presentation explores the function of the complex images within the graphic memoir, Persepolis, by Marjane Satrapi. Through this examination, it is determined that the images in Persepolis appeal to a seemingly universal, Westernized reader and make her feel like an “insider” to Satrapi’s experience. The images then complicate the reader’s “insider” relationship by portraying horrific, war-related content; the reader yearns for an “outsider” position so that he can retain ignorance as means of protection. In this construction, Satrapi forces the reader to personally identify with the experiences she faced during the Iran-Iraq War.

How Teens, Millennials, and Social Media Shaped the “Share A Coke” Campaign
Sarah Hart and Elizabeth Ruffino
Regina Luttrell, Faculty Mentor
Oral Session A
Room 352—9:15 a.m.

Social media campaigns rely heavily on a few major factors: the target audience the material is presented to and the uniqueness or relevancy towards the audience of the campaign. With the “Share A Coke” campaign, Coca-Cola placed some of the most popular names of teens and millennials on the side of their bottles of Coke, Diet Coke, and Coke Zero debranding themselves to give consumers a sense of ownership to the brand. In an effort to spark the campaigns success, consumers of the product were asked to use #ShareACoke as a way to identify the successful use and consumption of the product and campaign.

Alternative Narratives and the Holocaust in Markus Zusak’s The Book Thief
Meghan Hickman
Ramona Caponegro, Faculty Mentor
Oral Session D
Kiva—2:30 p.m.

Markus Zusak uses alternative narratives, or the telling of a story through unconventional methods, to share the story of a family living through the events of the Holocaust as a unique way to bring new details to light. In his novel, The Book Thief, Zusak presents readers with a different way of looking at the Holocaust by focusing his story on a German rather than a Jewish child. He also personifies Death and makes him the narrator of this story creating an uncomfortable feeling for readers of the story as they get insights into the horrors of the Holocaust a “normal” narrator would never be able to show.
Were There Prenasalized Stops in Old Japanese?

Leah Hicks
Beverly Goodman, Faculty Mentor

Oral Session D
Room 304—3:00 p.m.

Japanese has been written in Chinese characters - Kanji - for over a thousand years. It was introduced into Japanese via Korean, and then via Middle Chinese. Most Kanji are read two ways in a Chinese-Japanese style as a result. Today, Mandarin and Korean have similar pronunciations for Kanji, one of which is shared with Japanese, but Japanese has another that is different. So, if Mandarin has /mau/ and Korean has /mo/, then Japanese has /mo/, but also a variation /bo/. Why? Where does /b/ come from? This study examines prenasalized stops (e.g. /*mb/ or /*nd/) in Old Japanese, comparing to Middle Chinese, Old Korean, Modern Korean, Modern Japanese and Mandarin, as a solution.

Apps are Everywhere in Public Relations

Emily Hiett
Regina Luttrell, Faculty Mentor

Oral Session A
Room 300—9 a.m. to 3:45 p.m.

It is undeniable that the ever-growing sea of apps we live in helps us go about our lives in an increasingly convenient fashion. We are all used to the idea of apps helping us complete tasks in our spare time (checking the weather, contacting friends on social media, reading the news, etc.). But every day it becomes more common that apps are used for business purposes. The field of public relations has welcomed the escalating prevalence of apps with open arms. Smartphone applications can aid practitioners in making sure the decisions they make are ethically sound. Apps provide a fresh exciting avenue to reach stakeholders that never existed before.

Ypsi Pain Tour: A Factory Walk; A Wheatpaste Trespass

David Kuhnlein and Adam Malinowski
Christine Hume, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

What is the “site” of the essay and how close can the lyric get to it? How can the lyric “do something” in the world, whether it be an intervention in the construction and reproduction of the material world or an intervention in channels or flows of collective affect? In our pain tour investigation we attempt to re-map our otherwise hardened psychogeography by undertaking a series of derives in and around a shipping facility in Ypsilanti. This presentation attempts to re-imagine what post-capitalist possibilities are available to us now. The lyric essay yearns to make accessible the poetry, curiosity, and love of an un-alienated world.

Art, Concept, and Collectively Organized
Pedagogy as Revolutionary Device(s)

Adam Malinowski
Rob Halpern, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

As artists who are also students, we have the ability not only to create new forms of culture, but new forms of organization in the classroom spaces we share. How can our art making shape the way in which we inhabit a classroom space together? Might we think of the active creation of a classroom space itself as a work of art? If we are able to imagine new forms of art that allow us as students to de-familiarize our conventional ideas of what socially creative life in the classroom looks like, we can open up hospitable spaces for participatory, i.e. democratic, learning; a step toward the making of a non-hierarchical, anti-authoritarian, de-alienated world.
**Constraints Evoking Creation: “Standing”**

Alyssa Tomasita Martinez  
Carla Harryman, Faculty Mentor  
Oral Session C  
Auditiorium—2:00 p.m.

I will be reading from a long poem framed by a discussion about the influence on my composition of poet Norman Fischer’s use of constraints in his collection *The Strugglers* and Leslie Scalapino’s long poem *The Diehedrons Gazelle-Dihedrals Zoom*. The constraint I focus on is alexia or “word blindness,” through which I created a modular, paratactic, and highly dilated piece that resonates with both Fischer’s and Scalapino’s work. I researched language to create a pool of words to assist me in reconfiguring the poetic line. What resulted was a world that was not my own. In utilizing language from both Fischer and Scalapino, I produced my own unique piece.

**Eulogy to a Moment: A Series of Poems Influenced by Norman Fischer’s *The Strugglers***

Emma Lynne Mayhood  
Carla Harryman, Faculty Mentor  
Oral Session C  
Auditiorium—1:45 p.m.

I will be giving a reading and explanation of a series of poems performing an eulogy to a moment. In addition to exploring the dilation of a moment, these poems work within constraints influenced by Norman Fischer’s poetry collection *The Strugglers*. In Fischer’s work, he uses the word “you” in a multifaceted way. “You” can conjure up a particular person or group of people as well as a sentiment or moment. I am particularly interested in how this oscillation between meanings performs various feelings including uncertainty. My series of poems attempts to stretch out each moment while allowing meanderings into other facets subconsciously associated with each moment.

**The Role of Social Media in the Kraft A.1. Rebranding Campaign**

Andrea Mellendorf and Danita Tatum  
Regina Luttrell, Faculty Mentor  
Oral Session A  
Room 352—9:00 a.m.

Everyone knows A.1. as “steak sauce,” but during the summer of 2014 it became “A.1. Original Sauce.” In May 2014 the Kraft Foods launched a campaign to rebrand itself and appeal to the millennial generation. The goal of the campaign was to show consumers that A.1. Sauce could be used on any food and not just steak. With the help of a hit YouTube video, and through several Pinterest boards and an increased presence on Facebook, Kraft was showing consumers a different side of the popular condiment. This presentation focuses on the role and effectiveness of social media in this rebranding campaign.

**Gregor the Overlander and the Implications of Leadership in Children’s Literature**

Dominic DiCarlo Meo  
Ramona Caponegro, Faculty Mentor  
Oral Session D  
Student Art Gallery—3:15 p.m.

Often considered to exist for instruction, entertainment, or formation, the value of children's literature has greater potential than is realized. In *The Overlander Chronicles*, Suzanne Collins comments on governmental leadership and children's role in it from both a fantastical and childish point of view. Using these to her advantage, an excellent introduction is made to global and individual rights directed at children. Collins’s writing, intentionally crafted with not-so-subtle allegories, allows her to directly convey examples, lessons, and outcomes of the extreme violences of humanity without mentioning the real incidents of war and politics found in our collective history.
Money and Love: The Struggle for Identity in Hurston's *Their Eyes Were Watching God*

Stephanie Rosalyn Reynolds  
Elisabeth Daumer, Faculty Mentor  
Oral Session B  
Kiva—10:15 a.m.

Much of the current scholarship on *Their Eyes Were Watching God* analyzes the role of race, gender, and class in the novel, yet little research has been devoted to the sociopolitical forces that influenced the narrative. Two ideologies of African-American identity, Booker T. Washington’s call for African-Americans to earn the respect of white society through submission, and W.E.B. DuBois’ charge to resist white supremacy through education and advancement, were hotly debated within the African American community at the time of the novel’s composition. Hurston intervenes in this debate, offering a third option of identity embodied in Janie’s struggles and her third husband, Tea Cake.

I Got 99 Problems and Nutrition is One: A Closer Look at Food Deserts in Ypsilanti, Michigan

Brialle Ringer, Gwen Dean, Nyambura Njee and Gloria Tonks  
Heather Neff, Faculty Mentor  
Oral Session D  
Room 330—3:30 p.m.

The purpose of this study is to explore the impact food deserts have in low socioeconomic status (SES) communities in Ypsilanti, MI and beyond. Food deserts lack access to nutritious and quality food (Walker, Keane & Burke, 2010). Food deserts are disproportionately found in low SES communities and neighborhoods composed of predominantly black residents. The lack of access to a grocery store that offers nutritious food often leads people to purchase necessities at liquor and convenience stores, or meals at fast food restaurants. The method we will use to obtain data is through a survey study of 100 families in low SES households living in food deserts within Ypsilanti.

Marriage, Misogyny, and Transformation in Gertrude Stein’s *Tender Buttons*

Averett Robey  
Rob Halpern, Faculty Mentor  
Oral Sessions B  
Kiva—10:30 a.m.

Gertrude Stein utilizes portions of her collection *Tender Buttons* as a vehicle to write herself and her identity as a queer woman into language. This presentation will be framed around the feminist commentary in the poem "A Little Called Pauline" and how it highlights the inherent misogyny in marriage and its history of dowry, ceremony, and religious ties. The presentation will not only discuss the ways Stein addresses these issues but also what it means to be writing poetry as a queer woman in 1914 when *Tender Buttons* was published.

Water is Life: First World Problems are Not Real Problems

Lydia Renee Seale  
Regina Luttrell, Faculty Mentor  
Oral Session C  
Room 320—2:00 p.m.

Water is Life is an ongoing social media campaign designed to increase awareness of lack of access to clean and safe water, which affects over 780 million people in developing nations. The campaign utilizes both traditional and social media to broadcast videos of people, particularly children, in developing countries reading tweets bearing the popular hashtag, “#FirstWorldProblems.” Through this study, the researcher explores this campaign’s utilization of multiple media and the phenomenon of “hashtagging” as a way to both stimulate and aggregate conversation about the needs of the developing world.
Rhetorical Veiling: Concealment as Production in Oscar Wilde’s *The Picture of Dorian Gray*

Molli Shomer  
Abby Coykendall, Faculty Mentor  
Oral Session B  
Kiva—10:45 a.m.

In his book *The Picture of Dorian Gray*, Oscar Wilde utilizes various literary techniques to obscure the underpinnings of homoeroticism that run throughout his narrative; “straight language,” canonical tropes, and pointed rhetorical devices are employed to attract readers who would have otherwise rejected an overtly queer text. The literary veils serve as a means of granting the text access into a heteronormative domain, yet, the veils intended to obfuscate the text's non-normative sexuality ultimately engenders an unveiling of homoeroticism. In this paper, I contend that Wilde's veils secured the books place in history as a grotesque failure at normativity.

Re-Presenting Muslim women: (Un)Veiling the Muslim Woman in Muslim Women’s Narratives

Molli Shomer  
Elisabeth Daumer, Faculty Mentor  
Oral Session C  
Student Art Gallery—1:00 p.m.

In post-9-11 America, the image of the Muslim woman is frequently employed by the West as a justification for the war on Islam. Western readers, dependent on the "oppressed-silenced-veiled-Muslim Woman" to feed their ethnocentric savior fantasies, depend on the confirmation of stereotypes in Muslim women's writing. Examining Assia Djebar's *The Tongue's Blood Does Not Run Dry* through Helen Cixous's theory of feminine writing, this presentation argues that while reinscribing stereotypes of Muslim womanhood in Muslim women's writing is inevitable, Djebar's narrative successfully reaches toward an effective model.

Fifty Percent Illusion: Failure of the Feminine Mask in Williams’ *A Streetcar Named Desire*

Sarah Turchanik  
Abby Coykendall, Faculty Mentor  
Oral Session B  
Kiva—11:00 a.m.

Blanche Dubois has long been considered a tragically feminine Southern belle, but close readings produce a very different image of Blanche: one with a hidden inner identity of a masculine and empowered woman. The death of Allan subsumes Blanche with anxiety at the repercussions of her masculine identity, forcing her to construct her famous and false overly feminine exterior. This fracture of her psyche ultimately causes the destruction she desperately tries to escape from. At its core, Williams' play is not a story of brutal masculinity destroying the pure goodness of classic femininity, it is a battle of the titans between Blanche and Stanley, an epic of dueling masculinities.

*Beloved*: Communal Healing Through Sound and Dance

Joe Wills II  
Robin Lucy, Faculty Mentor  
Poster Group 3  
Room 310—2:15-3:45 p.m.

In this high school lesson plan, students will explore how Morrison’s novel *Beloved* addresses the trauma imposed by slavery, even in freedom. Characters “claim the self” and find healing in a communal space, the clearing, through songs and dances led by an ancestral figure, Baby Suggs, holy. These forms of movement and voice came from Africa via the Middle Passage. After exploring the healing, performative space of the clearing, students will examine contemporary hip hop as a parallel to what is represented in the novel: as music, rooted in Africa, that expresses African American identities of self that push back against, and transform, the larger culture.
Department of Geography and Geology

Geology and Paleontology of Wells Cave, South-Central Kentucky

Eric Fiorentino

Oral Session C
Room 352—1:30 p.m.

Wells Cave is a network of narrow passages developed within limestone bedrock in south-central Kentucky. A preliminary geological investigation of the cave indicates that it is situated within the Kidder Member of the Monteagle Formation, a fossil-rich limestone unit deposited during the Mississippian Period, approximately 330 million years ago. In total, 14 fossil species were documented in the Kidder Member within the cave belonging to the phyla Mollusca, Cnidaria, Brachiopoda, Bryozoa, and Echinodermata. An abundance of crinoid and blastoid specimens correlates with a spike in the abundance of these echinoderm groups during the middle to late Chesterian Epoch of the Mississippian Period.

Exploring the Association of Massive Pegmatites and Supervolcanoes

Nicholas Guiffre

Oral Session C
Room 352—1:45 p.m.

Pegmatites are intrusive igneous rocks characterized by unique textures and large crystal sizes often of gem quality. Massive complex pegmatites are notable for their size, their complex chemistry and rare occurrences. Pegmatite-forming magmas are highly viscous, silica- and volatile-saturated, and contain essential flux components that are responsible for the textures and fabrics present. Likewise, supervolcanoes, such as Yellowstone and Cerro Galán, have similar bulk chemistry characteristics. Based on these similarities, detailed geochemistry of both pegmatites and supervolcanoes are examined to find common trends to support a common petroTECTonic evolution.

Growth and Depositional History of the St. Clair River Delta

Fred Jordan

Poster Group 1
Room 310—8:30-10 a.m.

Deltas are landforms that form at the mouths of rivers from deposition of sediment being carried out by a river. There are three main types of deltas: wave-dominated, tide-dominated, and fluvial-dominated. This project is concerned with one of the largest fluvial-dominated, freshwater deltas in the world, the St. Clair River Delta. The project explores the geologic history of the St. Clair River Delta as little is known about its recent geologic evolution. Until now, most data has been collected from boreholes and aerial photography. This study combines present data with new analyses from satellites and soil features to provide an up-to-date interpretation of the delta's geologic history.
Comparative Analysis of Fossil Macroalgae from China and North America
Ellen E. O’Neil
Steve LoDuca, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Like today, macroalgae (seaweeds) were vital parts of ancient marine ecosystems. However, they were only rarely preserved as fossils and, as a result, they have received only limited paleontological study. In this study, 520 to 505 million year old (Cambrian Period) fossil macroalgae from China were characterized quantitatively in terms of surface area and canopy height. The Chinese macroalgal floras were then compared with macroalgal floras of roughly the same age from North America, documented as part of a previous EMU undergraduate research project, in order to develop a better understanding of the biosphere during the Cambrian Period, a critical time in the early history of animal life.

Flexibility of the Boron Site in Tourmaline
Connor J. Vandivier
Christine Clark, Faculty Mentor
Oral Session C
Room 352—2:00 p.m.

Tourmaline is a unique mineral group that, until recently, included only 14 species. Today, over 30 species are known and recognized by the IMA. Due to the complexity of tourmaline chemistry and difficulties with chemical analysis, assumptions are often made when determining the formulae of these newer species. Previously, I focused on the relationship between chemistry and its effect on tourmaline's B-site. My current research furthers these pursuits with determining the role geometry plays in the (BO₃) triangle's flexibility. Identifying this relationship allows support of the assumptions made when determining the formulae for new tourmaline species.

The Yazyk Project: Mapping the Languages of Russian History
Sr. Peter Joseph Wardlaw
Kelly Victor-Burke, Faculty Mentor
Oral Session B
Student Art Gallery—10:30 a.m.

The Yazyk Project is a study mapping the historical spatial movement of all the languages spoken in the modern day Russian Federation from 1897 until the present, according to the Soviet and Russian censuses. While Russian may be the national tongue, over 207 different languages have been spoken in Russia since 1897, and can be mapped over time. This study's map includes a database of Russian Orthodox churches and monasteries, the gulags, and the educational facilities throughout Russia during the project's focus period, allowing the user to see the geographic connection between language retention and religious or governmental projects that affect language use.

Department of History and Philosophy

The Sternberg Triangular Theory of Love: A Critique
Natalie Elizabeth Anschuetz
W. John Koolage, Faculty Mentor
Oral Session B
Room 330—11:00 a.m.

This paper presents an exploration and critical examination of the Sternberg Triangular Theory of Love. This psychological theory argues that varied experiences of love are due to the engagement of one or more sub-categories (intimacy, passion, and commitment) and that ‘true’ love is the instantiation of all three. I will examine what I believe are significant theoretical and methodological problems with this theory.
Woman Suffrage and the Mormon Community
Elizabeth E. Clark
Mary-Elizabeth Murphy, Faculty Mentor
Oral Session B
Room 301—10:15 a.m.

Women’s right to vote in the United States was achieved with the passage of the Nineteenth Amendment in 1919. However, the women of Utah, who resided in what was then a territory, won this right in 1870. Mormon women, along with the support of feminist leader Susan B. Anthony, made their voices heard against the backdrop of those who would have taken advantage of, and eliminated their rights.

A Bayesian Account of Communication Strategy Selection
Danielle Lee Clevenger
W. John Koolage, Faculty Mentor
Oral Session C
Room 204—2:00 p.m.

My paper details the use of Bayes’s Theorem in a communication context. It explains how one can consciously use this traditional mathematic theorem to compare and identify a given strategy of communication that is most likely to the desired response from another person. The application of the theorem takes into account the prior knowledge of the subject and prior knowledge of the strategy itself, making it practical to use with well-known subjects as well as strangers. When applied in this manner, the theorem allows for the choice of an evidentiary favored communication strategy. This in turn is most likely to produce the desired response from a given subject.

Image and Text: Dorothea Lange’s FSA Photographs
Catherine D. Coulter
Mary-Elizabeth Murphy, Faculty Mentor
Oral Session D
Auditorium—2:45 p.m.

The goal of any photographic project is to influence its viewer. In the photographs produced by the Farm Security Administration, the goal was to connect Americans to the thousands of their fellow citizens who lived in extreme poverty. The photographer Dorothea Lange created some of the most iconic and effective of these photographs, and this paper explores the relationship between the visual information of the photographs and the content Lange provided through captions. I argue that the interaction between text and image in Lange’s photographs creates a unique, empathetic experience for the viewer.

A Defensive Doctrine: The Fall of France in World War II
Janine May Driver
Jesse Kauffman, Faculty Mentor
Oral Session A
Room 204—9:30 a.m.

French strategy in World War II was intended to grant France the greatest chance of surviving an unwanted war. France barely survived World War I. As another war approached, France was still recovering from the casualties lost in the previous war and was putting the nation back together piece by piece. A defensive strategy that focused on protecting rather than engaging seemed best for the people of France. This paper will show that while the French fell in the spring of 1940, they entered battle the best way they knew how, basing their military doctrine on what was successful for them in World War I.
Can Creationism Evolve into a Science?

Michael V. Georgizas
W. John Koolage, Faculty Mentor
Oral Session B
Room 104—10:30 a.m.

Taking the accounts of Thomas Kuhn, Karl Popper, Larry Laudan, Imre Lakatos, and Elliot Sober, this essay partially explores what it means to do science, what constitutes ‘good’ science, and whether creationism can ever fit within these ideals. The aim of exploring these questions is to show how, despite the history of creationism, it does not fit with any of the accounts of science. Historically and presently, creationism fails to present any testable claims. Until supporters of creationism, or intelligent design, can effectively render testable claims, they fail to meet the epistemic standards to which science is committed.

Stem-Bending in Trees: Adaptations Power

Miles J. Gerou
W. John Koolage, Faculty Mentor
Oral Session B
Room 104—10:15 a.m.

When hiking in Michigan’s Porcupine Mountains, I noticed trees extremely bent at the stem. To evaluate the phenomenon, I used the likelihood principle to determine what explanation is evidentially favored. When searching for a single-factor explanation, evolution by natural selection is favored over chance. The complex, and extreme nature of the stem-bending phenomenon, suggests that there are more factors involved in the bending. When looking at selective and non-selective factors for the phenomenon, factors were evaluated according to the increased predictive success of stem-bending. A multi-factor model using selective and non-selective forces best explains stem-bending.

Needs Assessment for Community Involvement in Public Housing

Christa Marie Hughbanks
Russell Olwell, Faculty Mentor
Oral Session A
Room 330—9:30 a.m.

Many Americans have a negative image of public housing, and even residents of public housing can have misconceptions about their neighbors and community. This study surveyed 79 residents of public housing to learn about their needs in advance of renovations of their facility. A short questionnaire was used to better understand residents’ family composition, health needs, transportation needs, and their hopes and concerns about the coming renovation process. Residents indicated that they hoped that the upcoming renovation would improve safety, would improve community involvement, provide more activities for young people, and improve living conditions.

Sleep with a Dozen Maniacs: Institutional Care for PTSD-Afflicted Civil War Veterans, 1860-1890

David Matthew Jones
Linda Pritchard, Faculty Mentor
Oral Session A
Room 104—8:45 a.m.

It has been established that Civil War veterans suffered from Post-Traumatic Stress Disorder. This paper goes beyond the mere diagnosis of PTSD to answer the question: how were Civil War veterans with PTSD treated in Northern hospitals, as opposed to Southern hospitals? Using hospital records such as annual reports and patient prescription books, I was able to develop the thesis that the quality of care for PTSD afflicted veterans in Northern and Southern hospitals was roughly the same, excepting the issue of physical patient abuse, in which Northern hospitals exceeded their Southern counterparts.
The Resistenza's Dichotomy: Women in the Italian Resistance Against the Nazis
Katherine Kapas
Jesse Kauffman, Faculty Mentor
Oral Session A
Room 204—9:15 a.m.

The women who fought in the Italian Resistance against the Nazis changed the face of Resistance fighters forever. Through their manipulations of gender stereotypes and societal perceptions, they brought about a change in the ideology of what it was to be an active citizen. Torn between the idea of what it was to be a woman and what it meant to be a fighter, these women challenged the very core of Italian society during this time, a challenge that helped bring about women’s liberation.

Decreasing the Gender Gap Through STEM Engagement: A Program to Help Young Women and Their Parents
Abigail Kemp
Russell Olwell, Faculty Mentor
Oral Session D
Room 304—2:30 p.m.

There are more women than ever graduating college in STEM fields in the United States. However, in many of these fields, women still comprise a minority of professionals. This program, offered on Saturdays during the school year, aims to engage young women and provide them with opportunities to actively partake in hands-on science experiments, and to meet a variety of potential role models in STEM fields. Participants (both girls and parents) were surveyed about their views of STEM opportunities, and results from the first and final sessions will be compared to show program effectiveness. Implications for educators in the public school classroom will be addressed.

Hitler’s Demands and Poland’s Dilemma
Amber Kinder
Jesse Kauffman, Faculty Mentor
Oral Session A
Room 204—9:00 a.m.

In 1939, Poland became the target of German expansionism. Hitler demanded that Poland return territory that they had gained in 1919, which had previously belonged to Germany. When Poland refused to appease Hitler, it was invaded by Germany, which led to the start of the Second World War. The aim of my research is to determine why Poland, a militarily weak country, decided to fight against Germany instead of giving into the demands to avoid war. I argue that Poland decided to fight Germany because of the importance of the territory in question, the fear that appeasing Hitler would lead to full invasion, and because Germany refused to come to any compromise in the conflict.

A Piece of Queer Feminist Porn: A Case Study of Salacious Magazine
Frankie M. Konieczki
John McCurdy, Faculty Mentor
Oral Session B
Room 204—10:15 a.m.

How inclusive is queer feminist porn? Feminist porn is a medium that seeks to be inclusive of marginalized groups such as people with disabilities and people of color; it also insists on informed consent of all parties involved. Queer feminist porn is focused on including non-normative sexual/gender identities and acts usually seen as non-normative such as bondage or discipline, in a sexual way. This paper asks how inclusive queer feminist porn is, by examining Salacious Magazine to see how it depicts people of color, trans people, marginalized sexual pairings (such as homosexual pairings), people with disabilities, bisexual people, and polyamorous lifestyles.
Was Buddha an Empiricist?

Mandy Mak
Margaret Crouch, Faculty Mentor

Oral Session D
Room 104—3:30 p.m.

David Hume is considered one of the most influential philosophers of the 18th century for his defense of empiricism and rejection of a ‘self.’ Parallels are often drawn between Humean and Buddhist notions, especially of the ‘self,’ which raises the question: Was Siddhartha Gautama, like Hume, an empiricist? In this presentation, I will argue that Gautama Buddha was an empiricist. First, I will indicate the main differences between rationalism and empiricism. I will then explicate the main tenets of Hume’s notions on how knowledge is attained. Lastly, to provide evidence in support of Buddha as an empiricist, I will indicate the similarities between Humean and Buddhist epistemologies.

The Dark Closet: Responses to Homosexuality in Heavy Metal Subcultures

Daniel Arthur Martinez
John McCurdy, Faculty Mentor

Oral Session B
Room 204—10:30 a.m.

While metal is often associated with things like church burnings and murders, the fans are very open and accepting. There is, however, an interesting paradox at the cultural intersection of metal and homosexuality. Certain subgenres are plagued with bigoted and homophobic artists, and fans are largely indifferent to these politics. Gay men and neo-Nazis rub shoulders at shows that can include either unapologetic murderers of homosexuals and openly gay artists alike. This paper explores the roots of this contradiction by analyzing the incorporation of far-right ideologies into black metal, and the disconnect between art and artist in metal using case studies of certain artists.

Parallel Theologies of Buddhism and Catholicism

James Pope
Mark Whitters, Faculty Mentor

Oral Session D
Room 104—3:15 p.m.

At a glance, it would be natural to assume that Buddhism and Catholicism have nothing in common: one stresses introspection, the other tradition and external absolutes. Closer investigation reveals substantial cohesion between them: The Buddha refused Nirvana until all are liberated, resonating with the Catholic theology that Christ sacrificed himself for the salvation of all. Both religions find redemptive purpose in suffering if it is embraced through self-surrender. On at least these two grounds, Buddhism and Catholicism share theological identity.

Childhood is No Longer Victim to Inevitability: Implications of the Current Serious World

Katelyn Pyles
Jeremy Proulx, Faculty Mentor

Oral Session B
Room 330—10:45 a.m.

Simone de Beauvoir presents a theory about the nature of childhood; namely, that a child lacks involvement in the development of their own existence. As de Beauvoir sees things, a crisis occurs in adolescence when the new and unfamiliar responsibility of having to create a future is introduced. This paper examines the various possibilities opened up to de Beauvoir’s interpretation of childhood by the current integration of technology into our culture at such a young age. The fundamental result stays the same: a population divided into those who do, and those who do only to escape. What has changed now is the mechanism of escape and the tools available to improve one’s self.
Eugenics and Action for Sterilization of Women
Kelsey A. Reider
Mary-Elizabeth Murphy, Faculty Mentor
Oral Session B
Room 301—10:00 a.m.

This research will show that eugenics-based policies, coupled with the attitudes of many lawmakers and members of the upper-echelons of society caused the degradation and often forced sterilization of women. Through the use of period newspapers and accounts, this research will show that the eugenics movement in Michigan and the broader United States caused horrendous suffering in the implementation of laws that categorized women as feeble-minded or promiscuous. These labels led many women into state-run facilities and mental hospitals where they were unknowingly sterilized without their consent.

What has Nashville to Do with Rome? The Influence of the Classics on the Twelve Southerners
Sr. Peter Joseph Wardlaw
Richard Nation, Faculty Mentor
Oral Session C
Room 301—1:30 p.m.

Southern agrarianism is most notably defined by the academic manifesto, I’ll Take My Stand, a collection of 12 essays defining and extolling the beauty and goodness found in a farming lifestyle in the American South. A unique blend of academic essays, fiction, and even a bit of violent persuasion, I’ll Take My Stand remains a lodestone for historians of the South. However, this is no historically isolated set of essays, but a whole philosophy built upon classical Roman and Greek philosophical tradition. The ideal American South, exemplified by the Southern agrarians’ love of nature, leisure, and human happiness, is based solidly on a classical foundation.

How the New Deal Gave Women Artists a Chance at Success
Jesse Yaeger
Linda Pritchard, Faculty Mentor
Oral Session D
Auditorium—3:00 p.m.

Historians Linda Nochlin, Whitney Chadwick, and Lucy Lippard suggested that women faced challenges when trying to become successful artists. These historians believe that less opportunity to build artistic skill, devaluing of their art, and less time to devote to art due to motherhood and domesticity sets a barrier for women finding success as artists. Oral histories of women employed in Franklin D. Roosevelt’s New Deal Art Projects show an example of women as valued members of the art community, with opportunities to build artistic skill, and more time to explore mediums and create art. With this change of circumstance, these women were able to become successful and respected artists.

Department of Mathematics
Simulating the Performance of a Multihead Weighing Machine
Ahmad Aljanaideh
Andrew Ross, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Multihead weighing machines are widely used in the industrial engineering world. The fact that they are accurate and fast made them one of the most common machines used for packing food and non-food products. In this project, we are simulating the performance of a multihead weighing machine using the Java programming language. We are trying to figure out what impact does manipulating the mean and the variability of the per-head weight have on the performance of these machines. Our target is to figure out if manipulating these values could improve the performance of these machines.
An Assessment of Poverty and Fitting Distribution to Poverty Data

Michael Dame
Tanweer Shapla, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

The United States is the world's wealthiest nation; however, a recent report shows that about 15 percent of the population, and 21.8 percent of children under 18 lived in poverty in 2012. In this presentation, we study the poverty thresholds used by the United States to determine the poverty rate and how it has changed over time. An attempt is made to characterize the probability distribution of poverty rate for the 50 states.

Statistical Analysis of Zeros of the Riemann Zeta Function in the Critical Strip

Kyle Linford
Andrew Ross, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

This project focused on the study of the statistical behavior of the first 100,000 zeros in the critical strip of the Riemann zeta function. This study explored the trend that the differences between the zeros follows, the plausibility that the data reflects a Gaussian Unitary distribution, and the relationship between a difference and the ones following it. To study these topics, the data's graphs were examined to show any trend in the differences and plausible relationships with future differences, and a chi-square test was used to test the accuracy of using a Gaussian Unitary distribution for the differences.

Flipping the Course Scheduling Process: Surveys to Forecast Demand for Classes

Anandkumar Patel
Andrew Ross, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Many universities offer a plethora of classes and hope students fill each class. However, the process of finding professors for each subject and scheduling those classes can be a daunting task, especially with the risk of classes being dropped due to lack of demand. This project attempted to flip the process and allow EMU to schedule classes with greater efficiency and with greater student satisfaction. Participants of this study were limited to mathematics majors at EMU. This study investigated survey methods to estimate the demand for classes, considering how question phrasing can produce over-predictions and under-predictions.

An Introduction to PID Control Theory

Stacy Richmond
Andrew Ross, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Cruise control is becoming more common in today's cars, especially with the push toward autonomous vehicles, but how does it work? How does a vehicle ensure that you stay at a steady speed, without the driver engaging the accelerator or the brake pedal? This project recreates modern cruise control in vehicles using PID control, and simulates how it works. We also simulate adaptive cruise control, and apply similar methods to autonomous steering to solve lane keeping problems. This project will contribute to the development of curriculum of various EMU math courses.
Characteristics of the Post-9/11 Airline Industry

Peter Adomas Rusenas
Khairul Islam, Faculty Mentor

Oral Session B
Room 330—10:15 a.m.

Today’s U.S. airline industry differs significantly from the pre-9/11 era. The number of airline passengers and seats remained low in the months after 9/11, but have recovered in the following years. Air passenger travel reached its pre-9/11 level in July 2004 and has continued to grow. The aviation industry has accommodated passenger growth with few additional seats, significant growth in low-cost carriers, and some other modifications. This study investigates post-9/11 effects on the airline industry using data from the U.S. Department of Transportation.

Spaghetti Bridge: Interactive Project for Mathematics or Physics Students at the Secondary Level

Travis Taylor
Andrew Ross, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

A student’s understanding of forces becomes an important building block of their understanding of their physical world. By placing X number of dry spaghetti noodles across a gap and attaching a dixie cup used for holding weight, a student can test and calculate the force necessary to break the spaghetti strands. Using the same experiment in a mathematics classroom, students can have the opportunity to research various real world relationships. Possible relationships include the maximum weight to break vs. the number of noodles, type of noodle, thickness of noodle, length of gap, etc.

The Effect of Global Warming on the Arctic Sea Ice Extent: An Application of Regression Models

Quynh Nhu Hoang Vu
Tanweer Shapla, Faculty Mentor

Oral Session D
Room 320—3:30 p.m.

The rise in global temperature over the last three decades has drawn a lot of attention among scientists. As the earth’s temperature rises, the amount of Arctic Sea ice decreases at an accelerated rate. In this presentation, the trend of Arctic Sea ice extent during the period 1979-2012 has been investigated. The estimated rate of ice melt has doubled in the last 11 years. A regression analysis has also been carried out to predict the land-ocean temperature index over time.

Greenhouse Gases and Global Warming

Ashleigh Noel Walters
Khairul Islam, Faculty Mentor

Oral Session D
Room 320—3:15 p.m.

There has been a lot of debate over global warming in recent years. What is the cause of global warming? How does global warming impacts us? Are greenhouse gases to be held responsible? In this study, we investigate answers to these questions via trends, regression and correlation analysis of global emissions (carbon dioxide, methane, nitrous oxide, etc.) and temperature over time using data from NASA and NOAA. Adequate answers to these questions will result in a better prediction of global warming, and taking initiatives toward its prevention.
Department of Music and Dance

The Lads in Their Hundreds

Danielle Lee Clevenger  
Oral Session B
Phil Simmons, Faculty Mentor  
Auditorium—10:00 a.m.

This was a collaborative project headed by Dr. Robert Peavler, EMU Department of Music and Dance, and is stunning collaboration of artistic elements complementing each other to produce a memorable piece. The production, honoring those who served in WWI, brought together live vocals, theatrical scene work, projections, and dance. All music was from the war era, showing all aspects of that emotional time. The choreography ranged from ballet and modern, to musical theatre, stimulating interest and emphasizing the feeling of the music. Dramatic readings of actual correspondence served as breaks between musical numbers, and gave the audience a poignant picture of that time.

Bling Bling for Clarinet and Piano by Scott McAllister

Sara DeDona  
Oral Session B
Sandra Jackson, Faculty Mentor  
Auditorium—10:15 a.m.

Reflecting upon life-altering events evoking sorrow and tragedy, Dr. Scott McAllister (b. 1969) incorporates his experience of a tragic past while looking towards a hopeful future into Bling Bling. These emotions are portrayed through lyrical and furiously technical runs that expand through the entire range of the clarinet in this three-movement piece. Composed in 2005 for clarinetist Richard Spece, it is intended to be a shorter, more lyrical piece of McAllister’s repertoire. McAllister visited as a composer-in-residence at EMU in 2014, and his works have great prevalence in clarinet literature and wind band music today.

Folksong and Culture in Bartók’s Romanian Dances

Anna Elkins  
Oral Session A
Joel Schoenhals, Faculty Mentor  
Auditorium—8:30 a.m.

Béla Bartók’s extensive research and analysis of folk music made him one of the founders of what would become ethnomusicology. In the six Romanian Dances, Bartók elaborates on musical themes from various regions of Romania and surrounding countries. Written in modes, with specific articulations, dynamic markings, and even timings provided by the composer, these short pieces have distinct character and subtle harmonic changes that reflect Bartók’s thorough study of, and personal experience with, not only these melodies, but also the cultures that bred them.

Tchaikovsky’s Ballet The Sleeping Beauty

Audrey Impellizzeri  
Oral Session B
Andrew Kuster and Sherry Wilkinson, Faculty Mentors  
Auditorium—11:00 a.m.

Russian composer, Pyotr Ilyich Tchaikovsky (1840-1893), composed many beautiful and influential ballets, symphonies, concertos, and operas. The Sleeping Beauty (1890), was his third and longest ballet and is among his most recognizable compositions today. He composed The Sleeping Beauty for St. Petersburg’s Mariinsky Ballet collaborating with the great choreographer Marius Petipa. This research explores Tchaikovsky’s life, the history of ballet in late 19th century St. Petersburg, the structure of The Sleeping Beauty, and the collaborative process resulting in ballet as a cultural creation.
Allegro from Concerto in E-flat Major by Joseph Haydn

Kiersten Jonkman
Carter Eggers, Faculty Mentor
Oral Session A
Auditorium—9:30 a.m.

Joseph Haydn composed over forty concertos for various instruments, but this trumpet concerto is the most famous. Prior to Haydn’s concerto, nearly all trumpet music was written for natural trumpet, which was valveless and had a limited number of pitches. In the early 1790’s, Anton Weidinger began experimenting with the concept of a keyed trumpet, which became the first fully chromatic trumpet. Composed in 1796, the concerto was first performed by Weidinger in 1800 in Vienna. Haydn's concerto has since become a staple in the trumpet repertoire. The first movement of the concerto, Allegro, alternates between march and lyrical styles. The cadenza was composed by Kiersten Jonkman.

Rachmaninoff: A Collaboration of Cello and Piano

Anthony David Joseph Marchese
Diane Winder, Faculty Mentor
Oral Session A
Auditorium—9:00 a.m.

Written while Rachmaninoff was in his late 20s, the Sonata for Cello in G Minor has become a staple in the growing list of standard cello repertoire. First performed by Rachmaninoff himself and his close friend Antoly Brandukov, to whom this piece was dedicated, the notoriously difficult piano part and extended melodic lines of the cello part have come to make this Sonata a piece challenging to master not only technically but musically. Generally allowing the piano to take the lead and introduce the main theme of each movement, Rachmaninoff uses the cello’s vocal quality to greatly expand on each of these melodies.

Suite Populaire Bresilienne for Solo Guitar

Nick Martin
Nelson Amos, Faculty Mentor
Oral Session C
Auditorium—1:15 p.m.

Brazilian composer, Heitor Villa-Lobos, was among the best known South American composers of the 20th century. Along with composing music for almost all media, he also wrote a significant amount of classical guitar music. His most famous works include his preludes and etudes written in 1940 and 1929, respectively, but in 1908-1912, Villa-Lobos wrote his first four pieces for classical guitar, which would later be compiled and published as Suite Populaire Bresilienne. Each of the five movements are listed as a Choro: a type of popular music played primarily by street musicians which has been described as Brazilian jazz.

The Trobairitz or Female Troubadours: The First Female Secular Composers of Western Music

Shayla Rose McDermott
David Pierce, Faculty Mentor
Oral Session A
Auditorium—8:45 a.m.

The troubadours, male poets and musicians of southern-France, are archetypal to the medieval period. Less known are their female counterparts, the trobairitz. These women represent the first female secular composers of western music. This presentation will include a research overview that will illuminate the difficulty in studying trobairitz, as well as a description of the social challenges and triumphs of the trobairitz through examples and themes of existing poetry. The poem, A Chanter M’er, written by possibly the foremost trobairitz, Comtessa de Dia, will be particularly discussed and a live musical example provided.
Chaminade’s Flute Concertino: A Glimpse at Women’s Rights in Music

Mary Rose Nieman
Julie Stone, Faculty Mentor

Oral Session A
Auditorium—9:15 a.m.

Cécile Chaminade was one of the most influential female composers of the 1800 and early 1900s. She was born to amateur musicians who, in spite of their influence, discouraged her from studying at the Paris Conservatoire of Music due to their ideals of “proper female decorum”. Chaminade continued to study privately behind her father’s back, composing works as early as her First Communion. She commissioned her Concertino for Flute for the Conservatoire’s annual prize competition, Morceau de Concours in 1902, and was the first woman to be granted this opportunity. The Concertino is her most well-known work and has become a stunning standard in flute repertoire.

Music Therapy as Communication for an Individual with a Cognitive Impairment: A Case Study

Cassie Reyna
Theresa Merrill and Jody Stark, Faculty Mentors

Oral Session B
Auditorium—10:30 a.m.

Music Therapy utilizes music to achieve nonmusical goals in individuals with various diagnoses. This study examines the effectiveness of music therapy on speech-related goals in an adult with a cognitive impairment. The individual subject of this single case study has received music therapy for eight months. The study examines the effects of music and music-centered experiences to increase both expressive and receptive communication skills over time. Various behavioral objectives include saying ‘hello’ and ‘goodbye’ to the student music therapist as well as filling in lyrics of preferred songs.

The Subtext of the Human Mind Explained in A Hand of Bridge

Jaylon Sims, Clarice Weiseman,
Dominique Williams and Rebecca Myers
Robert Peavler, Faculty Mentor

Oral Session B
Auditorium—10:45 a.m.

Every human mind has a subtext, a thought living in the mind of the thinker. Sometimes the thoughts are physically manifested by the thinker. Other times, the thoughts only remain thoughts and are kept in the privacy of the mind. With A Hand of Bridge, American composer Samuel Barber captures the essence of the harboring human mind. A Hand of Bridge provides a glimpse into two married couples’ desires and fantasies, bound and hidden by the moralities of America in the 1950s, as the couple plays a hand of bridge. Our performance is a study of the relationships, thoughts, and actions of these two couples living in 1950s America.

Vietnamese Classical Opera and Western Music: The Connection

Trang Vo
Gary Pedersen, Faculty Mentor

Oral Session C
Auditorium—1:00 p.m.

Although Vietnamese Classical Opera (tường or hát bộ in Vietnamese) has its origin in China, it has developed into a distinct Vietnamese art form, and detracts nothing from its worth. Vietnamese’s tướng unique style is characterized by the appealing harmony between dances, songs, and dialogue, helping viewers enjoy the best of this art. Vietnamese Classical Opera was first introduced to the Western World in 1889, at the Exposition Universelle de Paris. Along with the Gamelan from Indonesia, tướng was heard by Claude Debussy and Julien Tiersot. Musical elements of tướng are believed to be the inspiration for some of Debussy’s works.
High Altitude Ballooning: Humidity of the Upper Atmosphere

Angelika H. Cardew and Natalie Pellerito
Dave Pawlowski, Faculty Mentor
Oral Session C
Room 350—1:00 p.m.

We are designing and building a high altitude balloon made to carry a payload up to 100,000 ft. In particular we designed the payload to include a humidity sensor that will measure the humidity in the atmosphere throughout the duration of the balloon’s flight. The humidity sensor we used was the SparkFun Humidity Sensor Breakout: HIH-4030. It measures the relative humidity and conveys the data as an analog output voltage to an Arduino Nano micro-controller onboard the balloon. Following the launch in early April, the data collected by the sensor will be analyzed and we will draw our conclusions.

Computational Analysis of a Falling Slinky

Matthew P. Davis
Dave Pawlowski, Faculty Mentor
Poster Group 1
Room 350—8:30-10 a.m.

The Slinky is a toy famous for its unusual “gravity defying” behavior, such as “walking” down stairs and “levitating” when dropped. A slinky is a pretensioned coil spring that adheres to Hooke’s Law, which states that the spring force is proportional to its extension. When a slinky is extended by its own weight and dropped, the bottom remains motionless, appearing to hover, until the slinky is fully compressed. Using Python and numerical differential methods, I modeled a slinky as a string of masses joined by springs and simulated the motion of the slinky dropped from rest. The results of the simulation will be presented.

Investigating the Atmospheric Temperature Structure Using a High Altitude Weather Balloon

Ryan Dzanbazoff and Xhon Shameti
Dave Pawlowski, Faculty Mentor
Oral Session C
Room 350—1:00 p.m.

The goal of this project is to design and launch a payload attached to a high altitude weather balloon that is capable of reaching 100,000 ft. altitude. The payload contains different sensors that can measure temperature, humidity, pressure, acceleration, UV, and ozone, as well as a GPS tracking system to record the flight path and aid in payload recovery. Also, there is an attached camera that will record video. Our group is responsible for recording temperature using a One Wire Digital Temperature Sensor-DS18B20. The DS18B20 is attached to an Arduino microcontroller and data logger, which will store flight data to a micro SD card. At the maximum altitude we expect temperatures around -50°C.

Integration and Testing of an Accelerometer Onboard a High Altitude Balloon

Jeffrey Flegal and Samir Webster
Dave Pawlowski, Faculty Mentor
Oral Session C
Room 350—1:00 p.m.

High altitude balloons can be used to measure meteorological data in the atmosphere. Teams are building three balloon payloads that include various instruments to send to an altitude of 100,000 ft. above the Earth’s surface. The payloads include an accelerometer that will be used to investigate the forces that are imposed on each payload and to locate the jet stream. The wind speed is expected to increase as the altitude increases up through the jet stream and then to become weaker with altitude above the jet stream. The function of the accelerometer as well as the integration into the payload will be discussed in this presentation.
Pushing the Envelope: Limits and Capabilities of Sherzer Observatory

Timothy Aaron Fletcher  
Norbert Vance, Faculty Mentor

Oral Session D  
Room 320—3:00 p.m.

Recent additions to Sherzer Observatory have furthered its technical capabilities to be broadly similar to larger visible light research observatories today. New tools allow EMU faculty and students to perform spectroscopy (examination of the colors of stars), photometry (measurement of star light), and digital imagery, the major tools of visible light astronomy. This project identifies the telescopic limits and capabilities of visual magnitudes using photographic imaging from its location in city skies compared to that of rural skies, the limits of spectrographic analysis of astronomical objects, and the capabilities of the observatory in photometry.

Near-Space Exploration Using a High-Altitude Weather Balloon

Hans J. Harff and Mark Price Jr.  
Dave Pawlowski, Faculty Mentor

Oral Session C  
Room 350—1:00 p.m.

We measure the intensity of ultra-violet (UV) radiation as a function of altitude in southeast Michigan using a high-altitude weather balloon equipped with an ML8511 UV sensor breakout attached to an Arduino micro-controller board. UV intensity for wavelengths ranging from 280 nm to 390 nm is measured in five-second intervals during the ascent from 219 m global mean sea level (GMSL) to 30,000 m GMSL. We expect to find that UV intensity linearly increases from 0.5 mW/cm\(^2\) to 2.0 mW/cm\(^2\) between 219 m GMSL and 10,000 m GMSL, and sharply decreases from 2.0 mW/cm\(^2\) to 1.3 mW/cm\(^2\) above 10,000 m GMSL, indicating the existence of the ozone layer.

Measuring Pressure as a Function of Altitude Using a High Altitude Weather Balloon

Brandon Laycock  
Dave Pawlowski, Faculty Mentor

Oral Session C  
Room 350—1:00 p.m.

The purpose of this project is to design, build, launch, and analyze data from a high altitude balloon with an in-house designed payload. The payload will carry a meteorological package including a pressure sensor, MPL3115A2, which will measure the pressure and the altitude. The pressure will be measured in five-second intervals and the altitude will be measured to within one foot. Successful analysis of the data will show that the pressure will decrease by approximately a factor of 3 every 8 km.

Characterization of a Wind Tunnel Built by Physics Capstone Students

Danielle Moit and Paul Amell  
Dave Pawlowski, Faculty Mentor

Oral Session D  
Room 320—2:30 p.m.

The purpose of this project is to design a functioning wind tunnel to measure and control variables such as lift and drag forces, pressure, and wind speed. We will use force sensors to measure the forces on a test object. Inside the testing chamber, we will have an anemometer to measure the wind speed. This presentation will discuss the design of the wind tunnel and the integration of the instrumentation.
Is the Radiation Dose from Medical Imaging Worth the Risk?

Marc Monahan
Diane Jacobs, Faculty Mentor
Oral Session A
Room 104—9:15 a.m.

Medical imaging with X-rays, Computed Tomography (CT) scans, and ingested nuclear tracers have revolutionized diagnostic medicine. But, is there a health cost inherent in these examinations? We calculated the radiation dose from imaging and compared it to unavoidable sources of radiation in everyday life. Since radiation dosage is measured in several different units, we converted all the data to mRem to make comparisons. We discovered the radiation from medical procedures is a small part of the total radiation an individual receives in a year. Nonetheless, medical complications from imaging may be present, so the public should make informed decisions about their health.

Modeling Laser Tweezers: The Rotation of Microscopic Calcite Particles

Leo Nofs
Ernest Behringer, Faculty Mentor
Oral Session B
Room 330—10:00 a.m.

Angular momentum is a quantity that is a measure of the rotation of an object. Richard Beth showed, in 1935, that circularly polarized light has angular momentum. This angular momentum can be transferred to microscopic particles immersed in liquid, causing the particles to rotate. This rotation, which is damped by viscous drag, can be modeled with a second order, non-linear differential equation. We followed the work of Friese et al. [2] to solve this equation and predict the rotational frequency of cylindrical disks of calcite in water. We will demonstrate an interactive simulation to visualize the rotation.

Designing a Subsonic Wind Tunnel for Use in Research and Undergraduate Labs

Brendan Jacob Pickard and Lee Warner
Dave Pawlowski, Faculty Mentor
Oral Session D
Room 320—2:45 p.m.

A wind tunnel is being built that can be used for research and educational purposes. To achieve this, the wind tunnel will fit on a large desktop. The main components included are a honeycomb screen, a narrowed test section, a widening diffuser, and a fan with a motor. These components reduce turbulence, drive the air, lower the pressure and increase wind speed in the testing chamber, and raise the pressure afterward to increase the efficiency of the fan. This presentation will focus on the design and testing of the Physics Capstone Wind Tunnel.

Fractal Patterns in Chaotic Scattering

William Clarence Trice III
Ernest Behringer, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

A fractal pattern is a geometric figure that is self-similar: it looks much the same whether viewed close up or from far away. Scientists have described an observable fractal pattern that is produced when illuminating three of the four gaps of a tetrahedral stack of four mirrored spheres. This fractal pattern is caused by the chaotic scattering of light as it reflects from the surfaces of the spheres. The goals of this project include the creation of a computational model to simulate the fractal pattern and the observation of the pattern in the laboratory. We will describe the dependence of the observed fractal pattern on properties of the illumination.
Modeling and Designing an Audible Chaotic, Electronic Jerk Circuit

Susan Vivier
Ernest Behringer, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

If the behavior of a dynamical system exhibits significant sensitivity to initial conditions, the system is considered chaotic. An example of such a system is the electronic jerk circuit described by Kiers et al. The aim of this project was to develop a computational model to simulate the behavior of this circuit, and to design an audible version of the circuit. The model, its predictions of periodic and chaotic behavior, and the design of the audible circuit will be discussed.

Studying the Atmospheric Ozone Concentration Using a High Altitude Balloon

Susan Vivier and Matthew P. Davis
Dave Pawlowski, Faculty Mentor
Oral Session C
Room 350—1:00 p.m.

Using a high altitude weather balloon that travels to a height of approximately 30 kilometers, we will study several atmospheric conditions using various sensors attached to a payload. Ozone in the atmosphere reduces the amount of ultraviolet radiation that can be harmful to life. We will measure the ozone concentration using the MQ131 sensor produced by Futurlec. This presentation will focus on the operation and integration of the MQ131 into the payload. The concentration is expected to rise as the balloon ascends because the peak concentration is located between 30 and 35 kilometers in the atmosphere.

High Altitude Weather Balloon Tracking System

Hunter Wiles and Ashley Taylor-Voss
Dave Pawlowski, Faculty Mentor
Oral Session C
Room 350—1:00 p.m.

The purpose of this project is to design, build, test, launch and record data from a high-altitude weather balloon. This presentation will focus on the primary tracking system, which will consist of an Inventek GPS receiver and a Titan Launchpad tracking device that will read and transmit any string of data to appropriate ground stations. Utilizing APRS the device will periodically upload its GPS coordinates, allowing us to follow the balloon's trajectory through the atmosphere. As a secondary tracking measure, the balloon will include a FoxHunt beacon that will transmit location reports that can be read and decoded using a smart phone, allowing us to locate the payload after it has landed.

Department of Political Science

Russia’s Use of Rhetoric in the Conflict in Ukraine

Curtis Leland Allain
Judith Kullberg and Bernie Miller, Faculty Mentors
Oral Session C
Room 204—1:30 p.m.

This paper examines the use of rhetoric by Russia during the conflict in Ukraine. It argues that Russia has been able to manage and minimize the international response to its invasion and annexation of Crimea largely through the use of rhetoric. Russia’s diplomatic strategy will be analyzed to determine whether such an approach is particularly effective in contemporary international society, with its high level of economic interdependence. Specifically, is fear of disruption to the global economy leading to the appeasement of Russia?
The Promises of the United Nations

Marla Beretta Bastien
Richard Stahler-Sholk, Faculty Mentor
Oral Session D
Room 352—2:30 p.m.

The year 2015 will mark the 70th anniversary of the creation of the United Nations, an international organization formed after WWII to maintain international peace and remove any threat to peace. Its creation has not stopped the rise of terrorism, ethnic conflict, genocide and other armed conflicts in the world. This presentation will examine the work of the UN Security Council in order to assess its effectiveness in dealing with security issues and explore why they have not been able to prevent some major conflicts in the world. I will focus on several cases the Security Council dealt with, notably those that involved ethnic cleansing, civil wars, genocides and decolonization.

Operation Inherent Resolve: The International Response to ISIL

Nicholas Beaton
Kathy Peterson, Faculty Mentor
Oral Session C
Room 204—1:00 p.m.

ISIL is a major threat to the United States and her allies in Europe and the Middle East. This organization has sown terror, committed mass murder, and attempted to commit acts of genocide. The United States has led a multinational coalition to stem the tide of ISIL, to degrade and destroy their ability to exist. What will be addressed include ISIL’s origins, the tactics they use to recruit and terrorize, and the history of their campaign in both Iraq and Syria. Lastly we will address what the U.S. and her allies are doing, what strategies are in operational effect, and how they are responding to this global threat.

An International Analysis of Corporate “Personhood” Rights vs. Responsibility

Vanessa R. Bishop
Volker Krause and Paul Leighton, Faculty Mentors
Oral Session D
Room 352—3:15 p.m.

Corporate personhood is not a term known or used among the majority of the populace. Citizens are often unaware that corporations can commit physical harms that are frequently reported as “accidents” and not as the result of human decision-making. In this study, we will analyze two nations: the United States and the United Kingdom. We will assess these nations relative to the existence of corporate homicide and corporate manslaughter laws, and each nation’s response to such laws. Moreover, this research analyzes the ethical implications of each nation in relations to its corporate laws by measuring the balance between corporate rights and corporate liabilities.


Steven A. Cole
Barry Pyle, Faculty Mentor
Oral Session D
Room 352—3:00 p.m.

Article II and the Fourth Amendment of the Constitution were written in the 18th century. Yet, in light of national security interests in the 21st century, the power of the American President has increased substantially. To meet these recent demands, the executive branch collects many communications between individuals regardless of their country of origin. These searches and seizure of aggregated data known as metadata receive considerable scrutiny among scholars, politicians and civil libertarians. This research asks if the executive has exceeded its constitutional authority and whether its actions are necessary or advisable given current perceptions regarding national security threats.
A Policy Analysis of the Early College Alliance
Dallas K. Colligan
Joseph Ohren, Faculty Mentor

Oral Session A
Student Art Gallery—8:30 a.m.

The Early College Alliance is a middle college program that provides high school students the opportunity to enroll in courses at Eastern Michigan University. Early and middle college programs such as this one are fairly new to the public education system. The goal of this research is to review literature about the effectiveness of the Early College Alliance as an educational institution given its mission, vision, and the policies that created it.

Memory and Justice: Children of Disappeared Mothers in Argentina
Melissa Ann Dreffs
Richard Stahler-Sholk, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

The Mothers of Plaza de Mayo in Argentina began protesting the “Disappeared” in 1977, effectively negotiating public memory in a call for justice. Their counter-story, constructed through deliberate political acts, now has a new focal point: children born to disappeared mothers. This poster presents a visual collage of Dirty War protest movements in Buenos Aires. The original activism of mothers seeking justice for the disappeared has now yielded political space and advocacy to a new generation seeking justice for the infants kidnapped from their incarcerated mothers. This poster highlights the continuation of the counter-memory project from the Mothers to H.I.J.O.S.

Mothers of Plaza de Mayo: Maintaining Momentum Through Youth Influence
Melissa Ann Dreffs
Richard Stahler-Sholk, Faculty Mentor

Oral Session C
Kiva—1:30 p.m.

Through shifting goals and perspectives, the Mothers of Plaza de Mayo in Buenos Aires, Argentina, have remained current and a progressive political force since 1977. By gaining popular support from younger generations, the Mothers have been able to maintain and expand the initial goal of the group: to find and keep alive the memory of their disappeared children. Toward the end of the Dirty War, the Mothers were joined by youth activists who have worked with them ever since. Later, in opening their own university and broadening their human rights activism, the Mothers have connected with younger generations. This presentation explores how intergenerational activism strengthens the group.

Democracy in Suffrage: The Despair of the American Voter
Anthony Gonzalez
Beth Henschen, Faculty Mentor

Oral Session D
Room 352—3:30 p.m.

Fifty years after the passage of the Voting Rights Act, the validity of the American electoral system is still a matter of debate, particularly in light of recent legislation, including new requirements for voter identification. Consequently, some minorities consider themselves to be disenfranchised voters, victims of institutional discrimination intended to prevent them from voting. This research explores the existence of voter disenfranchisement in a nation that promotes free elections abroad. To that end, this paper will describe the impact of two Supreme Court voting rights cases, compare state voting laws, and ultimately suggest a solution to enhance fairness in the electoral system.
Securitization of Public Health: Ebola and United States Foreign Policy

Amanda Goulet
Lisa Laverty, Faculty Mentor
Oral Session D
Room 352—2:45 p.m.

The recent outbreak of Ebola in West Africa has shed light on the reactionary nature of United States foreign policy and the inherent weakness of policy that treats infectious disease as a potential security threat. This presentation will briefly discuss the beginnings of the securitization of infectious diseases during the 1990s, focusing on how the process of securitization has led to a reactionary foreign policy. The framework of securitization will then be applied to examine the ways in which the United States government has responded to the current Ebola outbreak.

The Power of Cultural Expression and Its Varying Role During Revolutionary Change

Lauren Grossman
Richard Stahler-Sholk, Faculty Mentor
Oral Session C
Kiva—1:45 p.m.

This paper explores the relationship between culture and revolutionary change. Various modes of cultural expression can be used to instigate and shape the revolutionary process, while the revolution itself can result in extensive changes to a society’s cultural norms. The research reviews historical accounts of the use of mediums of cultural expression, such as music and artistic movements, in several countries’ revolutionary experiences. Lastly, it will address the different ways in which culture can be used as a tool of the masses to shape the revolution, as well as a method of governments to affect the views and norms of a society in order to extinguish or enhance revolutionary fervor.

Addressing Low Voter Turnout in America

Andrew Stephen Kocis
Raymond Rosenfeld, Faculty Mentor
Oral Session A
Room 350—9:30 a.m.

Voter turnout in the 2014 midterm elections was historically low. Only 36 percent of the voting-eligible population turned out to vote, which is the lowest voter turnout since 1942. This presentation takes a look at what causes such low turnout, what is being done legislatively to affect voter turnout, and the politics behind these voting policies.

Congressional Campaigns: On the Trail and by the Book

Kellie A. Majcher
Edward Sidlow, Faculty Mentor
Oral Session A
Room 350—9:15 a.m.

This project examines personal experiences on two congressional campaigns and considers them in the context of academic literature concerned with congressional elections.
Student Voices: When Do They Matter?
Anjali T. Martin, Isabelle McCormack, Maya Rich and Mary Perrotta
Jeffrey Bernstein, Faculty Mentor

This presentation explores the role of students in University Program Review Processes. It will look at the prior literature on the role and importance of student voices in institutional evaluations, as well as the gaps left when students are not invited to participate. The research will then be applied to a real-life program review process. Presented in a group manner, this presentation makes a case for the vital role and perspective students possess about and in their own universities. Conclusions drawn will be discussed in terms of their effectiveness and contributions to the overall process.

Doing Diplomacy: Reflections of an Aspiring Diplomat
Anjali T. Martin
Judith Kullberg, Faculty Mentor

What is diplomacy? The preservation of good relations between governments? What is a diplomat? Is a diplomat the product of classroom training or of experience? Often it is training and experience combined that lead to a diplomat’s success. This presentation will examine the effects of alternative learning on the skillset required of aspiring diplomats. The International Young Diplomats Forum, hosted in London, England, brought together more than 100 current and aspiring diplomats, including the author, from over 80 countries for experiential training in diplomacy. The benefits from opportunities for global interactions, crisis simulations, and personal interviews will be discussed.

U.S. Diplomacy: Just How Effective is It?
Anjali T. Martin
Lisa Laverty, Faculty Mentor

The United States Diplomatic Corps often intervenes in conflicts between feuding parties, but do they always accomplish lasting peace? These interventions can take many forms, ranging from peace talks to military action, but nonetheless utilizing diplomatic relations. The effectiveness or durability of negotiated diplomatic settlements mediated by the United States in the conflicts in Northern Ireland (1998) between the Catholics and the Protestants, and in Kosovo (1999) between the FRY and the KLA, will be examined in this presentation. The conclusions drawn will then be applied to the crisis in Ukraine (2014) between the Russian Federation and Ukraine.

Domestic Oil Production: At What Cost?
Nicholas James McFadden
Kathy Peterson, Faculty Mentor

A significant amount of the United States oil consumption comes from foreign sources. Since oil is such a vital component of a modern economy, securing it comes at a political and economic cost. Much of the United States diplomatic and military efforts go to supplying its economy’s energy needs. The U.S. has the ability to produce more oil but the methods for extracting it come at a great environmental toll. This presentation will analyze the international benefits of increasing domestic oil production and will examine the environmental consequences to our nation.
Developing Microtargeting in University Marketing Campaigns: Fraser University

Kerri Anne Musick

Jeffrey Bernstein, Faculty Mentor

Oral Session A
Room 320—8:45 a.m.

There is a large, competitive marketplace for recruiting students to higher education institutions. University resources are shape-shifters and provide every student with a different experience at the same institution. This study developed a fictional university, Fraser University, to propose a model for colleges and universities to better personalize their marketing strategies to provide more relevant information to each applicant based on a variety of social identifiers.

Presentation of Self: How Jewish Women Shaped the Societal View of their Culture Through the Arts

Andrea Nicholson, Kasey Donnelly

and Kristin McSweeney

Jeffrey Bernstein, Faculty Mentor

Oral Session D
Kiva—3:30 p.m.

In forms such as literature, theater, and communication, we express who we are as individuals and create the image that we present to others. We explore this “presentation of self” by specific Jewish American women who have used the arts to create an image not only of themselves, but also for Jewish American culture. Our presentation discusses how this presentation of self greatly affected the process by which Jews became acclimated to, and accepted by, American society.

Burwell v. Hobby Lobby Analysis

Paul Taske

Barry Pyle, Faculty Mentor

Oral Session C
Room 204—1:45 p.m.

In 2013, the Supreme Court decided the case of Burwell v. Hobby Lobby and addressed the competing religious interests of Hobby Lobby and the governmental interest in requiring certain healthcare measures to be provided. The analysis will cover the applicability of the Free Exercise Clause and the First Amendment before the Burwell case, the arguments and issues presented before the Court, the Court’s decision in this case, and the potential impact of the Burwell decision and where it may lead in terms of the Free Exercise Clause.

Department of Psychology

Barriers to Health Behaviors Among Mothers of Head Start, Preschool-Age Children

Elgin Avila, Carly Evich and Zubin Khan

Heather Janisse, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

Promoting healthy nutrition and activity behaviors for preschool age children can be challenging. Mothers of preschool age children in Head Start may face exceptional challenges due to economic and environmental barriers to health that are present among Head Start families. In order to explore these unique barriers, data was obtained from a sample of Detroit Head Start mothers on the obstacles and experiences surrounding their preschoolers’ nutrition and activity levels through a series of focus groups and surveys. Findings have important implications for program and intervention development for at-risk, low-income families.
A Possible Moderator of the Relationship Between Exposure to Violence and Engagement in Aggression

Andrea Carolina Aya Mercado

Dean Lauterbach, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

Aggression occurs in various forms among college students. Prior research indicates that exposure to violence can lead to an increase in proactive aggression, in which violence is committed with some intended goal, such as robbery. On the other hand, exposure to violence can also lead to an increase in reactive aggression, such as defending oneself. The present study uses a single-panel cross-sectional design to examine religiosity as a potential moderator that may influence the relationship between exposure to violence and engagement in both types of aggression.

Fifty Shades of Gray: Review of the Etiology of Congenital and Cerebral Achromatopsia

Caitlin Baumer

Jin Bo, Faculty Mentor

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Imagine going through life with the ability to see things in only shades of gray. Individuals with achromatopsia suffer from the reduced or complete loss of color discrimination, seeing the world partially or completely in black or white. Achromatopsia is divided into two subtypes: complete achromatopsia, complete inability to see color, and incomplete achromatopsia, partial ability to see color. There are two forms of achromatopsia, cerebral and congenital, which differ predominantly in their etiology. Cerebral achromatopsia is acquired, while congenital achromatopsia is genetic and from birth. This work examines the etiology of both forms through a review of current literature on achromatopsia.

How TRUEMU are You: The Relationship Between Personality and Student Experiences

Caitlin Baumer

Natalie Dove, Faculty Mentor

Oral Session A
Room 320—9:15 a.m.

Student satisfaction is a high priority for universities across the nation, as high levels of satisfaction have been correlated with higher enrollment and retention rates. Factors such as academic advising, registration effectiveness, instructional effectiveness, and campus climate have been shown to influence student satisfaction, and thus impact each individual's college experience. Personality types may be an influence, beyond the control of the university, on such experiences. The aim of this study is to investigate the relationship between personality and student satisfaction/experience.

Influence of Exemplars and Role Models on Women's Stereotype Threat: It's a Matter of Focus

Angela Blay

Rusty McIntyre, Faculty Mentor

Poster Group 3
Room 310—2:15-3:45 p.m.

This study examines how women exemplars and role models alleviate threat differently, when a woman is self or group focused. This research shows that it depends on the focal mindset of the perceiver. In the study, participants are primed to think about attributes consistent with their individual identity or group identity. It is expected that women in the individual mindset do better on the math test when reading about an exemplar, compared to women in the individual mindset reading about a group of role model women. Additionally, it is expected that women in the group mindset condition do better when reading about role models compared to women who are not in a group mindset.
Relationship of the WMI and Subscales to Dimensional Levels of ADHD Symptoms in a Community Sample
Khalil Boussi
Jin Bo, Faculty Mentor

It is recognized that symptoms of ADHD are present in the general population. The functional working memory (WM) model of ADHD suggests WM is a core component of ADHD. A variety of tasks assessing WM are utilized, but there is currently no “gold standard” measure. The current study aimed to better understand the relationship between subcomponents of the WMI and dimensional symptoms of ADHD in a non-clinical sample. Preliminary results indicate individual subscales of the WMI better predict ADHD symptoms than the WMI as a whole, with the DS Backwards subscale significantly predicting ADHD inattention and Arithmetic subscale significantly predicting inattention.

Childhood Food Allergies: Parent Worry and Family Activity
Angelique Broadus
Catherine Peterson, Faculty Mentor

Food allergy can be a considerable burden and source of stress for parents of affected children. Parents often worry about their child’s well-being and limit their activity due to the uncertainty of the allergy course and severity; despite this, research is lacking in this area. This study examined associations between parent worry and family activity. An online survey completed by 280 parents of food-allergic children indicated significant positive linear correlations between parent worry and how limited families feel when planning vacations, socializing, and going out to eat. Understanding the role of parent worry may help address the stress that affected families experience.

Video Games and Keeping Women in the Kitchen: Reactions to Online Sexual Harassment
Troy G. Deskins
Rusty McIntyre, Faculty Mentor

Issues of hyper-masculinity, sexism, and hostility by male gamers encourages the privileging of masculinity over femininity, and discourages women from engaging in discourse within online gaming communities. It is hypothesized that male video game players high in hostile sexism will rate sexually charged messages sent to women gamers as more amusing, more acceptable, and less offensive than those low in hostile sexism.

Understanding Malignant Self-Regard and Its Relationship to Achievement Striving
Carly Evich
Natalie Dove, Faculty Mentor

Malignant Self-Regard (MSR), an emerging personality construct, describes an underlying set of self-critical thoughts, negative emotions, and perfectionistic desires that can leave an individual vulnerable to criticism and ultimately affect the way that they view themselves. Given that MSR is insidious in nature, its underlying pathology might not be apparent outside of interpersonal situations, during which it’s most likely to be triggered. Therefore, an online survey was used to evaluate the construct of achievement striving as a potential indicator of an MSR personality outside of those situations. It is hypothesized that achievement striving will be positively correlated with MSR.
Challenges and Lessons in Recruiting At-Risk, Urban Families into Research

Carly Evich and Elgin Avila
Heather Janisse, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Low-income, African-American families residing in urban settings are an important target population for research studies in psychology due to the existing health disparities among this racial and socioeconomic group. However, recruitment of participants could be hindered by certain challenges that are often present when conducting research in low-income, urban settings. Based upon descriptive data of several Detroit Head Start families from an ongoing, nutrition and activity intervention study, this study will highlight some of the challenges involved in recruiting at-risk, urban families into research, along with the lessons that can be learned and applied to future research studies.

Parent-Child Agreement and Neuropsychological Tests of Inattention in 8-12 Year Old Children

Kara Gardner
Carol Freedman-Doan and Amanda Ellis, Faculty Mentors
Poster Group 1
Room 310—8:30-10 a.m.

The agreement between parents and their children and neuropsychological tests in assessing the child’s attentional capacity is important when considering diagnosis of disorders that involve attention. The purpose of the study will be to examine parent-child agreement on behavioral measures of inattention, as well as the consistency of these ratings as compared to neuropsychological tests. The data will come from an ongoing cross sectional study of 8-12 year old children. Data analyses will consist of bivariate correlations to determine the extent of the agreement between parents and their children, as well as the agreement between the behavioral measures and neuropsychological tests.

The Effect of Father Involvement on Mothers’ Parenting after the Birth of a Child

Emily Therese Gutman
Alissa Huth-Bocks, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

This study included 120 primarily unmarried, diverse, low-income mothers, who were interviewed over time and video-taped with their two-year old children during a play interaction. Play interactions were coded for both negative and positive maternal behaviors and affect. This study examined how various forms of father involvement impacted mothers’ affect and behaviors displayed in the play interactions, which served as a proxy for mother-child relationship quality. It was hypothesized that mothers who received more support from the partner and felt that their partner was more involved (based on a number of indices) would display more positive parenting behaviors toward the child.
Interaction of Personality, Coping Mechanisms and Constructive Thinking on Addiction

In Memoriam: Jordan Elizabeth Hopkins

Natalie Dove and Pamela Landau, Faculty Mentors

Addiction affects countless numbers of individuals in society, but many of the research findings surrounding the topic are ambiguous. The lack of a clear understanding of addiction has resulted in shortcomings concerning cumulatively successful treatments. The aim of this study is to establish an orientation of addiction that accounts for problem behaviors as well as individual differences pertaining to personality, coping mechanisms and stress. For the analysis of this study, participants are presented five measures in the form of a survey. Looking at a wide array of factors enables the possibility of a more complex, yet existing, relationship to emerge within the realms of addiction.

Feared Foods: A Survey of Abnormal Eating Attitudes and Behaviors

Tiffany Michelle Kincaid
Karen Saules, Faculty Mentor

Food fears are commonly observed in inpatient eating disorder treatment settings, and they are becoming a focus of treatment research. This online survey aimed to better understand the degree and types of food fears experienced by college students. We hypothesized that food fears would be most common among women who are very underweight or who suffer from forms of eating pathology. This study extends the limited research on food fears by investigating what foods people avoid and why. Study findings may be helpful to health psychologists and public health officials in altering their approach on nutrition towards a focus on improved relationships with food.

PediaTrac: An Interdisciplinary Tool for Assessing Developmental Risk Factors in Infancy

Anna Kleppe, Ashley Braun, Jennifer Noel DeMent and Jennifer Flynn
Renee Lajiness-O’Neal, Angela Lukomski and Judith Brooks, Faculty Mentors

Pediatric developmental disorders are treated most effectively when diagnosed early. An interdisciplinary team from nursing, dietetics, and psychology has developed PediaTrac™, a survey tracking system to screen for risk factors in infancy and monitor for deviations from typical developmental trajectories, allowing for retrospective exploration of risk algorithms. Initially developed by a panel of experts across 13 disciplines, content validation by a panel of three experts revealed Cronbach alphas of >.70 for all developmental domains. This poster describes the content validation study and the prospective study currently underway examining the construct validity of PediaTrac.
Effects of Musicality on Bimanual Finger Coordination

Amy Loviska, Fernanda Santos and Kaitlin Oswald

Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Musicians experience adaptive neuroplasticity of the sensorimotor system as well as enlargement of cortical finger representations. In bimanual coordination tasks, such as tapping with fingers on each hand, the development and refinement of these areas in the brain may result in temporal stability thus advancing efficiency in the tapping task. We employ five tapping paradigms with attention focused on temporal accuracy in reaction to visual cues to examine if participants with musical instrument experience display higher efficiency in bimanual tapping paradigms than their musically naive counterparts.

Effects of Parent Expectation, the Home Environment, and Parent Behavior on Child Literacy Interest

Tammy Matvichuk

Oral Session A
Heather Janisse, Faculty Mentor
Room 204—8:30 a.m.

Literacy skills play an important role in children's academic achievement and showing an interest in reading is an important first step. However, little is known about what factors contribute to a child's early interest in reading, particularly among low-income, African American families where risk for poorer literacy skills is present. Furthermore, early overweight status among young children may put them at additional risk for poorer school performance. Therefore, the current study examined the relationship between parental expectations, the home literacy environment, parental behavior and child literacy interest in this important population.

Cortical Activation of Attention to Language in Children with Autism Spectrum Disorder

Kaitlyn Jennifer McFarlane

Poster Group 1
Renee Lajiness-O'Neal, Faculty Mentor
Room 310—8:30-10 a.m.

Deficits in attention to the admissible arrangement of sounds in words may contribute to language delays in Autism Spectrum Disorder (ASD). A passive auditory paradigm using infrequent plausible pseudowords among frequent tones was presented to 32 children with and without ASD while undergoing magnetoencephalography. The low frequency of pseudowords guaranteed an involuntary attentional shift. The pseudowords could only be disambiguated as plausible in the last phoneme allowing for a P3a-like (P300) magnetic attentional deflection. A smaller P3a response was hypothesized in ASD, suggesting decreased auditory attention to the admissible arrangement of sounds in words. Findings are discussed.

Using Appraisal of Emotion to Induce Attitude Change with False Memories

Mitchell Minito

Poster Group 3
Rusty McIntyre, Faculty Mentor
Room 310—2:15-3:45 p.m.

Prior work shows that actions inform attitudes, such that negative actions inform positive attitudes. This study hypothesized that individual made to imagine performing a “not-previously-taken” action toward a social group can induce false memories for said action and corresponding attitude change toward that social group. It is also expected that the emotion appraisal at the time of imaging the “not-taken” action will the process. In three sessions participants report initial attitudes and actions (1st session), imagine performing “not-taken” actions (2nd sessions) and then re-report their actions and attitudes (3rd session).
**The Effect of Perceived Social Support on Stress**

Robert Peters and Ayaka Yamashita  
Jin Bo, Faculty Mentor  
Poster Group 2  
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Perceived Social Support (PSS) refers to the perception that the person is cared for, valued, and is part of a group. This study reviews the literature on the relationship between Perceived Social Support and stress, specifically from major life events, in undergraduate students at Eastern Michigan University. We will be conducting this study using in-person interviews throughout various locations on campus. It is hypothesized that PSS and stress will have a significant negative correlation.

**Racial Prejudice and Its Effect on Children**

Gary Petrie  
Natalie Dove, Faculty Mentor  
Poster Group 3  
Room 310—2:15-3:45 p.m.

Racial prejudice has been, and remains, among one of the most debated issues in history, but what are the root causes of these beliefs? This is a study to determine one possible source of the cause of racial prejudice. This study will attempt to determine if racially prejudiced beliefs are inherited from our parents or if we form our own opinions as we grow up.

**Prenatal Intimate Partner Violence and its Effect on Maternal Perceptions of the Infant**

Gloria Romero and Silvana Alfaro-Bordon  
Alissa Huth-Bocks, Faculty Mentor  
Poster Group 1  
Room 310—8:30-10 a.m.

Intimate partner violence (IPV) affects many women throughout their life. However, IPV experienced during pregnancy may pose unique difficulties because of the nature of this time of transition. This study will use data collected from a longitudinal study following a sample of 120 primarily low-income and diverse mothers, in order to explore how IPV affects a mother’s perceptions of her infant. Using regression methods we will study how this form of relational trauma impacts the mother, and consequently, her relationship with her child. It is hypothesized that women who experience IPV during pregnancy will possess more problematic perceptions of their children.

**A Symphony of Stress: How Music Interacts with Personality to Affect Individuals’ Stress**

Kristen Maria Satchel  
Natalie Dove, Faculty Mentor  
Poster Group 3  
Room 310—2:15-3:45 p.m.

With stress being a common occurrence in society, if left unchecked it can lead to many dangerous situations mentally and physically for an individual. Music is a facet that has been used to help manage stress. Hanser (1985) indicates classical music has been used as a tool for relaxation and stress reduction. However, differences in the Big Five Personality traits have been linked to differences in the use of music as well. The importance of this study is to understand which genre of music is best suited for individuals with each of the Big Five Personality traits as they encounter stress in different situations.
Neural Correlates of Social Cognition in Infancy Measured with Functional Near-Infrared Spectroscopy

Meghan Watson  
Renee Lajiness-O’Neal, Faculty Mentor

Poster Group 1  
Room 310—8:30-10 a.m.

Early detection of Autism Spectrum Disorder (ASD) is critical. Research has shown that early identification and intervention can improve prognosis. Advances in brain imaging, particularly the development of Functional Near Infrared Spectroscopy (fNIRS), has enabled us to study the infant brain and neural correlates of ASD before abnormal behaviors occur. We present the results of a fNIRS study measuring the hemodynamic response and brain correlates of eye gaze processing, a potential biomarker, in 10 low risk infants. It is hypothesized that low risk infants will show increased activation in the medial prefrontal cortex (mPFC), an area purported to be linked to social information processing.

Department of Sociology, Anthropology and Criminology

An International Analysis of Corporate “Personhood” Rights vs. Responsibility

Vanessa R. Bishop  
Volker Krause and Paul Leighton,  
Faculty Mentors

Oral Session D  
Room 352—3:15 p.m.

Corporate personhood is not a term known or used among the majority of the populace. Citizens are often unaware that corporations can commit physical harms that are frequently reported as “accidents” and not as the result of human decision-making. In this study, we will analyze two nations: the United States and the United Kingdom. We will assess these nations relative to the existence of corporate homicide and corporate manslaughter laws, and each nation’s response to such laws. This research analyzes the ethical implications of each nation in relations to its corporate laws by measuring the balance between corporate rights and corporate liabilities.

Reducing Recidivism: New Approaches in Prison Management and Rehabilitation

Jillian Summer Brown  
Kendra Smith, Faculty Mentor

Oral Session A  
Room 330—8:45 a.m.

According to the Bureau of Justice Statistics, between 1978 and 2009, the number of prisoners held in federal and state facilities in the United States increased almost 430% and the U.S. spent roughly 7.3 billion dollars on prisons. In light of the magnitude of the incarceration rate and the high rate of recidivism, it is important to consider if there are other viable solutions to reduce the amount of crime in society. This research explores new approaches to prison management and rehabilitation systems that may offer promising results into the successful reintegration of recently released persons into society.
Possible Link Between Childhood Stress and Chronic Illness in Adulthood
Sarah Bruckler
Megan Moore, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

This paper hypothesizes that stress during childhood may lead to abnormalities in development that increase the risk of chronic illness in adulthood. Childhood development is a process regulated by hormones that can be disrupted when a child faces physiological or psychosocial stress. One such hormone disruption is a sustained excess of cortisol in the child's body that can lead to obesity, cardiovascular disease, PCOS, and other diseases in adulthood. Chronic illness is a serious public health concern, and early detection and prevention is key to controlling the prevalence of these diseases. For this reason, it is important to study the link between chronic illness and childhood stress.

The Conditions in North Korea: Kim Jong-il to Kim Jong-un Today
Deanna Jasmine Bumphus
Bettie McGowan, Faculty Mentor
Oral Session B
Room 352—10:45 a.m.

Conditions in North Korea continue to deteriorate as the regressive policies of Kim Jong-un replace the policies of his father Kim Jong-il today. Returning from an exchange program in South Korea has made me keenly aware of the problems facing the people of North Korea, the impact these problems on North Korea, as well as the fears raised in South Korea and the entire region. Free speech is hampered, human rights abuses are common, and the people live in fear. This paper looks at all the abuses occurring in North Korea.

Comparison of Maturation in Subadults from the Third Molar and Iliac Crest
Rebekah Goltz
Megan Moore, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

The goal of this research is to investigate the relationship between eruption of the 3rd molar and ossification of the iliac crest apophysis. The hypothesis proposes that the 3rd molar eruption will occur after the fusion of the iliac crest. The results indicate that the age estimated from the mandibular 3rd molar is 4.0 years older on average than the age estimated from the Risser sign. These results support the hypothesis and suggest that the Risser sign is not a reliable indicator for chronological maturity, with age estimates significantly lower (p<0.05) than age estimates from the mandibular 3rd molar.

Young Girls’ Self-Esteem: An Action Plan
Andraya M. Goodwin
Kendra Smith, Faculty Mentor
Oral Session A
Kiva—9:00 a.m.

An abundance of information suggests that low self-esteem is associated with mental health issues, poorer academic scores, and high-risk behavior. National and international research indicates there is a widespread problem with girls’ self-esteem declining in their preteen years. In order to create effective programs to boost self-esteem of young girls this research will identify causal factors of low self-esteem. Based on this data, a program will be proposed to increase the self-esteem of young girls to improve their life outcomes.
Spondylolysis in a Medieval French Population: Incidence Rates with Changes in BMI and Geometry

Henry Alexander Hakamäki
Megan Moore, Faculty Mentor

The purpose of the study is to provide preliminary data to determine whether increased body mass or abnormal geometry of the vertebrae increases the risk of developing spondylolysis. It is hypothesized that both factors increase the risk of developing the condition. Increased body mass causes more strain on the lower lumbar vertebrae, increasing the risk of a fatigue fracture to develop, and abnormal geometry causes increased stress on certain components of the vertebrae, increasing the risk of fracture. Ten cases of spondylolysis and 10 controls (five men, five women) from a medieval sample are examined. Several measurements of the vertebrae and femur (to approximate body mass) are examined.

Reconstructing Ancient Diet Through Stable Isotope Analysis of Human Dental Calculus

Linda M. Harrison
Megan Moore, Faculty Mentor

Collagen in human bones reflects what an individual ate during his/her last 10-30 years on earth. Inorganic portions of teeth and bone reflect dietary patterns from childhood (within tooth enamel) and during the last few years of life (within bone apatite), leaving behind unique isotopic signatures. The goal of this research is to validate a new, non-destructive approach to unlocking the diet of ancient human remains from the early Middle Ages in France. We conducted stable isotope analysis on dental calculus (i.e. dental plaque) compared to bone, to determine if dental calculus is a reliable proxy for bone. We expand on previous work by examining sex and age differences in dietary patterns.

The Biocultural Implications of Psychosocial Stress on the Age of Menarche in War-Torn Regions

Alaa Naser Hasan
Megan Moore, Faculty Mentor

Menarche is the onset experience of the menstrual cycle in girls. Menarcheal age can vary between 9-15 years. The earliest downward trend was recorded 150 years ago. The median age during the 1900s averaged around 16-17 years. Recent reports collected a mean age of 13.53 years in the late 1900s. The decline rate is influenced by endogenous and exogenous factors. Today, studies have found that early menarche can be the result of exposure to war. To understand the underlying causes of this phenomena, a literature review explores the issue of the biocultural stresses on menarche, with an emphasis on adolescent females in war-torn regions.
Manifestations of Linguistic Diversity as Evidenced by the Mental Spine

Hannah Hilbert
Megan Moore, Faculty Mentor
Oral Session B
Room 350—10:00 a.m.

Osteological projections are greatly influenced by muscle articulation. Specifically, relative prevalence of muscle use can permanently alter bones. It can therefore be assumed that muscles involved in speech production would play a role in shaping the stomatognathic structures. This study has been designed to explore the resulting cranio-facial manifestations of linguistic diversity across the genus *Homo*. Specifically utilizing data personally collected from American, French, and Philippine populations, it has been concluded that a correlation exists between observed characteristics of the mental spine and the repetitive height required of each population’s presumed spoken language.

A Survey of Willow Metropark, Wayne County, Michigan

Ashlee Jed
Bradley Ensor, Faculty Mentor
Oral Session C
Room 352—1:00 p.m.

There is little archaeological research on prehistoric settlement patterns in southeast Michigan. Based on prior hypotheses, settlements are associated with well-drained soil adjacent to arable soil suitable for cultivation located within one km of a river. Limited-use sites away from settlements are located further inland. Survey data from the EMU Archaeological Field School were used to test these hypotheses. The results indicate settlements were indeed associated with well-drained soils adjacent to arable soils and were located within one km of a river. However, limited-use sites were not always located further inland. This suggests limited activities were less influenced by distance from the river.

The Black Cherokee Indians: The Invisible Americans

Demarco Shauntez Johnson
Bettie McGowan, Faculty Mentor
Oral Session C
Room 104—1:00 p.m.

African Americans and Cherokee Indians have had a long history of association in this country. There are thousands of people who are Cherokee and African Americans in the United States today. The history of these people has been ignored, and as a result most people are unaware of the culture history or even the existence of this misunderstood minority population. This paper attempts to bring this chapter of American history into the light.

Religion as Agency: Cuban Santeria and Social Change

Danielle Julien
Ronald Rich, Faculty Mentor
Oral Session D
Room 104—2:45 p.m.

Santeria is an Afro-Cuban religion created from a melding of Christianity, Haitian Vodou, Brazilian Umbanda, and African religions, and has endured for centuries through slavery, colonialism, and oppression, and it is still alive today. Afro-Cuban religious practices are tools that Cubans utilize to understand and navigate the world they currently live in. Cuba’s dependence on tourism has a significant influence on Santeria by providing economic support and allowing for religious expansion. Practitioners or *santeros* have transformed their rituals and magic into a religion that is strong and growing; and it serves as a source of agency to Cuban people in many different contexts.
Dental Enamel Hypoplasia in an Early Medieval French Population: Age of Stress Event
Taylor BL Kirchoff
Megan Moore, Faculty Mentor
Oral Session B
Room 350—10:00 a.m.

This project builds on previous research investigating childhood health of a medieval French population through the examination of enamel hypoplasias (LEH = a sign of growth stunting preserved in tooth enamel). The sub-sample (n=23) is from an early medieval cemetery in France. The current study supports previous research that these subjects suffered from malnutrition, demonstrated by high infant mortality and short life expectancies. Preliminary findings demonstrate multiple occurrences of LEH, varying in severity and approximately equally distributed between the sexes (females 36%, males 46%). Stress events are likely after weaning, between one and six years; less than one year in only three subjects.

Religion as Agency: Witchcraft and Change in Papua New Guinea
Adam Moody
Ronald Rich, Faculty Mentor
Oral Session D
Room 104—3:00 p.m.

Increasing modernization via the West and Christianity stands to threaten the traditional utilization of magic and witchcraft as a method of construing change among the Highlanders of Papua New Guinea. This paper addresses these understandings as they occur in governmental actions to move villagers from their original villages to government established communities, as well as the ways in which the nation's economic status is viewed as being negatively affected by the occurrence of these practices. In these regions, magic and witchcraft were more viable to resist changes in relocation as well as use toward explaining economic disparity between themselves and the West.

Tribal Education: The Development of the Pokagan Potowatomi Education System
Amber Morseau
Bettie McGowan, Faculty Mentor
Oral Session C
Room 104—1:15 p.m.

The Pokagan Potowatomi Indian Nation here in Michigan has developed an education system to revitalize the Algonquin language and other aspects of their indigenous culture. The Pokagans have put the education of their people as a priority in their tribal lifeway. As a Pokagan Potowatomi myself I have been involved with the language camps and spent the summer of 2014 working with my tribal community to promote our language and our culture. In this paper, I share my experience with the EMU broader community.

The Effects of Colonization and Global Capitalism on the Indigenous Tribes of East Africa
Nyambura Njee
Bettie McGowan, Faculty Mentor
Oral Session C
Room 104—1:30 p.m.

The presentation explores the impact that colonization and global capitalism has had on the four largest tribes in Kenya, Tanzania, and Uganda. The presentation explores the tribes of the Massai, Kikuyu, Kamba, and Luo people of east Africa.
The Taino Indians: Centuries of Injustice
Tatiana Lauren Rodriguez
Bettie McGowan, Faculty Mentor
Oral Session C
Room 104 — 1:45 p.m.

The Taino Indians are the Indigenous peoples of Puerto Rico. The Taino have suffered centuries of injustice at the hands of the Spanish, the Catholic Church, and by their governments of Puerto Rico and the United States. Through their stories, this paper explores how the Taino struggle to maintain their culture, identity, and their birthright as Indigenous peoples.

The Role of Fluoroquinolones in the Etiology of TMJD
Comparing Medieval Skeletons to Modern
Marissa Nicole Salvia
Megan Moore, Faculty Mentor
Poster Group 3
Room 310 — 2:15-3:45 p.m.

This research evaluates the frequency of temporomandibular joint disorders (TMJD) in medieval and modern skeletons to investigate the effects of antibiotics—fluoroquinolones, a known risk factor in connective tissue injury. From Saleux, France, 39 subjects [22 females (F), 17 males (M)] are examined and compared to a modern population (n=86). Adults are examined for signs and severity of osteoarthritis (OA) of the mandible. The most severe cases are found in two males. OA in Saleux is minimal, 9.1% of females have moderate OA and 17.6% of males have moderate to severe OA. In the modern population (Rando & Waldron, 2012) more females showed severe OA and were older (44.8% F, 22.8% M).

Religion as Agency: Chukchi Cosmology Through Change
Daniel Scrochi
Ronald Rich, Faculty Mentor
Oral Session D
Room 104 — 2:30 p.m.

Religion is a theory of agency, or strategy for action, for dealing with a group’s internal and external realities. The indigenous Chukchi religious framework of northern Siberia exemplifies how religion was and is used throughout different periods as ways for the Chukchi to make sense of the wider world they live in. Religion is thus a constantly changing schema that is inextricably woven into the fabric that is known as culture. Rather than observing the Chukchi religion as backward, it is then possible to construe religion as a pragmatic and indispensable coping mechanisms used by people to interact with the world.

Best Practices in High School Guidance Counseling
Tara Lynne Sholtz
Kendra Smith, Faculty Mentor
Poster Group 1
Room 310 — 8:30-10 a.m.

Traditionally, high schools have followed an industrial model of education in which there are a high number of students who do not fit into that model of a successful student. In recognition of the unique barriers and challenges that students face in career exploration and planning, new practices to be more responsive to the diverse needs of students are being developed. Contemporary issues facing high school students in career development are explored as well as best practices to adequately address student counseling needs.
Racial Profiling Cross Culturally

Justin Smith
Bettie McGowan, Faculty Mentor
Oral Session B
Room 352—11:00 a.m.

Often when mainstream society thinks about the issue of racial profiling they think in terms of black and white. Many Americans are not aware that racial profiling by law enforcement is a cross cultural problem that effects not only African Americans, but also Native Americans, Arab Americans, and Latino Americans. This is a problem in most minority communities in the United States. This paper shows evidence that reflects the extent of racial profiling and the fact that the community minority are the people most likely to be profiled. If it is Dearborn in Michigan, Arabs are profiled; if it is near an Indian Reservation, Indians are racially profiled.

Testing Historical Site Interpretations

Alicia Williams
Bradley Ensor, Faculty Mentor
Oral Session C
Room 352—1:15 p.m.

Interpreting landscapes is a major topic in historical archaeology. The EMU Archaeology Field School makes three assumptions when interpreting 19th century rural landscapes in southeast Michigan: high-density trash deposits with diverse and large artifacts indicate domestic residential areas, low-density trash scatters with small artifact sizes indicate fields, and small, high-density trash deposits indicate roadside dumping. These assumptions are tested using archaeological survey data from a recently abandoned farmstead. The results are significant for guiding archaeological research on rural historic landscapes.

Department of Women’s and Gender Studies

The History and Advancement of Transgender Healthcare

Connor Rivera
John McCurdy, Faculty Mentor
Oral Session B
Room 204—10:45 a.m.

The DSM-IV identified transgender persons as having Gender Identity Disorder; however, many insurance companies refused to cover medically necessary procedures critical to transgender healthcare. This subjected transgender individuals to discrimination in their attempt to live a healthy life. In response, the DSM-V changed the diagnosis to Gender Dysphoria in aspiration to leave behind the negative connotation of the term disorder and bring advancements to transgender healthcare. This paper explores the history of Gender Dysphoria and the discrimination transgender individuals encounter through the medical processes of their transition to their true identities.
The Homeless Orthodox Jewish Woman: A Model for Building Female Spaces from Masculine Places

Molli Shomer
Elizabeth Currans, Faculty Mentor

Oral Session D
Kiva—3:15 p.m.

Using feminist standpoint theory and feminist scholarship, I contend that the only way for Orthodox Jewish women to gain ownership of a space within Judaism is to manipulate the models of male dominated places and co-opt them as their own; in this way, Orthodox Jewish women remain faithful to traditional Orthodox Judaism without falling victim to seemingly necessitated homelessness and/or invisibility.

(Wo)men Who have Sex with Men: Problematizing Behavior-Based Models in HIV/AIDS Research

Samuel Teeple
Elizabeth Currans, Faculty Mentor

Oral Session B
Room 204—11:00 a.m.

The term “men who have sex with men” (MSM) was first used in HIV/AIDS research in 1990 as an alternative to identity-based labels like gay, bisexual, or queer. By emphasizing behavior instead, public health workers hoped to avoid alienation and reach a wider audience in their prevention efforts. However, this behavior-based model failed to accurately account for transgender people, categorizing individuals by birth sex alone. Due to the current prominence of the MSM taxonomy, there are few strategies to effectively target a population sorely in need of outreach and care. A holistic approach in public health is needed, one that considers both behavior and identity.

How the Slow Food Movement Impacts Society: Comparing Culinary Traditions of Germany and Southeast Michigan

Michelle Renee Drescher
Margrit Zinggeler, Faculty Mentor

Oral Session D
Room 330—2:30 p.m.

Germany joined the Slow Food Movement in 1992 on the premises of preserving local culinary traditions and encouraging consumers to reconnect to the enjoyment, support and the sustainability of the foods they eat. Today no nation is immune to the challenges of preserving local food traditions as fast-food chains and pre-made boxed meals invade our ever-fast paced society. This study dives into the success of the Slow Food movement in Germany compared to the food culture in southeast Michigan.
Differences Abroad: Studying French in France vs. Studying French in Québec

Anjali T. Martin and Barry Anderson
Genevieve Peden, Faculty Mentor

Oral Session D
Room 304—3:15 p.m.

This project compares and contrasts the benefits and major differences in studying French abroad through two experiences: one in Québec City, Québec, and one in Brest, France. Cultural differences, regional accents, food, language approaches, and even music are discussed and analyzed to determine the overall benefits that studying abroad in an immersion experience can have on the overall learning abilities. The regional dialects will be heavily focused upon for differences in word choice, innuendos, syntax, and overall contextual abilities in each location.

Underline This: Progress in Reading Comprehension for an International Student Over One Semester

Bethany Angelina Preston
Ildiko Porter-Szucs, Faculty Mentor

Oral Session D
Room 304—3:30 p.m.

Although the Subject, Verb, Object (SVO) Editing Technique was designed to help students improve their writing (Woodcraft and Porter-Szucs, 2006), this observational case study with a follow-up interview suggests that it is also unintentionally helpful by boosting reading comprehension. Similar to how diagramming sentences can help visual learners learn English (Klammer, Schulz, and Della Volpe, 2013), the visual symbols that represent different functions in a sentence taught the study participant to see in a clear, direct manner how the different elements of a sentence intertwine and what they mean when put together.

Understanding Japan: Evaluating and Maximizing the Study Abroad Experience Using the LESCANT Model

Yukiko Julliette Roy
Motoko Tabuse, Faculty Mentor

Oral Session A
Student Art Gallery—8:45 a.m.

This project will address how to improve the study abroad experience of an undergraduate student at Eastern Michigan University. The interview results of 20 study abroad alumni who studied in Japan will be used to evaluate the effectiveness of studying abroad before and after their knowledge of the LESCANT model. The qualitative data provided by the interviewees and the interviewer’s experiences will show whether the students felt their time abroad would have improved, not improved, or been equally as effective had they known how the LESCANT model applies to Japanese society and culture.
Progress in Connector and Punctuation Use in the Writing of a Cantonese L1 Foreign Student

Yu Jung Sin
Ildiko Porter-Szucs, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

As part of this study, the TESOL student taught an EMU ESL student the “SVO Editing Technique” (Woodcraft & Porter-Szucs, 2006). This technique was designed to help native and nonnative English writers eliminate a variety of grammatical and punctuation errors. At the beginning of the semester, the TESOL student-researcher collected an initial writing sample from the ESL student. After 10 weekly meetings, a second writing sample was collected. A comparison of the two writing samples revealed a reduction of comma splice errors and further improvement in the use of clause connectors and cohesion.

Cataluña: Spain’s Economic Powerhouse and a Political and Cultural Leader

Sr. Mercedes Torres
Ronald Cere, Faculty Mentor
Oral Session C
Student Art Gallery—1:30 p.m.

This presentation will demonstrate, via an audio-visual journey, the socio-economic and political importance of Cataluña in modern-day Spain, as well as its unique cultural and social contributions. It will focus on: 1) its status as the economic powerhouse of Spain, which helped the latter gain entry into the European Union and played a leading role in shaping the country’s and the Union’s policies toward northern Africa and Latin America; 2) its political position as a proponent of regional nationalism, a characteristic of Spain’s individualism, and 3) the region’s cultural influence—language, art, literature, etc.—on the surrounding regions.
The Forgotten Heroes: Greek and Roman Voices of Reason, Their Caregivers, Mentors and Protectors

Yolanda Trentadue
James Holoka, Faculty Mentor
Oral Session C
Room 301—1:15 p.m.

In this study I examine minor characters in Greek and Roman literature who help raise, nurture, care for, and counsel the famous mythological heroes and other major characters. These individuals exert a strong influence on their charges long into their adult lives. Since these caregivers and advisers rank low in the social hierarchy, they often go unnoticed and underestimated. This study shows that their roles in literature are in fact critically important. They appear and give counsel at pivotal moments in the major story, and thus playing a much more significant part than their humble social status would seem to allow.

The Future of Health Insurance: What Can the Bismarck Model Teach Us about Obamacare?

Jessica Wenzel
Margrit Zinggeler, Faculty Mentor
Oral Session A
Room 104—9:45 a.m.

In 1883, Germany was the first country to implement a national healthcare system. It was introduced by Otto von Bismarck, and today it relies on a binary model of “Gesetzliche Krankenversicherung” and “Private Krankenversicherung.” Since the reunification of West and East Germany, the healthcare system has seen a number of changes. Recently, the U.S. healthcare system has been undergoing its own remodeling, with Obamacare seeking to implement a universal healthcare policy similar to the Bismarck model. Since it is a new system, it is hard to predict outcomes; however, by analyzing the Bismarck model and its history we may foresee the future of American healthcare.
Empirical Study of Antecedents of E-Commerce Sales
Ilkhomjon Amanov
Priyanka Meharia, Faculty Mentor
Oral Session B
Room 320—10:30 a.m.

Electronic commerce (e-commerce) attracts characteristics such as ubiquity, global reach, and interactivity. It has brought an exponential growth with global e-commerce sales reaching $1 trillion. The research investigates the antecedents of e-commerce sales, specifically the relationship between trust, income, cultural differences, broadband connection and E-commerce sales. The OLS regression analysis testing method is used to determine the relationship between the suggested variables. The results will provide empirical evidence to businesses in better understanding their target markets, and will alert them to crucial factors affecting their e-commerce sales revenue and business profitability.

SOC Audit Series: The Need for a Uniform Process of Verification of Internal Controls
Kati Diane Nance
Jens Stephan, Faculty Mentor
Poster Group 2
Room 310 —11:15 a.m. & 1-1:45 p.m.

This thesis is a study of the evolution of the external audit of service organizations combined with a series of interviews with professionals who have conducted and undergone such audits. The research component of this study is intended to provide an explanation of the risks and associated internal controls that led to the implementation of the SOC audit series. The interviews are intended to provide first-hand accounts from professionals that have experienced this process from the perspective of the external auditor, the compliance officer and the CFO. It is expected that each will speak to the issue of costs and benefits.

Social Media Branding: The Effect of Persuasion Theory on YouTube Ratings
Dakoda Johnson
Chong Oh, Faculty Mentor
Oral Session A
Room 352—8:45 a.m.

The potential for marketing via YouTube grows each day, yet there is still much that is unknown about this new channel of digital media. YouTube reports that over 100 hours of video content are uploaded every minute and over 1 billion unique users visit the site every month (2015). This study investigates how the automobile industry uses YouTube to promote successful content. Specifically we apply the Aristotelian appeals persuasion theory (ethos, pathos, logos) in understanding the relationship between video characteristics and ratings. We find that videos with ethos and pathos appeals have significant positive correlations with video ratings.
The Process of Developing a Strategic Marketing Plan: EMU Tweet Bowl 2015

Amanda Samantha Jones  
Chong Oh and Sheila Sasser, Faculty Mentors
Oral Session D  
Room 350—2:30 p.m.

The EMU Tweet Bowl is an annual three-year research campaign at Eastern Michigan University that has involved marketing and computer information system students who collect and analyze tweets during major national events such as the Super Bowl. This year's strategy was to build upon the previous research insights and findings about what motivates people to engage in multi-screen viewing during the game.

Social Media Analytics: EMU Tweet Bowl 2015

Nicholas A. Jordan, Jesse Burrison,  
James Dubinsky and Randy Gussan
Chong Oh and Sheila Sasser, Faculty Mentors
Oral Session D  
Room 350—2:30 p.m.

Marketers are using social media to pair demographics with their customer's behavior. Our research analyzes local samples of tweets from the EMU Community to evaluate how certain demographics react to different types of promotional vehicles. Our study shows the process of cleaning and analyzing data as well as results from the research campaign, success and failures, and suggestions for future research campaigns through Twitter and other social media outlets.

The Influences of Social Media

Taylor Kennedy  
Chong Oh, Faculty Mentor
Oral Session C  
Room 320—1:00 p.m.

Social media is ubiquitous. It is used in everyday conversation and widespread in the form of multiple social media sites. What are the influences of social media in today's world? Compiling data from multiple sources, we examine this topic by comparing the growth of social media, researching investors of social media and their investing strategies, discussing government policies in creating laws around social media, data mining of social media data, and observing social media use in social uprising around the world.

Engaging with the Student Body: Creating a Dynamic Social Media Campaign

Nicole Martin, Jermain Gilmore,  
Michael Campbell and Shelby Adkins
Chong Oh and Sheila Sasser, Faculty Mentors
Oral Session D  
Room 350—2:30 p.m.

Successful social media campaigns do not occur overnight. Viral sensations are not about being in the right place at the right time, but are intentional and strategic. Beyond funny memes, hashtags, and massive sharing, successful campaigns require a constant cycle of communication that inspires targets to act or participate to interact. In order to inspire authentic user generated content, multiple events along the incentive program are implemented in the 2015 Tweet Bowl social media strategy. Ultimately, this content will drive the popularity of the Tweet Bowl social media campaign and inspire a minimum of 500 students to complete the survey.
This research examines social media consumer engagement of four major automobile firms in 20 different countries to compare and contrast brand marketing via social media. Existing literature on cross-cultural communications is influenced by the framework of individualism and collectivism (Hofstede et al., 2010). However, does social media present a conduit that merges communications from different cultures into a conglomerate as in the notion of the global village (McLuhan, 2003)? Results show that with all things being equal and irrespective of its origin country, a firm’s behavior toward social media use differs in the individualistic-collectivist continuum.

The Best Practices of Planning a Social Media Event: EMU Tweet Bowl 2015

Event planning is a process that contains many more components than one would first expect. It is a team effort that requires efficient and timely communication and execution. The EMU Tweet Bowl 2015 consists of three Super Bowl related viewing events: two playoff viewing events and one final Super Bowl viewing event. In the process of event planning, a successful public relation strategy and sponsorship support is key. This presentation examines the highlights as well as the failures of this project, and proposes an event planning benchmark for the EMU campus community.

Emich Events: A Virtual Calendar for Eastern’s Organizations

Simplicity is key in changing the world. Students today have busy schedules and are constantly bombarded with new information. We have created a website to reduce the clutter presented with managing schedules and information. EmichEvents.com is a web-based calendar that was created to introduce a single focal point to keep track of all the activities of student organizations at the College of Business. EmichEvents.com helps students to quickly identify the time, location and topics of different meetings at all student organizations. Our website allows students to spend less time searching and more time getting involved with their favorite business organization.

Is Twitter Psychic?

This study demonstrates how social media can affect television ratings. For the study, we collected numerous television shows and their ratings over a period of weeks. We looked at official Twitter and Facebook accounts for each show and extracted post counts, followers, likes, and replies and were able to determine that social media positively affects ratings. This study can help TV networks realize the importance of social media in garnering viewership. It’s also useful to agencies that buy time during specific show airings; businesses can visit the official site(s) of a show to determine whether or not there is enough interest.
Department of Management

How Culture Affects Management: An Application of Hofstede’s Dimensions on China and Germany

Brock Foster
David Victor, Faculty Mentor
Oral Session B
Room 352—10:30 a.m.

Culture has a profound effect on the perspectives of people everywhere. Dutch researcher Geert Hofstede conducted studies to see just how much values in the workplace are influenced by culture. In his research he identified power distance, individualism, and uncertainty avoidance as three of the six dimensions of national cultures. Within the framework of Hofstede’s work, culture will be discussed as it affects the role of managers, the structure of management, and how managers react in a business context. China and Germany will be used as examples to show that cultural perspectives affect managerial operations.

Perception Influences Performance in High Performance Work Systems

Linda Jochum-Owczarzak
Alankrita Pandey, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

This study examines how positive perception influences performance. Manager and employee perceptions of corporate culture were obtained in public and nonprofit work environments to quantify qualities existing in high performance work systems. Matched surveys were administered to management and staff. The results were investigated through an assessment tool designed to measure these perceptions. The results were analyzed for strengths and weakness to create a plan of action for the organization.

Small Businesses Working Together for Success

Stephanie Spiggle
Christine Day, Faculty Mentor
Oral Session B
Room 352—10:15 a.m.

A challenge facing small business today is their ability to make a large impact in society. In August 2014, this student traveled from Portland, OR to New York, NY with the Millennial Trains Project. The Millennial Trains Project “leads crowd-funded transcontinental train journeys for diverse groups of young innovators to explore America’s new frontiers.” Small business owners were interviewed to gather research on this journey across the country. A common theme discovered was the positive effect it had on small business success. Ultimately, this presentation will discuss the impact that can be made when businesses join together and work as a community.
Measuring the Organizational Failure Construct: Scale Redevelopment for Intercollegiate Athletics

Daniel P. Taylor and Klara Supejova
Thomas Cieslak, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

The objective of this project is to develop an organizational failure framework and questionnaire for intercollegiate athletics. Specifically, this project expands previous research by establishing 6-factors (i.e., Student Opinion (SOP), Management (MGT), Characteristics (CHR), Performance (PRF), University Policy (UNP) and Social, Economic & Political Influences (SEP); (Ooghe & Waeyaert, 2004). In addition, 20 items measure which internal and external factors influence stakeholders’ perceptions of the university's athletic department and football program. This poster will present information about the proposed conceptual framework, questionnaire and research methods.

Quantifying Organizational Failure and Stakeholders’ Perceptions of Intercollegiate Athletics

Erin E. Traczek and Nicole K. Repetto
Thomas Cieslak, Faculty Mentor
Oral Session B
Room 352—10:00 a.m.

Alonso and O’Shea (2013) established that the viability of an intercollegiate football program, a multi-million dollar business, could be determined by measuring its rate of failure. Thus, the objectives of this project are: 1) examine factors influencing students’ on-campus experience; 2) identify managerial strategies administrators are employing to produce university culture; 3) discover the organizational characteristics influencing students’ spectator experiences; and 4) measure the factors influencing stakeholders perceptions of the football program’s value. This session will discuss the scale development, data collection and analysis and recommendations.

Department of Marketing

Creating Videos Dramatizing the Impact of the EMU Integrated Marketing Communications Master’s Degree

Melina Fuentes
Sheila Sasser, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

This study explores how to co-create, conceive, develop, script and prepare Integrated Marketing Communications (IMC) videos to showcase our award winning IMC graduate alumni and to create original materials that illustrate the benefits and rewards of enrolling in this online graduate program at EMU. Successful EMU alums from Harpo Production Studios, Amway, Team Detroit, AAA, and other firms provide frank comments about their experiences along with examples of how the program helped them succeed in the competitive workplace environment and build long lasting relationships with their classmates in a virtual environment.
The Process of Developing a Strategic Marketing Plan: EMU Tweet Bowl 2015
Amanda Samantha Jones
Chong Oh and Sheila Sasser, Faculty Mentors

The EMU Tweet Bowl is an annual three-year research campaign at Eastern Michigan University that has involved marketing and computer information system students who collect and analyze tweets during major national events such as the Super Bowl. This year's strategy was to build upon the previous research insights and findings about what motivates people to engage in multi-screen viewing during the game.

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Engaging with the Student Body: Creating a Dynamic Social Media Campaign
Nicole Martin, Jermaine Gilmore,
Michael Campbell and Shelby Adkins
Chong Oh and Sheila Sasser, Faculty Mentors

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I AM DETROIT: How to Attract College Graduates to the City of Detroit
Nicole Martin, Ashlen Olive,
Leah Diestel and Nicholas Parish
Sheila Sasser, Faculty Mentor

This research project utilizes survey methodology and participant observation to analyze and prepare a strategic integrated marketing communication, media, and creative plan for the City of Detroit. Students attended key events in the city and conducted interviews then developed a survey. A social media video was developed based upon the research as part of the integrated marketing communication campaign along with a media plan and assembled resources. The project addresses the bankruptcy and uses secondary sources to validate its message strategy: I Am Detroit!
Shinola Integrated Marketing Communications
Branding Campaign Reinventing Detroit

Dean O’Neill, Alex Johnson, Oral Session A
Blake Hayes, Philip Christopher, Room 352—8:30 a.m
Paulina Islas and Sheri Manfre
Sheila Sasser, Faculty Mentor

Shinola is a product with an interesting history and a brand name that resonates. An entrepreneur obtained the rights to use this brand name to reignite handcrafted excellence “made” in Detroit. Shinola became a worldwide symbol of the rebirth of creativity and manufacturing in a city that was bankrupt. An iconic brand, and an iconic Detroit, provided the perfect formula for an integrated marketing communications campaign; using research, media, and psychographic insights to build a solid strategic, social media and creative plan. Twenty4Seven artist Blake Hayes created the original music track for the video campaign. Even former Presidents are now wearing Shinola!

The Best Practices of Planning a Social Media Event: EMU Tweet Bowl 2015

Megan Spencer, Catherine Rowley, Oral Session D
Shelby Gilbert and Srikiran Narra Room 350—2:30 p.m
Chong Oh and Sheila Sasser, Faculty Mentors

Event planning is a process that contains many more components than one would first expect. It is a team effort that requires efficient and timely communication and execution. The EMU Tweet Bowl 2015 consists of three Super Bowl related viewing events: two playoff viewing events and one final Super Bowl viewing event. In the process of event planning, a successful public relation strategy and sponsorship support is key. This presentation examines the highlights as well as the failures of this project, and proposes an event planning benchmark for the EMU campus community.

Is Twitter Psychic?

Stephanie Yergeau, Mahdi Oral Session C
Alkadib and Yujin Woo Room 320 —1:15 p.m.
Chong Oh and Micah Murphy, Faculty Mentors

This study demonstrates how social media can affect television ratings. For the study, we collected numerous television shows and their ratings over a period of weeks. We looked at official Twitter and Facebook accounts for each show and extracted post counts, followers, likes, and replies and were able to determine that social media positively affects ratings. This study can help TV networks realize the importance of social media in garnering viewership. It’s also useful to agencies that buy time during specific show airings; businesses can visit the official site(s) of a show to determine whether or not there is enough interest.
Department of Leadership & Counseling

The Role of University Endowment on Student Leadership Opportunities
Ilkhomjon Amanov and Lauren Renou
Linda Foran, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Does the public university endowment indicate the level of student leadership opportunities? By comparing two similar public institutions, Eastern Michigan University and the University of Massachusetts Amherst, the researchers discovered the potential answer to this question by investigating student organizations on each campus. Funding and leadership opportunities were examined in this study.

Securing the Legacy: A Comprehensive Leadership Plan for Greek Males at Eastern Michigan University
Christopher Crawford and Kyle Ketchabaw
Cheyenne Luzynski, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

Greek Life on many college campuses encounters the stigma of alcohol/drug abuse, hazing, and parties, and has become the centerpiece of discussion for campus administrators, some seeking to eliminate Greek life entirely. This exploratory study investigates theories and models in order to design a comprehensive leadership approach for Greek Life at EMU. This study investigates innovative leadership practices and interventions that may counter the negative stigmas. The study uses interviews and an extensive literature review to present an ethical and comprehensive leadership plan that secures a commitment to the guiding principles of academics, service, and leadership.

Department of Special Education

You Can’t be Smooth Like the Other Children
Kenzie Linzell Banka
Phil Smith, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Mothers of children with disability are systematically disempowered. Educators, doctors, and even other parents tell mothers that they are the reason for the disability and place harsh criticism upon them. Mothers are typically the primary caregiver for children with disabilities, putting their own psychological and physical health aside to care for their children. If the health of the mother is improved, the health of the child is improved. Mothers deserve voice and recognition of the struggle they face daily, by advocating for their child, fighting for community inclusion, juggling other children and responsibilities, and so much more.
Deconstructing Attention-Deficit/Hyperactivity Disorder
Dylan Burrows
Phil Smith, Faculty Mentor
Oral Session D
Room 204—2:45 p.m.

Over the past several decades, the concept of attention deficits has come to the forefront of behavioral issues in our schools. These issues have primarily been addressed through prescribing medication, which can have side effects that often go overlooked because the user is ultimately earning higher grades. This presentation describes various treatment choices for students with attention deficits, particularly Attention-Deficit/Hyperactivity Disorder (ADHD), based on a review of the literature and qualitative interviews with education professionals about alternative treatments.

Accessing Camp: How Do We Include Individuals with Different Abilities?
Kyla Ford
Linda Polter, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

Children and adults with disabilities face unique barriers when they seek to participate in recreational camping experiences, particularly with programs designed for individuals who are typically-abled. This project explores options for summer camps to better include individuals of all abilities in all major aspects of their programming from physical, social, emotional, and spiritual perspectives.

Intellectual Disability and Sexuality: The Missing Link
Megan Hoorn
Phil Smith, Faculty Mentor
Poster Group 1
Room 310—8:30-10 a.m.

Research documents the views of caregivers, other family members, educators, health professionals, and community members with respect to intellectual disability and sexuality. However, there is a void when it comes to the voices of people labeled as having intellectual disabilities regarding their own sexuality. This poster not only summarizes existing literature pertaining to others’ perceptions of intellectual disability and sexuality but also includes the perspectives and experiences of individuals who themselves are identified with intellectual disabilities.

Retinopathy of Prematurity
Gabrielle Kwalton
Alicia Li, Faculty Mentor
Oral Session D
Room 204—2:30 p.m.

Retinopathy of Prematurity (ROP), an eye disease found in infants born before 31 weeks gestation age and weighing less than 2 3/4 pounds, is one of the most common causes of blindness in children. ROP is a spectrum disorder that ranges from the development of normal vision without treatment in earlier stages to total blindness in later stages. Limited research has been conducted on ROP and the long-term treatment results. This presentation focuses on the educational implications of ROP, including the various resources needed to help students with ROP be successful in school.
Debunking Michigan K-12 Anti-Bullying Policies: Subjects or Subjectivity?

Jeannie Woerner

John Palladino, Faculty Mentor

Oral Session A
Room 330—9:15 a.m.

The Center for Disease Control and Prevention (CDC) and the U.S. Department of Education have established definitions of bullying that include both policies and the psychosocial components of this behavior. This study examined the alignment of the federal definitions with written anti-bullying policies of 85 Michigan school districts based on the evaluation of middle school and high school student handbooks. In addition to analyzing policy, this study investigated the extent to which districts incorporated mental health language when describing bullying behavior, as the CDC suggests should be at the core of schools' responses to this phenomenon.

Department of Teacher Education

Hoarding and Its Connection to Aging

Angela J. Binns and Mirissa Couture

Caroline Gould, Faculty Mentor

Oral Session A
Room 304—9:15 a.m.

The concepts involved in this problem are self-explanatory and this is a fast growing problem for people of all ages, but is particularly significant for adult children of those 60 and older. Hoarding is now considered a form of mental illness requiring medication; a syndrome for which there is no cure; a housekeeping problem requiring a good deep cleaning; and a kind of elder abuse involving self-neglect. It is an issue far greater than messiness and one that has no easy fix. The fix requires care, understanding and compassion. We explored how to help family members approach hoarders and help with this problem.

Do People Become More Religious as They Age?

Ashley Gallaher

and Kyle Dube

Caroline Gould, Faculty Mentor

Oral Session A
Room 304—9:00 a.m.

Much interest has surfaced in the recent research community on the question of whether or not people develop religion or become more religious as they age. We have speculated on that question as well. It does seem that this is a true fact; however, the reasons may surprise you. We looked at several reasons that cause this association with various forms of religion from the dwindling size of the family unit to that age-old fear of death. Think about the reasons that people may seek solace through religion and consider: Are spirituality and being religious the same? These terms are used so interchangeably.

Attitudes on Aging: It's Really as Bad as It Seems!

LaToya D. Brown

Caroline Gould, Faculty Mentor

Oral Session A
Room 304—8:45 a.m.

Most people's perceptions of aging are inaccurate and often reflect stereotypes of biosocial development in late adulthood. These stereotypes stem from our preoccupation with physical decline that is really more the result of disease than it is of aging. What's up with perceptions? How do we see them and how do they see themselves? What do they experience? Is it possible to negotiate new images of aging?
The Language of Aging
RaeAnne M. DeBest
Caroline Gould, Faculty Mentor
Oral Session C
Room 304—1:45 p.m.

This research culminated in the creation of an information brochure that explored the best way to inform the public about ageism and how to check for their own values and attitudes. It was felt that a non-confrontational brochure would best help make people aware of what ageism is and how it occurs frequently in this society. This brochure discusses the dimensions of ageism and what people should do if they feel they are victims of age discrimination.

12th Grade English Unit: Through a Critical Lens—Featuring Brave New World by Aldous Huxley
Jenny DeBoer
Patricia Williams-Boyd, Faculty Mentor
Oral Session D
Room 204—3:15 p.m.

A 12th grade English unit introduces the concept of literary criticism in a way that meets the learning needs of all students by interest, readiness, and learning profile. There is a mix of direct, inductive, and cooperative lessons that give students a taste of what marxist, psychoanalytic, moral, and feminist criticisms are and how they can be used. Each lesson is student-centered, relating each topic to the student’s world. Brave New World by Aldous Huxley is used to supplement each criticism, providing a means to experiment with each. The unit concludes with a play written by the students that engages the family and the community and exemplifies what students have learned.

Issues in Organ Donation
Aaron Decker, Emily A. Batdorff,
Jonathan Dickey, Kristen Yutzy
and Nicole M. Steep
Caroline Gould, Faculty Mentor
Oral Session A
Room 304—9:30 a.m.

Through research we explored beliefs and arguments used in organ donation and transplantation programs. We researched the donation process, including the differences in American and European policies and procedures including what organs can be transplanted and how adherence to policies and procedures make it easier for some to get needed organs, while making it impossible for others. While myths abound about the process, there are also truths that are sometimes stretched to enable people to receive the procedure they need. We share information about our own experiences that have pushed us into opposing sides.

Surviving the Middle-Age Tug of War
Nicholas Drews, Brandan Boehmer,
Julie Tartarian and Tiffany Walker
Caroline Gould, Faculty Mentor
Oral Session B
Room 304—10:45 a.m.

One of the issues that middle-aged women are more likely to deal with than people of any other age group is that of caring for their own children while also caring for aging parents. This is the essence of the sandwich generation. The issues surrounding that time of life are explored through research. We first define what this is and when it occurs. Explaining this tug-of-war and how it happens for women, we describe through examples how the inherent issues become the problems of middle-age for many women. How and why do these very issues become responsibilities that are then relegated to women? Finally, we provide our own bird’s eye view from our own experiences.
What is Aging and is There a Double Standard?

Samantha Galinis and Camen Gill-Williams

Oral Session C
Room 304—2:00 p.m.

About 30 years ago, the powerful thinker and writer Susan Sontag wrote an article on what she termed, “The Double Standard of Aging.” We have examined that premise and there does seem to be a double standard of aging for men and women. It is also easily recognized, without bias, that the society is more critical of aging women than aging men. We will discuss the many other ways that women experience aging in this culture more harshly than do men. While this current generation will see an improvement on many levels, the stigmas attached to aging continue to hold strong.

Dual Student Teaching as a Powerful Shared Experience of Teaching and Learning

Ally Kristensen

Oral Session A

Wendy Burke, Faculty Mentor
Student Art Gallery—9:00 a.m.

The culminating student teaching experience in a teacher preparation program is often structured and considered a solitary experience of survival. In this session, two outstanding student teachers explore their learning while student teaching together in a single elementary classroom. In the process of examining their experiences using the tools of reflective practitioners, they challenge the norms that have traditionally framed teachers’ professional learning and growth as an isolating, personal journey to one that is collaborative, supportive, and contributing to a larger professional knowledge base.

Beyond the Lesson Plan: Experience, Differentiation, and Connection

Joelle Kalee Laginess

Oral Session D

Patricia Williams-Boyd, Faculty Mentor
Room 204—3:30 p.m.

My unit is designed for a Spanish II class learning one of the most conceptually and orally difficult aspects of the Spanish language: the past tense. Designing engaging, interactive, and challenging yet fun lesson plans is crucial to the education of my students, especially with such a difficult and important concept to further their fluency in the Spanish language. Every student can learn a new language, or any subject, but it is important that the content be taught universally, seeking a variety of instruction, scaffolding, and practice. Found in my lessons are ways of teaching that will allow students to learn according to their needs and learning styles.

Why Middle-Ageism is the Precursor of Aging in America and Why Both are Here to Stay

Carolyn M. Manasseh

Oral Session B

Caroline Gould, Faculty Mentor
Room 304—10:30 a.m.

Middle-ageism continues to reign as the premier contributor to the advent of ageism culture in America. First is the prevalent stereotype that advanced age brings loss of health, vitality and mental agility. Second, the idea that people over the age of 40 are the new “Over the Hill” gang. And third, as people continue to fear additional birthdays and advanced age, they resist taking advantage of new opportunities for growth that come with additional age and experience. Throughout this research, it remains clear that successive generations have not learned to mutually value and respect each other, fostering values that could bring about behavior changes.
From Depression to ReInvention: The Mid-Life Crisis

Loni B. McGackin
Caroline Gould, Faculty Mentor
Oral Session B
Room 304—11:00 a.m.

The concept of mid-life crisis, first coined in 1865 by Elliott Jacques, suggests that in industrialized societies, men and women experience societal pressures that cause conflicts that are enormous and life changing. One theory that could be used to combat this struggle suggests that all should be venerated regardless of age, beauty or wealth; to teach adults to celebrate this developmental phase of life and spread their wings of maturity to embrace the second phase of life.

Ten Lesson Unit: “Coming of Age” Based on Time Period (“The Past”)

Mehlberg
Patricia Williams-Boyd, Faculty Mentor
Oral Session D
Room 204—3:00 p.m.

Showcasing effective methods of teaching for students, the unit is student-centered, involving active learning: students participate in discussion in every lesson in order to develop their own literary analysis skills. My role in the classroom is teacher as facilitator, guiding students in their own development. Each lesson is related to students’ lives, so they can make connections from the text to their world. The unit is also designed specifically to meet the learning needs of all students, focusing heavily on differentiation by readiness and by interest. Finally, the unit creates optimum involvement in the community and with the family through the culminating activity.
Interpersonal and Intrapersonal Relationships in King Lear

Ashley Powers
Patricia Williams-Boyd, Faculty Mentor

Interpersonal and intrapersonal relationships in King Lear is a unit lesson plan designed for high school language arts classrooms. This unit encompasses the major themes of King Lear, including the relationships between people, as well as relationships with oneself. Students explore these relationships in the context of an aging King Lear and apply them to their own lives. This unit allows students to become active in their community as they interact with residents of a nursing home, talking to them and incorporating their experience into a final essay that connects to the major themes of the text.

Disaggregation of Student Assessment Scores to Examine Trends Among Subgroups

Holly Sas
Martha Baiyee, Faculty Mentor

Disaggregation of Student Assessment Scores to Examine Trends Among Subgroups

Assessment is used to monitor student achievement, which reflects teacher effectiveness. While it is important to track the progress of individual students, subgroup achievement must also be analyzed to guide the effective teaching of these students, which is necessary to close achievement gaps. This poster presents and discusses the results from a 5th grade social studies test. Test alignment and administration, frequency and overall patterns of scores, group comparison by gender, and an analysis of an English language learner are investigated to gain a more nuanced understanding of the scores.
Marketing Plan and Research for Gorilla Gii
Lilly DeRamos
Holly Mosher, Julie Becker and
Frank Gerlitz, Faculty Mentors

Gorilla Gii is a fabric built and marketed for the enhancement of athletic performance. It is a compression garment shown to enhance performance by factors such as reducing muscle oscillation. The material is a rash guard that helps with movement abrasion against the skin and is also a coolant that keeps the body from heating up during performance by wicking the sweat through the fabric. To prevent excessive body odor the material is antimicrobial and kills bacteria that causes body odor. There are products in the market with these features, but few with all of these qualities. The plan outlines the product, the specific target market, and competition research.

A Comparison of the Physical Fitness of American Children: 1985 vs. 2010
Dirk Peeters
Andrew Cornett, Faculty Mentor

Concerns about the physical fitness of American children are not new to this generation. In 1956, President Eisenhower founded what is now known as The President’s Council on Fitness, Sports, and Nutrition in response to a report that American children were less physically fit than their European counterparts. The President’s Council helped to establish The President’s Challenge, a testing program responsible for conducting national surveys of the physical fitness of American children. The purpose of our study is to compare the results of the last national survey in 1985 with more recent data to determine if there is evidence of a change in physical fitness over the past 25 years.

Age and Event Distance in American Swimming
Larkin Grant Schwarz
Non-presenting, co-author: Erica Smith
Andrew Cornett, Faculty Mentor

Schulz and Curnow (1988) hypothesized that “the peak performance for events requiring explosive power and speed would occur at a younger age than for events requiring endurance.” We tested this hypothesis by comparing the age of athletes in sprint (SPR), middle-distance (MD), and distance (DST) freestyle events at the U.S. Long Course Swim Championships from 1969 to 2012. We found the age of the finalists in these events to be inversely related to the event distance (SPR 22.1 yrs, MD 20.1 yrs, DST 19.0 yrs). More research is needed to determine why our findings did not support Schulz and Curnow’s hypothesis but it may reflect a preference toward sprint events in American swimming.
Validity of a Simultaneous Heart Rate and Motion Sensor Device During Free-Living Activity in Youth

Rachel Shelton
Rebecca Moore, Faculty Mentor
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

- The use of pedometers, accelerometers, and other devices have become popular ways to measure energy expenditure in youth. The Actiheart, a small device worn on the chest, measures heart rate and motion simultaneously during physical activity to determine energy expenditure. Presently, it is unknown if the Actiheart is a valid measure of energy expenditure in youth during free-living physical activity. The purpose of this study was to compare energy expenditure collected from the Actiheart to indirect calorimetry (criterion measure) to determine the validity of the Actiheart as a measure of energy expenditure during free-living physical activity in youth.

Age at Menarche, Body Shape, and Competitive Success in Female Athletes

Samantha M. White
Non-presenting, co-author: Erica Smith
Andrew Cornett, Faculty Mentor
Oral Session C
Room 304—1:00 p.m.

- It is unclear as to why elite female athletes have consistently shown later ages at menarche than their non-athletic peers. One common explanation is that the stress from the early onset of intensive physical training acts to delay sexual maturation. However, we chose to investigate a different explanation: that certain characteristics of late matures are coincident with athletic success. In doing so, we found that late-maturing women were significantly more linear in body shape than early maturers. Since female athletes have also been found to exhibit more linear body shapes, the later menarche observed in elite athletes may be due, at least in part, to the selection of this trait.

School of Health Sciences

Evaluation of Raspberry Ketone Supplementation as a Weight Loss Aid in Overweight Adults

Ethan Braun, Brianna Fassezke, Katelyn Briolat, Keith Kraker and Sarah Percy
John Carbone, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

- Raspberry Ketone (RK) supplements are marketed as miracle weight loss pills. Peer-reviewed evidence, while promising, is currently limited to cell culture and animal studies. Five overweight volunteers consumed 200mg RK daily for six weeks. Participants’ body weight (BW), body composition (BC) and respiratory quotient (RQ) were determined at baseline and study end. No significant changes were observed in any measure from baseline to completion. Mean BW and RQ decreased 0.1kg and 0.1, respectively. Mean BC was unchanged. The results of this pilot study suggest that RK supplements are not an effective weight loss aid. Further volunteer recruitment is warranted to draw more definitive conclusions.
The Effects of Homeopathic Nasal Solutions on MRSA and Susceptible *S. aureus*

Ashley Campbell
Lynne Shetron-Rama, *Faculty Mentor*

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Over-the-counter nasal moisturizing sprays are used regularly by patients to alleviate dryness and discomfort in nasal passages, a major symptom of Sicca syndrome/ Sjogren’s syndrome. It was proposed that since these OTC nasal washes had essential oils in them with known antimicrobial properties perhaps these nasal washes also exhibited these properties. A series of assays using MIC broth and plate techniques as well as timed exposure were used to test both MRSA and susceptible *Staphylococcus aureus*. MIC tests have shown that one spray had inhibitory effect on growth. The results show some OTC nasal products have bacteriostatic capability.

Translating Knowledge to Practice: Occupation-Based Practice

Tessa Champoux
Jayne Yatczak, *Faculty Mentor*

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Professional education aims to equip graduates with the knowledge and skills for practice. OT educators expect their students’ practice to be occupation-base, leading to functional, occupational outcomes, thereby fulfilling the unique contribution of OT to society. How knowledge is translated into practice is uncertain. This study seeks to understand how graduates from EMU’s OT program practice and if their practice reflects the profession’s focus on occupation-based intervention. Results of this study may inform changes to the program’s curriculum and may also contribute to the profession’s knowledge of how therapists understand and implement occupation in practice.

Possible Adaptations for the United States from South Korea’s Healthcare System

Priya Chidambaram
Pamela Walsh, *Faculty Mentor*

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South Korea is known as a high-income country under rapid development over the past few decades. Although Korea is not comparable in size to the United States, it was able to spread universal access to health coverage throughout the entire population in a span of just 12 years. Korea’s per capita public and private health expenditures combined are 80.86% less than that of the United States. Its healthcare system seems to be highly functional and successful. This study proposes possible implementations that can be adapted from the Korean healthcare system to fit the United States at both the state and federal level.
PediaTrac: An Interdisciplinary Tool for Assessing Developmental Risk Factors in Infancy

Anna Kleppe, Ashley Braun, Jennifer Noel DeMent and Jennifer Flynn
Renee Lajiness-O’Neal, Angela Lukomski and Judith Brooks, Faculty Mentors

PediaTracTM is a survey tracking system to screen for risk factors in infancy and monitor for deviations from typical developmental trajectories, allowing for retrospective exploration of risk algorithms. Initially developed by a panel of experts across 13 disciplines, content validation by a panel of three experts revealed Cronbach alphas of >.70 for all developmental domains. This poster describes the content validation study and the prospective study currently underway examining the construct validity of PediaTrac.

Don’t Judge Leadership by Its Cover

Courtney BrieAnn Morris
Robbya Green-Weir, Faculty Mentor

Literature reveals that low numbers of minority student populations participate in leadership programs or roles at universities. The purpose of this research is to draw correlations between the availability of leadership development opportunities and leadership skills, post graduation, in minority students. The phenomenon is explored through literature review, research of select colleges, and student interviews.

Health Benefits of the Mediterranean Diet

Gretchen Nicole Wiese
Anahita Mistry, Faculty Mentor

The Mediterranean diet is a modern dietary recommendation inspired by traditional dietary patterns characteristic of countries surrounding the Mediterranean Sea. The objective of this study is to examine scientific literature to determine the evidence of the health benefits of adhering to a Mediterranean diet. The diet features traditional foods and lifestyle practices typical of this region. Results will help to develop a better understanding of the advantages of following a Mediterranean diet.

School of Nursing

A Study of Healthcare Disparities and Effective Solutions Among Asian Americans in Michigan

Malcolm Childs
Tsu-Yin Wu, Faculty Mentor

Due to barriers many Asian Americans visit doctors less frequently than they should. This causes preventable health problems within the Asian American population. The purpose of this study is to examine preventive health behaviors among the Asian Americans in Michigan and develop solutions to reduce disparities. Data was collected from surveys administered by the Health Asian American Project (HAAP). The study consisted of a convenience sample of 200 Asian Americans (comprised of three subgroups: Chinese, n = 75, Asian-Indian, n = 93, Filipino, n = 32). Results of the study underscore the need to develop effective interventions to increase preventive health measures in the population.
PediaTrac: An Interdisciplinary Tool for Assessing Developmental Risk Factors in Infancy

Anna Kleppe, Ashley Braun, Jennifer Noel DeMent and Jennifer Flynn
Renee Lajiness-O'Neal, Angela Lukomski and Judith Brooks, Faculty Mentors

Pediatric developmental disorders are treated most effectively when diagnosed early. An interdisciplinary team from nursing, dietetics, and psychology has developed PediaTrac™, a survey tracking system to screen for risk factors in infancy and monitor for deviations from typical developmental trajectories, allowing for retrospective exploration of risk algorithms. Initially developed by a panel of experts across 13 disciplines, content validation by a panel of three experts revealed Cronbach alphas of >.70 for all developmental domains. This poster describes the content validation study and the prospective study currently underway examining the construct validity of PediaTrac.

Nursing Student Supports Students in Transition to Tobacco-Free Campus

Isabelle McCormack
Julie Slack, Faculty Mentor

Nursing education focuses on teaching the value of health promotion and illness prevention. Thus, nursing has the background to educate students who are trying to quit smoking. On July 1, 2015, Eastern Michigan University will implement a policy to make its campus tobacco-free, joining colleges across the U.S. Currently, there are at least 1,514 U.S. colleges and universities that are 100% smoke-free campuses (ANRF, 2015). This research will describe the supportive services that were offered to students from Michigan colleges during their transition to a tobacco-free campus. The data will then be used to provide educational resources to students on strategies for smoking cessation.

Early Exposure to General Anesthesia May Lead to Developmental Deficits in Pediatric Patients

Sylvie Yaacoub
Angela Lukomski, Faculty Mentor

About six million infants and children undergo surgery and anesthesia each year in the U.S. Preclinical evidence shows that immature animals exposed to anesthesia display apoptotic neurodegeneration and long-term cognitive deficiencies. Therefore, it is critical to understand the clinical relevance of anesthetic neurotoxicity and its effects on pediatric health. This literature review examines the effects of exposure to general anesthesia in children, and the long-term outcomes in cognition and motor function. This information will help guide future anesthesia practice as it relates to pediatrics.
There are over 300,000 children being exploited and used as slaves and in combat situations as child soldiers. These children are kidnapped, brainwashed and forced to commit atrocities that are so heinous, most adults cannot fathom witnessing these things themselves. While both female and male child soldiers exist, their roles are extremely different. Even though we are aware that the roles are different, there is minimal research on the female child soldier experience. My research explores the different gender roles for child soldiers. It also explores the lack of research regarding female child soldiers and the possible reasons for this difference.

Substance abuse is a disease that mostly affects older teens and young adults. More than 23 million people in the U.S. need treatment, but only 2.5 million actually receive it. The historical response of U.S. society to substance abuse is presented, showing how the use of fear, shaming, and stigma has been ineffective. Local, state, and federal governments have resorted to widespread criminalization leading to mass incarceration in our society, which further destabilizes families and communities at great cost. A public health approach shows promise for sustained recovery with the support of professional and self-help organizations.

The numbers of women immigrating to the United States from the Dominican Republic grows each year. Dominican women face the process of social and language acculturation and as a result their traditional beliefs and values can be challenged. This research compares Dominican women who reside in the U.S. to Dominican women who reside in the Dominican Republic. We will examine characteristics regarding their relationships with men such as sexuality, independence and sexual health. We will conduct focus groups with Dominican women ages 18-45 in the U.S. and Dominican Republic. We anticipate finding differences about their sexuality, independence and sexual health.

As college tuition in the U.S. rises, the risk of students experiencing homelessness is a growing concern. Though the prevalence is difficult to identify and true figures are likely higher, the Federal Application for Student Aid (FAFSA) reported that 58,000 students on college campuses nationwide identify as being homeless. The purpose of this study is to understand the dynamics of becoming a homeless college student and the phenomenon of being one while pursuing a degree. In order to do so, the researcher seeks to identify and interview 30 or more Eastern Michigan University students who are currently, previously, or at imminent risk of homelessness.
A Generation at Risk: The Ties Between Zero Tolerance Policies and the Cradle to Prison Pipeline

Mikki Lachelle Smith  
Oral Session A  
Janet Reaves, Faculty Mentor  
Room 330—9:00 a.m.

This research will review the use of Zero Tolerance policies in the public school system and reveal the link that may be shared with the phenomenon known as the Cradle to Prison Pipeline. We will explore the possibility that a new caste system is emerging through the pipeline that prevents public school students, primarily minority males, from gaining higher education and instead renders them to a self-fulfilling prophecy: Prison. We will discuss the history of Zero Tolerance policy, the bias and disproportionate punishment involved, the counteractive results of its use in public schools, and alternative solutions that have been successful.

Where is Our Gloria Steinem?

Renee Smolinski  
Oral Session B  
Diane Fenske, Faculty Mentor  
Room 304—10:00 a.m.

Is it possible that through the years the dedication from Gloria Steinem could have been forgotten in the shuffle and fight for Women's Rights? A generation proving to be more involved in current events, yet drowning in social media could either be the push we need or the thing to set us back. As ‘Millennials’, we have been tried for being a generation based on laziness and quick fixes, yet we are held responsible for solving the problems that came before us. Since 1848 and still to this day we are still fighting for a more equal world. Instead, society tends to favor white, wealthy men. Is our generation lost without a voice for Women’s Rights and are we hiding it behind social media?

Let’s Talk About Sex: The Sexual Competency of University Students

Gloria Tonks  
Oral Session A  
Yvette Colon, Faculty Mentor  
Student Art Gallery—9:15 a.m.

Sexual education plays a crucial role in preventing unplanned pregnancy and the transferring of sexual transmitted infections (STIs). Michigan requires schools to educate students on STIs, HIV/AIDS, and abstaining from sexual activity, but are not obligated to expand further on the subject. The position of sexual educator falls to the parent and students must rely on the beliefs and knowledge of their guardians to gain information. This study will look at the variables that influence students’ sexual education and their effectiveness. Data will be obtained through a survey study of Michigan-born Eastern Michigan University students.
Aerobarco 2.0
David Adamovicz, Conor J. Cheaney and Zachary Stephenson
Ali Eydgahi, Faculty Mentor

Hovercrafts have been around since the early 20th century but have never been used to their full potential. Hovercrafts have many benefits and reasons why we should use them more often, but hovercrafts do have a downfall, which is their steering. Hovercrafts require a large area to turn or stop that is not practical when driving down streets designed for cars. However, if a hovercraft could become more responsive and controllable we could use them for more tasks. We designed a hovercraft in the ET 100 class, and are fabricating a new prototype that will use a different type of steering. Our Aerobarco will test a new way to control hovercrafts.

Next University Design
Alyssa Rose Eisenhauer
Jiang Lu and Michelle Belt, Faculty Mentors

Next University is an upcoming institution, which aims to shape creative and successful students. This University harmonizes creative design features, such as chalkboard walls, fiber optic star wall, and a hanging plant wall, with progressive learning environments to create a practical and engaging atmosphere ideal for all students. Adaptable and flexible learning areas that incorporate bright colors and patterns assist in enhancing student alertness and provide inspiration. Cutting-edge learning facilities, study spaces, and a creative design assist in achieving Next University's goal to enhance the educational environment using pedagogy, technology and space.

Instant Light Charcoal Quick-Brick
Jeremy Grunn, Alexander Flores and Troy Porter
Harvey Lyons and Macarthur Stewart, Faculty Mentors

The purpose of this project is to improve barbeque grilling and shorten cooking times by developing a charcoal brick that can light instantly, and without the use of lighter fluid. The aim is that the “Quick-Brick” will be an easier and faster method of charcoal cooking. Testing these bricks against the competitors will validate the need of this product in the market, and ensure its success. When the “Quick-Brick” is fully developed and tested, the goal will be to pit it against the current charcoal competition on the market. The “Quick-Brick” will re-revolutionize charcoal grilling.
Next University Design Competition Project

Kelsey Lynn Keil
Jiang Lu and Michelle Belt, Faculty Mentors

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

At Next University, each different space provides opportunity for continuous learning. There are traditional spaces with study, group work, lecture, and student and teacher collaboration areas in a not so traditional design. The furniture supports the ever-changing environments with quick rearrangements of all the spaces to fit the needs of the students and faculty. The curvilinear forms, bends, breaks, and twists as seen throughout the environment are simplified, exaggerated, and modified in the design of the space. By creating a path, the curves are a leading element throughout the space which is seen in the walls, ceilings, and lighting details.

Trugolf Indoor Enclosure

Timothy Blaine Kubiak, Ryan Parrish, Scott Balsis and Tom Balewski
Harvey Lyons and Macarthur Stewart, Faculty Mentors

Poster Group 1
Room 310—8:30-10 a.m.

The scope of this project is to design and build a universal cost effective indoor golf simulator enclosure. The structure will be able to adjust in all three axes (height, width, and depth), the design and manufacturing of the enclosure is approved by both the team and our sponsor. The team will implement the 2-D design into Solidworks and then move to build a prototype. We will be completing indepth FEA studies to prove the structural integrity and safety of the enclosure. Our end goal is to make research and calculations come to life by producing a prototype to present to our sponsor.

Active Noise Cancellation (ANC)/Anti-Noise Generator

Ryan W. Miller, Daryl Taylor, John Caddell and Scott Warner
Harvey Lyons and Macarthur Stewart, Faculty Mentors

Poster Group 1
Room 310—8:30-10 a.m.

Effects of applying out of phase sound waves in an exhaust pipe is studied. Sound waves will be created using a speaker connected to a system via a Y-pipe section. The sound will be out of phase to produce destructive interference, causing a reduction in exhaust decibel level. The goal is a reduction in decibel level of 8db compared to an unmuffled system. If results are realized, replacing expansion chambers in mufflers with ANC systems is feasible. Further R&D may provide a solution to exhaust spaces in small cars by reducing the exhaust system size. Project sponsored by John Herman, Bosal North American Operations.
Small Engine Dynamometer
Jacqueline Marie Pennington, Andres V. Artiles-Espinoza, Joshua Frank Jarvis and Salman Abdulali Bin AlSheikh
Harvey Lyons and Macarthur Stewart,
Faculty Mentors

▲ Our team is working on the Dynamometer Project sponsored by John Herman, Bosal North American Operations. The main problem consists of accurately measuring engine performance. The most efficient method to measure and calculate this is by using a dynamometer, which measures the torque and speed of an engine. Knowing torque and RPM, we can calculate horsepower. Testing will be done to validate the reliability and accuracy of the device. Further testing will then be performed to quantify the engine performance. Other groups will then use it to evaluate the effects of exhaust system changes to the engine.

Active Noise Cancellation Through the Use of a Pressure Modulating Valve
Robert Romeo, Brandon Gordon, Eric Comstock and Mitch Sears
Harvey Lyons and Macarthur Stewart,
Faculty Mentors

▲ Sound is created by fluctuations in pressure. We plan to control these fluctuations, as proposed by John Herman from Bosal Emission Control Systems. By designing a mechanism to control the pressure flow created by exhaust, we can silence the motor. This design will include a rotating valve with a motor to control the speed at which the flap rotates. The valve will block pressure leaving the engine's cylinder during the exhaust stroke, temporarily storing it into an accumulator when the valve is closed. The stored pressure will exit the muffler once the valve opens. This process will silence the exhaust by keeping the pressure that leaves the muffler constant.

Hydraulic Bike Wheel
Eric Smock, Benjamin Cooley, Fang Yang, Rodney Harper and Ryan Kilgore
Harvey Lyons and Macarthur Stewart,
Faculty Mentors

▲ The Hydraulic Bike Wheel project takes a standard 20" bike front wheel and modifies it with a hydraulic regenerative braking system. The goal is to design a system that can be retrofitted to any 20" front wheel of any bike. In traditional friction braking, energy is lost in the form of heat. This system will store the once lost energy using hydraulics and a high-pressure accumulator. The energy stored can then be sent to a motor. This drives the wheel, moving riders forward with reduced effort.
Johnson Controls Seat Conveyance System
Nicholas Stafford, Christopher Flanagan, Kerri Mason, Shannon Szpara and Timothy Simpson
Harvey Lyons and Macarthur Stewart,
Faculty Mentors

Johnson Controls' current assembly lines use a continuously moving chain driven system that pulls the seat pallets along the assembly line and elevators to transfer the pallets between levels. When there is a problem with the drive system, the entire line is shut down. Johnson Controls wants a new design in which the pallets are individually powered and driven. This will decrease the amount of moving parts and minimize malfunctions. If a malfunction were to occur in a pallet, it could be easily removed from the line, and the assembly line could still function normally.

School of Information Security & Applied Computing

Profiling Campus Crime 2007-2014
Katelyn Coberley, Alex Heath and Jason Johnson
James Banfield, Faculty Mentor

This is a student-based study on crime alerts to the campus community, of when, where, and the type of crimes that occur around EMU campus. Sources for the study were from publicly archived email messages known as "Timely Warnings", Emergency Text message alerts, and the Daily Crime logs available on the University's public safety website. Data was collected from the 2007 to 2014 Timely Warnings archive, and then correlated with the Daily Crime logs. Crimes have been mapped to show the locations of the crimes throughout the years, and if the same crimes occur at the same locations year-after-year.

School of Technology & Professional Services Management

Unmanned Aerial Vehicles: An Inquiry Into the Pros and Cons of Their Use
Kai Arzadon Bryant
Christina Wall, Faculty Mentor

As with most technologies that are developed in the military, Unmanned Aerial Vehicles (UAVs) are beginning to be used in the civilian world. It is important for the public to start a serious dialogue about the use of UAVs as this technology becomes more readily available to civilians. Proper regulation is the key to public safety and privacy, but this can only be achieved by analyzing the advantages and disadvantages of operating a UAV. The objective of this presentation is to identify the pros and cons of the use of UAVs in the military, civilian and law enforcement/rescue sectors and to determine regulation of UAV use.
Marketing Plan and Research for Gorilla Gii
Lilly DeRamos
Holly Mosher, Julie Becker and
Frank Gerlitz, Faculty Mentors
Poster Group 2
Room 310—10:30-11:15 a.m. & 1-1:45 p.m.

Gorilla Gii is a fabric built and marketed for the enhancement of athletic performance. It is a compression garment shown to enhance performance by factors such as reducing muscle oscillation. The material is a rash guard that helps with movement abrasion against the skin and is also a coolant that keeps the body from heating up during performance by wicking the sweat through the fabric. To prevent excessive body odor the material is antimicrobial and kills bacteria that causes body odor. There are products in the market with these features, but few with all of these qualities. The plan outlines the product, the specific target market, and competition research.

Civil Space Travel: The Way of the Future
Weston MacRitchie
Christina Wall, Faculty Mentor
Oral Session B
Room 330—10:30 a.m.

This presentation explores the idea of civil space travel and supersonic commercial travel, primarily identifying what supersonic technology is and how this technology will integrate with civil space travel. One major problem with the integration of supersonic technology and civil space travel is the unfortunate effects of the sonic boom. This paper will discuss options for minimizing this problem and present two current technologies developed by Reaction Engines Ltd., a reusable rocket engine and a space plane that utilizes the engine. This paper will also discuss the basic physics behind sound wave intensity and the sonic boom.

School of Visual & Built Environments

500 Square Foot Apartment Design
Sarah Anker
Maria Sipos, Faculty Mentor
Design Expo Exhibit
Room 300—9:00 a.m. to 3:45 p.m.

This design focused on the needs of a recent university graduate who wanted to have a painting studio in her home. The space could not exceed 500 sq. ft. so it could be built behind the main house. The apartment had to feel bigger than it was and allow larger size canvases to be used. Large expanses of windows allow the outdoors to be a source of inspiration. The use of casters on furniture and a folding bed allow for flexible space reconfigurations.

American Colonial Style
Sarah Anker and Phyllis Maierle
Maria Sipos, Faculty Mentor
Poster Group 3
Room 310—2:15-3:45 p.m.

American Colonial is a simple title for years of progression and change. This change is outlined in the progression of architecture and furniture from simple and utilitarian to elaborate. A more diverse scope of the progression through this period is provided by the inclusion of fabrics, lighting, and fashion.
EMU Student Center Building Codes Assessment
Erin Buck and Kelsey Lynn Keil
Shinming Shyu, Faculty Mentor

The project goal was to walk through the Student Center and observe how different code requirements were implemented in the physical building through spatial design. First, identifying different building codes such as ICC or NFPA to create a basis for research of the building. The research led to examining the ADA compliance of the building that allows all people to use without encountering accessibility issues. The research also looked into the related areas, such as components of egress, egress travel distance, number of exits in relation to building occupancy load. In addition, fire protection, electrical, and communication systems in the Student Center were also studied for codes compliance.

Anchor Bay Resort Boat Villa in the Islands of Maldives
Rikki Cummins
Jiang Lu, Faculty Mentor

With the threat of losing the Maldives Islands to the rising ocean, Anchor Bay Resort is designed to stay grounded and evolve with the changing geography. Imported artificial sand, made from recycled glass bottles, will keep the island above the rising sea level. A floating dock made from bamboo will adjust to the changing sea levels and allow a clear path to the villas. The Boat Villas will be designed as individual boats anchored along the floating dock. Natural and recycled materials will be used in the design to help leave a minimal carbon footprint on the islands.

Madonna University Franciscan Center Building Codes Booklet
Rikki Cummins
Shinming Shyu, Faculty Mentor

It is crucial for interior designers to gain knowledge in building codes and its application to building design. To verify how code requirements are translated into physical space, the project team chose to study the Franciscan Center at Madonna University in Livonia, Michigan. The project observes and reports code compliances in the building design.

Next University Design
Alyssa Rose Eisenhauer
Jiang Lu and Michelle Belt, Faculty Mentors

Next University is an upcoming institution, which aims to shape creative and successful students. This University harmonizes creative design features, such as chalkboard walls, fiber optic star wall, and a hanging plant wall, with progressive learning environments to create a practical and engaging atmosphere ideal for all students. Adaptable and flexible learning areas that incorporate bright colors and patterns assist in enhancing student alertness and provide inspiration. Cutting-edge learning facilities, study spaces, and a creative design assist in achieving Next University’s goal to enhance the educational environment using pedagogy, technology and space.
This assignment for building codes focused on assessing the building code requirements and how they are applied to the Halle Library on Eastern Michigan University’s campus. Building codes and ADA requirements along with sustainable features were researched to properly review the building. Key points such as occupancy load, fire safety, ADA, electrical fixtures, plumbing fixtures, and means of egress were focused on for this project. First codes such as BOCA, NFPA, and LSC were identified, then the space was analyzed to see if it met the standards.

At PJ & AF Designs our goal is to incorporate natural elements such as the use of the daylight, natural renewable woods, and recycled glass. We strive to create a sense of serene and tranquility while still being an energetic atmosphere.

Extending beyond traditional educational institutions, Next University’s design is solely based upon providing a living atmosphere where students can develop their learning beyond the traditional level. Next University generates a creatively cultivated climate that allows students to extend their learning beyond the classroom. The main components of the university are built around both aquatic and earth-like design elements. The aquatics factor into the design to cater to the serenity of the space, and allows for students to relax, while the earth-like elements, such as live, green walls, accompanied by vivid colors, restore students by promoting energy for effective learning.

At Next University, each different space provides opportunity for continuous learning. There are traditional spaces with study, group work, lecture, and student and teacher collaboration areas in a not so traditional design. The furniture supports the ever-changing environments with quick rearrangements of all the spaces to fit the needs of the students and faculty. The curvilinear forms, bends, breaks, and twists as seen throughout the environment are simplified, exaggerated, and modified in the design of the space. By creating a path, the curves are a leading element throughout the space which is seen in the walls, ceilings, and lighting details.
Next University Design

Madeline King
Jiang Lu, Faculty Mentor

The driving force of this project is creating spaces to increase student engagement and learning retention as a result of the new environment. The project goals consist pedagogy, technology, and space elements to enhance the learning environment such as, quiet rooms, distant learning areas, living walls and mobile furniture. The design incorporates private sections for highly concentrated studying while keeping it an open floor plan.

Design Manage Build: Pavilion Project

Joseph D. Klein, Jose Rojero and Nicholas Scopone
Jim Stein, Faculty Mentor

Working with the Ann Arbor Housing Commission, Construction Management students were asked to design and build a pavilion for the Miller Manor public housing site. Project parameters included a structure requiring low maintenance and have an octagon shaped roof with a concrete floor. A major challenge was performing much of the construction activities under winter like conditions. Students were also tasked with managing the project including estimating material quantities, scheduling material deliveries, obtaining building permits and equipment rentals. Hands-on construction procedures included demolition, excavation, foundation work, concrete slab pour, structural framing and roofing.

Sustainable Shelter

Mary Levengood and Millicent Murphy
Shinming Shyu, Faculty Mentor

Learning from the severe impacts created by hurricanes Katrina and Sandy, we are to prepare for violent natural disasters in the wake of climate change. The goal of this project was to create an environmentally friendly shelter that can be transported via the highway system. Building materials and appliance/fixture elections were made with sustainability and universal design in mind.

Multigenerational Home in Northern Michigan

Mary Levengood
Maria Sipos, Faculty Mentor

This design had to provide a functional home for a multigenerational family incorporating universal design features and sustainable materials appropriate for a residential project. Our design focused on creating a casual welcoming space for the entire family. The style is suggestive of the Arts and Crafts while still maintaining a light and airy feel.
Exoskeletons: An Apparel Collection Inspired by Insects
Nikki Lomonaco
Julie Becker, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Exoskeletons is the result of my exploration of the process of designing and creating an apparel collection from my initial inspiration through the execution. I focused on the creation and development of original patterns made to fit my exact measurements. This provided me the opportunity to grasp a deeper understanding of pattern development and gain industry skills by completing my pattern pieces in Gerber Accumark Pattern Design Software. I was also able to experience my own artistic process and watch my collection develop and extend past my original vision. Constructionally, I explored knit bodices and crisp underskirts to represent my interpretation of an exoskeleton.

Sustainable Shelter
Phyllis Maierle
Shinming Shyu, Faculty Mentor

Design Expo Exhibit
Room 300—9:00 a.m. to 3:45 p.m.

The project explores the sustainable strategies for creating functional, eco-friendly, and energy-efficient residential buildings. For years, the trend in design has leaned toward the idea that bigger is better, but more recently minimalism and sustainability are making an impact on how people view the way we, humans, live. It is worthwhile asking how much space one needs and reassessing the environmental consequences that impact not only the present, but also the future. Whether being displaced from a home due to disaster or simply wanting to lower the ecological footprint, a sustainable shelter can be an ideal, comfortable, and functional option for many.

Multigenerational Home Design in Northern Michigan
Phyllis Maierle
Maria Sipos, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Our design focused on Universal Design principles and takes inspiration from the outdoors. The design creates a livable, and functional space for all ages and capabilities to use. The environment created will be warm and welcoming to promote family life and entertainment and be inspired by the surrounding nature. The home will be an everyday retreat for the family, and a safe haven where memories can be made.

Redesign Ann Arbor
Eitan Mendelson and Lauren Hood
Shinming Shyu, Faculty Mentor

Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Redesign Ann Arbor took an existing building in Ann Arbor, Michigan, and through a redesign process, put it to better use with sustainable design strategies. The three-story historic building is currently used by a local research institute, hosting many small offices for educational research. By assessing the current space, a proposal for a redesign was formulated to improve the building's overall functionality and design aesthetics. The project allowed the designers to program and redesign a new, multi-use building to promote a healthy lifestyle in town. The new design includes an Apple store, sporting goods boutique, commercial office space, juice bar, Japanese restaurant, and gym.
**French Renaissance style**  
Millicent Murphy and Mary Levengood  
Maria Sipos, **Faculty Mentor**  
Poster Group 3  
Room 310—2:15-3:45 p.m.

Our board provides an overview of the architecture, interiors, and decorative arts used during the French Renaissance period. This information is conveyed through pictures along with text describing specific characteristics. Through this board the viewer can get a summary of the general decorative elements characteristic in France during the Renaissance period.

**Sustainable Shelter**  
Anna Pollock and Nicole Borgman  
Shinming Shyu, **Faculty Mentor**  
Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

In light of the severe environmental issues we are facing such as climate change, air pollution, soil contamination, etc., it is critical for the general public to adopt an eco-friendly life style, and for the design professionals to employ sustainable strategies. The design of this sustainable shelter includes many environmental attributes. The shelter design consists of a variety of sustainable features, including a rainwater collector, energy saving appliances, reclaimable wood, and bamboo flooring.

**Multigenerational House Design in Northern Michigan**  
Anna Pollock  
Maria Sipos, **Faculty Mentor**  
Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

Our multigenerational house design focused on achieving a relaxing and functional space filled with light. The house provides a comfortable environment open to the surrounding trees and landscape. Sustainable materials and building practices used in residential design enhance the quality of life of every member of the multigenerational family.

**Multigenerational Home Design in Northern Michigan**  
Cynthia Sadden  
Maria Sipos, **Faculty Mentor**  
Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

This multigenerational home design is based on Universal Design principles and Sustainable Design features. Energy Star appliances are used throughout the home saving on energy usage and costs. ADA compliant accessibility is carried throughout the home by incorporating wide hallways and doors. Day lighting is integrated by using large windows that allow the view of the beach and give a warm cozy feeling to the interior space.
A Model for a Sustainable “Tiny House”
with Productive Landscaping
Catherine Diana Jeanne Schlenker
Shinming Shyu, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

Our housing design provides a range of functionality, from use in disaster relief scenarios to inclusion in the eco-conscious “tiny house” movement. Materials were chosen in consideration of Leadership in Energy and Environmental Design (LEED) certification standards. Dimensions allow for transportation on U.S. highways, while still meeting ADA accessibility standards within decreased interior square footage. Productive landscaping (plant functionality beyond aesthetics) in conjunction with an interior greenhouse increases the independence of individuals left vulnerable after a disaster, and provides increased sustainability for those seeking eco-friendly housing alternatives.

The Interior Design of Sherzer Hall: Building Codes and ADA Requirements
Krystal Laiel Shelton
Shinming Shyu, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

The concept of the observation project is consistent with the professional statement of Interior Design, which specifies the mission of design is to create spaces that address user’s safety, health, and welfare. The project offers opportunities for design students to learn the contents of building codes, and the procedure for implementation, which include occupancy categories, occupant load calculation, construction types, egress components, fire rating, and finish materials. The project investigates one of the most historical buildings, Sherzer Hall, on campus by presenting viewers with information on building code requirements that are applied when a building is designed.

Sustainable Shelter Design
Safa Viqar and Lateefah Almusa
Shinming Shyu, Faculty Mentor
Design Expo Exhibit
Room 300—9 a.m. to 3:45 p.m.

In response to the drastic climate changes and violent natural disasters, this sustainable shelter is designed to house those who are rescued from areas that are impacted by tornado, hurricane, or earthquake. While providing an accessible and comfortable living environment for all individuals, this sustainable shelter is ADA-compliant and contains a variety of green design features, including energy-efficient and water conserving appliances. In addition, this house is equipped with energy-producing features, using solar panels and a solar water heater. To optimize the use of water from precipitation, the house has a rain water collection system for irrigation along with a green roof.
N + R Design Lab: Lane Hall Renovation

Rachelle Weyhing and Nichole Kimmet  
Shinming Shyu, Faculty Mentor

Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

► At N + R Design Lab we aim to create an environment that will influence happiness and healthy living. The design for Lane Hall will provide an innovative and stimulating space for all users. Through minimalistic design and the use of natural materials, we look to use design elements to create a balance between science and nature. This design will be a reflection of the Millennial Generation, the importance of technology, and an overall awareness of the environment. With the use of clean lines, bright hues, and technological resources, this multi-use space will be a healthy and innovative environment for customers and employees.

Multigenerational Home Design in Northern Michigan

Sarah Wutwut  
Maria Sipos, Faculty Mentor

Design Expo Exhibit  
Room 300—9 a.m. to 3:45 p.m.

► This modern home is a space centralized around family gatherings. By bringing in natural elements with Japanese inspired architecture, this home resonates with a sense of serenity. Energy Star appliances, the use of day lighting, and the use of sustainable materials appropriate for a residential project create an environment that tranquil and safe for all its occupants.

The Future of Smart Home Technologies

Nick Young  
Paul Majeske, Faculty Mentor

Poster Group 2  
Room 310—10:30-11:15 a.m. & 1:45 p.m.

► A smart home is considered “smart” if daily functions become integrated into the Internet to enable remote management and monitoring. Current trends in home automation include the adaption of technologies in kitchen appliances, room environment, and home security. These intuitive technologies and products are shaping how we connect and interact with the interior and exterior of our homes. What smart home technologies are we integrating today and how will these technologies affect the future of tomorrow’s smart homes. When such technologies are heavily incorporated into our daily routines 10 to 20 years from now, will our society look similar to the cartoon, “The Jetsons”?
We congratulate the EMU Honors College Senior Thesis and Undergraduate Symposium Award recipients sponsored by Academic Affairs. These students are presenting at the 35th Undergraduate Symposium:

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- EMU Student Center and the Event Planning staff
- Intermedia Gallery Group (IGG)

We extend a special thank you to Steinway Piano Gallery of Detroit for their support to provide a Steinway piano for student performances.
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McFadden, Nicholas James ➤ 99  Oral session C | Room 204 | 1:15 p.m.
McFarlane, Kaitlyn Jennifer ➤ 105  Poster group 1 | Room 310 | 8:30-10 a.m.
McGackin, Lon B. ➤ 132  Oral session B | Room 304 | 11:00 a.m.
McPhee, Dylan ➤ 64  Oral session C | Room 320 | 1:30 p.m.
McSweeney, Kristin ➤ 100  Oral session D | Kiva | 3:30 p.m.
Mehlberg, Erica ➤ 132  Oral session D | Room 204 | 3:00 p.m.
Mellendorf, Andrea ➤ 77  Oral session A | Room 352 | 9:00 a.m.
Mendelson, Eitan ➤ 151  Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Menser, Chlo Renee ➤ 40  Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Mee, Dominic DiCarlo ➤ 77  Oral session D | Student Art Gallery | 3:15 p.m.
Miller, Ryan W. ➤ 144  Poster group 1 | Room 310 | 8:30-10 a.m.
Minotto, Mitchell ➤ 105  Poster group 3 | Room 310 | 2:15-3:45 p.m.
Mileczo, Lauren ➤ 41  Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Mileczo, Lauren ➤ 41  Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Mileczo, Lauren ➤ 41  Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Moit, Danielle ➤ 93  Oral session D | Room 320 | 2:30 p.m.
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Moody, Adam ➤ 111  Oral session D | Room 104 | 3:00 p.m.
Morris, Courtney BrieAnn ➤ 138  Oral session A | Room 320 | 9:00 a.m.
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Nance, Kati Diane ➤ 119  Poster group 2 | Room 310 | 10:30-11:15 a.m. & 1-1:45 p.m.
Narra, Srikiran ➤ 121, 125  Oral session D | Room 350 | 2:30 p.m.
Nicholson, Andrea ➤ 100  Oral session D | Room 300 | 10:30-11:15 a.m. & 1-1:45 p.m.
Nieman, Mary Rose ➤ 91  Oral session A | Auditorium | 9:15 a.m.
Njee, Nyambura ➤ 111  Oral session C | Room 104 | 1:30 p.m.
Njee, Nyambura ➤ 78  Oral session D | Room 300 | 3:30 p.m.
Nofs, Leo ➤ 94  Oral session B | Room 330 | 10:00 a.m.
Nolan, Justin ➤ 48  Poster group 1 | Room 310 | 8:30-10 a.m.
O’Connor, Casey Margaret ➤ 64  Oral session A | Room 301 | 8:30 a.m.
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Spiggle, Stephanie | 122 | Oral session B | Room 352 | 10:15 a.m.
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Stephenson, Zachary | 143 | Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
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Stiltner, Josette Leanne | 149 | Design Expo exhibit | Room 300 | 9 a.m. to 3:45 p.m.
Stymiest, Samantha Lynne | 121 | Oral session A | Room 320 | 9:30 a.m.
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We are pleased to announce Ma’ikwe Schaub Ludwig as the Dennis M. Beagen Undergraduate Symposium Keynote Speaker for the 35th event.

Ludwig is the Director of Ecovillage Education US and the lead teacher for ecovillage education courses at Dancing Rabbit, an ecovillage and model of sustainable living located in northeast Missouri. She has done sustainability education work for over two decades, teaching skills such as consensus building and cooperative group facilitation. She backs her teaching experience with 17 years of intentional community living to create holistic, practical education experiences.

Over years of environmental activism, Ludwig has emerged as a powerful spokesperson for sustainability. A regular contributor to Communities Magazine, she is also the author of Passion as Big as a Planet: Evolving Eco-Activism in America, published in 2007. “Sustainability,” she insists in her 2013 TED talk at Carlton College, “does not need to suck.” Instead, it can be fun and lead to creativity; to personal and communal growth.”

Her insights about the crucial place of cooperation and team work, as well as her wide range of experiences in implementing and sustaining intentional communities speak to some of the most important skills needed for global citizens of the 21st century—skills in collaboration, mutual understanding, and personal introspection.

Ludwig received her BA from EMU in 1992, with an interdisciplinary degree in multicultural gender studies. An honors student, Ludwig was active in EMU’s LGBT community, a promising scholar, and presenter at the 13th Undergraduate Symposium. Dr. Elisabeth Däumer, her Symposium faculty sponsor in 1993, says, “Ma’ikwe has found her calling in life, and EMU can be proud to count her among its alumni.”

We are pleased to welcome Ma’ikwe Ludwig back to Eastern Michigan University.