Undergraduate Symposium XXXIII
EASTERN MICHIGAN UNIVERSITY

STUDENTS PARTICIPATING IN THE 2013 UNDERGRADUATE SYMPOSIUM

214 ORAL
88 POSTERS
60 DESIGN EXPO

430

2013 XXXIII
Welcome to the 33rd 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 430 students and 226 faculty members in this year’s Symposium. Additionally, donors and friends of EMU now support 22 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.

Now in its 33rd year, EMU’s Undergraduate Symposium is one of the longest standing events of its kind in the country. In 1980, former provost and professor of chemistry, Dr. Ronald Collins, conceived the idea of presenting undergraduate student research to the University community, which was supported by then president Dr. John 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, 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 22, 2013
EMU Student Center

SESSION A  Oral Presentations
8:30 a.m. to 9:45 a.m.
   First floor - rooms 104, 120 & EZone
   Second floor - auditorium, student art gallery, & room 204
   Third floor - rooms 301, 304, 320, 330, 344, 347, 350, 352, & Kiva

GROUP 1  Poster Presentations
8:30 a.m. to 10:15 a.m.
   Third floor - room 310 A/B

CROSSING LINES: Design Expo Gallery
8:30 a.m. to 3:30 p.m.
   Third floor - rooms 300 & 302

SESSION B  Oral Presentations
10:00 a.m. to 11:15 a.m.
   First floor - rooms 104 & 120
   Second floor - auditorium, student art gallery, & room 204
   Third floor - rooms 301, 304, 320, 330, 344, 347, 350, 352, & Kiva

GROUP 2  Poster Presentations
10:45 a.m. to 12:30 p.m.
   Third floor - room 310 A/B

SESSION C  Oral Presentations
11:30 a.m. to 12:45 p.m.
   First floor - rooms 104 & 120
   Second floor - auditorium, student art gallery, & room 204
   Third floor - rooms 301, 304, 320, 330, 344, 347, 350, 352, & Kiva

SYMPOSIUM LUNCHEON
1:00 p.m. to 2:30 p.m.
   Second floor - Ballroom

KEYNOTE SPEAKER:
Kenneth D. Massey
Managing Director
LifeLine Ventures, LLC & MicroDose Life Sciences, LLC

STUDENT EMCEE:
Cherese Colston
English Language & Literature
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145  Communication, Media & Theatre Arts

College of Technology
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Oral Sessions

Nature In Metal
Paisley Kate Mackie
Session A

Room 104
Moderator: Wendy Burke

1  8:30 a.m.  The Western Veil: Racial Identity Development in Mary Shelley’s Frankenstein
            Kaitlin Lorraine Browne
            Professor Christine Neufeld
            English Language and Literature

2  8:45 a.m.  Racial Perceptions and Warfare in the Pacific
            Paul Rincon
            Professor Jesse Kauffman
            History and Philosophy

3  9:00 a.m.  South Africa: Apartheid to Freedom
            Melissa E. Hoak
            Professor Joseph Engwenyu
            History and Philosophy

4  9:15 a.m.  An Exploration of Their Eyes Were Watching God Through Multiple Lenses
            Megan Anthony
            Professor Wendy Burke
            Teacher Education

5  9:30 a.m.  From Nonsense to New-Sense: The Radical Poetics of Gertrude Stein
            David M. Chapman
            Professor Alexandra Norton
            English Language and Literature

Room 120
Moderator: Christine Hume

6  8:30 a.m.  Structure Dependence: An Investigation of the Inflectional System in Yes/No Question Formation
            Alexandra Yvonne Kubiak
            Professor T. Daniel Seely
            English Language and Literature

7  8:45 a.m.  Walking: Inside to Outside
            Katy Shay
            Professor Christine Hume
            English Language and Literature
8 9:00 a.m.  **Ann Arbor Memory Walk**  
*Eliot Asher Johnson*  
Professor Christine Hume  
*English Language and Literature*

9 9:15 a.m.  **Children’s Comprehension of Sentences with Manner-of-Obtainment Constructions**  
*Danuta B. Allen*  
Professor T. Daniel Seely  
*English Language and Literature*

10 9:30 a.m.  **Voyeurism and Identity in Alfred Hitchcock’s *Rear Window* and *Vertigo***  
*Frances Campbell*  
Professor Abby Coykendall  
*English Language and Literature*

**Room 204**  
Moderator: Amanda Allen

11 8:30 a.m.  **“I can connect nothing with nothing”: A Therapeutic Reading of T. S. Eliot’s *The Waste Land***  
*Megan Hope Smith*  
Professor Elisabeth Daumer  
*English Language and Literature*

12 8:45 a.m.  **Lovecraft Out of Modernism**  
*Charles Elliott*  
Professor Elisabeth Daumer  
*English Language and Literature*

13 9:00 a.m.  **Positioning Insurrection and Interpellation in *The Hunger Games***  
*Matthew Hamilton*  
Professor Amanda Allen  
*English Language and Literature*

14 9:15 a.m.  **From Fantasy to Reality: Holden’s Adolescent Journey in J.D. Salinger’s *The Catcher in the Rye***  
*Samantha Meeker*  
Professor Amanda Allen  
*English Language and Literature*

15 9:30 a.m.  **Avenger of the Abjected: A Lacanian Reading of Mary Shelley’s *Frankenstein***  
*Adam Mitts*  
Professor Christine Neufeld  
*English Language and Literature*
EZone (First Floor)
Moderator: Geoff Hammill

16 8:30 a.m.  Wordless Narrative in Children’s Literature
              Kelsey Lapping
              Professor Ramona Caponegro
              English Language and Literature

17 8:45 a.m.  E-TV: The Growth of Student-Produced Television at EMU
              Shanna Gilkeson and Eliza Ellen Chase
              Professor Keith Damron
              Communication, Media & Theatre Arts

18 9:00 a.m.  Seeing the Unseen: A Content Analysis of Underrepresented Groups and Characters in Prime-Time Television
              Cherese Elizabeth Colston
              Professors Lolita Cummings Carson and Regina Luttrell
              English Language and Literature

19 9:15 a.m.  The Twilight Zone: Relevant Then and Now
              Princess Lauren Gabbara
              Professor Geoff Hammill
              Communication, Media & Theatre Arts

20 9:30 a.m.  Here Comes Honey Boo-Boo: It Could Be You
              Phillisha Carrie Smith
              Professor Geoff Hammill
              Communication, Media & Theatre Arts

Auditorium
Moderator: John Fike

21 8:30 a.m.  Making Change in the Society: Student-Led Community Engagement
              Kody Vitale and Nino Monea
              Professor Claudia Petrescu
              Political Science

22 8:45 a.m.  Making Change in the Society: Student-Led Community Engagement II
              Craig Jefferson and Jared Jeffries
              Professor Claudia Petrescu
              Political Science
23 9:00 a.m. Cross-Cultural Service-Learning: The Jamaican Experience  
Telly King and JaQuial Shaw  
Professors Janet Reaves, Marilyn Wedenoja, Claudette Braxton and Tara Grigsby  
Social Work

24 9:15 a.m. Reaching Higher: An Academic Service-Learning Project  
Danielle Kretchmer  
Professor Jean Bush-Bacelis  
Management

25 9:30 a.m. In the Blood  
Karen Ann Yelverton and Durrell Jamerson-Barnes  
Professors Michael Marion and Nick Romerhausen  
Communication, Media & Theatre Arts

Student Art Gallery  
Moderator: Gretchen Otto

26 8:30 a.m. A Comparison Between Past and Present Day Colonialism  
Jumanah Saadeh  
Professor Lori Burlingame  
English Language and Literature

27 8:45 a.m. Cultural Explorations Through Artistic Metal and Fiber Body Decoration  
Darin Smith  
Professors Gretchen Otto and Brooks Stevens  
Art

28 9:00 a.m. Attempted Assimilation of Native American Children  
Marc Rogers  
Professor Bettie McGowan  
Sociology, Anthropology and Criminology

29 9:15 a.m. Idle No More: A New Decade of Aboriginal Activism  
Eric Mark VanBuhler  
Professor Bettie McGowan  
Sociology, Anthropology and Criminology

30 9:30 a.m. Anthropologists at the United Nations: Advocates for Human Rights  
Deanna Jasmine Bumphus  
Professor Bettie McGowan  
Sociology, Anthropology and Criminology
Room 301
Moderator: Pamela Speelman

31 8:30 a.m.  Improving Literacy Skills in Children Who are Blind or Visually Impaired
Melissa L. Steele
Professor Alicia Li
Special Education

32 8:45 a.m.  A Blackjack Computer Game
Mordechai Sadowsky
Professor Aby Tehranipour
Computer Science

33 9:00 a.m.  Creating a Video Game: Mechanics, Graphics, Sound and Design
Mark Binkowski
Professor Pamela Speelman
Technology Studies

34 9:15 a.m.  Who Will Care for the Caregivers: An Analysis of Elder Caregiver Support and Information Enhancement Act
Elizabeth Mainville
Professor Betty Brown-Chappell
Social Work

35 9:30 a.m.  Critical Differences Between Military Sexual Trauma and Civilian Sexual Assault
Victoria Lynne Bernard
Professor Tamara Loverich
Psychology

Room 304
Moderator: James Egge

36 8:30 a.m.  The Economic Consequences of Gendered Globalization: Examining Gender Inequality in a Global Economy
Cassie Lynn Richard
Professor Solange Simoes
Sociology, Anthropology and Criminology

37 8:45 a.m.  Middle-Ageism? Real or Media-Generated?
Renee R. Walton
Professor Sylvia Jones
Teacher Education
38 9:00 a.m.  After the Storm: Samuel Parris and the Consequences of the Salem Witchcraft Trials
Lauren Monn  
Professor Robert Duke  
History and Philosophy

39 9:15 a.m.  Dynamics of a Medici Woman’s Power in Renaissance Florence: Lucrezia Tornabuoni  
Kerri Anne Musick  
Professor Ron Delph  
History and Philosophy

40 9:30 a.m.  Sacrifice, Co-Creation and Sacred Time: A Speculative Interpretation of Rg Veda Creation Hymns  
Michelle Cox  
Professor James Egge  
History and Philosophy

Room 320  
Moderator: John McCurdy

41 8:30 a.m.  Aging in the LGBT Community  
Jennifer Rokakis  
Professor John McCurdy  
History and Philosophy

42 8:45 a.m.  Elementary, My Dear Watson: Homosocial Relationships in BBC’s Sherlock  
Natalie Elizabeth Anschuetz  
Professor Laura George  
English Language and Literature

43 9:00 a.m.  Effect of EPIC Panel Presentations on the Attitude of EMU Students Toward LGBT Individuals  
Silvana Alfaro-Bordon  
Professor Natalie Dove  
Psychology

44 9:15 a.m.  Homosexuality and the Emergence of a New World in Virginia Woolf’s Mrs. Dalloway  
Brianna Lynn Klutz  
Professor Elisabeth Daumer  
English Language and Literature
Room 330
Moderator: Jeffrey Bernstein

46 8:30 a.m.  Advertising in a Post-Old Spice Culture: Pronoia and Manipulation in Contemporary Meta-Advertising Rhetoric
Andrew Tyler Kaster
Professor Phillip Arrington
English Language and Literature

47 8:45 a.m.  Monster Rehab Energy Drink Marketing Plan
Kathryn Louise Hansen
Professor Sheila Sasser
Marketing

48 9:00 a.m.  Content Analysis: Patriarchal Themes in Advertisements
Laura Catherine Green
Professor Tricia McTague
Sociology, Anthropology and Criminology

49 9:15 a.m.  The Effectiveness of Targeted Political Advertisements
Vincent Malainy
Professor Jeffrey Bernstein
Political Science

50 9:30 a.m.  The Impact of Social Pressure on Women in Private Party Marketing
Phyllicia Iler
Professor Donald Ritzenhein
Communication, Media & Theatre Arts

Room 344
Moderator: Judith Kullberg
Panel: The Development of United States Foreign Policy Since World War II

51  Isolationism to Internationalism: The FDR Administration
Derrick Amison
Professor Judith Kullberg
Political Science

52  Bretton Woods and the Evolution of a New World Order
Marc J. Davignon
Professor Judith Kullberg
Political Science
The Influence of United States Trade Policy on Chinese Economic and Political Reforms
David Jibson
Professor Judith Kullberg
Political Science

United States Imperialism: Alternate Dimensions of Foreign Policy and National Interest During the Cold War
Adam Malinowski
Professor Judith Kullberg
Political Science

Foreign Policy in the Bush and Obama Administrations: From Unilateralism to Multilateralism?
Jesse R. Wilk
Professor Judith Kullberg
Political Science

Room 347
Moderator: James Perren

8:30 a.m. Linguistic Cleavages and Militarized Interstate Conflict: A Genealogical Approach
Andrew S. Martinez
Professor Volker Krause
Political Science

8:45 a.m. Teaching and Learning Language Through the Application of Personal Narratives
Ariel Robinson, Alicia Myers and Rachel Gallant
Professor James Perren
World Languages

9:00 a.m. Genetic Determinism and Grammar: When Linguistics and Biology Collide
Caylen Leigh Cole-Hazel
Professors James Perren and Beverly Goodman
World Languages

9:15 a.m. American English /l/ Produced by a Native Japanese Speaker
Alexander Jordan Isotalo
Professor Beverly Goodman
English Language and Literature
60 9:30 a.m. **Effects of Study Abroad: An EMU Japanese Case Study**
   Zachary Blasdel Blackwell  
   Professor Motoko Tabuse  
   *World Languages*

**Room 350**
Moderator: Dave Pawlowski  
Panel: High Altitude Weather Ballooning

61 **High Altitude Weather Ballooning**
   Patrick Baranowski  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

62 **Flight Termination of High Altitude Balloons**
   Chad Brisbois and Andrew Marshall Samuels  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

63 **High Altitude Ballooning: Measurement and Analysis of Temperature**
   Rommel Gabrito and Justin Hodges  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

64 **Two-Way Communications System for High-Altitude Ballooning**
   Andrew John Havranek and Douglas James Spry  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

65 **High Altitude Ballooning: Measurement and Analysis of Pressure**
   Caliph Lebrun and Scott Eschelbach  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

66 **High Altitude Ballooning: Humidity Sensor**
   Cassie Noffsinger and Austin Payne  
   Professor Dave Pawlowski  
   *Physics and Astronomy*

**Room 352**
Moderator: Martha Baiyee

67 8:30 a.m. **Don’t Blame the Referee: A Review of Complex Variables Contributing to Special Education Referrals**
   Mara Rae Geiger  
   Professor Karen Schulte  
   *Special Education*
68 8:45 a.m.  **Collaboration**  
*Benjamin Clay-William White and Lea Oom*  
Professor Jacquelyn McGinnis  
*Special Education*

69 9:00 a.m.  **Narrative Reports: Why are They Important?**  
*Arlene Goeb*  
Professor Martha Baiyee  
*Teacher Education*

70 9:15 a.m.  **Investigating a Knowledge Gap in Early Childhood Assessment**  
*Daniel Cichoracki*  
Professor Margo Dichtelmiller  
*Teacher Education*

71 9:30 a.m.  **“Does the Little Hand Go First?”: Learning to Tell Time for Students with Cognitive Impairments**  
*Sarah Mueller*  
Professor Jacquelyn McGinnis  
*Special Education*

**Kiva**  
Moderator: W. John Koolage

72 8:30 a.m.  **Social Construction of Cults**  
*Dequan Chambers*  
Professor Kendra Smith  
*Sociology, Anthropology and Criminology*

74 8:45 a.m.  **The Logic of Evolution, the Death of Creationism, and the Vanity of Scientism**  
*Thomas Elliott*  
Professor W. John Koolage  
*History and Philosophy*

75 9:00 a.m.  **Creationism, Evolution and the Demarcation Criterion for Science**  
*Mary E. Janca*  
Professor W. John Koolage  
*History and Philosophy*

76 9:15 a.m.  **Intelligent Design: The Philosophy of Modern Creationism as a Science**  
*Sam H. Nilles*  
Professor W. John Koolage  
*History and Philosophy*
SESSION B

Room 104
Moderator: Ken Shiskowski

77 10:00 a.m. Demonstration of the Closure of the Algebraic Numbers
Tyler Ryan Hensley
Professor Ken Shiskowski
Mathematics

78 10:15 a.m. Dilworth’s Theorem for Finite Partially Ordered Set and Its Extensions
Fumie Kawasaki
Professor Paul Howard
Mathematics

79 10:30 a.m. Kant’s Theories of Reason Through Friedrich Schiller’s The Aesthetic Education of Man
Katherine Diane King
Professor Carla Damiano
World Languages

80 10:45 a.m. Deficient Instruction Methodology as a Reason for Disregard of Foreign Language Courses in the United States
Abigail Mattson
Professor Alfonso Illingworth-Rico
World Languages

81 11:00 a.m. Exploring the Soulless American Psychology
Danielle Hebner
Professor Margrit Zinggeler
World Languages

Room 120
Moderator: Heather Holmes

82 10:00 a.m. Synthesis of 1-Pyrenyldiazomethane
Mary Beth Kalvaitis
Professor Heather Holmes
Chemistry
A New Physical Chemistry Experiment on Sucrose Inversion
Daniel H. Lee
Professor Larry Kolopajlo
Chemistry

The Effect of Flower Number on Reproductive Success in *Trientalis borealis* (Northern Star Flower)
Lindsay Daschner
Professor Gary Hannan
Biology

Anomalous X-Site Occupancy in Povondraite
Brittany Allison Cymes
Professor Christine Clark
Geography and Geology

Room 204
Moderator: Paul Leighton

Dynamic Analysis of Buffer Overflow Vulnerabilities
Cory Joseph Skowronek
Professor William Sverdlik
Technology Studies

Building Upon International Cornerstones: The German Automobile Industry in Turkey and Michigan
Corman Chad Cabose
Professor Margrit Zinggeler
World Languages

A New Rail System to Combat America’s Decaying Infrastructure
Joseph Edward Eilerman
Professor Margrit Zinggeler
World Languages

Ludington, Michigan—Presettlement, Lumber Days and Today
Rachel Lyn Heatley
Professor Russell Olwell
History and Philosophy

Control Fraud in America: Are We Structurally Encouraging Control Fraud?
Emmanuel Joseph Connell
Professor Paul Leighton
Sociology, Anthropology and Criminology
Auditorium
Moderator: John Dorsey

91 10:00 a.m. Sonata in A minor for Arpeggione and Piano by Franz Schubert
Philip Leland Rinke
Professor Derek Weller
Music and Dance

92 10:15 a.m. Incantation and Thréne from Incantation, Thréne et Danse by Alfred Desenclos
Michael Edward Block
Professor Carter Eggers
Music and Dance

93 10:30 a.m. Suite for Piano by Jeffrey Nicholas: The Contemporary Compositional Process
Jeffrey Nicholas
Professors Anthony Iannaccone and Joel Schoenhals
Music and Dance

94 10:45 a.m. The Use of Music in Relationship Development with a Child with ASD
Adreena Nersesian
Professor Roberta Justice
Music and Dance

95 11:00 a.m. Finding My Place in the Therapeutic Space: A Student Music Therapist’s Journey as a Co-Therapist
Kelly Velazquez Jacobi
Professor Theresa Merrill
Music and Dance

Student Art Gallery
Moderator: Donald Ritzenhein

96 10:00 a.m. The Appearance Goals of Female TV Newscasters
Kristen Elizabeth Smith
Professor Donald Ritzenhein
Communication, Media & Theatre Arts

97 10:15 a.m. Louise Nevelson—An American Original
Ilana S. Houten
Professor Ellen C. Schwartz
Art
10:00 a.m. **Language as a Continuum**  
*Victoria Emanuela Pozyczka*  
Professor Carla Harryman  
*English Language and Literature*

10:15 a.m. **Teaching Active Learning Through Creative Writing and Drama**  
*Maeve Devlin*  
Professor Annette Wannamaker  
*English Language and Literature*

10:30 a.m. **The Effects of Tactile Adaptations on Biology Models for Students Who are Visually Impaired**  
*Andrew Pedley*  
Professor Alicia Li  
*Special Education*

10:45 a.m. **Gummo and Nihilism: Irony as Means to Morality**  
*Felicity Baker*  
Professor Margaret Crouch  
*History and Philosophy*

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**Room 302**  
Moderator: Jeffrey Bernstein

10:00 a.m. **Social Engineering**  
*Adam Brenner and Zach Tansek*  
Professor Skip Lawver  
*Technology Studies*
106 10:15 a.m. Characteristics of a Social Network that Lead to a Fast Convergence  
*Jeffrey Kennedy*  
Professor John Curran  
*Mathematics*

107 10:30 a.m. Box Office Gold: Can Twitter Predict?  
*Joseph Elia, Alaric Coury and Ajong Ekokobe*  
Professors Chong Oh and Yaman Roumani  
*Computer Information Systems*

108 10:45 a.m. The Honors College: What is the Benefit? By What Mechanism?  
*Anjali Martin*  
Professor Jeffrey Bernstein  
*Political Science*

109 11:00 a.m. The Virtual Watercooler: Influences of Political Comedy on Social Media Discussion  
*Andrew Paul Abad*  
Professors Jeffrey Bernstein and Dennis Patrick  
*Political Science*

**Room 320**  
Moderator: Cathy Fleischer and Ian Wojcik-Andrews  
*Panel: The Impact of Young Adult Literature*

110 You Know, “Those People”: The Importance of Multiculturalism in Literature for Adolescents  
*Aaron Smith*  
Professor Cathy Fleischer  
*English Language and Literature*

111 Let’s Talk About Sex, Baby: An Analysis of Sexual Content in Young Adult Literature  
*Anastazia Wyborski*  
Professor Cathy Fleischer  
*English Language and Literature*

112 Mental Illness and Walt Disney  
*Brittni Adams*  
Professor Ian Wojcik-Andrews  
*English Language and Literature*

113 Implications of Mental Health in Young Adult Literature and Education  
*Carolyn Roe*  
Professor Ian Wojcik-Andrews  
*English Language and Literature*
Young Adult Literature “Catching Fire”: Classroom Implications
Emily Colletti
Professors Ramona Caponegro and W. Douglas Baker
English Language and Literature

Room 330
Moderator: Diane Jacobs

10:00 a.m. Characterization of an Ion Gun for Use on Extraterrestrial Projects
Justin Hodges
Professors Diane Jacobs and Nick Arnold
Physics and Astronomy

10:15 a.m. Subtle Distortions in Measurements Made with Infrared Thermometers
Guy Hamburger and Austin Payne
Professor Marshall Thomsen
Physics and Astronomy

10:30 a.m. Computer Simulations of Mars’ Upper Atmosphere
Ashley Taylor-Voss
Professor Dave Pawlowski
Physics and Astronomy

10:45 a.m. Exploring the Design, Construction, and Applications of Small Unmanned Aerial Vehicles
Nickolas Joseph Myers
Professors Jamal Bari, Ali Eydghahi and Moderick C. Greenfield
Engineering Technology

11:00 a.m. Autonomous Robot Navigation in a Bounded Environment
Andrew Frailing
Professor William Sverdlik
Computer Science

Room 344
Moderator: Richard Douglass

10:00 a.m. The Growth of the Sandwich Generation and Its Impact on Women Caregivers
Renee R. Walton
Professor Sylvia Jones
Teacher Education
121 10:15 a.m. **The Effect of Physical Activity on Visuomotor Adaptation in Older Adults**
*Michael Karel Bartosek and Rebecca Neil*
Professor Jin Bo
**Psychology**

122 10:30 a.m. **Metastatic Cancer Patients and Caregivers Psychosocial Needs Overview and Assessment**
*Kathy Gee*
Professor Yvette Colon
**Social Work**

123 10:45 a.m. **The Limitations of Collecting Data on Elderly Chinese Immigrants**
*Jessica Patricia Marie Thomas*
Professor Richard Douglass
**Health Sciences**

124 11:00 a.m. **Mathematical Models of Life Expectancy of the United States Population**
*Benjamin Forrest Boyd*
Professor Khairul Islam
**Mathematics**

**Room 347**
Moderator: Patricia Williams-Boyd

125 10:00 a.m. **The Waltz of Peace**
*Stephen Burke*
Professor George Cassar
**History and Philosophy**

126 10:15 a.m. **Jordan: From the Suez Crisis to the Eisenhower Doctrine**
*Michelle B. Sprenkel*
Professor John Knight
**History and Philosophy**

127 10:30 a.m. **The Lost Art of Statesmanship**
*Nino Monea*
Professor Edward Sidlow
**Political Science**

128 10:45 a.m. **A Unit on the Oregon Trail**
*Jibri Ahmed Abdullah*
Professor Patricia Williams-Boyd
**Teacher Education**
129 11:00 a.m.  Western Expansion Through the Exploration of the Louisiana Purchase
Nicholas A. Margo
Professor Patricia Williams-Boyd
Teacher Education

Room 350
Moderator: Christine Day

130 10:00 a.m.  The Betrayal of Equal Rights that Were Deserved
Shantinique Shante Lowman
Professor Victor Okafor
African American Studies

131 10:15 a.m.  Tyrone and Vivian Brown: A Person-in-Environment Retrospective
Tyrone Emory Brown
Professor Betty Brown-Chappell
Social Work

132 10:30 a.m.  United States-Chinese Business Relationship: Conclusions from an Internship in a United States Subsidiary of a Chinese Company
Congzhe Xu
Professor David Victor
Management

133 10:45 a.m.  Yesterday was the Only Easy Day—Why Leadership is Essential to Life
Christopher Ryan Caryl and Emily Owens
Professor Christine Day
Management

134 11:00 a.m.  Pyramid of Success
Jacob Speck
Professor Christine Day
Management

Room 352
Moderator: Chiron Graves

135 10:00 a.m.  Youth Unemployment: A Policy Analysis
Nino Monea
Professor Raymond Rosenfeld
Political Science
10:15 a.m. Investigating the Next Generation Science Standards for Classroom Implementation
Joshua John Perrin
Professor Amy Flanagan Johnson
Chemistry

10:30 a.m. Investigation into the Effects of Student-Centered Learning on Student Understanding of Key Science Concepts
Lauren Marie Mayleben
Professor Chiron Graves
Biology

10:45 a.m. An Argument for Integrating Arts into the Schools
Kate Chapman
Professor Darlene Leifson
Communication, Media & Theatre Arts

11:00 a.m. High School Dropouts and Consequences in the United States
Stevie Momkam
Professor Khairul Islam
Mathematics

Kiva
Moderator: Michael Marion

10:00 a.m. Being Queer and Not Queer: Arguing for Ally to be Included in the Queer Spectrum
Heather Grace Charles
Professor Kathryn Ziegler
Women's and Gender Studies

10:15 a.m. The Projected Hypersexual: An American Tool for Marginalization Since 1863
Melissa Jasperse
Professor Charles Cunningham
English Language and Literature

10:30 a.m. What Does the War on Crime Look Like When the Battle Grounds are Urban Neighborhoods?
Karen Ann Yelverton
Professors Michael Marion and Nick Romerhausen
Communication, Media & Theatre Arts

10:45 a.m. White Allies and Anti-Racist Rhetoric
Alexander Landen
Professor Michael Marion
Communication, Media & Theatre Arts
SESSION C

Room 104
Moderator: Xianghong Feng

145 11:30 a.m.  Fibromyalgia and Cortical Stimulation
Heather Zappala
Professor Shel Levine
Health Promotion and Human Performance

146 11:45 a.m.  Body Mass Index Affects Trunk Accelerations and Lower Limb Biomechanics of Running
Lauren Jording
Professor Stephen McGregor
Health Promotion and Human Performance

147 Noon  Comparing Assessments of School Health Needs in the Lincoln Consolidated School District
Emily VanWormer,
Chelsea Schmitt and Kristen Baker
Professor Jeffrey Schulz
Health Promotion and Human Performance

148 12:15 p.m.  Barefoot Doctors In China: An Exploration of a Rural Healthcare System
Joshua Lyon
Professor Xianghong Feng
Sociology, Anthropology and Criminology

149 12:30 p.m.  Eating Well on a Student Budget: Peanut Noodle Salad
Daryl Hannah Andrzejewski
Professors Sandra Pernecky and Alice Jo Rainville
Health Sciences

Room 120
Moderator: Heather Janisse

150 11:30 a.m.  Carrie and Friend?: A Look into a Romantic Friendship During the Early 20th Century
Jennifer B. Redfern
Professor Philip Schmitz
History and Philosophy
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<td>11:45 a.m.</td>
<td>The Relationship Between Female Paternal Attachment and Future Romantic Relationships</td>
<td>Carla Nodi</td>
<td>Professor Natalie Dove</td>
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<td>Noon</td>
<td>The Relationship Between Parental Care and Communication and Sexual Behaviors and Attitudes in Emerging Adults</td>
<td>Nicole Richards</td>
<td>Professor Heather Janisse</td>
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<td>12:15 p.m.</td>
<td>Families: Expectation and Reality</td>
<td>Isabelle McCormack</td>
<td>Professor Ronald Westrum</td>
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<td>12:30 p.m.</td>
<td>Aspiring to Broader Representation: The Integration of LGBT Young Adult Literature</td>
<td>Garifilia Adamopoulos</td>
<td>Professor John McCurdy</td>
<td>Women's and Gender Studies</td>
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<td>11:30 a.m.</td>
<td>The Role of Women in the Nationalist Movement in Guinea and Tanganyika</td>
<td>Barbara A. Hubbard</td>
<td>Professor Joseph Engwenyu</td>
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<td>11:45 a.m.</td>
<td>Guerrilla Girls: Women and the Struggle for Independence in Kenya and Zimbabwe</td>
<td>Elsie A. Serrano</td>
<td>Professor Joseph Engwenyu</td>
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<td>Noon</td>
<td>At What Point Do a State’s Actions Warrant International Intervention?</td>
<td>Dean Blackburn</td>
<td>Professor Richard Stahler-Sholk</td>
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<td>12:15 p.m.</td>
<td>Defining Geopolitics and Strategy in Central Asia</td>
<td>Michael Glenn Bailey</td>
<td>Professor Judith Kullberg</td>
<td>Political Science</td>
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159 12:30 p.m.  Assessing the Effectiveness of United States Counterinsurgency Strategy in Afghanistan  
Andrew S. Martinez  
Professor Judith Kullberg  
Political Science

**Auditorium**  
Moderator: John Dorsey

160 11:30 a.m.  Toshimitsu Tanaka’s Two Movements for Marimba  
Andrea Louise Godoshian  
Professor John Dorsey  
Music and Dance

161 11:45 a.m.  Gavotte and Gigue from Suite in G Major, BWV 1012, by J. S. Bach (1685-1750)  
Jesse Liker  
Professor Scott Woolweaver  
Music and Dance

Trang Vo  
Professor Gary Pedersen  
Music and Dance

163 12:15 p.m.  Hearing Colors and Tasting Sounds: Examining Synesthesia  
Michelle Renee Good  
Professor Gary Pedersen  
Music and Dance

164 12:30 p.m.  Quatro Melange  
Adeline Zemcik, Chloe Gray, Jenni Flanagan and Madelyn Ann Prebola  
Professor Joanna McNamara  
Music and Dance

**Student Art Gallery**  
Moderator: Bradley Ensor

165 11:30 a.m.  Michigan and the Great Lakes Region: A Narrative History of Archaeological Theory  
Baily Jane Hershberger  
Professor Bradley Ensor  
Sociology, Anthropology and Criminology
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<td>A History of Archaeological Thought on the Hopewell</td>
<td>Marc Rogers</td>
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<tr>
<td>Noon</td>
<td>Irish Archaeological Thought and National Identity</td>
<td>Kaitlyn Welsh</td>
<td>Bradley Ensor</td>
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<td>12:15 p.m.</td>
<td>Re-Examining Interpretations of the Potlatch Tradition</td>
<td>Stephanie Cherie Absalom</td>
<td>Ronald Rich</td>
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<tr>
<td>12:30 p.m.</td>
<td>The Way We Live: A Global Perspective</td>
<td>Alexandria Edwards</td>
<td>Norm Tyler</td>
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**Room 301**
Moderator: Edward Sidlow

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<td>11:30 a.m.</td>
<td>Great Depression vs. Great Recession</td>
<td>Kara Lynne Binning</td>
<td>Abdulah Dewan</td>
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<td>11:45 a.m.</td>
<td>Phenomenology, Plutocracies, and the Role of Slave-Master Morality in American Government and Legal System</td>
<td>Layla Garcia-Brown</td>
<td>Jeremy Proulx</td>
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<td>Noon</td>
<td>The Second Amendment and Gun Control in the Modern United States</td>
<td>Nicholas Beaton</td>
<td>Kathy Peterson</td>
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<td>12:15 p.m.</td>
<td>Attorney for Hire: The Rising Rates for Legal Aid</td>
<td>Matthew Royal Grider</td>
<td>Mark Maironis</td>
<td>Political Science</td>
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174 12:30 p.m. The Delta State: Why Change Leadership is Critical to Organizational Success
Christopher Ryan Caryl
Professor Christine Day
Management

Room 304
Moderator: Regina Luttrell

175 11:30 a.m. A Timely Warning
Karen C. Thompson
Professor Christine Hume
English Language and Literature

176 11:45 a.m. The Value of a College Degree
Olu Osuntuyi
Professor Stephanie Newell
Management

177 Noon Ypsilanti Alternative Learning Community
Kody Jon Klein
Professors Regina Luttrell and Carol Schlagheck
English Language and Literature

178 12:15 p.m. Talking the Talk and Walking the Walk:
A Social Skills Unit
Austin H. Kovar
Professor Patricia Williams-Boyd
Teacher Education

179 12:30 p.m. A Tour of a Cell
Amanda Grace Dilloway
Professor Patricia Williams-Boyd
Teacher Education

Room 320
Moderator: John Carbone

180 11:30 a.m. A Concise Method for the Production of Lentiginosine
Elizabeth Miguet
Professor Harriet Lindsay
Chemistry

181 11:45 a.m. Examination of Problematic Food
to Development of Substance Use Disorder in Post-Bariatric Surgery Patients
Lauren Alina Fowler
Professor Karen Saules
Psychology
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<td>Reductions in Muscular Strength Following Bariatric Surgery are Proportional to Absolute Weight Loss</td>
<td>Renee R. Walton</td>
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<td>12:15 p.m.</td>
<td>Electrocardiography and Diabetes</td>
<td>Anna Levine</td>
<td>Health Promotion and Human Performance</td>
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<td>A Randomized, Crossover Comparison of the Effects of HFCS vs. Sucrose Intake on Basic Physiologic Measures</td>
<td>Erica Mouch and Alyssa Walz</td>
<td>Health Sciences</td>
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<td>11:30 a.m.</td>
<td>Caught in the System: African Americans and the Prison Industrial Complex</td>
<td>Kelsey Renee Goodman</td>
<td>African American Studies</td>
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<td>11:45 a.m.</td>
<td>Facilitated Communication and the Criminal Justice System: An Interdisciplinary Perspective</td>
<td>James Robert Quillen</td>
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<td>Noon</td>
<td>The Effect of Unethical Actions on Business Laws and the Correlation Between Them</td>
<td>Emily Owens</td>
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<td>Israel and the Politics of Divorce: An Exploratory Analysis</td>
<td>Kaitlyn Marie Dugas</td>
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<td>12:30 p.m.</td>
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<td>Mary Alice Kheir and Joe Ciaravino</td>
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Room 344
Moderator: Mark Whitters

190 11:30 a.m.  The Effect of Recall Fluency on Prejudice
Troy G. Deskins and Max Monahan
Professor Rusty McIntyre
Psychology

191 11:45 a.m.  Parallel Traditions in the Book of Enoch and the Epistle to the Philippians
Michael Curtis Baptista
Professor Mark Whitters
History and Philosophy

192 Noon  Coining the Phrase: An Analysis of Colloquialisms in Martin Luther’s Bible Translation
Matthew Thomas Silvis
Professor Carla Damiano
World Languages

193 12:15 p.m.  Black Comedy and the Weight of Misrepresentation: The Exaggeration of Black Life
Briana Christa Lynn McKoy
Professor Melvin Peters
African American Studies

194 12:30 p.m.  “Bitches ain’t shit but hoes and tricks”: Misogynistic Ideologies of Black Women in Hip-Hop
Shaquetta Morris
Professor Melvin Peters
African American Studies

Room 347
Moderator: Ramona Caponegro

195 11:30 a.m.  The Plight of Women in Concentration Camps: Liana Millu’s Smoke over Birkenau
Alexandra Yvonne Kubiak
Professors Carla Damiano and Sascha Feuchert
World Languages

196 11:45 a.m.  The Hijab Quilt: My Magic Carpet
Reem Aabed
Professor Ramona Caponegro
English Language and Literature

197 Noon  Wonder Women: Female Depiction in Comics
Laurie M. Stevens
Professor Charles Cunningham
English Language and Literature
198 12:15 p.m.  The Language of Women’s Solidarity in Othello
   Samuel Singleton-Freeman
   Professor Natasa Kovacevic
   English Language and Literature

199 12:30 p.m.  “I can’t think about kissing”:
   Strong Female Protagonists and Romance
   in Dystopian Young Adult Fiction
   Mollie Hall
   Professor Annette Wannamaker
   English Language and Literature

Room 350
Moderator: Dennis Patrick

200 11:30 a.m.  Queerness Without Binary
   Jeffrey Kyle Davis
   Professor Peter Higgins
   History and Philosophy

201 11:45 a.m.  Shared Parenting Legislation:
   Addressing Gender-Based Inequities in Child
   Custody and Support Policy
   Selma Sinift
   Professor Don Lopnow
   Social Work

202 Noon  Transgender Healthcare in America:
   A Feminist Perspective
   Samuel Teeple
   Professors Solange Simoes and Suzanne Gray
   Women’s and Gender Studies

203 12:15 p.m.  The Persecution of Homosexuals During the Holocaust
   Jennifer Rokakis
   Professor Elizabeth Currans
   Women’s and Gender Studies

204 12:30 p.m.  A Communication Analysis of Online Profiles
   of Same-Sex Couples Hoping to Adopt
   Caprisha Marie Curry
   Professor Dennis Patrick
   Communication, Media & Theatre Arts
Room 352
Moderator: Meriah Sage

205 11:30 a.m. On Your Toes: Dance for a Special Population
   Mary Kathryn Sinz
   Professor Linda Polter
   Special Education

206 11:45 a.m. Universal Design for Learning: Equalizing Opportunity
   Through Movement, Technology and the Arts
   Kaytie Diane Corlew
   Professor Jennifer Desiderio
   Special Education

207 Noon Adolescents Creating Theatre:
   Social and Academic Benefits
   Maeve Devlin
   Professor Meriah Sage
   Communication, Media & Theatre Arts

208 12:15 p.m. A Manifesto: For the Manifestation of
   the Arts in Education
   Ellen Rae Weaver
   Professor Meriah Sage
   Communication, Media & Theatre Arts

209 12:30 p.m. ArtPrize: A Closer Look at the Creative Economy
   Katherine Ellen McKenna
   Professor Susan Booth
   Communication, Media & Theatre Arts
Kiva
Moderator: Michael H. Reed

210 11:30 a.m. Are They Allowed to Say That?: A Rhetorical Analysis of the 2012 Fox vs. FCC Supreme Court Decision
Nicholas Marek
Professor Nick Romerhausen
Communication, Media & Theatre Arts

211 11:45 a.m. The Ethnic Transplant Gap and the Preserve Our Legacy Organization
Karen Ann Yelverton
Professor Michael Marion
Communication, Media & Theatre Arts

212 Noon Bridging the Monogamy Gap
Evan Michael Mann
Professors Nick Romerhausen and Amy Johnson
Communication, Media & Theatre Arts

213 12:15 p.m. “Confidentiality” (A Short Story)
Alice Thomsen
Professor Carla Harryman
English Language and Literature

214 12:30 p.m. I [heart] Huckabees and Narrative Identity
Katy Shay
Professor Margaret Crouch
History and Philosophy
Characterization of an Ion Gun for Use on Extraterrestrial Projects
Justin Hodges
Caught in the System: African Americans and the Prison Industrial Complex

Kelsey Renee Goodman  
Professor Victor Okafor

Overtime, the prison industrial complex has become neo-slavery for the men and women of the African American community. With a disproportional presence in these facilities, Blacks have been unequally affected by the creation of a second-class citizenry via multiple facets, including disenfranchisement, the foster care system and lack of higher education. The adult populace is not the sole target in these communities of color as young Black children are also being pushed into the juvenile detention and prison institutions via the “school-to-prison pipeline” phenomenon. The abundance of Blacks in the prisons has stigmatized the race and made the road to advancement and re-entry difficult.

Session C – Room 330 – Number 185

The Betrayal of Equal Rights that Were Deserved

Shantinique Shante Lowman  
Professor Victor Okafor

The ending of slavery, the Reconstruction, and the rights of the freed slaves or “freedmen,” as they called them in the 1860s, are controversial subjects. The things that we experienced as a country for the freedmen, the Civil War, and the Reconstruction that followed, are among the developments that made the Supreme Court what it is today. It’s about the fight that African Americans fought for years and years for equal rights—the fight with the government, the fight with the Congress, the fight within the states, the fight during the Civil War, and the fight inside the Supreme Court, etc. These are among the issues to be presented in this book review.

Session B – Room 350 – Number 130
Black Comedy and the Weight of Misrepresentation: The Exaggeration of Black Life

Briana Christa Lynn McKoy
Professor Melvin Peters

The success of black comedy has heavily relied on negative and overly exaggerated stereotypes of its characters that date back to minstrelsy. This exaggeration, which includes circumscribed racist and sexist stereotypes, has made its way from blackface on stage to contemporary entertainers on YouTube. The responsibility of framing blackness has been largely disregarded by the entertainment industry. The purpose of this study is to navigate the historical trajectory of imagistic mistreatments, from yesterday’s blackface to today’s not so dissimilar black entertainment media.

Session C – Room 344 – Number 193

“Bitches ain’t shit but hoes and tricks”: Misogynistic Ideologies of Black Women in Hip-Hop

Shaquetta Morris
Professor Melvin Peters

Mainstream hip-hop is a product of the contemporary White patriarch institution established in America and reflects the misogynistic ideologies of this institution. This presentation explores the history of the exploitation of Black women in America through mainstream hip-hop music. Research focuses on stereotypes of Black women, the legitimization of sexism by male artists, sexism on the part of female rappers, and the societal effects of hip-hop sexism.

Session C – Room 344 – Number 194

DEPARTMENT OF ART

Louise Nevelson—An American Original

Ilana S. Houten
Professor Ellen C. Schwartz

Louise Nevelson (1899-1988) was an unconventional woman and artist. She had a long and prolific career in New York. Refusing to limit herself to the confines of a single artistic style she incorporated elements of Synthetic Cubism and Abstract Expressionism into her sculpture. Her resulting body of work is an original “blueprint” that transcends all individual aesthetic movements.

Session B – Student Art Gallery – Number 97
Cultural Explorations Through Artistic Metal and Fiber Body Decoration

Darin Smith
Professors Gretchen Otto and Brooks Stevens

This presentation shows finished work as well as influences that have lead to the completion of a comprehensive and pioneering body of work. Body decoration and adornment in many cultures is dictated by cultural practices, available materials, ideologies and indigenous values. Some of this art originates from the ceremonies of distinct cultures with inspiration drawn from cultures like the Samburu and Masaai of Kenya, Ojibwe Native Americans, and ethnic groups of Northern India, Thailand, Cambodia, Iran, and more.

Session A – Student Art Gallery – Number 27

DEPARTMENT OF BIOLOGY

The Effect of Flower Number on Reproductive Success in *Trientalis borealis* (Northern Star Flower)

Lindsay Daschner
Professor Gary Hannan

Sexual reproduction in flowering plants depends on successful pollination and subsequent fertilization. Pollination success can be influenced by floral display size. If plants having more flowers are more attractive to pollinators, then pollen transfer to stigmas and subsequent fruit- and seed-set should be greater in plants having more flowers. Stigma and fruit samples from one and two-flowered individuals were collected in 2007 and 2012 to test this hypothesis. Although the data did not support these statements entirely, yearly climate conditions may have influenced sexual reproductive success of the northern star flower.

Session B – Room 120 – Number 84

Investigation into the Effects of Student-Centered Learning on Student Understanding of Key Science Concepts

Lauren Marie Mayleben
Professor Chiron Graves

Students hold preconceptions of the role of photosynthesis in the flow of energy and matter within an ecosystem. These preconceptions often inhibit students from developing scientifically accurate understandings of this important concept. This investigation was conducted to examine if a student-centered approach could help students develop a scientifically-acceptable understanding of the role of photosynthesis in providing energy and matter into an ecosystem. This approach used pre-instruction interviews with students to design the instructional activities.

Session B – Room 352 – Number 137
Synthesis of 1-Pyrenyldiazomethane
Mary Beth Kalvaitis
Professor Heather Holmes

1-pyrenyldiazomethane (PDAM) has been used to derivatize short-chain fatty acids prior to analysis by gas or liquid chromatography. PDAM reacts quickly and quantitatively, but it is expensive, light-sensitive and degrades easily. Thus, synthesis on an as-needed basis is an attractive option. Through optimization of reaction conditions and solvents, this project resulted in the development of a simple, two-step synthesis procedure that produces PDAM in sufficient quantity and purity for use in derivatization reactions.

A New Physical Chemistry Experiment on Sucrose Inversion
Daniel H. Lee
Professor Larry Kolopajlo

This presentation describes a new experiment for the physical chemistry lab in kinetics utilizing the Vernier polarimeter. The polarimeter can be used to measure chiral properties of optically active samples without chemically modifying or destroying the sample. Comparison with the more traditional method is provided. Method development, operation, data analysis, along with the pros and cons of this new technique, are discussed.

A Concise Method for the Production of Lentiginosine
Elizabeth Miguet
Professor Harriet Lindsay

The naturally occurring chemical compound lentiginosine and its structural relatives have been shown to have biological activity that gives them potential applications in the treatment of diabetes, viral infections, and certain cancers. We have completed the synthesis of lentiginosine using four chemical reactions, making our method the shortest reported to date. Furthermore, structural relatives of lentiginosine can be easily produced. Finally, our four-step synthesis features a novel samarium(II) iodide-mediated pinacol coupling reaction that allows for the molecule’s formation in a specific three-dimensional orientation.

Investigating the Next Generation Science Standards for Classroom Implementation

Joshua John Perrin
Professor Amy Flanagan Johnson

The 2012 release of the first draft of the Next Generation Science Standards (NGSS) presents both exciting opportunities and significant challenges for educators. As this educational reform document is quite different from the current state standards, designing appropriate instruction and assessment is a daunting task. Through this project, I investigate the scope and philosophy of the NGSS by creating an inquiry-based unit on photosynthesis for middle school. This session highlights curricular materials developed during the project, including activities and assessments. I also reflect on how undertaking this reform-based research project has helped to shape my science teaching identity.

Session B – Room 352 – Number 136

DEPARTMENT OF COMMUNICATION, MEDIA & THEATRE ARTS

An Argument for Integrating Arts into the Schools

Kate Chapman
Professor Darlene Leifson

The evidence for integrating arts in our schools is both compelling and plentiful. This project presents quantitative research and case studies that: (1) demonstrate the positive effects of arts integration on socioeconomically disadvantaged students, (2) indicate that integrating arts into the classroom contributes to a decrease in dropout rates, increases test scores, and has the potential to reach students who might not otherwise be reached, and (3) suggest that integrating the arts into the curriculum equips students with the skills they need to be successful in today's job market and workplace.

Session B – Room 352 – Number 138

Liberace to Jay-Z: Understanding the Rhetorical Relationship Between the LGBT and Hip-Hop Communities

Marcus Coleman
Professor Nick Romerhausen

The basis of this study is to analyze the shared rhetorical history between the LGBT community and the hip-hop community. Hip-hop in recent history has become a part of the mainstream pop culture, and while it has given a voice to many, it has also given a voice to heterosexist and homophobic discourses within the community. With an understanding of the stages the relationship goes through, it can be shown that tensions of race play into the heterosexist/homophobic discourse, and furthermore that modern hip-hop has begun a movement toward tolerance in its relationship with the LGBT community.

Session B – Kiva – Number 144
A Communication Analysis of Online Profiles of Same-Sex Couples Hoping to Adopt

Caprisha Marie Curry
Professor Dennis Patrick

The number of same-sex couples who are parents has increased dramatically in the last decade. This study is an examination of online profiles of same-sex couples hoping to adopt, and how they portray themselves online to appeal to pregnant women seeking adoptive families. Same-sex couples have to compete and stand out from the numerous heterosexual couples that are also hoping to adopt. This research examines communication strategies used by same-sex couples to positively frame themselves online.

Session C – Room 350 – Number 204

Adolescents Creating Theatre: Social and Academic Benefits

Maeve Devlin
Professor Meriah Sage

Participation in theatre and drama programs is proving to be beneficial to young students. This presentation focuses on how adolescent students gain important social and academic skills through the art of theatre by taking an active role in the creation of a performance. It explores elements and techniques essential in developing an atmosphere that encourages creation as well as successful examples of programs.

Session C – Room 352 – Number 207

The Twilight Zone: Relevant Then and Now

Princess Lauren Gabbara
Professor Geoff Hammill

This presentation examines what the television show The Twilight Zone said/says about our culture. Rod Serling, the show’s creator, tackled common issues that existed during that time (1959-1964) including racism and anti-war activism that are still relevant today. Serling also used the show as a format to predict the future; he didn’t see a very bright future ahead and assumed the worst in all of us. Through his work, he suggested that we would become a monolithic society obsessed with appearance, consumed by greed, and without a sense of right and wrong.

Session A – EZone (First Floor) – Number 19
Morgan Spurlock’s Mansome: Not Taking Sides on Masculinity
Shanna Gilkeson
Professor Brooke Dagnan

In American society today, men often receive conflicting messages about masculinity, appearance and grooming. Through an exploration of the spectrum of masculinity from metrosexual to hypermasculine, Morgan Spurlock’s 2012 film Mansome asks the question of what it means to be a man. As in his well-known projects Super Size Me and 30 Days, Spurlock uses Mansome to raise awareness of an important issue and encourage social discourse; however, this particular film has no foregone conclusion of “right” or “wrong,” and all points of view receive fairly equal treatment. This presentation includes film clips and still images that serve as examples of the film’s construction and demonstrate Spurlock’s unbiased approach.

Session B – Student Art Gallery – Number 100

E-TV: The Growth of Student-Produced Television at EMU
Shanna Gilkeson and Eliza Ellen Chase
Professor Keith Damron

Electronic Media students take their existing skills beyond the classroom by creating original content for E-TV, Eastern Michigan University’s campus cable channel 18. Through independent studies and the E-TV student organization, students take on the production, distribution and promotion aspects of Channel 18’s programming and operations, including Internet distribution and social media. Video clips highlight various E-TV productions.

Session A – EZone (First Floor) – Number 17

The Impact of Social Pressure on Women in Private Party Marketing
Phyllicia Iler
Professor Donald Ritzenhein

Private party marketing, which was popularized in the 1950s by Tupperware, has expanded to include parties marketing jewelry, purses and even romance. This participant observation study investigates the persuasive pressures of private party events on women.

Session A – Room 330 – Number 50
White Allies and Anti-Racist Rhetoric

Alexander Landen
Professor Michael Marion

Scholars have long accepted that the key to racial understanding is open channels of communication. However, due to the lack of anti-racist influence in America, white Americans have failed to develop rhetoric for discussing race. Dr. Cynthia Stokes Brown, in her book *Refusing Racism: White Allies and the Struggle for Civil Rights*, suggests that the role of White Allies in the anti-racist movement has been heavily overlooked by textbooks and educational curriculum. This presentation uses Stokes Brown’s view and other cohesive research as a lens to discover how the lack of white anti-racist influence in our nation’s history has impacted the lack of white anti-racist rhetoric in America today.

Session B – Kiva – Number 143

Bridging the Monogamy Gap

Evan Michael Mann
Professors Nick Romerhausen and Amy Johnson

Sociologist Eric Anderson pioneered several studies on what he calls “The Monogamy Gap,” the discrepancy between our culture’s competing desires for monogamy and recreational sex. That gap is closing quickly. In a world where *Business Week* and the *Wall Street Journal* name affair website *AshleyMadison.com* among the world’s most profitable businesses, it is imperative to explore the implications of The Monogamy Gap to investigate what motivates cheating and address the following questions: (1) How do we foster healthy relationships while the media valorizes “hook-up” culture? (2) Is monogamy on the verge of extinction?

Session C – Kiva – Number 212

Are They Allowed to Say That?: A Rhetorical Analysis of the 2012 Fox vs. FCC Supreme Court Decision

Nicholas Marek
Professor Nick Romerhausen

In an 8-0 decision on June 24, 2012, the United States Supreme Court passed a verdict in the Fox vs. FCC case regarding the constitutionality of the FCC’s censorship guidelines. Ultimately, the verdict contained two distinct narratives that both denounced specific FCC fines while simultaneously supporting the FCC’s indecency policy. By applying the methodology of rhetorician Kendall Phillips, this presentation seeks to understand which narrative emerges as the dominant public memory and how the Fox vs. FCC decision impacts the future of broadcast media, censorship and the public consciousness.

Session C – Kiva – Number 210
ArtPrize: A Closer Look at the Creative Economy
Katherine Ellen McKenna
Professor Susan Booth

ArtPrize defines itself as “becoming the world’s largest art competition by combining $560,000 in total prizes with an open call for artists, venues and critics. Anyone over the age of 18 can be an artist, any space within the ArtPrize district can be a venue, and anyone over the age of 16 can vote.” However, in relation to the creative economy and the cultural sector as a whole, ArtPrize is much more than that. ArtPrize grabbed the attention of a state, and helped cultivate a community that takes pride in the arts. This presentation is the further investigation of what kind of impact an arts and cultural event can have on the creative economy of a town.

Session C – Room 352 – Number 209

Rhetorical Visions of Women in the 2012 Election Campaigns
Phebie Gail Mier
Professor Donald Ritzenhein

There was considerable news coverage of Republican candidates’ depictions of women in their public statements, followed by responses issued by Democratic candidates. This study applies the concepts of symbolic convergence theory to assess the rhetorical choices made by Republican and Democratic candidates during the 2012 election campaigns.

Session B – Student Art Gallery – Number 98

Here Comes Honey Boo-Boo: It Could Be You
Phillisha Carrie Smith
Professor Geoff Hammill

The purpose of this research is to analyze and criticize the effect of the television show _Here Comes Honey Boo-Boo_ on American culture. According to cultural and ideological criticism, this show and other artifacts of the media are direct reflections of our culture and its dominant ideology. Because every artifact is meaningful to the makeup of our society’s ideology, viewers in effect lend support to all of the concepts presented in this show, such as unhealthy food habits for children and the secularization and exploitation of children for profit. The only way to oppose what this show stands for and its reflection of our society is to not watch.

Session A – EZone (First Floor) – Number 20
The Appearance Goals of Female TV Newscasters

Kristen Elizabeth Smith  
Professor Donald Ritzenhein

Television news programs are increasing the diversity of broadcasters and including more women. Cultural expectations of female broadcasters have placed considerable weight on their appearance. This study investigates how female broadcasters have navigated those cultural expectations and how this has influenced their professional goals, especially their appearance goals.

Session B – Student Art Gallery – Number 96

A Manifesto: For the Manifestation of the Arts in Education

Ellen Rae Weaver  
Professor Meriah Sage

We are falling behind in the intellectual race. Our global standing is not threatened by a lack of intelligence, but by a generic over-processing of standardized education. With the integration of the arts in our classrooms our students would have the option to personalize and take pride in their learning. Why assign a worksheet instead of a collage, a photo or a dance phrase? The internalization and participation inspired by the arts ensures meaningful attainment. This manifesto expresses the need for and justification of an education infused with the arts supported by evidence from working organizations and realizations I have made as an active student and future teacher.

Session C – Room 352 – Number 208

The Ethnic Transplant Gap and the Preserve Our Legacy Organization

Karen Ann Yelverton  
Professor Michael Marion

Preserve Our Legacy is a not-for-profit organization started in 2007 following the death of Jaden Hilton, who was in need of a bone narrow transplant but was unsuccessful finding a match. From this tragedy P.O.L. was born. Since its founding P.O.L. has been a major force in supporting the establishment of May 3 as Bone Marrow Transplant Day and the passage of New Jersey’s bill A2168, also known as Jaden’s Law, which created an initiative to increase bone marrow donation awareness. Through my presentation I hope to inspire, inform and educate individuals about the benefits of bone marrow and adult stem cells and the treatment options they provide.

Session C – Kiva – Number 211
What Does the War on Crime Look Like When the Battle Grounds are Urban Neighborhoods?

Karen Ann Yelverton
Professors Michael Marion and Nick Romerhausen

This presentation examines the persuasive devices of “The War on Crime” created by the FBI’s J. Edgar Hoover in 1935. This phrase reshaped the role of the police officer in urban neighborhoods and continues to have a negative impact. Because of the real dangers such a branding carries, this study illuminates a new course of action called “Cease Fire” that uses a three-pronged approach to cure communities of violence and crime: (1) detect and interrupt, (2) change behavior, and (3) change community norms. I employ a critical perspective to advance the rhetorical power of Cease Fire in urban neighborhoods.

Session B – Kiva – Number 142

In the Blood

Karen Ann Yelverton and Durrell Jamerson-Barnes
Professors Michael Marion and Nick Romerhausen

A ten-minute performance of In the Blood, by Pulitzer prize winning playwright Susan Lori Parks, is performed. The play and performance is used as a lens through which we hope to illuminate issues of poverty, racial (in)justice, religion, inter-relational power dynamics and social (in)justice. Performance art is a powerful research tool and vehicle through which we hope to inspire discussion and debate. As performers who come from underrepresented urban settings we feel like qualified ambassadors of the issues discussed in this performance script.

Session A – Auditorium – Number 25

DEPARTMENT OF COMPUTER SCIENCE

Autonomous Robot Navigation in a Bounded Environment

Andrew Frailing
Professor William Sverdlik

This presentation is part of a larger ongoing project involving cooperating autonomous robots. Essential to the operation of cooperating robots, each unit must know its physical location. Results of my investigations into various known techniques for navigation in a closed environment, including infrared beacons, sonar detection, as well as others, is presented. Noise, power consumption and accuracy of navigation are three problem areas addressed.

Session B – Room 330 – Number 119
A Blackjack Computer Game
Mordechai Sadowsky
Professor Aby Tehranipour

For this project I created a basic blackjack computer game. Between one and five players can play against the computer in a standard game with simulated cards and hands. Using the Java computer language I wrote several different files of code, called classes, which work together to create a final, executable program. The classes that I wrote create data types describing different elements of any card game, including a single card, a hand of cards, a deck and a couple classes more specific to blackjack. Initially I wrote a command line (a menu driven) program and then I wrote a graphical user interface for the game.
Session A – Room 301 – Number 32

DEPARTMENT OF ECONOMICS

Great Depression vs. Great Recession
Kara Lynne Binning
Professor Abdulah Dewan

The presentation examines the pros and cons of the Federal Reserve monetary policy during the Great Depression of the 1930s and the Great Recession that began in 2008. During the intermittent period, especially after the recovery from the Great Depression, the Federal Reserve policies have undergone many changes. The presentation highlights those changes with specific references to the introduction of some non-traditional policy instrument used during the Great Recession.
Session C – Room 301 – Number 170

DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

The Hijab Quilt: My Magic Carpet
Reem Aabed
Professor Ramona Caponegro

“The Hijab Quilt: My Magic Carpet” displays the importance of the hijab and the identity it holds for Muslim women. The hijab is part of Muslim women’s identity because they have to deal with it almost every day. It is also a beautiful way to bring all Muslim women around the world together, and even though everyone might have their own style, Muslim women share the concept of the hijab as a part of their identity. The purpose of my project is to demonstrate a way for non-Muslims to understand the hijab.
Session C – Room 347 – Number 196
Mental Illness and Walt Disney

Brittni Adams
Professor Ian Wojcik-Andrews

This presentation examines the portrayal of mental illness in Walt Disney films. First, the presenter considers the question of definition. What is mental illness? Second, she considers the possible effects negative images of the mentally ill have on young children in our society today. Disney has a profound influence on young viewers and thus the depiction of mental illness within these popular films of Disney may have an input on the way our culture views issues of mental health. The Disney movies I examine range from Snow White and the Seven Dwarfs in 1937 to Beauty and the Beast in 1992.

Session B – Room 320 – Number 112

Children’s Comprehension of Sentences with Manner-of-Obtainment Constructions

Danuta B. Allen
Professor T. Daniel Seely

This paper investigates children’s comprehension of Manner-of-Obtainment Constructions (MOCs) in Polish, as described by Szczesniak (2008). These refer to constructions with prefix wy-, as in mezczyzna wyzebral pieniadze: the man wy-begged the money (‘the man obtained the money by begging’). Among Polish prefixes only wy- has the capacity to form MOCs. The central research question is whether children properly recognize MOCs. Therefore, the presenter proposes an experiment involving a Truth Value Judgment Task developed by Crain (1998) to demonstrate that children apply the same rules for MOCs as adults. Overall, the study answers questions what children know innately about the language and what they acquire.

Session A – Room 120 – Number 9

Elementary, My Dear Watson: Homosocial Relationships in BBC’s Sherlock

Natalie Elizabeth Anschuetz
Professor Laura George

“Male homosocial desire,” writes Eve Sedgwick, “describes social bonds between persons of the same sex. It is applied to such activities as ‘male bonding,’ which in our society may be characterized by ‘intense homophobia, fear, and hatred of the homosexual.’ “ The famous companionship between detective Sherlock Holmes and Dr. John Watson exemplifies both what is considered acceptable and what are considered deviant characteristics of a male friendship in the BBC series Sherlock. In a critical analysis of the episode, “A Scandal in Bohemia,” this project explores what classifies a typical friendship, and examines how that friendship may be perceived by others in a homosocial context.

Session A – Room 320 – Number 42
The Western Veil: Racial Identity Development in Mary Shelley’s *Frankenstein*

*Kaitlin Lorraine Browne*  
Professor Christine Neufeld

Mary Shelley’s *Frankenstein* prompts the reader to ask: are monsters born or made? Yet little attention has been paid to the Eurocentric hegemonic forces that shape the world of Frankenstein’s Creature. I argue that the Creature’s reliability is compromised by a sense of racial inferiority that shapes his view of the world. While some critics have identified the Orientalist construction of the Creature and minor characters, they have failed to connect the basis for this construction with the Creature’s education. In contrast, this presenter argues that the Creature’s Eurocentric education informs his racial identity, contributes to his identification with his oppressors, and causes him to reproduce the same Orientalist discourse that tragically degrades his own sense of self.

*Session A – Room 104 – Number 1*

Voyeurism and Identity in Alfred Hitchcock’s *Rear Window* and *Vertigo*

*Frances Campbell*  
Professor Abby Coykendall

Alfred Hitchcock touches on voyeurism, or the pleasure of watching people, in many of his films, often depicting characters who have voyeuristic tendencies. *Rear Window* and *Vertigo* go a step further than voyeurism for personal pleasure, featuring Jimmy Stewart as a detective and a photographer, turning voyeurism into a career and an identity. Off the job, the characters attempt to hold onto their career identities through their relationships with women and find that while there is power in watching others, the gaze goes both ways.

*Session A – Room 120 – Number 10*

From Nonsense to New-Sense: The Radical Poetics of Gertrude Stein

*David M. Chapman*  
Professor Alexandra Norton

One might ask, “how is meaning made?” to which Gertrude Stein might respond, “how is meaning enforced?” This presentation explores the way in which structures of convention are scrutinized and decentralized in Stein’s book of poetry, *Tender Buttons*, and why nearly 100 years later her ideas are more important than ever. Through grammatical, syntactical and semantic subversion, her radical practice creates conditions for new meaning and expression to emerge and insists her reader experience language not as a predetermined machine, but as a living, breathing organism.

*Session A – Room 104 – Number 5*
Young Adult Literature “Catching Fire”: Classroom Implications

Emily Colletti
Professors Ramona Caponegro and W. Douglas Baker

The genre of young adult literature is one whose boundaries have become increasingly difficult to define, as readers of all ages are drawn to books like Suzanne Collins’ *The Hunger Games*. Middle-schoolers, high-schoolers, and adults alike eagerly anticipate the blockbuster versions of these stories and snatch up book-related merchandise to demonstrate their support, creating a phenomenon that has already begun to change the face of the publishing industry and the way the public, specifically educators, value these books. This presentation explores the changing landscape of young adult literature and its implications for classroom settings.

*Session B – Room 320 – Number 114*

Seeing the Unseen: A Content Analysis of Underrepresented Groups and Characters in Prime-Time Television

Cherese Elizabeth Colston
Professors Lolita Cummings Carson and Regina Luttrell

Television is considered America’s No.1 pastime, occupying an average of four hours and 39 minutes of a person’s time every day (Stelter, 2008). A majority of viewers tune in during prime time to live vicariously through the fictional characters who reflect their friends, family, or even themselves. However, does everyone see their reflection on the small screen? The purpose of this study is to examine the presence of researcher identified underrepresented or subordinate groups during the prime-time television programming on major broadcast networks ABC, NBC, CBS, Fox and the CW. In addition to coding the television show characters, a selection of major characters belonging to any of the subordinate groups are further analyzed using Clark’s Model of Representation.

*Session A – EZone (First Floor) – Number 18*

Teaching Active Learning Through Creative Writing and Drama

Maeve Devlin
Professor Annette Wannamaker

The presenter offers preliminary findings of an ongoing ethnographic study of adolescent engagement in creative writing and performance in surrounding area schools. The research focuses not only on how area teachers encourage active learning through creative writing and the creative dramatic process, but more importantly, on the learning benefits to the students as well.

*Session B – Room 301 – Number 102*
Lovecraft Out of Modernism
Charles Elliott
Professor Elisabeth Daumer

Howard Phillips Lovecraft, a preeminent author of supernatural fiction in the early 20th century, was published primarily in American pulp magazines but wrote contemporaneously with the artistic movement of Modernism. In my study I examine his writing in relation to the Modernist writers T.S. Eliot and Virginia Woolf, highlighting the ways in which these authors confronted such concerns as shifting consciousness, memory, and the aesthetics of otherness. I argue that Lovecraft, although opposed to the movement of Modernism, in many ways shared its artistic heritage and sensibility. In so doing I also explore the implications of his writings for our understanding of literary Modernism.

Session A – Room 204 – Number 12

“I can’t think about kissing”: Strong Female Protagonists and Romance in Dystopian Young Adult Fiction
Mollie Hall
Professor Annette Wannamaker

Though science fiction is dominated by male characters, strong female protagonists in this genre have recently become popular. Authors of these novels blend science fiction with romance, pulling together two disparate literatures in order to create characters who balance societal problems with personal relationships. The heroines in dystopian young adult novels are empowered by their own femininity and are able to bring about societal change, taking power not generally given to young females. Suzanne Collins’s Hunger Games series is used as an example of how the combination of romance and dystopia in young adult literature can be empowering and positive for strong female protagonists like Katniss Everdeen.

Session C – Room 347 – Number 199

Positioning Insurrection and Interpellation in The Hunger Games
Matthew Hamilton
Professor Amanda Allen

In The Hunger Games, Suzanne Collins sets up an arena that examines power relations by positioning the citizens of Panem against the Capitol. This paper looks at specific arenas in the novel that simultaneously expose the interpellation by the Capitol but also the possible autonomy and silent resistance of the characters. Even if the discourse of resistance is generated by the Capitol, Katniss seems to be able to assert some autonomy in certain spaces. In my presentation, I position the text between Althusser’s theory of interpellation and anarchist theories of autonomy and disappearance to examine how resistance and insurrection may become possible in such an authoritarian setting.

Session A – Room 204 – Number 13
American English /l/ Produced by a Native Japanese Speaker

Alexander Jordan Isotalo
Professor Beverly Goodman

Differences in the sound inventories of languages drive phonetic and phonological research. This study identifies phonetic and distributional differences in how the English /l/ is realized in a native Japanese speaker speaking English. A variety of differences emerge in the phonetic and phonological aspects of the data, as /l/ does not exist in Japanese. The results suggest an obfuscated distinction between light and dark /l/, and a number of phonological processes such as nasal insertion and metathesis. The application of this research fosters ESL learning and accent reduction methods.

Session A – Room 347 – Number 59

The Projected Hypersexual: An American Tool for Marginalization Since 1863

Melissa Jasperse
Professor Charles Cunningham

Throughout the years, individuals in both the African American and the Lesbian, Gay, Bisexual and Transgendered communities have been singled out, marginalized and even victimized, but not many have realized the parallels between these two communities, especially in how they have been discriminated against. This paper discusses how the trope of hypersexualization has been applied to both communities in order to justify discrimination, which can be seen especially in the inflammatory ‘black brute’ and ‘gay pedophile’ caricatures.

Session B – Kiva – Number 141

Ann Arbor Memory Walk

Eliot Asher Johnson
Professor Christine Hume

This audio piece is a series of monologues recorded at four different locations in Ann Arbor. The monologues focus on the importance of narrative in relation to the construction of memory and conception of place. Through the exploration of personal recollections and impressions, the audio walk attempts to trace the numerous sources that contribute to a subjective understanding of self, history and place.

Session A – Room 120 – Number 8
Advertising in a Post-Old Spice Culture: Pronoia and Manipulation in Contemporary Meta-Advertising Rhetoric

Andrew Tyler Kaster
Professor Phillip Arrington

The “meta-ad,” or an ad about ads, is becoming increasingly popular within the American culture. These ads are characterized by a sense of self-awareness, a willingness to poke fun at themselves, and an unyielding effort to be entertaining and likeable. In this presentation the author examines the ways in which meta-advertising affects us on a deeply personal, psychological and spiritual level. While seemingly innocuous, the cumulative effect of ads that are mimetic of goodwill and honesty is an abject one. When we are constantly oversaturated with and manipulated by advertising rhetoric, our relationship to the world and to each other is changed.

Session A – Room 330 – Number 46

Ypsilanti Alternative Learning Community

Kody Jon Klein
Professors Regina Luttrell and Carol Schlagheck

Education is rapidly evolving. Philosophies of participatory learning are evolving at the same time that technology is revolutionizing the accessibility of information. An open intellectual collective was established to unite Ypsilanti community members and EMU students in pursuit of personalized participatory education. The group corresponded via an online network that enabled members to communicate, post questions and share educational materials from the Internet. The group met regularly in person to engage in discussion and to listen to lectures by guest speakers. This project thereby experimentally tested the efficacy of hybrid format participatory learning communities.

Session C – Room 304 – Number 177

Homosexuality and the Emergence of a New World in Virginia Woolf’s Mrs. Dalloway

Brianna Lynn Klutz
Professor Elisabeth Daumer

This presentation focuses on the expression of homosexual desire as depicted in Virginia Woolf’s novel, Mrs. Dalloway. Through observations made by the shifting narrative voice, the novel explores how World War I redefined art, love and individualism. The decline of the British Empire after the war allowed individuals to assert and establish themselves based on their own motivations and not those of the nation, especially in regards to homosexual desires versus heterosexual demands.

Session A – Room 320 – Number 44
Structure Dependence: An Investigation of the Inflectional System in Yes/No Question Formation

Alexandra Yvonne Kubiak
Professor T. Daniel Seely

This paper is concerned with children’s emerging linguistic system—particularly with the issue of whether young children’s production of yes/no questions conform to the Structure Dependence Hypothesis (Chomsky (1965)). An experiment using elicited production collects data from six children, who assist in asking a puppet questions. A total of 15 questions comprise the test set, which are categorized into five verb groups: be (as an auxiliary); lexical main verb with no modal (requiring do-insertion); lexical main verb with a modal; copula main verb with no modal; and copula main verb with a modal. Presence of an inflectional constraint suggests structure dependence in the Universal Grammar.
Session A – Room 120 – Number 6

Wordless Narrative in Children’s Literature

Kelsey Lapping
Professor Ramona Caponegro

Wordless books have been around for decades in children’s literature, but authors and illustrators are experimenting with the format more than ever before. As wordless books have become more prevalent, the appreciation and audience for them has grown. Because their stories are told through visual cues, wordless books present a unique way to look at how readers construct narrative, and they have become valuable tools to study how children develop literacy. Authors and readers alike are exploring wordless narrative as an engaging and expanding realm of children’s literature.
Session A – EZone (First Floor) – Number 16

From Fantasy to Reality: Holden’s Adolescent Journey in J.D. Salinger’s The Catcher in the Rye

Samantha Meeker
Professor Amanda Allen

As an ambiguous text, J.D. Salinger’s The Catcher in the Rye provides a window into the nuanced condition of adolescence through the character of Holden Caulfield. In creating a complex binary between childhood innocence and adult experience, Holden suspends himself between the two in his search for a false innocence. His use of isolated pastoral fantasies to escape “phony” adult life distracts him from realizing the futility of his quest. This presentation explores the ambiguity of Holden’s adolescence as a state not in need of fixing, but rather in which the extent of authenticity in adulthood is revealed.
Session A – Room 204 – Number 14
Avenger of the Abjected: A Lacanian Reading of Mary Shelley’s Frankenstein

Adam Mitts
Professor Christine Neufeld

The Creature's motives for murder in Frankenstein are rooted not only in his mistreatment by society but also in his abjection toward himself as a "monster" somehow different from other people. Using psychoanalytic theories developed by Jacques Lacan and Julia Kristeva, this paper analyzes how the Creature's mirror stage and his entrance into the symbolic order develop into an identity crisis in which he internalizes the abjection society feels toward him. Through his murders, the Creature acts as an avenger of what society rejects through abjection. By causing his tormentors to behave in a monstrous fashion, the Creature disturbs the identities of those who reject his humanity.

Session A – Room 204 – Number 15

Language as a Continuum

Victoria Emanuela Pozyczka
Professor Carla Harryman

The American cultural bias toward standard English has created a stigma toward other forms of English, but in the last 20 years, minority poetics have asserted the importance of polyvocality into poetry. Many linguists also argue that a standard form of English doesn't exist because of regional and social variance. This project seeks to eliminate bias as it explores the complexity of the English language through sound. By recording non-homogeneous speaking voices and shaping them into sound poetry, the presenter explores the root of language, which is the sound that carries words. The piece represents sound as the origin of language that sends a universal message invoked by sound poets from the early 20th century to the present: the expression of the human experience.

Session B – Room 301 – Number 101

Implications of Mental Health in Young Adult Literature and Education

Carolyn Roe
Professor Ian Wojcik-Andrews

The genre of young adult literature has long been a refuge where authors seek to inform, entertain, and support the positive development of their adolescent readers. Mental health is an especially important topic within the genre. With books covering a wide range of mental conditions, from obsessive compulsive disorder and bulimia to depression and schizophrenia, adolescents are greeted with information, sympathy, and often stereotype. In this project I explore the portrayal of mental health in various works of young adult literature and examine their accuracy, sensitivity, and potential as teaching tools in middle and high schools.

Session B – Room 320 – Number 113
A Comparison Between Past and Present Day Colonialism

**Jumanah Saadeh**
Professor Lori Burlingame

Colonialism has a long and well-established history in the world. Many populations have experienced its far-reaching detrimental effects on their cultures, communities and way of life. Native Americans and Palestinians are two such communities. These underrepresented and overly stigmatized people continue to feel the effects of colonialism and the loss of their homes today. In this paper, the political and governmental support and systematic oppression of the native populations is examined and present day issues as a result of colonialism are discussed.

*Session A – Student Art Gallery – Number 26*

Walking: Inside to Outside

**Katy Shay**
Professor Christine Hume

This creative project explores the relationship between writing and walking. It combines prose and poetry to illustrate how both walking and writing can allow access to memories, ruminations on the future, and can give the mind freedom to wander. This project also explores the anxieties that can attend to both writing and walking, whether it is the threat of physical violence or the vulnerability of laying oneself bare through the written word. Ultimately, both walker and writer must let go of fear and venture outside.

*Session A – Room 120 – Number 7*

The Language of Women’s Solidarity in Othello

**Samuel Singleton-Freeman**
Professor Natasa Kovacevic

A large part of the tragedy of Othello is caused by the characters’ entrapment in traditional gender roles. The narrative downfall of Othello and Desdemona is due to their captivity to a society that enforces male control of women’s bodies. There is only one scene in which women are completely able to step outside of male control, Scene 4.3, and it is the only scene in which characters successfully support one another. The scene epitomizes the play’s idealization of the bonds women can make if they can escape male control. The women’s transparent and supportive relationship contrasts sharply with the corrupt bonds between the male characters, indicting the patriarchal control of women.

*Session C – Room 347 – Number 198*
"I can connect nothing with nothing": A Therapeutic Reading of T. S. Eliot’s *The Waste Land*

*Megan Hope Smith*
Professor Elisabeth Daumer

T.S. Eliot’s *The Waste Land* served as a therapeutic outlet for its author and can be utilized as a therapeutic source for readers of the poem. *The Waste Land* is a result of a nervous breakdown that Eliot had endured during 1921 after he had been struggling with depression and anxiety over financial woes and his wife’s deteriorating mental health. The poet was able to let go of his struggle during a three-month treatment with the famous nerve specialist Dr. Vitoz, and allowed his experience to bleed through the pages of *The Waste Land*. For readers who may face similar struggles, responding to and interpreting *The Waste Land* can be an equally therapeutic experience, offering solace and understanding.

*Session A – Room 204 – Number 11*

You Know, “Those People”: The Importance of Multiculturalism in Literature for Adolescents

*Aaron Smith*
Professor Cathy Fleischer

Depictions of multiculturalism in texts meant for adolescents face several difficulties: making cultural insiders feel understood, being accessible to cultural outsiders, and not being so long or complicated that the target audience doesn’t read or doesn’t understand them. Despite the extra challenges, the benefits multicultural texts provide are essential to helping adolescents function in a diverse society. Using *American Born Chinese* by Gene Luen Yang as a positive example, this presentation outlines the benefits and value of having accurate and authentic depictions of multiculturalism in adolescent literature.

*Session B – Room 320 – Number 110*

Wonder Women: Female Depiction in Comics

*Laurie M. Stevens*
Professor Charles Cunningham

As long as there have been comic books, there has been the “damsel in distress.” But there’s a lot more to the ladies in comics, graphic novels, and illustrated texts than just she. Examining everything from sexism to sexuality, from sci-fi to memoir, the presenter looks—using an interactive website—at how, where and why gender enters into the comics conversation.

*Session C – Room 347 – Number 197*
A Timely Warning
Karen C. Thompson
Professor Christine Hume

This project is a walk created in response to the timely warning emails students receive after various crimes happen on and around campus. It is an audio recording of a few of the actual emails and a small narrative of my own that follows the walk through various locations on campus. It is meant to create a sense of defamiliarization in regards to the idea of fear on a college campus. Its relevance speaks to every student who has ever had to walk alone at night on campus or in an unfamiliar space, especially in light of recent events.

Session C – Room 304 – Number 175

“Confidentiality” (A Short Story)
Alice Thomsen
Professor Carla Harryman

After Peter confides in his thesis advisor that he believes he is the late composer Tchaikovsky, the university insists he seek counseling to evaluate his capacity to handle the stress of the academic environment. His therapist, Rachel, must decide what to report, weighing the truth and what she believes is best for him. This story studies ethical issues surrounding mental health, the role of universities and the autonomy of one’s reality.

Session C – Kiva – Number 213

Let’s Talk About Sex, Baby: An Analysis of Sexual Content in Young Adult Literature
Anastazia Wyborski
Professor Cathy Fleischer

Sexual content plays an extremely powerful role in young adult literature. Due to the taboo nature of the subject, adolescents are often drawn to texts including sexual content. Although some educators and many parents object to using classroom texts involving sex, the positive consequences far outweigh the negative ones. When sex is discussed in a mature, safe environment, students are able to process it and access information about it in a way that is not glamorized or stigmatized, providing them with stronger schema to form their own personal understanding of sex.

Session B – Room 320 – Number 111
Anomalous X-Site Occupancy in Povondraite

Brittany Allison Cymes  
Professor Christine Clark

Povondraite is a mineral belonging to the tourmaline group with an ideal formula of NaFe$^{3+}_3$(Fe$^{3+}_4$,Mg$^2_2$)Si$_6$O$_{18}$(BO$_3_3$(OH)$_3$. Crystallographically, there is only one location that large cations should be able to fit into the structure of povondraite, known as the X-site. The X-site is limited to 1 apfu, however multiple researchers have reported X-site occupancy greater than 1.0 apfu. Using published data, we investigate possible explanations by examining the crystal structure of povondraite for abnormalities in bond-lengths.

Session B – Room 120 – Number 85

The Way We Live: A Global Perspective

Alexandria Edwards  
Professor Norm Tyler

Culture plays a key role in the way we as humans have developed our communities over the years. This presentation takes you around the world to illustrate diverse and unusual housing. A photo-essay explores examples of housing types found in different countries and how they reflect their natural environments and their cultures.

Session C – Student Art Gallery – Number 169

Gummo and Nihilism: Irony as Means to Morality

Felicity Baker  
Professor Margaret Crouch

Nihilism has been regarded as a distinctively human stage of separation from the highest aspirations, and can serve as an ironic medium expressing banal realization. It is therefore used in contemporary cinema to critique white middle class American identity and mass consumerism. In this presentation I use Harmony Korine’s film Gummo to illustrate this view of nihilism and explain its relevance in contemporary culture.

Session B – Room 301 – Number 104
Parallel Traditions in the Book of Enoch and the Epistle to the Philippians

*Michael Curtis Baptista*
Professor Mark Whitters

When comparing passages in the book of Enoch and the Epistle to the Philippians, a striking parallel between the traditions is found that displays how the theology of Philippians did not appear spontaneously. Rather, it has precedents that can be traced to adherents of Enochic Judaism, who provided a rich pool of religious symbols and metaphors that helped frame its expression. This paper examines passages from both texts and traces how the apocalypticism of Enoch provides a form-critical and theological background for the messianism of early Christianity, as presented in Philippians.

*Session C – Room 344 – Number 191*

The Waltz of Peace

*Stephen Burke*
Professor George Cassar

In the autumn of 1814 the monarchs and ministers of Europe gathered in the city of Vienna to end over a decade of war that is estimated to have left as many as six million dead. Before the Congress lay a Europe whose borders had been radically altered by Napoleon’s armies. When the Congress concluded in June of 1815 it would be another 38 years before the great powers of Europe, and thus the world, would go to war with each other. It is on this basis that the Congress must be deemed a success. This success was the result of the defeated France being invited to be a full participant in the post war order as well as the establishment of Great Britain as the premier world power, fully dedicated to maintaining peace in Europe.

*Session B – Room 347 – Number 125*

Sacrifice, Co-Creation and Sacred Time: A Speculative Interpretation of Rg Veda Creation Hymns

*Michele Cox*
Professor James Egge

While the Rg Veda presents us with multiple creation accounts that appear contradictory at first glance, a handful of underlying themes tie them together and present a glimpse at an early Vedic worldview. These themes include a paradoxical relationship between male and female, an emphasis on an initial world-creating sacrifice, and the suggestion of a non-linear view of time or sacred time. But these creation stories are also used to codify the social hierarchy, and Mircea Eliade’s concept of sacred time becomes problematic when it is used to justify systems of social inequality as part of religious structure and practice.

*Session A – Room 304 – Number 40*
Queerness Without Binary

Jeffrey Kyle Davis
Professor Peter Higgins

Maren Behrensen defines "queer" as an adjective that refers to the behaviors, appearances or sexual practices that challenge the norms of gender dichotomy. In this article, I argue that this definition risks reifying gender dichotomy as necessary to the existence of queer identity. If "queer" is only defined by its relation to gender dichotomy, then the term is dependent on the existence of gender dichotomy in order to make sense. I maintain that queer identity can exist without gender dichotomy as a committed, devotional practice of impression fluidity and reversibility. In this way, queer becomes a volitional identity that is taken upon for the purpose of liberation from body ignorance.

Session C – Room 350 – Number 200

The Logic of Evolution, the Death of Creationism, and the Vanity of Scientism

Thomas Elliott
Professor W. John Koolage

The cultural debate about creationism contra evolution by natural selection may be far from over, but the logic underlying it is settled. Creationism is ill-suited to take the place of methodological naturalism for the investigation of biology. In this paper, I survey how philosopher Elliott Sober uses some well formed concepts from statistics and epistemology, including the nature of evidence, to destroy creationism as a viable theory once and for all. I also challenge the idea that the disproving of creationism means that the nature of ultimate reality is described by ontological physicalism. I argue that numbers are quasi-Platonic abstract entities that transcend spacetime, and that are discovered by the human mind, and material science has constant recourse to them.

Session A – Kiva – Number 74

Phenomenology, Plutocracies, and the Role of Slave-Master Morality in American Government and Legal System

Layla Garcia-Brown
Professor Jeremy Proulx

The problems of alienation, cynicism and oppression have traditionally been studied by sociologists. The goal of this project is to use philosophy and political science to create an analytic model of alienation that helps us emphasize these problems minorities face. Through the examination of the writing of European and African American existential philosophers, and the interpretations of these works by 21st century scholars, I open a dialogue and set the stage for meaningful discussion on these topics.

Session C – Room 301 – Number 171
Ludington, Michigan—Presettlement, Lumber Days and Today
Rachel Lyn Heatley
Professor Russell Olwell

Ludington, Michigan is rich in natural resources. Its history shows the immense impact these resources have had on its development as a city, from pre-settlement to today. This presentation describes the history of Ludington from an environmental standpoint, from initial impediments to settlement caused by dense pine forest to the current effective management of several miles of Lake Michigan coastline that draws in thousands of tourists every year.

Session B – Room 204 – Number 89

South Africa: Apartheid to Freedom
Melissa E. Hoak
Professor Joseph Engwenyu

This presentation provides an overview of the reasons the oppressive veil of segregation and racism known as apartheid failed in South Africa. I explore the country’s sinking economy, the suffering Homelands in rural and overcrowded areas, the transformation of the regions surrounding South Africa as they gained their independence, the legalization of labor unions, and the infamous Soweto student revolts. The bulk of the presentation concentrates on the transition to democratic elections during the turbulent years of 1990-1994 and beyond.

Session A – Room 104 – Number 3

The Role of Women in the Nationalist Movement in Guinea and Tanganyika
Barbara A. Hubbard
Professor Joseph Engwenyu

Guinean and Tanganyikan women are perfect examples of the influence African women can have on their world. Without the influence of the women in Guinea and Tanganyika, nationalism, leading to decolonization, would not have been possible. This presentation highlights the motives, social groups, culture, tactics, methods, roles, gender norms and societal perceptions of the women in Guinea and Tanganyika during their struggle for independence in the 1950s. More importantly, this presentation showcases that when women gather together based on common cultural oppression they are a force to be reckoned with.

Session C – Room 204 – Number 155
Creationism, Evolution and the Demarcation Criterion for Science

Mary E. Jancă
Professor W. John Koolage

Creationism and evolution have long been at odds, with each theory attempting to explain how life on our planet has come to be. But can creationism actually compete as a science? This paper begins with a general discussion of creationism and offers a minimal definition expressed by philosopher Elliot Sober. Next, the paper outlines several popular approaches to the demarcation of science, including demarcation based on scientific consensus, the novel prediction requirement offered by philosopher Imre Lakatos, and an attempt by philosopher Paul Thagard to integrate community with Lakatos’ principle. This paper seeks to show that creationism is a failed scientific program; even on a minimal definition it fails to meet the demarcation criterion for science.

Session A – Kiva – Number 75

After the Storm: Samuel Parris and the Consequences of the Salem Witchcraft Trials

Lauren Monn
Professor Robert Duke

Parris serves as a case study for establishing and analyzing the shifting nature of political, legal and economic patterns occurring in Puritan society that found outlets through the village trials. Thus, the trials represent not only an outlet for the pervasive social anxiety inherent in this period, but also as an impetus for mass change affecting legal and theological institutions.

Session A – Room 304 – Number 38

Dynamics of a Medici Woman’s Power in Renaissance Florence: Lucrezia Tornabuoni

Kerri Anne Musick
Professor Ron Delph

The Medici reigned supreme in Renaissance Florence as de facto rulers during the 15th and 16th centuries. This research offers an analysis of the position Lucrezia Tornabuoni, wife to to Piero di Cosimo de’ Medici, played during the Medici reign. Although Lucrezia Tornabuoni did not have an official seat at the political table and men were considered the “head of the household”, behind the scenes she was the neck that guided the head to matters of social and political importance that otherwise would have gone unnoticed.

Session A – Room 304 – Number 39
Intelligent Design: The Philosophy of Modern Creationism as a Science

Sam H. Nilles
Professor W. John Koolage

Intelligent Design is the theory that a divine or supernatural entity is responsible for the creation and modification of life on Earth. This presentation considers some of the major arguments made by Intelligent Design proponents. Can Intelligent Design truly be considered scientific, or does it fall under the category of pseudo-science? Further, this presentation considers moral concerns raised by the possibility that some institutions endorse Intelligent Design as superior to its primary competitor, Evolutionary Theory.

Session A – Kiva – Number 76

Carrie and Friend?: A Look into a Romantic Friendship During the Early 20th Century

Jennifer B. Redfern
Professor Philip Schmitz

This project examines a romantic friendship in the early 20th century between two school teachers in the city of Ypsilanti, Michigan. It explores why a 51-year-old woman would be in a romantic friendship with a woman 30 years her junior. It also explores 1919 Ypsilanti society’s reaction to their friendship and how they were treated by society.

Session C – Room 120 – Number 150

Racial Perceptions and Warfare in the Pacific

Paul Rincon
Professor Jesse Kauffman

World War II occurred during a time when racially-driven views were not only common but were openly accepted as the legitimate basis for policy. This presentation explores the theme of racism as it interacted with the policies and strategies of the United States and its prosecution of the war effort against Japan. While there is much evidence suggesting that Allied personnel’s racial perceptions of the Japanese had a direct impact on the war effort, there are also strong arguments suggesting that racism played only a minor role in the formation of policy and strategy.

Session A – Room 104 – Number 2
Aging in the LGBT Community

Jennifer Rokakis
Professor John McCurdy

Lesbian, gay, bisexual, and transgender (LGBT) people face many challenges as they age. They have to start considering community care facilities, medical decisions, and how they will write their will, among other decisions. Aging in the LGBT community can be a stressful time because there are many more hoops to jump through just to ensure that partners will have rights to each other’s possessions and in making major life decisions. This presentation looks at LGBT elders from before the 20th century through today and the issues they face as they age.

Session A – Room 320 – Number 41

Guerrilla Girls: Women and the Struggle for Independence in Kenya and Zimbabwe

Elsie A. Serrano
Professor Joseph Engwenyu

Many factors contributed to women’s involvement in the independence movements in Kenya and Zimbabwe. The economic, social and political repercussions of years of colonial oppression led to nationalist movements that became catalysts for the women of Kenya and Zimbabwe to challenge existing gender norms and mobilize for change. The motives for women’s involvement are examined, as is the way in which their social groups and culture affected their mobilization. The long-term and short-term effects of their political participation on the independence movements as well as its impact on their traditional gender roles are also described.

Session C – Room 204 – Number 156

I (heart) Huckabees and Narrative Identity

Katy Shay
Professor Margaret Crouch

The 2006 film I (heart) Huckabees follows the story of several characters as they interact with existential detectives who work to uncover their identities in order to expose them to deeper truths. As the detectives conduct their investigation, conflicts of identity arise. Using Paul Ricoeur’s ideas about narrative identity helps to illuminate these conflicts. According to Ricoeur, narrative identity allows for a unified sense of self that changes, evolves over time and informs past, present and future actions. I argue that conflicts of narrative identity are at the heart of this film. Ultimately the characters must face the question, “Who am I?”

Session C – Kiva – Number 214
Jordan: From the Suez Crisis to the Eisenhower Doctrine
Michelle B. Sprenkel
Professor John Knight

Between 1956 and 1958 the country of Jordan witnessed many changes, from a new king to the first democratically elected parliament. The events that occurred between the Suez Crisis and the emergence of the Eisenhower Doctrine helped to turn a young man into a king who would lead his country for four decades and a country into a point of interest for American foreign policy makers. The major events that occurred in Jordan during this two-year span helped to strengthen the Hashemite regime as well as the country as a whole.

Session B – Room 347 – Number 126

DEPARTMENT OF MATHEMATICS

Mathematical Models of Life Expectancy of the United States Population
Benjamin Forrest Boyd
Professor Khairul Islam

Life expectancy of a person at a given age is the average number of additional years of life remaining at that age. It is important to actuaries, insurance companies and healthcare practitioners in determining premium, annuity payout option, etc. Given life expectancy (y) at age x for the United States population, we seek to find mathematical models that best describe the relationship between x and y. The specific objectives of this study include: (1) modeling life expectancy, (2) assessing fit of the model, and (3) evaluating the predictability of the model. This study provides an opportunity to understand mathematical model building strategies.

Session B – Room 344 – Number 124

Demonstration of the Closure of the Algebraic Numbers
Tyler Ryan Hensley
Professor Ken Shiskowski

A number is said to be algebraic if it is the root of a rational (or equivalently integer) coefficient polynomial. The set of algebraic numbers has long since been known to be a field, however the common (vector space) proofs presented do not demonstrate closure of multiplication and addition by construction of a rational coefficient polynomial which has the desired roots. We seek to construct an algorithm that generates rational coefficient polynomials in order to demonstrate closure of the algebraic numbers.

Session B – Room 104 – Number 77
Dilworth’s Theorem for Finite Partially Ordered Set and Its Extensions

Fumie Kawasaki
Professor Paul Howard

We investigate the structure of anti-chains of size \( n \) in a partial ordering of width \( n \) by defining a new partial ordering on the set of all anti-chains of size \( n \). Then we give a proof of Dilworth’s theorem (that says that any finite partially ordered set of width \( n \) can be partitioned into \( n \) disjoint chains) based on our investigation of the structure of anti-chains. Finally we suggest an algorithm that finds the width and one possible decomposition of the original partially ordered set.

Session B – Room 104 – Number 78

Characteristics of a Social Network that Lead to a Fast Convergence

Jeffrey Kennedy
Professor John Curran

When referring to a social network, I mean it in the theoretical sense, but the experimental results can have many applications. The research process involves implementing linear algebra to represent social networking and the interaction between the individuals within the social network. Convergence is when the social network has, after interacting with one another, reached a limit in the sense that more interaction would not change anybody’s opinion. It is quite complex, but on the surface level we are looking at using linear algebra to help find characteristics that help the social network reach a quick consensus.

Session B – Room 304 – Number 106

High School Dropouts and Consequences in the United States

Stevie Momkam
Professor Khairul Islam

About 7,000 high school students drop out every school day. These students not only diminish their chances to secure a good job and a promising future, but also are a financial and social cost to their communities, states, and the country as a whole. This study investigates the overall dropouts in the United States, and the gender and ethnic discrepancies in status dropout in the United States. It also looks at the causes and consequence of high school dropouts in the country. We employ the z-test and chi-squared test for the significance of the status drop out using data available from the Department of Commerce, the Census Bureau, and the current population (CPS) reported in Digest of Education Statistics, 2011.

Session B – Room 352 – Number 139
Incantation and Thréne from Incantation, Thréne et Danse by Alfred Desenclos

Michael Edward Block
Professor Carter Eggers

French composer Alfred Desenclos (1912 - 1971) was a self-described romantic whose music is highly expressive, atmospheric and rooted in rigorous compositional technique. In his composition, Incantation, Thréne et Danse for trumpet and piano, the first movement, Incantation, is a brilliant display of relentless “heavy energy.” While transitioning into the second movement, Thréne, residual energy from the first movement subsides into an “aftermath” illustration, deeply emotional and lyrical, sharply contrasting the other two movements.

Session B – Auditorium – Number 92

Toshimitsu Tanaka’s Two Movements for Marimba

Andrea Louise Godoshian
Professor John Dorsey

Tanaka’s Two Movements for Marimba (1965) helped pave the way for modern marimba technique. The first movement, “Allegro”, starts with a bang, accenting both strong and weak beats. The lack of a tonal center coupled with an ever-changing rhythmic structure, creates a strong, primitive sound. The second movement starts with a morose chorale section that builds back up to a savage, fast-paced climax. Celebrated Japanese marimbist, Keiko Abe, collaborated with the composer to adapt the work for better playability that resulted in Tanaka being awarded the Supreme Prize for Two Movements at the 1969 Japanese National Arts Festival.

Session C – Auditorium – Number 160

Hearing Colors and Tasting Sounds: Examining Synesthesia

Michelle Renee Good
Professor Gary Pedersen

Synesthesia is a neurological phenomenon in which the senses cross. A person with synesthesia, for example, may hear sounds and involuntarily see corresponding colors. The brain activity of a synesthete will be examined along with descriptions of other examples of sense crossing. The attitudes surrounding synesthesia have evolved over the past two centuries, since the first descriptions of this medical/scientific phenomenon in the nineteenth century. A special emphasis is placed on examples that involve the crossing of music with other senses, including personal experiences and the ways the presenter uses synesthesia in her relationship with music analysis and performance.

Session C – Auditorium – Number 163
Finding My Place in the Therapeutic Space: A Student Music Therapist’s Journey as a Co-Therapist

Kelly Velazquez Jacobi
Professor Theresa Merrill

A heuristic exploration of one student’s experience of entering a pre-existing therapeutic alliance as a co-therapist-in-training is the focus of this presentation. Using Moustakis’ (1991) approach to heuristic inquiry, the researcher explores her first experiences in music therapy as a co-therapist with a seven-year-old child with Autism Spectrum Disorder. Bracketed analysis occurs across sessions 1-4 and findings are presented in the form of emergent themes.

Session B – Auditorium – Number 95

Gavotte and Gigue from Suite in G Major, BWV 1012, by J. S. Bach (1685-1750)

Jesse Liker
Professor Scott Woolweaver

The Six Suites for Solo Cello, played here on viola, were composed by J. S. Bach between 1717 and 1723. Each suite consists of six movements: a prelude followed by five traditional dance movements. The sixth suite is the only suite composed for a cello with five strings, rather than the traditional four, and displays the full range of Baroque cello techniques, leading the great Russian cellist Mstislav Rostropovich to comment that it is “a symphony for solo cello.” The Gavotte, in duple meter, is based on a courtly 17th century dance that originated in southern, alpine France, and is danced in a line or circle. The Gigue is a lively dance that originated in 17th century England.

Session C – Auditorium – Number 161

The Use of Music in Relationship Development with a Child with ASD

Adreena Nersesian
Professor Roberta Justice

One of the unmistakable identifying features of Autism is social disconnect. This social disconnect can be associated with delayed language and difficulty managing relationships with others. Music is nonverbal communication and therefore serves as a relationship builder. Music therapy techniques, including improvisation, can establish communication relationships with individuals with Autism where verbal communication may fail. This presentation gives some theoretical basis to explain this phenomenon, with examples from the presenter’s clinical work at the EMU Music Therapy Center.

Session B – Auditorium – Number 94
**Suite for Piano by Jeffrey Nicholas: The Contemporary Compositional Process**

*Jeffrey Nicholas*

Professors Anthony Iannaccone and Joel Schoenhals

*Suite for Piano* is a new work of music consisting of three short movements. It was written under the guidance of Dr. Anthony Iannaccone and was premiered at Music Now Festival 2013 by Professor Joel Schoenhals and was the recipient of an Undergraduate Research Stimulus Award. The work is the composer’s first undertaking in preparation for a Master of Music degree in composition and his first composition to be publicly and professionally performed. This presentation is a discourse on the way contemporary tonal classical music is written and includes excerpts of the suite that highlight important compositional techniques.

*Session B – Auditorium – Number 93*

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**Sonata in A minor for Arpeggione and Piano by Franz Schubert**

*Philip Leland Rinke*

Professor Derek Weller

Austrian composer Franz Schubert (1797 - 1828) is known for writing orchestral music, chamber music, piano music and, most prolifically, lieder (songs). His Sonata in A minor for arpeggione and piano (D821), written in 1824, illustrates a very vocal style of music, affirming his mastery of lieder. Played today on double bass, the work was originally written for the arpeggione, a six-stringed instrument fretted like a guitar, but bowed like a cello, which enjoyed brief popularity in the early 1800s, due largely to the popularity of this piece. Currently, this sonata is played by a variety of instruments ranging from the flute to the double bass.

*Session B – Auditorium – Number 91*

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**Papillons, Op.2, by Robert Schumann**

*Trang Vo*

Professor Gary Pedersen

*Papillons*, Op.2 (1831) is one of Robert Schumann’s earliest compositions. It consists of 12 small pieces, most of them waltzes, and attempts to depict characters in music. The title *Papillons* literally means “butterflies.” It suggests the 19th century Romantic whimsy, brilliance of colors, and delicacy of style. The composition was directly inspired by the novel *Flegeljahre* (The Awkward Age) by Jean Paul Richter, Schumann’s favorite writer, and describes the last scene, the masked ball. In addition to a description of the program, the presentation includes a performance of excerpts from *Papillons*.

*Session C – Auditorium – Number 162*
**Quatro Melange**
*Adeline Zemcik, Chloe Gray, Jenni Flanagan and Madelyn Ann Prebola*
Professor Joanna McNamara

This presentation features four dancer/choreographers who developed an original movement vocabulary for the purpose of expressing a theme of significance in her life. The performance includes *Tug-of-War* by Adeline Zemcik with music by Nico Muhly, *Somatoform Blue* by Chloe Gray with music by Philip Glass, *Defeat[ed]* by Jenni Flanagan with music by Patrick O’Hearn, and *Building Blocks* by Madelyn Prebola with music by Kronos Quartet.

*Session C – Auditorium – Number 164*

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**DEPARTMENT OF PHYSICS AND ASTRONOMY**

**High Altitude Weather Ballooning**
*Patrick Baranowski*
Professor Dave Pawlowski

The goal of this project is to successfully design, build, test, launch and recover a high altitude weather balloon that will travel up to 100,000 feet above the surface of the earth. High altitude weather balloons provide a way for observations to be made about the portion of the atmosphere that is too high for airplanes and too low for satellites. The balloon’s payload has several instruments onboard to record data, including atmospheric pressure, temperature, acceleration, humidity and wind speed. Our group presents the design integration and test results from the onboard accelerometer, helping us understand the flight path of the weather balloon as it makes its journey.

*Session A – Room 350 – Number 61*

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**Flight Termination of High Altitude Balloons**
*Chad Brisbois and Andrew Marshall Samuels*
Professor Dave Pawlowski

This project involves designing, building, testing and launching a high altitude weather balloon. The weather balloon is intended to reach an altitude of 30 km above the surface of the Earth. Flight Termination Units (FTUs) are important because they allow us to recover the payload should the balloon not burst at the designated altitude. Our balloon incorporates two FTUs, one enables us to deploy a secondary payload sometime during the flight, while the second ensures that the flight ends before the balloon travels too far for recovery. The design and testing of the FTU system is the main focus of the presentation.

*Session A – Room 350 – Number 62*
High Altitude Ballooning: Measurement and Analysis of Temperature

Rommel Gabrito and Justin Hodges
Professor Dave Pawlowski

High altitude ballooning is used frequently to monitor the atmosphere at altitudes inaccessible by satellites and aircrafts. We designed, built and tested a weather balloon that met FAA guidelines while incorporating instrumentation to monitor the temperature, pressure, wind speed and humidity of the atmosphere from 0 - 30 km. The temperature should range from 215 - 300 K in the projected flight plan and increase through the troposphere, be constant in the tropopause, and decrease through the stratosphere until the balloon begins its descent. We present the design, integration, testing and data collection of the temperature sensors in the payloads. The balloon is expected to launch in early April.

Session A – Room 350 – Number 63

Subtle Distortions in Measurements Made with Infrared Thermometers

Guy Hamburger and Austin Payne
Professor Marshall Thomsen

All objects emit electromagnetic radiation according to the Stefan-Boltzmann law. The temperature of an object uniquely determines the intensity of radiation it emits. Non-contact infrared (IR) thermometers take advantage of this phenomenon by detecting IR radiation similar to the way a human eye detects visible light. These thermometers report temperatures in less than a second, which is a convenience that causes a tendency for operators to simply approach the object and take measurements. The presence of a nearby human body may distort the measurements by introducing additional radiation that can reflect off the object to the IR thermometer. We discuss the extent to which an experimenter inadvertently affects temperature readings in this way.

Session B – Room 330 – Number 116

Two-Way Communications System for High-Altitude Ballooning

Andrew John Havranek and Douglas James Spry
Professor Dave Pawlowski

High-altitude ballooning is the practice of flying balloons up to roughly 100km and is often used to obtain measurements in the near-space region that is unreachable by typical aircraft. The humidity, air speed, temperature and pressure at high altitudes is crucial to our understanding of the atmosphere as a whole, thus retrieval of the data is of great importance. We implement a two-way radio system to relay the data at a high temporal resolution during the flight in addition to logging the data on-board. Our goal is to maintain radio contact during at least 80% of the flight and to send as many data packets as possible during that time. We discuss the development and implementation of this system.

Session A – Room 350 – Number 64
Characterization of an Ion Gun for Use on Extraterrestrial Projects

Justin Hodges
Professors Diane Jacobs and Nick Arnold

The EMU Plasma Lab ion gun, built by graduate students, is a tool that produces a beam of positively charge particles. Once the gun is characterized it can be used to model the solar wind and how high-speed solar wind particles sputter solid materials from the surface of various rocks, which is a process that is interesting to NASA in the study of such interactions on Mercury. Characterization of the beam includes measurement of the beam energy, current, diameter, and intensity profile. This presentation will focus on the construction and design of a Faraday probe, which will be used to analyze the ion beam. The operation of, and applications for, the ion gun will also be explored.

Session B – Room 330 – Number 115

High Altitude Ballooning: Measurement and Analysis of Pressure

Caliph Lebrun and Scott Eschelbach
Professor Dave Pawlowski

High altitude balloons are commonly used to analyze the stratosphere because the altitude is too high for airplanes to effectively reach and too low for satellites to maintain orbit. We designed and constructed a high altitude balloon to deliver a payload to around 100,000 feet. The payload includes sensors, cameras, tracking systems and a data logger to detect and record temperature, pressure, humidity and acceleration. Our intent is to integrate instrumentation into the balloon payload in order to measure the pressure as the balloon ascends and falls. We expect to see an exponential drop in atmospheric pressure as altitude increases. We present how the pressure sensor was implemented, integrated and tested.

Session A – Room 350 – Number 65

High Altitude Ballooning: Humidity Sensor

Cassie Noffsinger and Austin Payne
Professor Dave Pawlowski

The goal of our project is to design, build, test and launch a high altitude balloon to measure atmospheric pressure, temperature, humidity and wind speed from the ground to an altitude of 100,000 feet. High altitude balloons provide an opportunity to explore the region of our atmosphere too high for airplanes and too low for satellites. Our payload includes a microcontroller to manage temperature, pressure, humidity and acceleration sensors, cameras to record video and images, communications for transmitting data, and GPS for tracking. During this presentation, we discuss the design, integration and test results of the humidity sensor.

Session A – Room 350 – Number 66
Computer Simulations of Mars’ Upper Atmosphere
Ashley Taylor-Voss
Professor Dave Pawlowski

When solar flares come into contact with the upper Martian atmosphere, it can result in the sweeping of atmospheric particles away into space. By determining how quickly the particles are swept away, we can estimate the rate at which Mars’ atmosphere has escaped throughout its history. This presentation focuses on the first steps taken to address this problem, namely running a 3D Mars climate model in order to investigate the role that solar flares play in shaping the Mars upper atmosphere.

Session B – Room 330 – Number 117

DEPARTMENT OF POLITICAL SCIENCE

The Virtual Watercooler: Influences of Political Comedy on Social Media Discussion
Andrew Paul Abad
Professors Jeffrey Bernstein and Dennis Patrick

This study examines the connection between viewing political comedy programming (on television shows like *The Daily Show with Jon Stewart* and *The Colbert Report*) and political discussion on social media websites. Through a survey of EMU undergraduate students and experimental methodology, this presentation aims to provoke discussion of the different ways in which new mediums help to enhance and redefine political participation in the context of 21st century politics.

Session B – Room 304 – Number 109

Isolationism to Internationalism: The FDR Administration
Derrick Amison
Professor Judith Kullberg

The United States president is the prime architect of foreign policy, but are the president's decisions alone sufficient to fundamentally alter the strategy and content of U.S. foreign policy? This paper seeks to address this question through an examination of the extent to which Franklin Roosevelt led the shift in U.S. foreign policy from isolationism to internationalism.

Session A – Room 344 – Number 51
Defining Geopolitics and Strategy in Central Asia
Michael Glenn Bailey
Professor Judith Kullberg
This paper seeks to explain the role of the United States in Central Asia in the 21st century. It utilizes a geopolitical perspective to explain U.S. foreign policy in Central Asia, predict the likely effects of the withdrawal of U.S. and NATO forces from Afghanistan in 2014, and predict the future of U.S. policy toward the region. Session C – Room 204 – Number 158

The Second Amendment and Gun Control in the Modern United States
Nicholas Beaton
Professor Kathy Peterson
I address and research how to balance gun ownership as entitled by the Second Amendment and gun control regulation by the federal and state governments. My research includes the recommendations made by the Obama administration and discussed by the 113th Congress. Session C – Room 301 – Number 172

At What Point Do a State’s Actions Warrant International Intervention?
Dean Blackburn
Professor Richard Stahler-Sholk
A major problem the international system faces today is the dilemma that has arisen between respecting state sovereignty and protecting human rights. For example, while many across the world have called for action to be taken in Syria, all such formal proposals have been vetoed by Russia and China. Using the Syria case as a guide, I attempt to solve this dilemma by examining the legal, institutional and political considerations. Session C – Room 204 – Number 157

Bretton Woods and the Evolution of a New World Order
Marc J. Davignon
Professor Judith Kullberg
In July 1944, members of allied countries from around the world gathered in Bretton Woods, New Hampshire, for a conference that laid the foundation for a post-war global economy. This paper examines how the historical and political context of 1944 shaped the character of the Bretton Woods Institutions—the IMF, World Bank, and WTO. It also explores how the Bretton Woods institutions have affected economic development in the Global South. Session A – Room 344 – Number 52
Israel and the Politics of Divorce: An Exploratory Analysis
Kaitlyn Marie Dugas
Professor Barry Pyle

There are a multitude of legal systems in use around the world today, including common law systems, civil law systems and various hybrid systems. A case study was conducted on the legal system that exists in Israel, which incorporates a Christian system, an Islamic system, a Druze system, a Jewish system, and an informal mix of both common and civil law to deal with divorce matters. The analysis reveals the differences between legal systems and whether a woman is “better off” using one system or the other. The presentation includes an initial statistical analysis investigating the divorce laws of various countries and the comparison to the Israeli system.
Session C – Room 330 – Number 188

Attorney for Hire: The Rising Rates for Legal Aid
Matthew Royal Grider
Professor Mark Maironis

This project looks at the statistics of current attorney rates and compares them to rates over the last 20 years. The project, based mainly in southeastern Michigan and including both public and private personnel, delves into why these changes have taken place and presents multiple factors and hypothesis regarding these rates. As attorneys are being used more and more, it makes sense that their rates are increasing, but how can one put a price on these services that are provided by these legal members? Rates can continue to increase since these services are at such a high demand.
Session C – Room 301 – Number 173

Making Change in the Society: Student-Led Community Engagement II
Craig Jefferson and Jared Jeffries
Professor Claudia Petrescu

The nonprofit sector is one of the fastest growing sectors in the economy and many students are drawn to it. This presentation talks about a student philanthropy project through which students learn about the sector, understand community needs, become engaged in the community, develop skills and make decisions that impact the local community.
Session A – Auditorium – Number 22
The Influence of United States Trade Policy on Chinese Economic and Political Reforms

David Jibson  
Professor Judith Kullberg

This paper tests the hypothesis that the United States, through its trade policies, has directly or indirectly affected China’s economic and political policies. A review of actions taken by the U.S. government that affected trade via Most Favored Nation Status, trade negotiations, and WTO cases was compared to measures of reforms in China. The establishment of a trading relationship and the granting of Most Favored Nation Status had a positive impact on trade between the U.S. and China, the growth of privately owned businesses, and the development of trade unions. U.S. actions had little impact on political or human rights issues.

Session A – Room 344 – Number 53

The Effectiveness of Targeted Political Advertisements

Vincent Malainy  
Professor Jeffrey Bernstein

Political campaigns are increasingly turning to Internet advertisements to reach potential voters. These advertisements are designed to target a person’s specific policy preferences. A series of three surveys were administered to students at EMU. The purpose was to determine the effects of targeted Internet-style advertisements on a person’s perception of a candidate, their motivation to vote, and their knowledge of the candidate’s platform. The results show that targeted advertisements tend to be more effective than non-targeted advertisements in improving a voter’s perception of a candidate and increasing their motivation to vote. The results also shed light on the inferences that voters make about a candidate’s policy positions even when working with limited information.

Session A – Room 330 – Number 49

United States Imperialism: Alternate Dimensions of Foreign Policy and National Interest During the Cold War

Adam Malinowski  
Professor Judith Kullberg

This paper explores United States foreign policy during the Cold War in an unconventional light, highlighting liberalized trade, foreign interventions, and energy security during the period, instead of U.S.-Soviet relations. A critical approach is taken to determine the relation of these measures to the United States as an imperial power. Special emphasis is placed on determining what the “national interest” is.

Session A – Room 344 – Number 54
The Honors College: What is the Benefit? By What Mechanism?

Anjali Martin  
Professor Jeffrey Bernstein

The Honors College at Eastern Michigan University is expected to help students attain higher levels of political knowledge, in part because it provides a social network in which students learn and live with each other. But does it do that? This presentation examines what the social network effect looks like within the Honors College, then compares those results to the social network found in the Greek Life Community, including the effects of each network on political knowledge.

Session B – Room 304 – Number 108

Linguistic Cleavages and Militarized Interstate Conflict:  
A Genealogical Approach

Andrew S. Martinez  
Professor Volker Krause

This paper focuses on the relationship between military conflict and specific linguistic variations within a genealogical context. Using data based on the most recent understanding of languages’ genealogical roots, we demonstrate that linguistic variation is related to militarized interstate conflict through the depth of linguistic cleavages. The study shows that military conflict is most likely where there is linguistic asymmetry more so than where there exists a minimal level of historical depth in linguistic cleavages.

Session A – Room 347 – Number 56

Assessing the Effectiveness of United States Counterinsurgency Strategy in Afghanistan

Andrew S. Martinez  
Professor Judith Kullberg

The impending 2014 withdrawal of United States and NATO forces from Afghanistan provides an opportunity to assess the effectiveness of U.S. counterinsurgency strategy in Afghanistan. Have U.S. and Afghan security forces succeeded in winning over the “hearts and minds” of the Afghan people? Since insurgents rely on the acquiescence of the people in order to move, communicate, and operate, the Afghan people have a distinct part to play in insurgency and counter-insurgency. Has the U.S. strategy been successful in persuading the Afghan public to withhold active and passive support from the Taliban?

Session C – Room 204 – Number 159
The Lost Art of Statesmanship

*Nino Monea*  
Professor Edward Sidlow

It is no secret that there has been a breakdown in partisan relations in Washington D.C. over the last half century. The 112th Congress adjourned with a record low in the number of laws passed (and approval rating). But in preceding decades Congress managed to pass sweeping, bipartisan reforms. This paper explores contributing factors to the current legislative paralysis. These include the media, negotiation styles of the president, and the institutional, parliamentary and personal changes in Congress over the last 50 years. The present-day fiscal cliff deal and the 1964 Civil Rights Act are highlighted as examples to help understand the cause of inaction within our government.

*Session B – Room 347 – Number 127*

Youth Unemployment: A Policy Analysis

*Nino Monea*  
Professor Raymond Rosenfeld

In the recession, few groups were as badly hit as young workers. With unemployment for workers aged 16-24 at 17.1%, action is clearly needed. This paper explores the nature and depth of the problem, followed by a range of policy solutions, and the political climate surrounding each of them. After evaluating the policies on their expected costs, benefits and political feasibility, the paper makes the recommendation that the federal Registered Apprenticeship system be expanded.

*Session B – Room 352 – Number 135*

Making Change in the Society: Student-Led Community Engagement

*Kody Vitale and Nino Monea*  
Professor Claudia Petrescu

The younger generation is not as politically active as older generations. This presentation talks about the efforts of increasing political participation and community engagement of the younger generation during the elections, what works and what does not, and how to effectively connect different groups of the society and increase collaborations in the community.

*Session A – Auditorium – Number 21*
Foreign Policy in the Bush and Obama Administrations: From Unilateralism to Multilateralism?

Jesse R. Wilk  
Professor Judith Kullberg

Many observers believed that the departure of George W. Bush from the presidency and arrival of Barack Obama in the White House would end United States unilateralism in foreign affairs. However, Obama has continued many of the same policies and much of the unilateralist strategy of the Bush administration. Why has multilateralism been so difficult to achieve? What political and environmental factors make it difficult to change the direction of foreign policy from one administration to another?

Session A – Room 344 – Number 55

DEPARTMENT OF PSYCHOLOGY

Effect of EPIC Panel Presentations on the Attitude of EMU Students Toward LGBT Individuals

Silvana Alfaro-Bordon  
Professor Natalie Dove

This study investigates the impact of Eastern Pride and Identity Coalition (EPIC) Panels on the LGBT-related attitudes of EMU students. EPIC is a panel of students, faculty, staff and community members who go into classrooms and EMU community events to talk about their personal experiences in the LGBT community. Currently, it is unclear how these panels influence students’ attitudes toward LGBT populations. This presentation discusses research questions driving the project, the process and problems of developing survey questions, expected findings, and preliminary data sets that measure attitudes drawn from surveyed participants in classroom settings.

Session A – Room 320 – Number 43

The Effect of Physical Activity on Visuomotor Adaptation in Older Adults

Michael Karel Bartosek and Rebecca Neil  
Professor Jin Bo

It has been demonstrated that older adults show decline in skill acquisition (Dennis & Cabeza, 2010). The need to maintain motor skills is essential for everyday living in the elderly. It has also been revealed that physical activity decrease leads to cognitive declines in older adults (Taaffe et al., 2008), and cognitive functions play significant roles in motor skill learning. Thus, the current study examines the effects of physical activity on visuomotor adaptation in older adults who are either physically active or sedentary. It is hypothesized that physically active elders demonstrate better visuomotor adaptation compared to older adults who engage mostly in sedentary lifestyles.

Session B – Room 344 – Number 121
Critical Differences Between Military Sexual Trauma and Civilian Sexual Assault

Victoria Lynne Bernard
Professor Tamara Loverich

Military Sexual Trauma is the sexual assault and/or battery experienced by service members in the armed forces and has been revealed as a growing problem within the United States Military. Studies have shown that MST is experienced differently than other forms of sexual trauma, yet current treatments are based upon research on civilian sexual assault. This presentation focuses on the ways in which MST is experienced differently than other forms of trauma (e.g. combat trauma, natural disaster, civilian sexual assault, etc.). Furthermore, the history of MST within the U.S. Military, current treatment options for sexual assault, and what is being done to further the understanding of MST is discussed.

Session A – Room 301 – Number 35

The Effect of Recall Fluency on Prejudice

Troy G. Deskins and Max Monahan
Professor Rusty McIntyre

Prejudices do not come from critical thinking; instead they are derived from learned stereotypes in society. The participants of this study underwent an experiment in order to determine the influence of stereotypes on prejudice thinking. The goal of this study was to determine the impact of recall fluency on the prejudices toward African Americans that are exhibited. The term fluency in this context means the recalling of circumstances in which an African American conducted themselves in a way that paralleled with negative African American stereotypes or the reverse of that stereotype. The information gained from this study may decrease negative prejudices perceived by individuals and it may change an individual’s thinking about their own stereotypic thoughts.

Session C – Room 344 – Number 190

Examination of Problematic Food to Development of Substance Use Disorder in Post-Bariatric Surgery Patients

Lauren Alina Fowler
Professor Karen Saules

The observation of an overrepresentation of post-bariatric surgery patients in substance abuse treatment and evidence that many of these cases represent new-onset substance use disorders (SUDs) suggests the possibility of “addiction transfer” from food to substances. There is support from both human and animal research to support putative “food addiction.” Research also suggests specific macronutrients may confer heightened risk for food addiction. Using secondary data analysis, this study examines the relationship of problematic foods to post-bariatric surgery SUDs, hypothesizing that pre-surgical problems with high sugar foods, in particular, are associated with post-surgical SUDs.

Session C – Room 320 – Number 181
The Relationship Between Female Paternal Attachment and Future Romantic Relationships

Carla Nodi
Professor Natalie Dove

The objective of this project is to research the relationship between a female’s attachment to her father and the effect it has on her future romantic relationships. Facets of romantic relationships are measured in a survey are sexual practices, self-esteem, commitment and personal fulfillment in relationships. Paternal attachment is measured via time spent together and feelings of closeness. The data from this research contributes to our theoretical understanding of attachment and how a father can impact a daughter’s romantic endeavors. The research has theoretical implications but also is useful in a clinical setting when working with marriage, relationship and family issues.

Session C – Room 120 – Number 151

Facilitated Communication and the Criminal Justice System: An Interdisciplinary Perspective

James Robert Quillen
Professors James Todd and Donna Selman

Facilitated communication (FC) is a technique that aims at assisting individuals, commonly those with some form of cognitive disability, in achieving communication. This technique has repeatedly failed to demonstrate both validity and reliability through various quantitative scientific methods. Shockingly, this scientifically discredited process is routinely permitted into the criminal justice system as forensic science evidence. The current status for admissibility of scientific evidence is discussed in connection with facilitated communication. Additionally, the 1st, 4th, 5th, 8th and 14th amendments are discussed as they pertain to facilitated communication.

Session C – Room 330 – Number 186

The Relationship Between Parental Care and Communication and Sexual Behaviors and Attitudes in Emerging Adults

Nicole Richards
Professor Heather Janisse

The relationship between a parent and a child is one of the longest and most influential relationships in an individual’s life. Among many child outcomes, prior research suggests that parents have the ability to influence their children’s sexual decisions (Davis et al., 2010). The purpose of the present study is to examine the relationship between parental care and control, parental communication about sex, and current sexual behaviors and attitudes in a sample of emerging adults ages 18-28. Preliminary results suggest that communication about sex may be an important predictor of sexual behaviors.

Session C – Room 120 – Number 152
Re-Examining Interpretations of the Potlatch Tradition

*Stephanie Cherie Absalom*

*Professor Ronald Rich*

Using the Kwakiutl potlatch as an example, I demonstrate how it is possible for anthropologists trained in different paradigms to perceive different functions of a cultural institution and what that means for the study of culture. Anthropologists have a different focus in their study of culture and each uses a different type of scientific reasoning to support his or her theories. Together their various analyses provide a holistic understanding of the functions of the potlatch with each anthropologist conveying something important. My analysis shows that anthropology can benefit from avoiding paradigmatic thinking and incorporating a holistic view into studying cultural components.

*Session C – Student Art Gallery – Number 168*

Anthropologists at the United Nations: Advocates for Human Rights

*Deanna Jasmine Bumphus*

*Professor Bettie McGowan*

Cultural anthropologists play an active role at the United Nations because they feel a responsibility to the Native people they work with. As anthropologists gain understanding by listening and living among indigenous cultures they recognize the need to advocate for human and collective rights for Native people. For years various governments in the world had policies that attempted to assimilate indigenous people. Indigenous people have fought back in an effort to maintain their traditional cultures. The devastation and struggles that indigenous people have gone through has motivated cultural anthropologists to stand with them and fight for equality and justice.

*Session A – Student Art Gallery – Number 30*

Social Construction of Cults

*Dequan Chambers*

*Professor Kendra Smith*

How do individuals form cohesive social groups that evolve into religious cults? In what ways can religious cults be distinguished from other ‘healthy’ religious groups? Various definitions of the word ‘cult’ and ‘cult behaviors’ are explored, and defining characteristics and hallmarks of cults and cult leader behaviors are considered and analyzed in terms of society.

*Session A – Kiva – Number 72*
Control Fraud in America: Are We Structurally Encouraging Control Fraud?

Emmanuel Joseph Connell  
Professor Paul Leighton

Control fraud is defined as a criminal in control of a company that they use as a weapon and shield to defraud others, making it difficult to detect and punish. This type of fraud has become a social endemic and was present in the Savings and Loans debacle of the 1980s, the Enron frauds in the early 2000s, and then the housing bubble of 2008. Control frauds have been looting and manipulating others of more than $500 billion annually, virtually unchallenged by any government regulatory agencies. The presentation explains factors that structurally create a criminogenic environment that encourages fraud and why white collar control criminals are able to persist in fraud and looting.

Session B – Room 204 – Number 90

Content Analysis: Patriarchal Themes in Advertisements

Laura Catherine Green  
Professor Tricia McTague

Advertisements both reflect and perpetuate our patriarchal society. As social products and social forces, advertisements create contexts that shape how women and men are supposed to look, act and feel; they also define acceptable behavior for how men and women are meant to interact with one another. Through content analysis of several advertisements, this project examines these embedded gendered messages and explores how they contribute to behavioral expectations for women and men in a patriarchal context.

Session A – Room 330 – Number 48

Michigan and the Great Lakes Region: A Narrative History of Archaeological Theory

Baily Jane Hershberger  
Professor Bradley Ensor

Analyzing theoretical trends informs on the historical social contexts influencing scientific thought. This study explores the history of archaeological literature on the Great Lakes region. Despite three centuries of research and an array of theoretical trends, the sample of literature is consistent with archaeological thought in many colonized regions of the world.

Session C – Student Art Gallery – Number 165
Barefoot Doctors In China: An Exploration of a Rural Healthcare System

Joshua Lyon
Professor Xianghong Feng

The barefoot doctors represented an innovative movement in Chinese history to address healthcare problems of the rural population. It was a major reassessment of a national healthcare system, and it improved rural health and provided medical treatment on a scale previously unseen in Chinese history. Government participation was necessary to construct this system, but it also fully dismantled it, creating continuing problems for the countryside.

Session C – Room 104 – Number 149

Families: Expectation and Reality

Isabelle McCormack
Professor Ronald Westrum

Families in America no longer bear out the stereotype of a husband, wife and kids living together. Some people don’t have kids, not everyone works, not everyone gets married and not everyone stays married. While marriage is still important, a family unit can also mean couples co-habiting, single parents with children, grandparents with children, and even life with an animal companion. Humans have a natural thirst for intimacy, and family satisfies this thirst. So, family is important for Americans, but what family means may differ for each individual, according to the needs of that individual. Once we learn to accept that our expectations are not always on a par with reality, we can have a more healthy appreciation of the family we have, as opposed to what we think a family should be.

Session C – Room 120 – Number 153

The Economic Consequences of Gendered Globalization: Examining Gender Inequality in a Global Economy

Cassie Lynn Richard
Professor Solange Simoes

Women’s relationship to economic power has been shaped over recent decades by practices of globalization as characterized by market liberalization and technological innovations. Women in developing nations find more economic opportunities in export processing zones and as migrant domestic laborers. This paper examines the lasting impact of such work on gender as well as class inequality by discussing theories, past research and secondary data collected on the status of women in a globalized economy.

Session A – Room 304 – Number 36
A History of Archaeological Thought on the Hopewell

Marc Rogers  
Professor Bradley Ensor

Researching theoretical trends provides insight into the historical social contexts of scholars in academic disciplines. There are few syntheses examining the different archaeological perspectives on the prehistoric Hopewell culture of North America. This study examines that research in a chronological fashion. The findings suggest that the social contexts of archaeologists played a significant part in the different theoretical trends over time.

Session C – Student Art Gallery – Number 166

Attempted Assimilation of Native American Children

Marc Rogers  
Professor Bettie McGowan

In 1879 the United States instituted an assimilationist policy to kill the Indian and save the child. One hundred and eighty-five thousand Native children were forced into boarding schools over objections from their parents. The significance of this policy was that it attempted to destroy the identity, language, culture and spirituality of Native people. One hundred years later, Native children were still not white and not accepted into mainstream society. The result of the physical, emotional, psychological and sexual abuse led to many problems and the intergenerational trauma that is still being experienced today.

Session A – Student Art Gallery – Number 28

Idle No More: A New Decade of Aboriginal Activism

Eric Mark VanBuhler  
Professor Bettie McGowan

Since the arrival of the Europeans into the new world, aboriginals of the Americas have experienced much oppression, whether it be governmental seizure of Native lands, the breaking of treaties, or the intentional genocide of countless Native groups. Within the past two centuries there has been much progress with civil rights in the Americas; however, to say that Native groups of today are not oppressed still would be false. In this presentation we look into modern day governmental oppression on aboriginals specifically within Canada. This is explored through contemporary issues and movements such as the current Idle No More campaign dealing with Native rights in protecting their land and country from degradational industrial practices.

Session A – Student Art Gallery – Number 29
Irish Archaeological Thought and National Identity
Kaitlyn Welsh
Professor Bradley Ensor
Investigating theoretical trends presents insight into the social contexts influencing scientific thought. This study explores samples of archaeological literature on Ireland. Unlike archaeology elsewhere, where changing social contexts and researchers led to changing theories in the discipline, archaeological thought in Ireland maintained a theoretical trend centered on defining a national identity.
Session C – Student Art Gallery – Number 167

DEPARTMENT OF WOMEN’S AND GENDER STUDIES

Aspiring to Broader Representation: The Integration of LGBT Young Adult Literature
Garifilia Adamopoulos
Professor John McCurdy
Young adult novels contain the power to represent many identities to their readers. An inclusion of Lesbian, Gay, Bisexual, and Transgender (LGBT) representation is crucial to the inclusion of LGBT youth in society. The presence of such character representation challenges the split between LGBT young adult fiction and mainstream works by normalizing LGBT identities. This paper explores methods of inclusion, as well as the barriers to accessing works with LGBT representation.
Session C – Room 120 – Number 154

Being Queer and Not Queer: Arguing for Ally to be Included in the Queer Spectrum
Heather Grace Charles
Professor Kathryn Ziegler
Is the Ally identity on the Queer spectrum? Under the Queer umbrella? Allies typically enjoy heterosexual privileges, yet at the same time Allies fight many of the institutions that perpetuate these privileges. What’s more, Allies generally feel hesitant identifying with normative heterosexuality. It is in and with these contradictions that push Allies into a liminal space, suspended between Queer identity politics and the not-Queer identity politics in, I argue, some uncomfortable ways. I identify this in-between space as a Queer Heterosexuality, which I prove, should exist on the Queer spectrum.
Session B – Kiva – Number 140
Women in Music: Continued Exclusion Through Polarized Gender Roles

Shayla Rose McDermott
Professors Solange Simoes and Suzanne Gray

In some arenas, music continues to define women as incompetent and passive through limited genre and racial inclusion, orchestral and leadership opportunities, higher education, and music technology. This presentation discusses this restrictive musical pattern by synthesizing literature regarding classical and modern female musicians, lyric analysis, and interviews with Eastern Michigan University professors.

Session B – Student Art Gallery – Number 99

The Persecution of Homosexuals During the Holocaust

Jennifer Rokakis
Professor Elizabeth Currans

During the Holocaust, many groups were persecuted under the Nazis. One such group was male homosexuals. They were imprisoned under Paragraph 175, which criminalized homosexuality, and were then sent to concentration camps. This presentation is an attempt to make the voices of the thousands that were often shamed into silence heard. Topics covered in this presentation include the life for homosexuals in Germany a few years before the Holocaust, their experiences in the concentration camps during the Holocaust, and what happened after they were liberated, including the memorialization of homosexual victims today.

Session C – Room 350 – Number 203

Transgender Healthcare in America: A Feminist Perspective

Samuel Teeple
Professors Solange Simoes and Suzanne Gray

While LGBT issues have recently gained prominence in American politics, our national dialogue focuses only on issues important to the gay elite funding the majority of the LGBT movement, like marriage equality. Because of this, the basic needs of marginalized transgender individuals, especially healthcare, are ignored. A feminist intersectional analysis reveals that societal and institutional oppression make it very difficult for this population to access routine and life-saving care.

Session C – Room 350 – Number 202
DEPARTMENT OF WORLD LANGUAGES

Effects of Study Abroad: An EMU Japanese Case Study
Zachary Blasdel Blackwell
Professor Motoko Tabuse

This study investigates various changes that EMU students recognize within themselves during and after study abroad. The research questions solicited EMU students’ opinions about their experiences prior to, during and after study abroad concerning both themselves and EMU’s study abroad program to Japan. The Japanese faculty members participated in formulating the questionnaire so that the results of the research can enhance the program.
Session A – Room 347 – Number 60

Building Upon International Cornerstones: The German Automobile Industry in Turkey and Michigan
Corman Chad Cabose
Professor Margrit Zinggeler

The ever-growing international economy is eliminating the old-fashioned ways of isolationist market strategies. In order for a country to thrive, it must open its borders and allow foreign agencies to do business. The auto industry is one of the most important industries in the world. Germany has a rich auto history with companies like Bosch, BMW, and Volkswagen. The auto industry was born in Michigan with companies like Ford and General Motors. Though Turkey is not well known for automobiles, it plays a large role in the manufacture of German autos. Turkey continues to grow as an economic power on the world stage. If Turkey continues this success, it could be a leader in the European Union.
Session B – Room 204 – Number 87

Genetic Determinism and Grammar: When Linguistics and Biology Collide
Caylen Leigh Cole-Hazel
Professors James Perren and Beverly Goodman

Language is currently accepted as a mechanism that is inherent to human beings. New research suggesting the possibility of direct genetic influence on linguistic development allows for further understanding of the human language faculty. In this presentation, I examine the contrast between gene-based language hypotheses and contemporary socio-cultural language theories in an effort to advance linguistic understanding.
Session A – Room 347 – Number 58
A New Rail System to Combat America’s Decaying Infrastructure

Joseph Edward Eilerman  
Professor Margrit Zinggeler

Although America is the world’s largest economy, the transportation infrastructure of America is decaying at an alarming rate. Additionally, there are no real plans to reverse this trend. On the other hand, the fourth largest economy in the world, Germany, possesses a leading transportation system, largely based on rail. In order to combat the obsolescence of the American transportation infrastructure, a hybrid system that draws on the strengths of both the American and German means of transportation is proposed.

Session B – Room 204 – Number 88

Exploring the Soulless American Psychology

Danielle Hebner  
Professor Margrit Zinggeler

American psychology is very theoretical; it focuses on the mind and the body, and there is no mention of a person’s soul. Bruno Bettelheim, author of *Freud and Man's Soul*, discussed the mistranslation of the word “Seele” made by the original translator. This mistranslation led to what is now known as the soulless American psychology.

Session B – Room 104 – Number 81

Kant’s Theories of Reason Through Friedrich Schiller’s The Aesthetic Education of Man

Katherine Diane King  
Professor Carla Damiano

Reason was the central focus during the European Enlightenment; through reason people moved away from the standardized knowledge of the church to pursue their own ideas. German philosopher Immanuel Kant recognized the significance not only as an inherent ability of humans but also as a determining factor for the morality of one’s actions. Many of Kant’s works, including the *Critique of Pure Reason*, became a foundation for other philosophers and writers. To demonstrate this, I analyze the correlation of Kant's theories with respect to Schiller’s literary treatise, *The Aesthetic Education of Man.*

Session B – Room 104 – Number 79
The Plight of Women in Concentration Camps: Liana Millu’s 
*Smoke over Birkenau*

Alexandra Yvonne Kubiak  
Professors Carla Damiano and Sascha Feuchert

Italian-Jewish journalist and school teacher Liana Millu began as a resistance fighter during World War II but was eventually captured by the Nazis and deported to the concentration camp Auschwitz-Birkenau. Her 1991 collection of stories, *Smoke over Birkenau* depicts the plight of women who suffered and perished in the camp, but it also sheds light on the will of some to survive. Death chose its victims randomly in the camps without regard to gender, but women faced some different challenges in the camps than men. Some are gender-related but others go to the core of the female psyche. This presentation highlights some of those differences.

*Session C – Room 347 – Number 195*

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Deficient Instruction Methodology as a Reason for Disregard of Foreign Language Courses in the United States

Abigail Mattson  
Professor Alfonso Illingworth-Rico

Many middle and high school students in the United States opt only to take a second-language course when it is absolutely necessary. For those who do want to learn a foreign language, it is difficult to achieve a high level of proficiency because of deficient teaching methods. The purpose of this presentation is to explore a sample of alternative educational strategies that can aid students in relating to a language so that they are more likely to engage with the new system of communication. The subjunctive mood in Spanish is used as an example to show how several teaching ideas may lead to increased language comprehension and heightened interest in foreign language courses.

*Session B – Room 104 – Number 80*

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Teaching and Learning Language Through the Application of Personal Narratives

Ariel Robinson, Alicia Myers and Rachel Gallant  
Professor James Perren

Everyone has a story. As educators and learners we examine how the use of personal narratives can be beneficial to potential educators and their students. Narrative research is rapidly becoming an accepted and useful tool in the Teaching English to Speakers of Other Languages (TESOL) community. In this presentation we examine our personal language learning narratives while relating how their construction enables us to better understand the language learning experience. We explore how this method allows educators to make connections with their students through the framework of their own stories.

*Session A – Room 347 – Number 57*
Coining the Phrase: An Analysis of Colloquialisms in Martin Luther’s Bible Translation

Matthew Thomas Silvis  
Professor Carla Damiano

Martin Luther’s famous 1534 translation of the Bible, which included the Old and New Testaments as well as the Apocrypha, has had lasting effects on the German language. While he was not the first to translate the Holy Scripture into the vernacular, he is arguably the most influential due to the widespread circulation of his translations. Luther’s use of everyday words and expressions allowed even the commoners to understand and enjoy the Holy Scripture. His style of writing became the foundation of the modern German Language and many of the phrases he coined are used to this day. This presentation addresses how Luther’s colloquialisms helped to form a budding cultural identity within a multicultural and multilingual Holy Roman Empire and how this is pertinent in modern times.

Session C – Room 344 – Number 192

College of Business

DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

Box Office Gold: Can Twitter Predict?

Joseph Elia, Alaric Coury and Ajong Ekokobe  
Professors Chong Oh and Yaman Roumani

Social media communities are effective means of communication and prevalent outlets for marketing. This study endeavors to answer the following question: How does social media engagement on Twitter impact box office revenues for movies? We collect tweets about upcoming movies from two Twitter sources: official movie accounts and public users. We then demonstrate whether these tweets impact a movie’s box office revenue. Potential implications of this study include understanding how filmmakers can promote their movies through Twitter and the influence it has on box office revenues. In terms of research implications, this project introduces a new prediction measure.

Session B – Room 304 – Number 107
DEPARTMENT OF MANAGEMENT

Yesterday was the Only Easy Day—Why Leadership is Essential to Life
Christopher Ryan Caryl and Emily Owens
Professor Christine Day

Seal Team Six: Memoirs of an Elite Navy Seal Sniper, is a co-authored autobiography that chronicles the life of Howard E. Wasdin from childhood to post-Naval discharge. Through his stories, Wasdin describes in detail the community, leadership and training influences that were critical aspects in his development into a Navy Seal Team Six sniper. This presentation examines how the core leadership and management principles found in his examples are correlated with current academic and professional practices. They are essential to achieving positive personal, academic and professional goals.

Session B – Room 350 – Number 133

The Delta State: Why Change Leadership is Critical to Organizational Success
Christopher Ryan Caryl
Professor Christine Day

Organizational change is something that every business must face during its lifespan in order to continue pursuing its best goals and interests. Leadership is required to facilitate the change process. This presentation compares the organizational change success rates of companies that have invested in change management training versus those that have not. The results suggest a strong correlation between organizational change success and change management training. Importance of change management theory in relation to other aspects of life is also discussed.

Session C – Room 301 – Number 174

Reaching Higher: An Academic Service-Learning Project
Danielle Kretchmer
Professor Jean Bush-Bacelis

Reaching Higher is a Michigan-based leadership skills training program for middle and high school students. In this program students learn to make positive life choices. The author attended the program back in high school. The scope of the project was to help establish a donor base for which the author created a personalized and professional presentation to be used to educate prospective donors for the organization. This presentation conveys the importance and depth of diversity as they relate to the mission of the organization. Besides a beautifully created 12-minute video, this project resulted in staff seeking grant monies, specifically to enhance the diversity aspects of the program.

Session A – Auditorium – Number 24
The Value of a College Degree
Olu Osuntuyi
Professor Stephanie Newell

In this paper I explore the disconnect between increasing student debt levels and the perceived value of a college education. As states decreased their support for higher education over the past few years the tuition burden on students and their families has increased. This has led some to question the economic value of a college education at a time of financial crisis for many and decreased employment opportunities for some. Finally I examine some of the consequences for society of the increased student debt level and the questioning of the value of a college education.

Session C – Room 304 – Number 176

The Effect of Unethical Actions on Business Laws and the Correlation Between Them
Emily Owens
Professor Diana Wong

This thesis examines major business practices considered unethical and how they influence the evolution of major business laws. Different business case studies provide illustrations and analyses of how unethical actions impact the shaping of business law. A key component of this presentation is the question of whether the business laws were effective in changing business practices considered unethical and harmful to the economic and social well-being of our economy.

Session C – Room 330 – Number 187

Pyramid of Success
Jacob Speck
Professor Christine Day

Pyramid of Success is one of the greatest leadership styles and practices for individuals, groups, teams and firms to use to improve their overall self and overall organization. Pyramid of Success is used by hundreds of businesses and sport teams across the country. John Wooden, who was the greatest coach of all time and one of the greatest leaders to ever live, created the Pyramid of Success during his years of coaching basketball at UCLA. John Wooden was more than a basketball coach, he was a coach of the ‘game’ we call life!

Session B – Room 350 – Number 134
United States-Chinese Business Relationship:
Conclusions from an Internship in a United States
Subsidiary of a Chinese Company

Congzhe Xu
Professor David Victor

This paper explores the business relationship between the United States and
the People’s Republic of China. The paper does this through examining the
interrelationship of manufacturing, currency valuation and political relationships
as they affect trade between the two countries. This is supplemented with
examples drawn from first-hand experience through the author’s internship at
the Michigan-based office of a Chinese accessory manufacturing company.

Session B – Room 350 – Number 132

DEPARTMENT OF MARKETING

Monster Rehab Energy Drink Marketing Plan

Kathryn Louise Hansen
Professor Sheila Sasser

Monster Energy, an energy drink product, was launched by Hansen Natural
Corporation in 2002. The objective of this project was to create a marketing
plan for this new product line. The plan detailed the strengths, weaknesses,
opportunities, and threats of the brand, and determined its target market. It
also laid out the media preferences among the target market, and integrated
marketing communication strategies were recommended. Media objectives
were set, and corresponding strategies and tactics were listed. Continuing with
media, a strategy was developed to determine which vehicles would be used to
promote the product, and a detailed schedule and budget were created.

Session A – Room 330 – Number 47
Universal Design for Learning: Equalizing Opportunity Through Movement, Technology and the Arts

Kaytie Diane Corlew  
Professor Jennifer Desiderio

The concept of universal design for learning (UDL) is based on the development of flexible and accommodating learning environments that meet the needs of individual learning differences. This review of the literature focuses on the use of movement, technology, and the arts in the implementation of UDL. These three mediums are superior tools for applying UDL principles because they allow for multiple means of representation, expression and engagement. The information gathered from the research could benefit K-16 students who are struggling in more traditional learning environments.  
Session C – Room 352 – Number 206

Don’t Blame the Referee: A Review of Complex Variables Contributing to Special Education Referrals

Mara Rae Geiger  
Professor Karen Schulte

The overrepresentation of male and minority students has been documented in many studies since the passage of the first special education law in 1975. Much less is known, however, about the causes of overrepresentation. Since one of the earliest steps in determining a student’s eligibility for special education services is referral, the tendency is to blame overrepresentation on the teacher making the referral. As this review of the literature suggests, the cause of disproportionate referrals to special education may not be so simple. Research indicates a complicated web of interactions contributing to referrals for special education including student, teacher and school variables.  
Session A – Room 352 – Number 67

“Does the Little Hand Go First?”: Learning to Tell Time for Students with Cognitive Impairments

Sarah Mueller  
Professor Jacquelyn McGinnis

One of the goals for special education services is to teach students with cognitive impairments the skills that are required of independent adult citizens. This study examines the specific skill of learning to tell time through either hands-on materials or paper and pencil worksheets. The results from two high school students with moderate cognitive impairments are presented. An unexpected finding was the inability to read math word problems. Therefore, considerations for teaching literacy across all curriculum areas are also discussed.  
Session A – Room 352 – Number 71
The Effects of Tactile Adaptations on Biology Models for Students Who are Visually Impaired

Andrew Pedley  
Professor Alicia Li

The science, technology, engineering and mathematics (STEM) fields are becoming more prominent and relevant in today’s global economy. However, the representation of individuals with disabilities in these areas is not. This presentation focuses on the unique population of students with visual impairments and the difficulties of learning biological concepts at the secondary level. Preliminary findings of a project identifying specific challenging concepts and the effectiveness of tactile biological models will be disseminated.

Session B – Room 301 – Number 103

On Your Toes: Dance for a Special Population

Mary Kathryn Sinz  
Professor Linda Polter

Historically, dance has been used to express emotion and to connect with others through movement. This benefit of dance is no different today, as it should be no different for students with disabilities. Dance could be perhaps even more beneficial for this population. This qualitative study investigates parents’ perceptions of the social and behavioral benefits of dance for children with special needs through the use of a questionnaire. The participants are from a metro Detroit dance school and participate in a weekly class specifically for children with special needs.

Session C – Room 352 – Number 205

Improving Literacy Skills in Children Who are Blind or Visually Impaired

Melissa L. Steele  
Professor Alicia Li

Literacy skills are important for all children, including those who are blind or visually impaired. Compared to their peers without disabilities, children who are blind or visually impaired often have poorer literacy skills because of their lack of functional vision. Intervention may occur through various mediums, including print, Braille, and even a combination of the two. The purpose of this project was to investigate effective strategies to improve literacy skills in children who are blind or visually impaired.

Session A – Room 301 – Number 31
Collaboration

Benjamin Clay-William White and Lea Oom
Professor Jacquelyn McGinnis

Collaboration can help educators teach students with and without disabilities using challenging and motivating evidence-based teaching practices. This session highlights the importance of collaboration among the many stakeholders in K-12 classrooms. Specifically, the presenters will share the meaning of collaboration, its significance, and what it looks like when practiced in a K-12 setting. Approaches to creating a collaborative environment will also be demonstrated.

Session A – Room 352 – Number 68

DEPARTMENT OF TEACHER EDUCATION

A Unit on the Oregon Trail

Jibri Ahmed Abdullah
Professor Patricia Williams-Boyd

I am presenting a unit on the Oregon Trail from a reflective practitioner’s standpoint. This unit entails community building and also constructive learning with activities that include all students no matter their cultural background. This unit helps students have a better understanding of the Oregon Trail and the significant change it had on the United States and the people who were involved in it.

Session B – Room 347 – Number 128

An Exploration of Their Eyes Were Watching God Through Multiple Lenses

Megan Anthony
Professor Wendy Burke

This curriculum unit is designed for 12th grade English and Language Arts students, and centered on the text Their Eyes Were Watching God by Zora Neale Hurston. Students learn foundational information about reading a text through historical and authorial context, use of language, thematic elements, feminist theory, and close reading techniques. An introductory section is dedicated to teaching students the power of writing to fight discrimination and prejudice. The content is specific to the novel and to African American Literature, but students learn to connect with the techniques so that the ideas translate to reading any type of fictional text.

Session A – Room 104 – Number 4
Investigating a Knowledge Gap in Early Childhood Assessment
Daniel Cichoracki
Professor Margo Dichtelmiller

Early childhood professionals conduct observation-based anecdotal assessments according to publisher-defined methods. This exploratory study examines the field of early childhood professionals to determine what, if any, gaps exist between practical knowledge – the needs of the assessor – and research knowledge – the needs of a publisher – with a purpose of incorporating the needs of the professional in the process of developing and revising assessments. It also examines existing professional development opportunities in order to provide opportunities that are more relevant to the needs of early childhood professionals.

Session A – Room 352 – Number 70

A Tour of a Cell
Amanda Grace Dilloway
Professor Patricia Williams-Boyd

This is a 10-lesson unit created for 7th grade students that examines cells and their function. The unit covers the Grade Level Content Expectations (GLCE) as stated by the State of Michigan. It is written and intended to challenge and assist students so that they may all succeed.

Session C – Room 304 – Number 179

Narrative Reports: Why are They Important?
Arlene Goeb
Professor Martha Baiyee

Careful consideration must be given to the assessment of young children since traditional methods of assessing and reporting results are usually not considered appropriate. Young children cannot typically read or write and the traditional report card does not lend itself to best practices in the assessment of young children. Therefore, early childhood educators resort to alternative forms of assessment that are observation based. This presentation explores the characteristics of narrative reports and why they are considered appropriate for reporting young children’s developmental status. A comparison is made between a traditional report card and a narrative report so that participants arrive at their own conclusions as to why narrative reports are important.

Session A – Room 352 – Number 69
Talking the Talk and Walking the Walk: A Social Skills Unit

**Austin H. Kovar**
Professor Patricia Williams-Boyd

This is a 10-lesson unit with a culminating activity that examines social skills that are used in both formal and informal situations. It is designed to develop students’ abilities to perform proper social skills that include much more than just the aspect of speech. The lessons are written and intended to challenge and assist students’ abilities to engage in proper behavior, physical presentation, non-verbal communication, etiquette and manners. Through the use of this unit, students are successful in the use of social skills that are expected of individuals in today’s society.

*Session C – Room 304 – Number 178*

Western Expansion Through the Exploration of the Louisiana Purchase

**Nicholas A. Margo**
Professor Patricia Williams-Boyd

This presentation highlights a few key concepts from a unit written for an 8th grade social studies classroom. The concepts include: conflict, cooperation, family, determination and heroes. My unit also encourages the idea of groups for support; not always just group work. Student-based interaction is a building block for the scaffolding students receive during any lesson. My lessons are built around student interaction with teacher guidance and input, rather than teacher dominance.

*Session B – Room 347 – Number 129*

The Growth of the Sandwich Generation and Its Impact on Women Caregivers

**Renee R. Walton**
Professor Sylvia Jones

A significant issue that middle-aged women are more likely to face is caring for their own children while also caring for their aging parents. That is the essence of being female in the Sandwich Generation. One’s own professional or civic agenda may take a back seat to the needs of the extended family. Members of the Sandwich Generation have now become responsible for helping children (even if adult), elderly relatives (not necessarily a parent) and even grandchildren. The inevitable outcomes include high levels of stress and mental fatigue. In addressing this topic, research findings and their implications for social policy are explored.

*Session B – Room 344 – Number 120*
Middle-Ageism? Real or Media-generated?

Renee R. Walton
Professor Sylvia Jones

As the baby-boomer generation approaches retirement age, a new form of ageism is rearing its ugly head: one has to appear “younger,” present as “buff,” belong to a book club, and volunteer in meaningful capacities to be thought of as viable. Thus, social acceptability is now predicated on a media-promoted notion of “youness” in an era of declining resources. This presentation explores the implications of this form of ageism and its impact on society as a whole.

Session A – Room 304 – Number 37

College of Health and Human Services

SCHOOL OF HEALTH PROMOTION AND HUMAN PERFORMANCE

Body Mass Index Affects Trunk Accelerations and Lower Limb Biomechanics of Running

Lauren Jording
Professor Stephen McGregor

Excess bodyweight increases the metabolic cost of running, but its relationship to running biomechanics is still not clear. The purpose of this study was to determine differences in trunk accelerations and lower limb biomechanics while running between untrained individuals with high and low body mass index (BMI). Nine high and eight low BMI ran on a treadmill with high-resolution accelerometer measurement at the lumbar spine and optical motion capture. Only AP accelerations were affected by BMI during running. The biomechanical differences between BMI groups (AAFS, KATO, SR) may influence AP accelerations, which in turn, may be indicative of increased metabolic cost of running.

Session C – Room 104 – Number 146

Electrocardiography and Diabetes

Anna Levine
Professor Shel Levine

Electrocardiography (ECG) displays the electrical activity of the heart and records information about the functioning of the electrical conduction system. Recently, ECGs have been able to point to diseased states beyond the heart. Specifically, ECGs in patients with diabetes may look different than a normal expected reading. Understanding what is considered a typical ECG for a diabetic patient allows clinicians to treat patients more accurately. This presentation provides a greater understanding of how diabetes affects an ECG and provides information crucial to those involved in patient monitoring.

Session C – Room 320 – Number 183
Comparing Assessments of School Health Needs in the Lincoln Consolidated School District

Emily VanWormer, Chelsea Schmitt and Kristen Baker
Professor Jeffrey Schulz

School health policies are developed to prevent obesity and promote healthy lifestyles of their students and staff. The Lincoln Consolidated School District began an assessment process with the Alliance for a Healthier Generation to rate their compliance to wellness policies, food choices, physical activity and health education. This process was completed by the academic buildings’ administration. The results were compared to the data from an online survey of the teachers in the district. This needs assessment showed conflict of knowledge and enforcement of policy and health behaviors, leading to the development of programs to better enforce policy and improve school health status.

Session C – Room 104 – Number 147

Reductions in Muscular Strength Following Bariatric Surgery are Proportional to Absolute Weight Loss

Renee R. Walton
Professors Chris Herman and Dennis Kerrigan

The purpose of this study was to investigate changes in upper and lower body strength following laparoscopic bariatric surgery at Henry Ford Hospital. Various strength tests were performed by subjects at baseline, at three months, and at six months following surgery. Strength measurement differences among time points were compared using ANOVA tests. Results from this study reported a reduction in weight loss and BMI, as well as a reduction in strength. Preliminary data suggests that reductions in absolute strength following bariatric surgery are weight loss related and that post-operative strength training programs for bariatric patients may be beneficial.

Session C – Room 320 – Number 182

Fibromyalgia and Cortical Stimulation

Heather Zappala
Professor Shel Levine

Fibromyalgia is a disorder of unknown causes that is characterized by amplified widespread musculoskeletal pain, chronic fatigue, problems sleeping and several other symptoms. This presentation explores the use of electrical stimulation to the cortical region of the brain as a potential treatment option for fibromyalgia patients. This type of treatment has exhibited long term success in treating the symptoms of patients and is currently undergoing examination for approval by the FDA. Cortical stimulation is expected to be approved for fibromyalgia patients pending the results of a supplemental research study that is currently ongoing.

Session C – Room 104 – Number 145
Eating Well on a Student Budget: Peanut Noodle Salad

*Daryl Hannah Andrzejewski*
*Professors Sandra Pernecky and Alice Jo Rainville*

Many college students have a limited budget when it comes to food and meals. A typical noodle dish from an Asian restaurant in this area costs $8-$13 per order. However, using pantry staples, it is possible to prepare meals that won’t exceed the weekly meal budget. An affordable and healthy peanut noodle salad was created for a dietetics class. Pantry staples (peanut butter and whole wheat noodles) were combined with Asian flavors (hoisin sauce and rice wine vinegar) and finished with vegetables to boost the nutrition content of the salad. The result is a versatile dish that can be served hot or cold, combined with other proteins, and is inexpensive (at $2.90 per serving).

Session C – Room 104 – Number 148

A Randomized, Crossover Comparision of the Effects of HFCS vs. Sucrose Intake on Basic Physiologic Measures

*Erica Mouch and Alyssa Walz*
*Professor John Carbone*

High fructose corn syrup (HFCS) has received recent attention in both popular and scientific media for its potential to differentially influence risk factors associated with metabolic syndrome, relative to sucrose (SUC). The current crossover design study compared the effects of acute HFCS and SUC intake on blood pressure (BP), heart rate (HR), body temperature (BT), and blood glucose (BG) levels of 13 fasted participants at baseline and 5, 30, and 120 min postconsumption of a caffeine-free, carbonated beverage. The data suggest a significant differential influence of sweetener type on HR and illustrate the effect of nutritive sweetener ingestion on BG and BT. No change in BP was observed.

Session C – Room 320 – Number 184

The Limitations of Collecting Data on Elderly Chinese Immigrants

*Jessica Patricia Marie Thomas*
*Professor Richard Douglass*

The purpose of this project was to review the quality and quantity of published research on elderly, Chinese immigrants in a residential setting. Methods were also assessed for this type of research in terms of sufficiency and strategy. The phrase, “tia effect”, is introduced as well, which suggests that questions and answers made by the researcher and research participant may affect the response due to intergenerational factors and social standing. Not only does this literary review assist in organizing research on elderly, Chinese immigrants, but it may also open the door to finding similar issues in conducting research in other overlooked populations.

Session B – Room 344 – Number 123
SCHOOL OF SOCIAL WORK

Tyrone and Vivian Brown: A Person-in-Environment Retrospective
Tyrone Emory Brown
Professor Betty Brown-Chappell

Archiving pertains to the preserving and storing of documents or records relating to the activities, business dealings, and more, of a person, family, corporation, association, community, or nation (Archiving, 2012). This presentation demonstrates the use of the person-in-environment fit theoretical framework as illustrated through an archival photographic book of myself, and my wife, Vivian Brown.
Session B – Room 350 – Number 131

Metastatic Cancer Patients and Caregivers Psychosocial Needs Overview and Assessment
Kathy Gee
Professor Yvette Colon

The diagnosis of cancer can create depression, helplessness, and many other emotions. While much research exists about the psychosocial needs of patients and caregivers dealing with cancer, much less is known about those dealing with metastatic cancer, cancer that has spread from its original site. There is research indicating that psychosocial factors can influence the immune system, pain tolerance, and acceptance of the course of treatments as well as progression of disease; however, the lack of research into the psychosocial status of metastatic cancer patients and caregivers leaves us wondering how to best provide appropriate support and services to them.
Session B – Room 344 – Number 122

Cross-Cultural Service-Learning: The Jamaican Experience
Telly King and JaQuial Shaw
Professors Janet Reaves, Marilyn Wedenoja, Claudette Braxton and Tara Grigsby

This presentation involves a discussion of our experience during a service-learning project in Jamaica over winter recess. The cultural differences in logic between American and Jamaican parenting styles are highlighted; specifically in relation to adolescents. The basic school experience for Jamaican natives are discussed as well.
Session A – Auditorium – Number 23
Who Will Care for the Caregivers: An Analysis of Elder Caregiver Support and Information Enhancement Act

Elizabeth Mainville
Professor Betty Brown-Chappell

Many times those who serve as caregivers are within the elder’s circle of friends and family (family caregivers). The caregivers are widely unpaid and untrained on the services they are providing to the elders. To assist family caregivers the Congress amended the Older American Act in 2000 to include the National Family Caregiver Support Program. One of the recent appropriations to be introduced is the Elder Caregiver Support and Information Enhancement Act of 2009 (ECSIA). This presentation analyzes the development of the demographic shift of individuals living longer in the United States, the policy proposal, and the feasibility of implementing ECSIA.

Session A – Room 301 – Number 34

Shared Parenting Legislation: Addressing Gender-Based Inequities in Child Custody and Support Policy

Selma Sinift
Professor Don Loppnow

More couples today divorce or separate than not, frequently resulting in tempestuous “custody battles.” The reality is that all too often the de-domiciling of a child’s parents lead to partitioning of the child’s parenting. Policymakers must be cognizant of implications for children facing what is essentially life with one parent over the other. To the detriment of the children, their parents, and society alike, current policies facilitate deleterious practices that serve to marginalize fathers’ positions in their children’s lives. This social injustice demands thoughtful, holistic, and most importantly, just evaluation—and compulsory modification—of today’s discriminatory policies.

Session C – Room 350 – Number 201
Exploring the Design, Construction, and Applications of Small Unmanned Aerial Vehicles

Nickolas Joseph Myers
Professors Jamal Bari, Ali Eydgahi and Moderick C. Greenfield

In today’s modern age of drone strikes by the military, and the cost of electronic technology becoming more and more affordable every day, one may wonder why there are not many small unmanned aircraft being used for useful purposes that are not violent. I am to designing, building and programming a model plane that is capable of autopilot flight, along with exploring its possible everyday, non-violent uses. The initial prototype is made of foam or a similar material with an autopilot system. Test results and findings of how to use this technology to benefit society are presented.

Session B – Room 330 – Number 118

Creating a Video Game: Mechanics, Graphics, Sound and Design

Mark Binkowski
Professor Pamela Speelman

This presentation describes the role of a team leader to create a video game. Three steps of production and how they are used to create a finished project in Game Maker are explained. Different elements used in creating a video game, and how the team dealt with time constraints to complete the game in a three-week deadline are also presented. Topics include, creating and balancing game mechanics, creating graphics and animation, sound engineering, and design elements to improve the quality of the game.

Session A – Room 301 – Number 33
Social Engineering

Adam Brenner and Zach Tansek
Professor Skip Lawver

When we hear the term “hacker,” we immediately think of someone who is very good at computers and could barely function in any social environment. However, a more dangerous side of malicious computer use preys on this stereotype and can take down even the most secure computer. Social engineering is the art of manipulating people into doing something against their better judgment or policy, and this presentation attempts to expose this relatively unknown side of computer hacking in order to promote education and training.

Session B – Room 304 – Number 105

Cyberbullying and the Law

Mary Alice Kheir and Joe Ciaravino
Professor Skip Lawver

Bullying has been around for quite some time, however, cyberbullying is a fairly new phenomenon. The digital age brought a whole new way for students to bully their peers and research into the topic is critical. The Columbine massacre was the most deadly school shooting in American history at the time, and after Columbine, many schools began looking at bullying, including in Cyberspace bullying, as a serious problem. Schools are not certain how far to extend their jurisdiction.

Session C – Room 330 – Number 189

Dynamic Analysis of Buffer Overflow Vulnerabilities

Cory Joseph Skowronnek
Professor William Sverdlik

Buffer overflows are one of the most prevalent vulnerabilities in modern software. Known buffer overflow issues have pervaded the Internet for years. In this presentation I define the problem, provide an example as well as a taxonomy, and propose possible post-production/operating system level solutions.

Session B – Room 204 – Number 86
NCAA Division I Athletic Directors’ Leadership and Follower Effects

Brittany Joyce Galloway
Captured in Metal
Kristin Lynn Rheinheimer  
Professor Gretchen Otto

Metalsmithing can range from jewelry to hinges to raised vessels. Raising is a technique that is under appreciated, and yet, when it is done with well-practiced craftsmanship, it can surpass expectations by transforming a simple bowl into a work of art. Raising has become my niche in metal. History, culture and nature all inspire and greatly influence my metalsmithing. However, landscape and topography have been the strongest influences in my raising. As in all art, metalsmithing builds off of other knowledge, inspiration, techniques, mistakes and practices.

Group 2

Growing Pains: How Age and Food Availability Affect Metabolic Rates and Locomotion in Tarantulas
Miranda Bassett  
Professor Cara Shillington

Juvenile animals tend to have higher energy expenditures due to increased growth rates compared to adults, which can be met with increased foraging activity. We studied two age groups of tarantulas and compared impacts of food availability and age on metabolic rates and locomotory activity. Groups were fed 20-25% of their body weight either every two weeks or every four weeks. Preliminary results indicate differences in growth but not locomotion between feeding groups.

Group 2
Decomposition Rates of Invasive Phragmites and Typha in Coastal Wetlands

Holly Brown  
Professor Kristin Judd

*Phragmites australis* and *Typha x glauca* are two non-native plants invading biologically-sensitive wetland ecosystems across North America. Both species produce large amounts of biomass each year. In this study we compared decomposition rates of *Phragmites* and *Typha* plant litter using the litter bag method. We placed litter bags in wetlands in the Detroit River International Wildlife Refuge in S.E. Michigan during the summer of 2012. Bags were collected twice during the summer growing season. There was a significantly greater percent mass loss of *Phragmites* litter compared with *Typha* litter after three months (p < 0.05). These results suggest that invasion by *Phragmites* can alter ecosystem function.

Group 1

The Effects of Culturally Relevant, Student-Centered Pedagogy on Student Understanding of Biological Concepts

Sarah Champion  
Professor Chiron Graves

Students from urban, high poverty schools score lower on standardized tests than students from rural and low poverty schools, especially in science. Culturally relevant pedagogy (CRP) and student-centered learning (SCL) have shown positive results in counteracting this negative trend. This project examined the effectiveness of lesson plans using a combination of CRP and SCL theoretical frameworks to help students from urban, high poverty schools increase their social awareness and knowledge of biological concepts.

Group 1

Accuracy of eDNA Analysis to Confirm the Presence of Blue Spotted Salamanders

Natalie Paige Colletti  
Professor Katherine Greenwald

All organisms shed trace amounts of DNA into their environment (for example, via fur or skin cells). Environmental DNA (eDNA) analysis is a technology that can determine the presence of a species in a specific habitat by amplifying its DNA from an environmental sample using species-specific primers. The goal of this research is to test the accuracy of this method by comparing eDNA analysis to data from 30 ponds already determined (through trapping and spotting methods) to have a known presence or absence of Blue Spotted Salamanders. Confirming the accuracy of eDNA analysis will help validate its use as a quick, cost effective technique for identifying habitats of endangered species.

Group 1
Studying the Functions of CELLULOSE SYNTHASE-LIKE Proteins Produced Using *Pichia pastoris*

*Taylor J. Dimmerling*
*Professor Aaron Liepman*

CSL proteins play a role in the synthesis of plant cell wall carbohydrates, including mannans (CSLA proteins) and glucans (CSLC proteins). The functions of other CSL proteins, including members of the CSLD and CSLK families, are not yet fully understood. To functionally characterize these proteins, a yeast-based expression system (*Pichia pastoris*) is being used to express CSLD and CSLK proteins. CoMPP analysis and in vitro enzyme activity assays are being used to characterize the functions of CSLD and CSLK proteins. Learning the functions of these proteins will improve the understanding of plant cell wall carbohydrate biosynthesis.

*Group 2*

The Effects of Origin Proximity on Fragile Site Breaks

*Katherine Anna Dziuba*
*Professor Anne Casper*

Fragile sites are regions of chromosomes that break when replication stress occurs in a cell. Break repair processes may result in deletion or amplification at fragile sites, which can affect tumor suppressor genes and proto-oncogenes. It has been proposed that a regional lack of origin sites in fragile site regions is responsible for breaks. When few origin sites are present, a delay in replication due to replication stress would lead to incomplete DNA replication in fragile site regions. The goal of this project is to insert an additional origin on a yeast artificial chromosome carrying DNA from a human fragile site so that the effect of origin proximity can be evaluated.

*Group 2*

Expression of the Signaling Protein Ephrin A-5 in *Xenopus laevis* Embryos

*Sarah Engmark and Deena Ali*
*Professor Robert Winning*

Eph receptors and ephrin ligands activate a cell-signaling pathway that regulates cell interactions during the embryonic development of vertebrates. Within this family, ephrin A-5 signaling protein binds to the Eph A-4 receptor. Data indicates that ephrin A-5 expresses earlier than Eph A-4. We are currently working on the knockdown of ephrin A-5 to discern function of its early expression. Since ephrin A-5 is expressed early in development in *Xenopus laevis* embryos, we hypothesize that embryonic development is dependent on this protein. Determining ephrin A-5’s function may provide a broader understanding of birth defects in humans.

*Group 1*
The Effects of Workout Intensity on Retention of Muscle Strength and Athletic Performance in Masters Athletes

*Dexter D. Hobdy*
Professor Howard Booth

Intense exercise can dramatically reduce the effect of sarcopenia, the normal aging trend toward loss of muscle mass, strength and athletic performance. Literature research and data collected from our survey help quantify the predicted advantage that intense exercise has in maintaining athletic performance for masters athletes over the decades. We compare masters athletic performances over time, with age-peer non-athletes and younger age groups. This study enhances our understanding of muscle strength physiology and the role of exercise intensity for all of us as we age.

*Group 2*

Development of Methods to Identify Genome Composition in Unisexual (Ambystoma) Salamanders

*Danielle Hulvey*
Professor Katherine Greenwald

Unisexual (all female) *Ambystoma* salamanders have a unique form of reproduction called kleptogenesis. They coexist with other bisexual salamander species in ponds, and in order to reproduce, unisexuals take sperm packages that are laid down by the males of the coexisting species. This creates a complex of salamanders that can have anywhere from two to five genomes, “stolen” from any of five coexisting species. The goal of this project was to find a set of PCR primers that amplify species-specific genome sections, to determine which other species’ genomes are present in the unisexual samples.

*Group 2*

Oh, Behave! Influences of Behavior on Prey Capture and Growth in Tarantulas (Lasiodora parahybana)

*Samantha Alice Isselbacher*
Professor Cara Shillington

Personalities (behavioral syndromes) in invertebrates are an emerging area of biological research that offers important insights into ecological and evolutionary connections. Personalities were investigated by observing shyness and boldness during feeding in tarantulas. Spiderlings were divided into high or low feeding treatments, relative to body mass. We compared behaviors, consistency in feeding patterns, and mass changes over monthly trials. Initial results suggest few trends in feeding behaviors, but higher-fed organisms exhibit greater mass gains.

*Group 2*
Mapping Break Locations in the Common Fragile Site on Human Chromosome X

Catherine Lorraine Kaminski  
Professor Anne Casper

All human chromosomes contain regions of instability referred to as common fragile sites. These regions are more susceptible to breaks when cells are under replication stress. These sites vary in length, most being between 200-500 kilobases long. This raises concern because some of these sites are located at or near tumor suppressor genes and proto-oncogenes. Chromosomes with alterations at the fragile site may result in proliferation of tumors. We are conducting experiments using fragile site FRAXB on human chromosome X. FRAXB has been inserted in a Yeast Artificial Chromosome (YAC), and we are determining the sequence and location of breaks in FRAXB in approximately 30 independent clones. From our results we are able to further evaluate the reasons for breaks in these sites.

Group 2

Locating the Breaks in the Fragile Site FRAXB Using the Yeast Saccharomyces cervisiae

Alicia Layer  
Professor Anne Casper

When replication of DNA in a cell is slowed, areas along DNA strands known as common fragile sites tend to break or leave unreplicated gaps at a much higher rate than other areas of DNA strands. Fragile site breakage can cause problems in cells, especially if they are in important genes such as tumor suppressors or proto-oncogenes. Using Saccharomyces cervisiae that carries an artificial chromosome with DNA from a fragile site on the human X chromosome, this experiment's purpose is to narrow down where breaks occur within the fragile site. Narrowing down where the breaks occur could offer insight as to what causes the break, which could eventually lead to treatments to prevent fragile site breakage.

Group 1

Comparing Wetland Invertebrate Communities in Phragmites and Typha Plant Litter

Alexandra Lepeschkin-Noel  
Professor Kristin Judd

Aquatic macroinvertebrates are affected by many factors including characteristics of the plant community. Once introduced into plant communities, invasive macrophytes Phragmites australis and Typha x glauca can replace native plant species. Both species have been shown to negatively impact plant diversity, but the effects on invertebrates are poorly studied. This study compares macroinvertebrate communities colonizing bags of Typha and Phragmites plant litter. Typha litter exhibited greater macroinvertebrate abundance but lower species richness and diversity. Species composition also differed between litter types. This suggests a difference in the way these invasive species affect higher trophic levels.

Group 1
A Higher Prevalence of Mitotic Recombination at Fragile Site FS2 in Saccharomyces cerevisiae

Shaylynn Miller
Professor Anne Casper

Instability at the genetic sequences known as common fragile sites can lead to alteration of a cell’s DNA. Genetic instability can have adverse consequences for cellular vitality. Uncontrolled cell division could result if mitotic recombination occurs in regions containing genes such as proto-oncogenes or tumor suppressor genes. Common fragile sites are prevalent throughout the human genome, and fragile site FS2 in yeast is similar to human common fragile sites. We have analyzed mitotic recombination events at FS2. The results suggest that mitotic recombination frequently occurs at FS2.

Group 1

Intestinal Fibrosis and Wound Healing in Experimental Crohn’s Disease: Effect of Anti-TNFα Treatment

Laura Reingold
Professor Brandon Groff

Debate exists about the effect of anti-TNFα treatment on wound healing and post-operative complications in patients with Crohn’s disease (CD). Our aim was to determine if anti-TNFα treatment affected incisional factors affecting wound integrity in a CD model. An experimental model of CD was used; cecal and incisional tissue was collected. Several measures were used to assess healing and disease activity. Control animals show poor healing in response to treatment, while diseased animals show improvement in the cecum and the incision. Thus, anti-TNFα therapy changes expression of key growth factors that affect wound healing differently depending on the context.

Group 2

Epigenetic Basis for Reproductive Isolation Between Species of European House Mice

Jumanah Saadeh
Professor David Kass

Speciation occurs by a variety of pre-zygotic and post-zygotic mechanisms. Little is known, however, about the genes and their regulation that lead to reproductive isolation. Epigenetics is a rapidly advancing field in which gene function is altered without changes in DNA sequence. We performed a genome-wide assay to investigate epigenetic changes that occur in hybrids of two related species of the European house mouse. We are analyzing the individual candidate genetic loci potentially involved in reproductive isolation to gain insights into the role of epigenetics in evolution.

Group 2
Tree Diversity and Density in Kruger National Park, South Africa: Impact of Elephant Overpopulation

Olivia Rose Scheffler
Professor Jamin Eisenbach

The African elephant population in Kruger National Park, South Africa, is rapidly increasing. This, in turn, increases browsing pressure on native plant species. In this study, elephant damage was assessed on four common tree and two shrub species in the park. Our results show elephants exhibit a preference for two tree species, Marula (Sclerocarya birrea) and Knobthorn (Acacia nigrescens). This feeding preference is negatively affecting populations of these two species and may lead to changes in habitat structure, culminating in the loss of forested bush area. This data can help conservationists make more informed management decisions.

Group 1

Can Native Fishes Successfully Clear an Inclined Sea Lamprey Barrier?

Sarah Rae Sherburne
Professor Ulrich Reinhardt

We tested whether a new type of in-stream migration barrier allows passage of native fish species while blocking invasive sea lamprey. An angled ramp with flowing water was placed in the Saline River. Seventy-two individuals of eight native species were monitored by automated video. Five species tried to swim up the ramp; three species successfully cleared the entire length. Probability of passage ranged from 0.85 for hognose suckers at the 10 degree ramp angle to 0.16 for green sunfish at 20 degrees. Data from two previous similar experiments in a lab setting showed that sea lamprey are incapable of clearing inclined barriers. Our experiment demonstrates that the inclined ramp method is a viable alternative to existing sea lamprey in-stream barriers.

Group 1

Temperature Preferences in Emperor Scorpions (Pandinus imperator)

Jessica Twydell and Jessica Rubio
Professor Cara Shillington

Animals require specific body temperatures to optimize physiological processes. As ectotherms, scorpions regulate temperature using their environment. Emperor scorpions are unusual among scorpions because they often live in groups. We studied temperature preferences of emperor scorpions to determine their optimal temperatures and the impact of group living. A thermal gradient from 15-35°C was used to determine temperature and neighboring scorpion proximity preferences. We compared temperature preferences among solitary animals to those in groups.

Group 2
A Student-Centered Approach to Teaching Biology in an After-School Program

Christopher Nicholas Valasin
Professor Chiron Graves

Students bring many preconceptions about the way the world works with them into science classrooms. These preconceptions can often lead to misconceptions that inhibit scientific understanding. For this study, middle school students were interviewed to determine their preconceptions about how organisms obtain and use energy. This data was used to develop and implement student-centered activities to promote a more scientifically accurate understanding of the topic.

Group 1

Characterization of Coaggregation Between Probiotic Gut Bacteria

Rachael Vasquez and Alexandra Palamaru
Professor Daniel Clemans

The human gastrointestinal (GI) tract is home to billions of bacteria ranging from $10^{13}$ to $10^{14}$ bacteria/ml, a portion of them considered probiotic. This type of microbiota often assists in metabolism by producing essential vitamins that the host cannot produce, such as vitamins K and B$_{12}$. The aim of this study is to characterize the protein adhesions and carbohydrate receptors that allow for coaggregation of probiotic bacteria of the human GI tract. Our study examines coaggregation between the predominant beneficial bacteria, including *Bacteriodes thetaiotaomicron*, *Clostridium sp.*, *Lactobacillus acidophilus*, *Eubacterium plexicaudatum*, and *Lactobacillus rhamnosus*.

Group 2

Dynamics of Offshore Benthic Algal Growth and Onshore Muck Deposition in Saginaw Bay (Lake Huron)

Whitney Marie Woelmer
Professor Steve Francoeur

Saginaw Bay (Lake Huron) has recently become subject to an overabundance of offshore benthic algal growth and muck-like deposits of rotting material on beaches. It is possible that offshore algal growth contributes to onshore muck deposition. Offshore and onshore samples from 2009-2010 were observed using light microscopy to determine the relative abundance and identity of the algal communities. These observations showed several important patterns within the communities, which can help lead to an understanding of the dynamics between offshore algal growths and onshore muck deposition.

Group 1
DEPARTMENT OF CHEMISTRY

Expression and Purification of a Cell Invasion Protein, FAM129B, in E.coli

Brittany Michelle Berger
Professor Hedeel Evans

FAM129B is a protein that is important for cell invasion. It has a molecular weight of 83 kDa (residues 1-746) with a plekstrin homology domain near the amino end and a proline rich region near the carboxyl end. FAM129B may promote cancer cell invasion by suppressing apoptosis. We have purified the FAM129B protein in E.coli by affinity chromatography and are characterizing its properties and oligomeric structure by gel filtration chromatography and cross-linking.

Group 2

The Effect of a Methyl Substituent on Product Stereoselectivity in an aza-Cope—Mannich Reaction

Antonios Marios Nickolaos Chionis
Professor Maria Milletti

We model the three-step reaction of a substituted oxazolidine to produce a formyl pyrrolidine using computational methods. The reaction is initiated by coordination of a Lewis acid to the oxygen center of the oxazolidine and leads to four iminium cation stereoisomers. Geometry optimization calculations on all transition states and intermediates are used to predict the stereochemical ratio of products. We compare results for oxazolidine systems with and without a methyl substituent and determine its effect on the stereoselectivity of the reaction. Our results will be used in the stereoselective synthesis of substituted pyrrolidines that mimic natural products.

Group 2

Overcoming Challenges in the Synthesis of Small Molecules with a Specific 3D Arrangement of Atoms

Cristian Chirosca and Antonios Marios Nickolaos Chionis
Professor Harriet Lindsay

Pyrrolidines are building blocks for biologically active molecules found in a number of medications, such as antibiotics and anti-cancer agents. The goal of our project is to develop an efficient, three-step synthesis for pyrrolidines to aid in the construction and evaluation of potential pharmaceuticals. Ours is a novel procedure that features a new version of a reaction called the aza-Cope rearrangement—Mannich cyclization as the key step. Our main concern is our ability to favor a particular 3D structure of the reacting molecules in this key step. To do this, we are developing a specialized catalyst that we anticipate will direct the reacting molecule toward a particular product.

Group 2
Air Quality on Campus During the Heatwave of 2012
Katelyn Ann Cichon and Sarah Dolan
Professor Gavin Edwards

Measurements of the concentrations of ground level ozone, an EPA regulated pollutant, have been made on the EMU campus since 2008. During summer 2012, unusually high ozone concentrations were recorded, concurrent with a heatwave that affected much of the lower 48 states. This unprecedented heatwave set many all time temperature records including, according to government statistics, 164 in the month of June alone. The data presented here discusses the link between elevated temperatures and ozone concentrations and how summer 2012 data compare to the five-year average of ozone concentrations. The human health impact of these ozone concentrations will be considered as well as likely projections for the impact of climate change on future ozone levels on campus.

Group 1

Developing DART-MS Methods for Identification of Organic Dyes in Historic Textiles
Calvin John Day
Professor Ruth Ann Armitage

Direct analysis in real time mass spectrometry (DART-MS) is a simple method for identifying a number of classes of dye compounds on textiles. Blue and red fibers from historic tapestries from the Detroit Institute of Arts collections yielded clear spectra for indigotin and several anthraquinones. Flavones like luteolin and apigenin were readily observed in wool, silk and cotton dyed with the most common natural yellow dyes. Many yellow and green colorant compounds are structural isomers. We report here results from samples of pure dye compounds on wool investigated under ionization conditions that induce fragmentation, and how these pseudo-EI spectra can be useful in differentiating some isomeric colorants.

Group 1

Synthesis of 1,2,4,5-Tetraaminocyclohexanes and Their Potential Use as Ligands for Platinum
Amanda Dewyer
Professor Timothy Friebe

Cisplatin (Cl\textsubscript{2}Pt(NH\textsubscript{3})\textsubscript{2}) is the most widely recognized member of a group of anticancer agents incorporating platinum and an amine ligand. While searching for other potential coordinating ligands, we discovered that platinum complexes have been made from 1,2-, 1,3-, and 1,4- diaminocyclohexane ligands, and it occurred to us that if we started with a 1,2,4,5- tetraaminocyclohexane having the proper stereochemistry, the ligand could coordinate two platinum atoms. After a literature search revealed that tetraaminocyclohexanes have never been reported, we set out to synthesize this potentially useful ligand. The results of this venture will be presented.

Group 2
Evaluating the Effect of a Chiral Catalyst on Stereoselectivity in an aza-Cope—Mannich Reaction

Amanda Dewyer
Professor Maria Milletti

Density functional methods are used to delineate the energy profile of the aza-Cope—Mannich tandem reaction leading to a substituted pyrrolidine. Activation barriers for the rate-determining step are compared to activation barriers for C-C bond rotations occurring before and after the step in order to determine where loss of stereoselectivity might occur. A chiral Lewis acid is used as the catalyst in an effort to improve stereoselectivity in the end product of the reaction.

Running Interference on Protein Aggregation: Non-Specific Peptide Inhibitors of Amylin Aggregation

Hector Figueroa
Professor Deborah Heyl-Clegg

Protein aggregation occurs in a variety of ailments, and inhibition of plaque formation may be important to treating these diseases. However, we often do not know whether the compounds we make to stop aggregation are exerting their effects due to specific or nonspecific interactions. We do not know to what extent any molecule in solution with an aggregating species will alter aggregation kinetics. To address this, we designed and synthesized several non-specific inhibitors of amylin aggregation, which may be used as controls for determining the efficacy of future potential inhibitors, as well as to shed light on the underlying biophysics of protein aggregation.

Development and Analysis of a Method to Synthesize Potential Building Blocks for Pharmaceuticals

Christopher L. Friebe
Professor Harriet Lindsay

Keeping in mind the ever-increasing need for pharmaceuticals, our research group is developing an easier approach to synthesizing building blocks for drugs in an eco-friendly manner. The reaction that we are concerned with is called the aza-Cope rearrangement—Mannich cyclization (ACM). We are striving to selectively form a single product in one of two possible 3D orientations. To do this, we use a specialized catalyst that also has a particular 3D structure in the ACM reaction, a technique not explored before. A second objective develops a high-performance liquid chromatography method to ascertain whether our reaction produces a single product.
Kinetic Analysis of the Effect of a Peptide on the DHO-ATC Oligomeric Complex from *Aquifex aeolicus*

*Bryan Harless*
*Professors Hedeel Evans and Deborah Heyl-Clegg*

*De novo* pyrimidine biosynthesis provides pyrimidine nucleotides necessary for the synthesis of DNA and RNA among other functions. Aspartate transcarbamoylase (ATC) and dihydroorotase (DHO) catalyze the second and third steps in the pathway, respectively. ATC and DHO form a functional dodecameric complex (DAC). A six-amino acid peptide (DHCEDD) intended to mimic a loop found on the DHO domain was synthesized and used to investigate the functional interaction of the DHO-ATC dodecameric complex. The peptide appears to compete with DHO for binding with ATC and affects the kinetics of the enzymatic activities in an allosteric manner, which may carry future implications for drug design.

*Group 1*

The Production of New Precursors of Medically Relevant Acyl Pyrrolidines

*Sherif Hassanien*
*Professor Harriet Lindsay*

The objective of this research is to produce various types of acyl pyrrolidines. These molecules are a common core structure in many medically active compounds. The production or synthesis is done by first constructing the precursor to acyl pyrrolidine, an oxazolidine. Because of some challenges associated with making our molecules, this process has required significant experimentation. The research focuses heavily on being more inexpensive and efficient than the current procedures used both in industry and other academic research. Using our research group’s methodology, producing acyl pyrrolidines is ultimately accomplished in only three steps, which makes the research quite novel.

*Group 1*

Evaluation of DART-MS for Detection and Quantification of Lipid Residues on Ceramics

*John Hopkins*
*Professor Ruth Ann Armitage*

Organic residue analysis of archaeological ceramics can provide great insight into diet and trade practices of past cultures. Lipid residues are of particular interest as they are the most likely to survive, and can yield a great deal of information, albeit at the expense of specialized instrumentation and a lengthy sample preparation protocol. We report on efforts to develop a DART-MS screening method for identifying samples that show the most promise for further analysis. Work is focused on improving the limit of detection for stearic and palmitic acids to a level consistent with authentic materials and improving precision through transmission DART sampling.

*Group 2*
Selection of Molecular Probes for Streptavidin Using Capillary Electrophoresis

Joshua Hunt  
Professor Jeff Guthrie

Our research project involved developing a method to select synthetic DNA strands, called aptamers, that can be used to bind to specific targets. Aptamers are selected by using a method called Systematic Evolution of Ligands by Exponential Enrichment (SELEX), where a library of different DNA sequences is exposed to the target of interest. The DNA that recognizes the target will bind, and the rest will not. Bound sequences can then be separated from the unbound sequences using methods such as capillary electrophoresis (CE). This process is repeated until only a handful of DNA sequences remain. We are currently in the process of optimizing the method by using streptavidin as the target.

Group 1

Choosing a Valid Molecular Mechanics Method to Model the PAI-1 Protein

Brittany Marie Jewell  
Professor Maria Milletti

In this work we examine the interaction between the PAI-1 protein and one of its inhibitors. PAI-1 inhibits the action of two key enzymes in the fibrinolysis pathway and has been associated with chronic disease states like cancer, obesity and heart disease. We model this large system using the ONIOM approach, where the bulk of the protein’s structure is analyzed using molecular mechanics (MM). Here we examine two MM methods and compare their suitability in modeling the strength of molecular interactions between the inhibitor and PAI-1’s binding site. Our results indicate that the Amber MM method is preferable to using the UFF method.

Group 2

Investigation of Water Quality Along the Huron River and Its Watershed

Jenny McGuckin, Joseph Eassa,  
Jeffrey Adam Loos and Taurean Marquise Bradley  
Professor Jose Vites

Water quality is critical to people, homes, wildlife, industry and recreation, and it has a profound effect on the quality of life for all living organisms that depend on it. In this study we present collection procedures, laboratory results, and data analysis interpretation for surface water samples of the Huron River as it passes through Washtenaw County down to the Lower Huron Metropolitan Park in Wayne County. Our water quality assessment focused mainly on the parameters of pH, alkalinity, buffer capacity, dissolved oxygen, and metal concentration of iron and manganese, as well as the results from EPA Standard Method 300.0 for the determination of inorganic anions by ion chromatography.

Group 1
**fnq8: An Aminotransferase in the Furanonaphthoquinone Pathway**

*Elizabeth Miguet and Michael Priestley*
*Professor Jamie Scaglione*

Meroterpenoids, a class of naturally occurring compounds synthesized by a variety of bacteria and fungi, have been shown to have a wide range of biological activity. These compounds all share a biosynthetic route that produces a common carbon ring skeleton. All have a peculiar gene with unknown function that shows significant similarity to an aminotransferase, an enzyme responsible for introducing nitrogen. However, there is no nitrogen in any of the final meroterpenoid products. We focus on understanding the role of this important enzyme in meroterpenoid biosynthesis, using the aminotransferase *fnq8* found in the furanonapthoquinone pathway in *Streptomyces cinnamonensis* as our model.

**Group 1**

**Lipid-Tail Modified Mycosubtilin Analogues**

*Briana Moe*
*Professor Jamie Scaglione*

Antifungal research has fallen by the wayside to antibacterial and other pharmaceutical research for many years, yet systemic fungal infections are cause for many deaths among immune deficient patients. Mycosubtilin, a natural antifungal produced by *Bacillus subtilis*, offers new possibilities for pharmaceuticals. However, mycosubtilin lacks cell selectivity, having detrimental effects on human red blood cells. Structurally, mycosubtilin is a cyclic peptide with a long lipid tail. Our goal is to synthesize mycosubtilin analogues with novel lipid tails to understand mycosubtilin’s mechanism of action and create compounds that will be selective toward fungi.

**Group 2**

**Variations on a Theme: Four-Step Synthesis of Analogues of a Potential Chemotherapy Drug**

*Michael Priestley*
*Professor Harriet Lindsay*

Lentiginosine is a naturally-occurring compound having two rings. Its structural relatives are many, but one series varies by the number of carbons in either of the two rings. The naturally occurring molecule and its mirror image have displayed anti-diabetic and chemotherapeutic properties. To investigate the possibility that structural relatives may also have these properties, we have developed a four-step chemical synthesis of these non-naturally occurring molecules. Our strategy allows for easy modification of the size of either ring; it will allow us access to a number of structural relatives.

**Group 2**
Computational Study of PAI-1 and Its Inhibitors
Mordechai Sadowsky
Professor Maria Milletti

PAI-1 is a key protein involved in fibrinolysis, the process by which blood clots are broken down in the body. In some cases it is desirable to inhibit PAI-1, thus increasing the rate of fibrinolysis. In addition, inhibition of PAI-1 may correlate directly to better recoveries from several cancers. In this work, we model the interaction between PAI-1 and one of its inhibitors, and examine the effect of placing water molecules in the protein binding site. We optimize the position of the inhibitor and the water molecules and calculate the strength of molecular interactions. Our goal is to identify the factors that determine the effectiveness of inhibitors.

Group 2

Characterization of Silicon Phthalocyanine Oligomers by DART-MS and ESI-MS
Erika Van Goethem
Professor Vance Kennedy

This research investigates the synthesis, separation and characterization of the monomer, dimer, trimer and tetramer forms of cofacial, oxygen-bridged silicon phthalocyanines (SiPc). Past work has provided characterization by UV-vis spectroscopy and 1H-NMR spectroscopy. New work concentrates on additional characterization of the SiPc using the Direct Analysis in Real Time-Mass Spectrometer (DART-MS) and Electrospray Ionization-Mass Spectrometer (ESI-MS). Analysis of both the parent peaks and the isotope patterns are discussed.

Group 1

Energy Profile of an aza-Cope—Mannich Reaction Leading to a Substituted Acylpyrrolidine
Alyssa Winkler
Professor Maria Milletti

The reaction pathway for the tandem aza-Cope rearrangement and Mannich cyclization reaction leading to a substituted acylpyrrolidine is mapped using density functional methods. Activation barriers and relative energies of intermediates for the four possible stereoisomers are calculated and used to predict the ratio of the product stereoisomers. We examine the effect of placing a sterically demanding phenyl substituent on the double bond of the starting material. These results are compared to those of acylpyrrolidines that lack a ring substituent.

Group 2
Detection of Cellular DNA Damage from UV Radiation and Benzo[a]pyrene Using Capillary Electrophoresis

*Chelsea Wisnewski and Eric Brooks*
Professor Jeff Guthrie

The purpose of this research was to use capillary electrophoresis with laser-induced fluorescence (CE-LIF) to monitor the DNA adduct formation in human cells when exposed to two Group 1 carcinogens, UV radiation (UVR) and benzo[a]pyrene (BaP). After exposure to BaP and/or UVR, the cellular DNA was extracted. Primary and secondary antibodies (Abs) were used to fluorescently tag the damaged DNA sites and CE-LIF was used to separate the DNA-bound from unbound Abs, and to detect the amount of DNA damage. The resulting electropherograms show that the increasing doses of BaP and UVR increase the amount of DNA damage. This method can be used to help determine mechanisms of carcinogenesis.

Group 2

**DEPARTMENT OF COMMUNICATION, MEDIA & THEATRE ARTS**

An Integrated Arts Unit in the Elementary Classroom: How are Symbols Represented in the Community?

*Madeline Pashnik*
Professor Meriah Sage

This presentation focuses on using arts integration to explore community through the lens of symbols with students in an elementary classroom. Symbols are integral to every part of life, and visual literacy is needed to function within society. In this unit, students analyze the ideas of community and symbols through drama and visual art. The students use this new knowledge to identify symbols in their community, create their own works, and discover the many ways culture can be represented through symbols. The unit culminates in a class mural and theatre performance based on symbols to portray information and an appreciation for their community.

Group 1

Research Marketing: A Study of Patron Loyalty

*Christopher John Zavac*
Professor Ken Stevens

Arts marketing research presents evidence that onsite experiences contribute to patron loyalty and repeat attendance. The purpose of this project is to determine the effectiveness of a variety of activities designed to encourage repeat attendance at EMU Theatre events by: (1) creating onsite activities that engage the patron, e.g. mask making, (2) measuring the impact of that activity through audience surveys and observations by a skilled marketing professional, and (3) for purposes of comparison conducting a study of the onsite experiences practiced at various local theaters.

Group 1
DEPARTMENT OF COMPUTER SCIENCE

Team-Based Computer Game Development
Anthony DiPirro and Kokouvi Djogbessi
Professor Matthew Evett

We developed a novel, 3D computer game using Unity, a modern game engine and modeling software. In designing the game we used best-practice principles such as funativity and flow. Dropbox, a cloud-based storage utility, was used to facilitate team-based development. The project demonstrates the methods a small team can use to quickly create a playable, modern computer game.

Group 2

Lego Sumo Robot
Gregory A. Thomas
Professor Li Zhang

Lego NXT robotic kits are used in educational settings to teach students about robotics, engineering and programming. One common challenge for Lego robot builders is to push other’s robots in a sumo challenge. This presentation demonstrates one such Lego sumo robot and examines the value of robotic kits in education.

Group 2

DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Does A Location Shape Who You Are?: Saint Helen, Michigan
Ashley Bentz
Professor Derek Mueller

Saint Helen is a small northern town in upper Michigan. In an interactive poster presentation, the presenter analyzes this location and its importance using a choral method of invention. Photographic, video and audio elements all come together to create an image of the town. The project also incorporates maps, makes reference to scholarly journal articles, and draws upon other sources to relate memories and associations to bigger topics and questions, such as how childhood experiences with music influence development. The digital poster, built with Timeline JS, also invites the audience to consider their own answers to the question, “Does a place really shape who you are?,” which is the pivotal research question motivating this project.

Group 1
The Tilt of the Boron Triangle in Tourmaline
Charles Badgeow  
Professor Christine Clark

The tourmaline mineral group is a set of complex borosilicate minerals with much to tell us about Earth’s processes. Past research has revealed numerous mysteries regarding the structure of the boron triangle within tourmaline, especially as it bonds to the Z and Z’ cation sites. Although the Z and Z’ are nominally the same site, they have different bond-lengths to the \((BO_3)^3^−\) site. The Z’-site also has a greater effect on the stereochemistry of the boron triangle. We hypothesize that this variation is related to the differing angles between the Z- and Z’-sites and the boron triangle, and analyze a database of 99 tourmaline samples to determine the validity of our hypothesis.

Variations in the Tetrahedral Ring in the Tourmaline-Mineral Group
Enis Guzelaydin  
Professor Christine Clark

Povondraite is a complex borosilicate belonging to the tourmaline-mineral group. This particular species of tourmaline has a larger cell volume and expanded X-, Y-, and Z- sites in its crystal structure compared to other observed species. Interestingly, the T- site, which would be expected to either be smaller or expand with the other sites, stays the same size relative to other observed species of tourmaline. Using a database of tourmaline crystal chemistry, I investigate this observation by looking for trends in bond-lengths and volume to determine how the increased size of the povondraite cell is accommodated by the tetrahedral ring containing the T-sites.

Landscape Stability in the Upper Allegheny River Valley
Jarrett C. Hale  
Professor Todd Grote

I used soils, stratigraphy, sedimentology and archaeology data to reconstruct past landscape conditions in the Upper Allegheny River Valley. The resultant dataset indicates that over time the Allegheny River has shown signs of stability and signs of instability that meandering streams are known to exhibit. Instability is largely registered as terrace remnants and sediment unconformities, whereas stability is reflected in soil profile development and human occupation. The timing of stability and instability phases is constrained by radiocarbon dating and cultural artifacts.
Compendium of Early Paleozoic Noncalcified Macroalgae

Kara E. Marsac
Professor Steve LoDuca

For this research project, information was compiled on all known fossils of marine plants (i.e., noncalcified macroalgae) that lived during the early part of the Paleozoic Era (540-400 million years ago). For each species described in the literature, an entry was constructed that included a photograph of a representative specimen, locality information and age. This is the first time that all of this information has been gathered in a single document, and this compendium, which comprises over 100 species and 120 occurrences, serves as a valuable resource for future studies of this important group of early life.

Group 1

Correlation of the Dundee Formation and Detroit River Group (Devonian) in Southeastern Michigan

Thomas Minier
Professor Steve LoDuca

A new source of subsurface geologic data for the Dearborn area was recently obtained in the form of bedrock cores drilled by the Dearborn Department of Public Works, which were donated to the EMU Geology program. For this study, one of these cores was measured in detail and correlated with cores from other areas to construct a high-resolution geologic cross-section through limestones and dolostones of middle Devonian age in the southeastern part of the Michigan Basin. Notably, parts of the study core are rich in hydrocarbons.

Group 1

DEPARTMENT OF MATHEMATICS

Learning and Teaching Problem Solving for Elementary School Students

Emma Hagan and Hannah Brokaw
Professor Gabriela Dumitrascu

The purpose of this project is to learn how to create activities for elementary school students about the generalization process in mathematics, and to look for ways to scaffold student thinking during problem solving. Research in educational psychology has shown that in order to participate in an activity of generalization in mathematics, students should go through a three step process: analysis (breaking down material into its constituent parts), synthesis (putting elements together in a new format), and abstraction (deriving knowledge from the given information). In this project we apply the theoretical description of generalization to the level of elementary school mathematics.

Group 1
Modeling Pollutants in “New Car Smell”

Payge Shelton  
Professors Andrew Ross and Gavin Edwards

Automobile manufacturers are currently attempting to improve air quality inside automobiles. This includes understanding the outgassing of volatile organic compounds that causes “new car smell.” In this work, the results of a simplified experiment are considered as an approximation to this outgassing. A custom membrane that emits toluene into an air chamber with a continuous stream of clean air flowing in is considered. We have modeled the outgassing rate in two ways, once by fitting some common curves, and again by a discretized diffusion model. The curve fitting shows that a lognormal fits better than a surge function. The diffusion model is harder to compute but offers more explanatory power in detailing the changing rate of outgassing with time.

Group 1

DEPARTMENT OF PSYCHOLOGY

The Relation Between Close Father/Daughter Interactions and Satisfying Romantic Relationships in Adulthood

LaSonia Forte  
Professor Natalie Dove

This study examines the association of close father/daughter relationships with satisfying adult romantic relationships for the daughters in adulthood. It was hypothesized that daughters who had closer relationships with their fathers would be more satisfied with their romantic relationships as adults. Undergraduate student participants completed a survey regarding their level of closeness with their father, level of satisfaction with their romantic relationships, and demographics. Results did not support the hypothesis; daughters who were closer to their fathers reported less satisfaction with their romantic partners. Reasons for this surprising relation will be discussed, as well as implications for this finding for future research and clinical practice.

Group 2

Visuomotor Adaptation and Its Relationship to Dementia

Molly Eileen Gilmartin and Jeffrey Schaffert  
Professor Jin Bo

Declines in the ability to adapt to the environment have been found in normal aging (e.g., Heuer, 2008). Patients with different types and severity of dementia demonstrate substantial performance differences in adaptation tasks (e.g., Paulsen, 1993). The current study examines the effects of aging and dementia on visuomotor adaptation. Older adults are asked to control a joystick with 30-degree rotation during the adaptation trials. They will be given either normal or enlarged error feedbacks. It is predicted that the demented participants can adapt better with enlarged feedback than the normal feedback, suggesting the importance of feedback mechanisms in aging.

Group 2
Retaining One’s Maiden Name Upon Marriage:
A Cost/Benefit Analysis for Females

Linda Hauer, Andrea Schwab and Jessica Gibbons
Professor Natalie Dove

Recent research has shown that women who retain their maiden name upon marriage are seen as more valuable employees. On the contrary, we were interested in whether there are familial benefits for women who choose to take their spouse’s last name. More specifically, we hypothesized that women who take their spouse’s last name would be seen as more committed to the marital relationship, less likely to commit infidelity, and more traditional in terms of gender roles. To test this, college age participants completed several questionnaires regarding their perceptions of women viewed in wedding announcements. Implications of these results will be discussed.

Group 2

Critical Assessment of Criminal Profiling

Maria Karimova
Professor Dennis Delprato

The purpose of this presentation is to evaluate the scientific status of criminal profiling (also known as offender profiling and criminal psychology), a tool used in the criminal justice system to assist in the identification of an unknown offender based on crime scene analysis. Media portrayals and common misconceptions are presented parallel to an analysis of literature that provides a range of scientific evidence for this misunderstood and underrepresented career field. Although the literature both supports and questions its scientific status, it is generally agreed upon that the field is in need of improvement.

Group 1

The Influence of Recall Fluency on Stereotypic Thinking

Max Monahan and Troy G. Deskins
Professor Rusty McIntyre

People base their prejudices on simplistic thinking, and not upon thoughtful deliberation. To study this, participants completed an experiment on how stereotype recalls influence prejudices. The goal was to understand how recall fluency might have a significant impact on how individuals display prejudice toward African-Americans. In this experiment, recall fluency refers to the ability to recall situations in which an African-American behaved in accordance to a negative African-American stereotype or counter to a stereotype. The applications of these recall tasks may serve to help reduce an individuals prejudice and positively influence how individuals perceive their stereotypic beliefs.

Group 1
How Early Life Experiences Correlate with Perceptions of Women’s Roles in the Workplace

Jazmin Jewel Rodgers
Professor Natalie Dove

The purpose of this research is to examine how early life experiences and upbringing correlate with perceptions of women’s roles in the workplace. Variables such as one’s family and environmental structure, parental roles and economic influences can mold perceptions of a woman’s performance and rank in an organizational environment. These environmental precursors and the perception of women’s roles in the workplace can affect how women contribute to a company. This research can benefit companies as they seek to improve employee morale and maintain a positive environment overall.

Group 2

Does Typing Ability Affect the Degree to Which Sleep Protects Against Motor Learning Interference?

Danayzha Williams and Rhonda Caldwell
Professor Jin Bo

Sleep plays a role in various aspects of memory consolidation with motor sequence learning quickly becoming a paradigm of study. Other research in this lab has increased our understanding of off-line gains in memory by showing that sleep helps to protect against interference in learning. Pilot data indicates that interference introduced after nocturnal sleep will not have a negative effect on learning whereas interference introduced prior to nocturnal sleep will result in less off-line gains in performance. It is hypothesized that typing ability will affect consolidation such that the greater the typing ability the more robust the effect. Data and implications will be discussed.

Group 2

DEPARTMENT OF SOCIOLOGY, ANTHROPOLOGY AND CRIMINOLOGY

Using the Myer’s-Brigg’s Personality Inventory to Test the Validity of Zodiac Sun Sign Descriptions

Nahal Lily Khalatbari
Professor Cynthia Gabriel

The legitimacy of how well a zodiac sign can determine the personality characteristics of an individual is a divisive issue. Those who doubt its accuracy argue that there is no scientific evidence for the claim and that the descriptors for each sign are too vague. Proponents of astrology offer a counterclaim that the position of the sun at birth does play a role in the developing of our personalities. In order to investigate this issue, I will administer the Myer’s-Brigg’s personality inventory to my subjects. Being such a widely used and scientifically supported test, I will objectively compare the results to the description of each individual’s sun sign and test for a correlation.

Group 1
DEPARTMENT OF WOMEN’S AND GENDER STUDIES

The Effects of Toys and Books on the Gender Socialization of Young Children

Emma Hagan
Professors Suzanne Gray and Solange Simoes

A first glance may deem children’s play as anything but gendered, especially in today’s world. Yet through a closer investigation using feminist theory, children are indeed exposed to gender socialization as early as age two. Toys and books are two aspects of such socialization explored further through a literature review and academic service-learning at EMU’s Children’s Institute. It is due to their great impact on young children that these stereotypes must be challenged.

Group 2

College of Business

DEPARTMENT OF MANAGEMENT

Marketing for American Diabetes Association

Ashley Henderson
Professor Jean Bush-Bacelis

Throughout the fall 2012 semester, I worked with the American Diabetes Association in Southfield to aid in the development of the National ID Day event on November 12, 2012. National ID Day is a program that falls under the umbrella of the Live Empowered program. The goal of Live Empowered is to reach out to the African American community around the country to inform their community of the risks of developing diabetes and how to live with diabetes. There are three main objectives of this project: (1) recruit local Detroit churches to participate in ID Day (2) create and manage a Twitter and Facebook page for the Live Empowered program, and (3) follow up with the churches that participate.

Group 1
Cultural Adaptation Leads McDonald’s Success in Asia

Rongyan Xu
Professor Elif Persinger

Although we live in a globalized world where tastes and preferences of consumers are similar for many products, companies still have to offer culturally adapted products to be successful in the global marketplace. One powerful example that shows cultural adaptation of the product characteristics leading to success is McDonald’s offering of different menu options in different countries. In order to illustrate, the menu options of McDonald’s in three Asian countries will be presented: China, Japan and India. The relevant cultural characteristics of these countries will also be discussed.

Group 1

A Comparison of Methods for Promoting Theory of Mind in Children with Autism: A Pilot Study

Ashley Jean Dellock
Professor Christine Scott

Children with Autism Spectrum Disorder (ASD) experience unique language difficulties that are attributed to Theory of Mind (ToM) deficits. ToM, which requires the ability to understand other peoples’ mental states, develops later in children with ASD as compared to typical children. Past studies have researched simple false belief tasks to measure ToM ability. More recently, however, four basic presentation models have been examined: paper-based, puppets, in-vivo (live) and video modeling. The purpose of the current study is to simultaneously compare these models to investigate which of the four is the most effective for promoting ToM in children with ASD.

Group 2
Aphasia: Acquired Speech and Language Challenges
Megan Felisky
Professor Linda Polter

Imagine how it would feel to no longer be able to communicate effectively with your friends and family. People who have aphasia experience this on a daily basis. Aphasia is a language-based disorder that results from having strokes or traumatic brain injuries. There are multiple forms of aphasia that can affect expressive or receptive language, as well as a combination of both. This project highlights the different types of aphasia, various therapies used to treat individuals with aphasia, and the impact of community support.

Group 2

Understanding Inclusion: The Importance of Accessibility for Student Involvement
Brianne Noelle Gregware
Professor Linda Polter

For some students at EMU, there are physical barriers that keep them from feeling included in their day-to-day classes as well as in extra-curricular activities. At the 2012 Symposium, this presenter identified problem areas on campus that prevented full inclusion for students with disabilities. Based on that research, improvements were made over the summer; however, there is still work to be done. This project demonstrates the presenter’s ongoing efforts to identify physical barriers that may challenge the life of a college student with a disability. By ascertaining these barriers and providing mitigation recommendations, EMU can continue to offer equal opportunities for all students.

Group 1

DEPARTMENT OF TEACHER EDUCATION

An Evaluation of Exemplary Texts for the Common Core Standard
Megen Snyder and Elizabeth Drada
Professor Linda Williams

The Common Core State Standards include a set of exemplary tests that model the complexity, quality and range of texts appropriate for in-depth instruction and the development of critical thinking in elementary students. For this project, we will evaluate several exemplary texts and with this data, develop a list of comparative texts that meet the same standards. Our purpose is to generate a larger collection of exemplary texts that can be used by elementary teachers as a foundation for high quality reading instructions across diverse settings.

Group 1
Analyzing Artwork:  
Creating Portfolio Reports in Early Childhood Education  
Megan Murphy Truxall  
Professor Martha Baiyee  

Early Childhood teachers can learn an extraordinary amount of information based on a child’s work sample. If we look more closely, these writing and drawing samples are more than meets the eye. Through careful observation and analysis, teachers can learn about a child’s growth and development. This information can then be evaluated, and used to create a portfolio report, which details the child’s development, as well as give suggestions for future activities that can continue to enhance the child’s progress. An exemplary portfolio report will be shared as a poster presentation.

Group 1

College of Health and Human Services

SCHOOL OF HEALTH PROMOTION  
AND HUMAN PERFORMANCE

NCAA Division I Athletic Directors’ Leadership and Follower Effects  
Brittany Joyce Galloway  
Professor Thomas Cieslak

The project objective was to cultivate a valid and reliable survey for collecting relevant and accurate data to improve sport organizational performance and satisfaction. Specifically, the questionnaire would measure leadership characteristics (e.g. style, gender and sex) of the athletic director (AD) and follower effects (e.g., perceptions and attitudes) of the staff. This poster presentation will discuss the proposed study that examines how the Assistant AD (n=124) perceives their AD’s competencies and evaluates their AD’s skills. The proposed questionnaire was developed with Dillman and his colleagues’ (2009) criteria to assess and improve an existing instrument for data collection.

Group 2
Stakeholders’ Perceptions of Head Trauma in Ice Hockey Caused by Physical Force and Violence

Brandon Markiewicz and Kaitlin Moffett
Professor Thomas Cieslak

The project objective was to develop a valid and reliable instrument for collecting relevant and accurate data to improve sport organizational policies and practices. This poster discusses the management of head trauma and injuries of amateur and professional athletes related to body checking, fighting and concussion safety. Stakeholders’ sensitivity and overall awareness to head trauma and injuries were evaluated in addition to their perceptions of policy and practice effectiveness. The objective was achieved utilizing Dillman and his colleagues’ (2009) questionnaire development criteria to assess and improve a survey instrument for data collection.

Performance Enhancing Drugs: A Study of Predictable Factors and Genetic Susceptibility

Kaitlyn Vincek and Tyler Vandeberghe
Professor Thomas Cieslak

The project objective was to develop a valid and reliable instrument for collecting relevant and accurate data to improve sport organizational policies and practices. This presentation discusses the management of interscholastic student-athletes by correlating their perceived body type, sex, athlete status and level of competition with their susceptibility to performance-enhancing beverage, supplement and drug use. This information will assist sport managers in identifying at-risk athletes and understanding their motives. The objective was achieved utilizing Dillman and his colleagues’ (2009) questionnaire development criteria to assess and improve a survey instrument for data collection.

SCHOOL OF HEALTH SCIENCES

Soy Consumption: Potential Health Benefits and Risks

Callie Louise Gavorek
Professor Anahita Mistry

The intake of soy is controversial. It contains high quality protein and is rich in minerals such as iron, calcium and magnesium. Soy also contains phytic acid, trypsin inhibitors and glyceollin I, all of which act as growth inhibitors. The debate of soy’s effect on disease stems from its isoflavones (genistein, daidzein, and glycitein) and their estrogenic activity. This presentation critically reviews scientific literature to better understand the nutritional properties of soy, the variation of soy intake and the incidence of cancer between different geographical regions, the discrepancy between animal and human research, and the mechanisms by which soy affects cancer growth.

Group 2
Plant-Based Diets and Human Health
*Erin Geldermans and Angela Wortley*
Professor Anahita Mistry

Plant-based diets that are centered on fruits, vegetables, whole-grains, legumes, nuts and seeds are gaining popularity. Plant foods are rich in vitamins, minerals, phytochemicals and fiber, but lack cholesterol. They thus confer many potential health benefits. This presentation reviews scientific studies on the specific health effects of plant-based diets, with an emphasis on heart disease, type 2 diabetes, and certain cancers. A meal plan that meets dietary recommendations will be provided to demonstrate that a person with a busy lifestyle can follow this diet without encountering nutritional deficiencies.

**Group 2**

Development of a Model: Analyzing Probiotic Growth and Production in a Simulated Environment
*Elyssa Rautiola*
Professors Lynne Shetron-Rama and Steven Pernecky

Interest in the determination of the mechanism by which probiotic bacteria in the GI tract thrive and produce short chain fatty acids (SCFA) has greatly increased in the recent past. In order to study this mechanism, a model is being developed that will be used to create an in vitro anaerobic system using a specialized bioreactor. Using this model, optical density, colony forming units, pH and SCFA are measured, providing insight on the synergism between different strains of bacteria. The purpose of this study is to understand the mechanism behind the production of SCFA in an anaerobic environment.

**Group 2**

SCHOOL OF NURSING

Peer Mentoring for Nursing Students: Creating a Pilot Program
*Michele L. Gardiner*
Professors Laurie Blondy and Sherry Bumpus

The School of Nursing at Eastern Michigan University is known for its challenging curricula. Successfully navigating the program is best accomplished with support from many sources. Nursing student peer mentoring is shown to be an effective method of support for students, including help in reducing anxiety and increasing student confidence. Based on research of other mentoring programs and demand by the current student population, a pilot program for the nursing students at Eastern is planned for fall 2013.

**Group 2**
Alternative Medicine Causing a Caustic Environment for Surgical Trauma Patients

*Thomas Richard Vasko*

Professor Sandra Restaino

Fifteen million Americans use herbal supplements and vitamins. Nearly 37% of Americans use alternative medicine, spending 3.87 billion dollars. Patients who do not disclose all medications, including herbal supplements, are at increased risk for medication interactions and adverse effects from anesthesia while in the operating room. This research provides scholarly evidence that supports the need for patients to disclose all medications, including over-the-counter and herbal supplements to their caregivers. Patients who fail to disclose this information are at increased risk of adverse events that may be life threatening.

*Group 2*

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SCHOOL OF SOCIAL WORK

The Impact of a Memory Box Activity on Relationships Between Residents and Staff of a Long Term Care Facility

*Camilla A. Reynolds*

Professor Elizabeth Schuster

Staff working in Long Term Care (LTC) facilities engage in varying activities with the residents to improve their quality of life. Recently, a new activity has been developed that encourages staff and resident involvement: the memory box activity. This activity consists of residents and staff working together to create a box filled with resident’s memories, including things from their life that were important to them: hobbies, pictures or work items. This activity gives staff a chance to get to know the resident and her or his life story. This study determines the impact participation that a memory box activity has on relationships between staff and residents.

*Group 1*

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Residents of a Domestic Violence Shelter: A Needs Assessment for Post-Shelter Living

*Amber Smith*

Professor Barbara Walters

My project goal was to conduct a needs assessment about what factors are most important to survivors of domestic violence in terms of post-shelter living. While volunteering at a domestic violence shelter, I observed that survivors feel more empowered when they are able to have a voice in what services they get. I also saw a focus on immediate crisis intervention, and I wondered about the role that long-term stability planning could play. I created a survey given to survivors living in a domestic violence shelter that asks the survivors to rate how important different services of post-shelter living are to them e.g. obtaining housing, receiving counseling, and seeking employment, etc.

*Group 1*
Casualties of the Drug War

Allan Wachendorfer
Professor Don Loppnow

The history of substance abuse, as we know it, dates back to the early 1800s. Over time, ad hoc legislation created an unstable and ineffective set of policies attempting to control drug use. The first attempt at a major overhaul of drug policy was the Comprehensive Drug Abuse Prevention and Control Act of 1970. This was essentially the start of the “War on Drugs.” Since then, laws have increasingly become more tertiary, in effect turning the War on Drugs into an unsustainable attempt to control drugs through incarceration and wasted efforts on interdiction. A qualitative study examines how these policies affect local agencies and their ability to treat drug addiction.

Group 1

College of Technology

SCHOOL OF ENGINEERING TECHNOLOGY

Optical Shear Responsive Waterborne Graphene Dispersions and Their Advanced Coatings

David Ager
Professor John Texter

Ionic liquid-based monomers are used to produce stimuli responsive nanolatexes and triblock copolymers. These materials are excellent stabilizers and we demonstrate the facile dispersion of graphene into water at or very close to the completely exfoliated limit. We find that these dispersions are opto-rheological fluids when sheared. We also demonstrate the coating of these dispersions on various hard and porous substrates to make advanced conductive materials. The stimuli responsiveness imposed by various anions is presented and discussed, and the use of this responsiveness in coating thin films is demonstrated. Layer-by-layer composite films of alternating graphene and poly(styrene sulfonate) made by aqueous dip coating are presented and characterized.

Group 1
EPA Regenerative Braking Bicycle Wheel
Jacob Ellison, Jared Chipman, Sean Duggan, Timothy Allen Florian and Tiras Hill
Professor Harvey Lyons

This project involves the conversion of a standard 20-inch bicycle wheel into a retrofit, hydraulic-powered wheel. The wheel harnesses energy in a high-pressure accumulator that will power a drivetrain. The front wheel converts braking energy from deceleration to fluid velocity at high pressure. The braking is done by an electronic clutch that is powered by a series of three, nine-volt batteries. The mechanical energy from braking is converted into fluid velocity that is stored and used for re-acceleration after a stop. The high pressure fluid goes to a pump that pumps the fluid to a mechanical motor that converts fluid energy into mechanical energy by the use of gears that turns the drive wheel. The high pressure fluid velocity (about 2500 psi) is close to 70% efficient.

Group 1

SCHOOL OF TECHNOLOGY STUDIES

Air Rage: Measuring the Prevalence and Severity of Passenger Misconduct
Robert Chapin
Professor Phillip Tartalone

Passenger misconduct is relevant to the flying public and the entire aviation industry. Incidents can be a mild annoyance or can cause an emergency that distracts the pilots. Recent incidents also highlight the possibility of crew misconduct. Through research, the prevalence of “air rage” in different types of flight operations, as well as incident severity with regard to intervention are examined. A survey for crew members to record any number of incidents with information about whether a passenger was restrained, whether a pilot had to leave the flight deck as a result, and what happened in less severe incidents was administered. The results and their significance are presented.

Group 1

How Different Fonts Influence Perception and Their Use in Advertisement
Caitlin Simakas
Professor Paul Majeske

Fonts have a long and monochromatic history. Fonts come in an ever-expanding variety for just as many uses. Different fonts are used to delineate differences in content, be it for a poster, a book, a flyer or a billboard, and the type of font used imparts certain expectations to the viewer. This poster explores how people are influenced by fonts, what is automatically associated with different fonts, and how the advertisement industry uses this advantageously.

Group 1
Angular Motion: An Exercise in Style Combining Nature's Materials

Brad Lee Ruff
**Exploration of Pattern Making and Fiber Arts**

*Courtney Berry*
Professor Brooks Stevens

With two dresses I explore how the process of pattern making can be harmoniously combined with the art of fibers. This project reflects how human mechanisms of coping can form a person’s thought process and memory interpretation. In my work I find the geometric aspect of pattern making and the laborious nature of fibers techniques to be an excellent way to express artistic concepts.

**Zine**

*Brent Duncil*
Professor Ryan Molloy

This project builds on an understanding of different image making techniques and then combines them into a zine. I manipulate digital images using various techniques such as collage, scanning techniques, and stencil work.

**Open Book Workshop**

*Margaret K. Eley*
Professor Ryan Molloy

This project creates an identity for the Open Book Workshop that takes place at EMU’s Parsons Center during the summer. I created the poster, postcard and mock-up of the workshop’s website based on the natural, woodsy setting of this northern Michigan location.

**Academic Projects Center: Mural for Identity Package**

*Margaret K. Eley*
Professor Ryan Molloy

This project features a flexible brand identity for the Academic Projects Center (APC) in the Halle Library. The mural, which highlights the key activities of the APC, was the final part of the design and its installation took roughly three days to complete.
TEDxEMU Video

Colleen Elliott  
Professor Ryan Molloy

TED is a nonprofit devoted to “Ideas Worth Spreading.” TEDx was created in the spirit of TED’s mission and is designed to give communities, organizations and individuals the opportunity to stimulate dialogue through TED-like experiences at the local level. At TEDx live presenters and performers spark deep conversation and connections. This video introduces TEDxEMU.

Open Book

Colleen Elliott  
Professors Ryan Molloy and Kiel Mutschelknaus

The Open Book Workshop challenges ideas about the demise of books and encourages participants to explore unconventional forms books may take. Inspired by the experimental nature of the workshop, I used pages from a book to illustrate the title of the workshop and leave tools in the picture to demonstrate the hands-on focus of it.

Event Poster Series

Ryan Michael Huffman  
Professor Ryan Molloy

This poster series explores the development of a personal method and individual style. The three posters in this series feature eye-catching graphics and a colorful design, making the viewer wish the events shown were real. The graphical elements used include circles and half tones to tie all of the posters together.

A Pleasantly Confused Chair

Melissa Ann Judd  
Professor John DeHoog

Focusing on aesthetics, ergonomics and functionality, I blend traditional and modern woodworking techniques with characteristics of contemporary sculpture. Specifically, I utilize a process borrowed from canoe construction (strip building) and adopt some visual qualities from basket making. While appearing to be unrelated to furniture design, I use these techniques to construct a large cocoon-shaped chair from hundreds of thin wood strips. The chair form is comprised of multiple compound curves designed for comfort.

Series of Album Cover Designs

Arezo Korourian  
Professor Ryan Molloy

This album cover series for The Four Seasons, by Antonio Vivaldi, is based on different approaches and design methods: two methods that are based on typographic-only solutions, one image-based solution, and a fourth method that combines elements from all of the others.
Symposium 2013: A Designer’s Journey
*Kayleigh Lemon and Charlynn Searcy*
Professor Ryan Molloy

This project highlights the work behind the design of posters, mailers, t-shirts, a website, and this program booklet to portray the character of the 33rd Undergraduate Symposium. Viewing the Undergraduate Symposium as an opportunity to understand someone else’s thought process, we focus on the research process behind each presentation; thinking about the evolution and journey from ideation to actualization.

Open Book Workshop
*Bonnie Kay Lobbestael*
Professor Ryan Molloy

This postcard, which unfolds as a double-sided poster, is part of the promotional materials for an experimental book workshop, Open Book. Using the workshop’s definition of a book, “a vehicle for visual or verbal communication that is organized into sections,” the poster is made to imitate butcher paper that wraps around a “meat section.”

Belle Isle
*Bonnie Kay Lobbestael*
Professor Ryan Molloy

These are three posters from a series of 12 that celebrate Detroit’s island park, Belle Isle. Despite all that this historic island has been through, it has much to offer. The island evokes a mixture of feelings, from nostalgia and melancholy, to awe. The posters explore various views of Belle Isle, the wildlife, the scenes, and the restoration that must take place to restore this “island gem.”

Nature In Metal
*Paisley Kate Mackie*
Professor Gretchen Otto

These pieces define a balance between technique and aesthetics. The techniques include: reticulation (melting of the surface of metal), precise soldering, and use of chemicals to create a patina (permanently coloring the metal). An aspect of nature is explored in each piece and the design is worked within a specific technique. This is a constant theme of balance.

Daily Postcard Series
*Erika Mackley*
Professor Ryan Molloy

This postcard series is created from illustrations and lettering that I hand drew on a daily basis beginning in October 2012. The content contains personal thoughts, inspirational quotes, lyrics and humorous remarks. The postcard series attempts to encourage other designers to get off the computer and create their own work instead of relying on the numerous stock photography, illustration and font websites that exist.
Angular Motion: An Exercise in Style Combining Nature’s Materials

Brad Lee Ruff
Professor John DeHoog

The basis of this exercise is to use natural materials in the construction of a modern, yet functional lounge chair. By combining products from both the plant and animal worlds (wood and leather) and time tested construction theory, with an original design, I have produced a product that is simultaneously aesthetically pleasing yet practical and reproducible.

“Many Falls”: A Study of Screen Printing on Fabric

Georgina Lynn Rutherford
Professor Brooks Stevens

This project is an exploration of traditional textile techniques to create a registered print on a three yard-long piece of hand-dyed fabric. The project requirements were to create an image or series of images that were juxtaposed in their purpose. I look at the evolution between the natural world and the industrial world through nine layers of ink and fabric. Each image is individually screen printed with opaque pigments using a reduction style printmaking technique, meaning each layer is built off of the last. The final printed layer is made with a light sensitive screen emulsion, which is a liquid exposed to a hand drawn transparency.

Butterball Typeface

Charlynn Searcy
Professor Ryan Molloy

Butterball is a 26-character typeface inspired by the use of curves. Through a series of sketches and multiple type designs, the Butterball typeface was created using Adobe Illustrator. To show the playfulness of this typeface, it is displayed as both a 26-character poster and individual posters of specific letters.

3.14 Dessert Bar

Charlynn Searcy
Professor Ryan Molloy

I was intrigued by the idea that some businesses use more than one pattern or design for branding. For the 3.14 Dessert Bar various patterns and designs were developed and used to create the logo, packaging and business/contact cards. Special attention was paid so that the design maintains an overall cohesiveness for each element of the restaurant. The name 3.14 (Pi) was selected because of the scientific relationship between math, science and baking, as well as the clever use of Pi for the dessert pie.
Clash of the Creators
Zack Smith and Bonnie Kay Lobbestael
Professor Ryan Molloy

This project is the design of all the promotional materials for the AMP! reality series “Clash of the Creators.” The design process includes a logo and identity for the show, the title sequence and other video elements, and a series of screen-printed posters that promote the screening of this three-episode series.

Quote Reformation
Zack Smith
Professors Ryan Molloy and Wes Taylor

This project is an exploration of one quote that was expanded upon and taken into different mediums. We represented it in eight different type experiments from which pictures were then formed into a written story. From that story I personally created an illustrated infographic that expands on that story. This investigation shows how content can grow and change through a series of projects.

Dining Chair in Wood and Cane
Jared Paul Sternberg
Professor John DeHoog

This project design is a dining chair influenced by both the furniture of Frank Lloyd Wright and proportions of archaic thrones. In this day of hurried meals often eaten alone and on the go, this dining chair (by its scale and materials) seeks to regain connection to how we used to eat—together as family and friends. Construction includes wood, cane and upholstery.

Hypothetical Marketing and Collateral Materials for the Open Book: An Experimental Workshop Exhibition
Lily Sun
Professor Ryan Molloy

This is a brand identity for the Open Book Workshop to be held in spring semester. These marketing materials with identity include a poster, an application for the workshop, a website and a postcard design. The information needed for the audience is encoded into QR codes to present the idea that books could be used as a transition to new media.
Surface Decor of White as Snow, Red as Blood Dwarf Costumes

Courtney Berry
Professor Melanie Schuessler

This presentation focuses on the dwarf costumes for the play *White as Snow, Red as Blood*, which was produced by the EMU Theatre Department. The costumes were designed to represent the following natural themes: tree, earth, fire, metal, air, water, and stone. After consulting with the costume designer about exactly what aesthetic she wanted me to achieve, I chose to use a wide variety of fiber techniques on natural silk tunics and pants. The variety of techniques gave them each a unique look, while the earth-tone color palette and sameness of silhouette made it a unified collection.

Eastern Weekly

*Eliza Ellen Chase*
Professor Keith Damron

Eastern Weekly is EMU’s weekly video news show presented on campus cable channel 18, as well as on YouTube and iTunesU. The program, produced by students, highlights campus events using the latest in green screen and television technology.

Those Who Play are Often Rich in Style: Designing Period and Abstract Costumes

*Tori Clayton*
Professor Melanie Schuessler

This exhibit shows the process of designing costumes for a play and includes both period and conceptual pieces. These projects follow the basic process of costume design, from concept and research to sketches to renderings, for both Oscar Wilde’s *The Importance of Being Earnest* and William Shakespeare’s *A Midsummer Night’s Dream*.

EMU Science Complex: The Universe is the Limit

*Alexander John Diakonis, Brittany Redmon and Marcus Stefanide*
Professor Keith Damron

Electronic Media and Film Studies students highlight production skill in a video program that showcases the new EMU Science Complex. By applying remote production techniques students research, interview, shoot and edit a featurette designed to serve as a public service program to entertain and inform the Eastern community. The video is to be featured on Eastern’s Campus Cable Channel 18, iTunesU, and the ETV channel on YouTube.
AMP! Presents: Clash of the Creators
Edward Fritz and Heather Mapstone
Professor Susan Booth
During winter semester of 2013 EMU’s student organization AMP! produced a reality TV show through a collaboration of classes in arts management, TV production, and graphic design. Clash of the Creators has three episodes centered around two teams of artists who compete against each other through artistic challenges. Each episode has a specific artistic theme, an installation art piece, a performance piece, and a space challenge. For each challenge a panel of students, alumni, and creative professionals judge the teams and determine a winner. AMP! will be broadcasting these episodes on our website, Eagle TV, and other media outlets.

Dead Gallery: Designing and Managing a Halloween-Themed Theatrical Production
Dustin Douglas Miller and Emily Ann Jugowicz
Professor Jeromy Hopgood
Designing and managing a theatrical production is a challenge in and of itself. The addition of unique characteristics, such as a Halloween-scare element, can provide complex challenges. This project explores the planning, design, and implementation of a live Halloween theatrical production (in contrast to the classic walk-through haunted house).

Interdisciplinary Improvisation: Art Speaks for Art
Bobby Woodruff
Professor Jessica ‘Decky’ Alexander
The art of improvisation is carefully set into a framework of 25 rules: The Rules of Improvisation. These rules are designed to guide students in improvisational theatre classes as they engage in acts of planned spontaneity. In this presentation, the improvisation rules are transformed into a visual art panel accompanied by haikus that correspond to each rule. This artistic interpretation of the Rules makes the work more accessible for students with different learning styles (visual, aural, verbal, kinesthetic), but also helps to abstract the concepts so that they may be applied to other life situations and disciplines.

Everchanging Easter
Collin Wyke, Ashley Feick, Cameron Bonk and David Loos
Professor Keith Damron
Electronic Media and Film Studies students showcase production skill in this video program that explores the background and history of a number of Eastern Michigan University’s buildings. By applying remote production techniques, students research, interview, shoot and edit a featurette designed to serve as a public service program to entertain and inform the Eastern community. The video will be featured on Eastern’s Campus Cable Channel 18, iTunesU, and the ETV channel on YouTube.
Bring the Nature to Make a Space Colorful and Eco-Friendly

Belqes Ali Alemad
Professor Jiang Lu

IMRA America is an international company located in Ann Arbor. The company focuses on research, development, manufacturing and application of ultrafast fiber lasers. This project is divided into two phases: the lobby and corridor design, and the office, conference room and bathrooms design. With the IMRA project, I reflect the nature of the company by adding colors and LED focal lighting to represent laser. I also include elements from nature like a fireplace and plants to bring comfort to the tense atmosphere. I believe this helps employees produce better work for the company. All lighting, furniture, finishes and materials are eco-friendly.

Green Shelter

Belqes Ali Alemad
Professor Shinming Shyu

Inspired by the disastrous damage and devastating consequences caused by hurricane Katrina and Sandy, the green shelter is the ultimate design project. Intended for emergency use by those who are impacted by natural disasters, the shelter is transportable, sustainable, accessible and durable. The design is conducted in compliance with sustainable design strategies, including energy conservation, water efficiency, renewable materials and healthy indoor environmental quality. The green shelter incorporates on-site resources to enhance environmental integration, such as passive ventilation, solar panels and rain water harvesting systems.

Kind Soles: Socially Responsible Shoe Retail Space

Margaret Byal
Professor Jiang Lu

The interior space provides a store location for shoe retailer, Kind Soles. Through its humanitarian imagery and socially conscious products, Kind Soles reflects its name using the sales floor environment, targeting men and women between the ages of 18 and 30 years. The curvilinear displays and seating create multiple paths of travel, therefore decreasing crowding and increasing feelings of customer control.
Product Realization Studio: Spring Loaded Business Card Holder

Jason Cach  
Professor Philip Rufe

The Product Realization Studio walked senior product design and development students through the crucial steps of design, development and manufacturing of 50 spring loaded business card holders. Students, as integrated teams, utilized their skill to develop preliminary concept ideas, design the product parts using 3D CAD software, create multiple prototype assemblies using 3D printing technology, design and develop production capable fixtures, and implement a synchronized production process while staying within the set quality standards of our products by a deadline.

License Plate Lock Box Prototype

Jason Cach  
Professor Philip Rufe

Being locked out of your vehicle has happened to almost everyone, whether you lost your keys or locked them inside of your car. Many products on the market today that house your spare keys on your vehicle are of low quality, inefficient and pose a risk for theft. This project highlights a license plate lock box prototype. The prototype allows you to simply flip open the license plate on your vehicle, punch in your pre-set code, and open the lock box to access your spare keys.

Origami as Another Tool for Prototyping

Brian Carlson  
Professor Philip Rufe

Origami is the Japanese art that takes a square sheet of paper and folds it into something much more without cutting or gluing. It has recently found application in math and science with surprising results. I investigate the use of origami to develop rapid 3D prototypes of design parts from CAD models. In addition to developing folding algorithms, a machine is designed to mechanically assist in the folding process.

3D Printing with Fusion Deposition Modeling of Thermoplastic Extrusions

Beau-James Erion  
Professor Ali Eydgahi

A FDM style 3D printer is constructed using readily available materials and information with the addition of machined components to produce a printer that balances the highest accuracy, largest envelope, most stable internal thermal stability, moderate cost, and widest flexibility to expand on the existing designs. The printer is enclosed and self-contained. It is also adaptable to a variety of printing materials and methods such as thermoplastics (PLA, ABS, PVA), extruded solids, stereo lithography UV curing resins, selective laser sintering solids, laser cutting, and a range of milling machining features.
Downtown Building Renovation

Lauren Haffner and Amy Etz
Professor Shinming Shyu

A historic building located on the campus of the University of Michigan is the site for an interior building renovation. The space is transformed, rejuvenated and converted for a variety of uses: two restaurants, a sunglass boutique, a running store and small office space. The design is created to involve the entire community in the vibrant college town and create a space that stands out in an eclectic and diversified population. The project design is executed in accordance with sustainable design strategies.

Sustainable Shelter

Lauren R. Hood
Professor Jiang Lu

The demand for sustainable shelters is increasing with every natural disaster. These shelters provide a temporary home for many families while protecting the environment. These homes are limited in size to ensure mobility and proper dimensions to be transported over highways by trucks. Although the space is limited, the design achieves ADA accessibility and an open layout that utilized cross-ventilation. This design includes certified products by Forest Stewardship Council, Energy Star and the Environmental Protection Agency WaterSense program. Through increased interests and promotions of green design, this shelter provides a great example of elements that are gaining popularity in many building designs worldwide.

Bella Lussa Shoe Boutique

Lauren R. Hood
Professor Jiang Lu

Bella Lussa, meaning “beautiful luxury,” is a unisex designer shoe boutique. The boutique is elegant and focuses on casual and formal shoe designs. With the use of color and lighting, guests are drawn in to splurge on shoes for casual, business or formal occasions.

Community Service: Gazebo Project

Billie Irvine and Gordon Janowski
Professor Jim Stein

The Ann Arbor Housing Commission approached EMU’s Construction Management Program to ask for assistance with facility improvements. To help enhance community interactions, the design and construction of a gazebo was agreed upon. The structure was completed at the Green Baxter Court Community Center. The student group, Eastern Constructors, completed the project including design, estimate, schedule and actual hands-on building. To improve efficiency and because of winter weather, the final solution included a modular structure that was prefabricated in Sill Hall and then assembled on site.
UrbanSole: High End Men’s Shoes
Scott Lauffer
Professor Jiang Lu

The UrbanSole, a high-end men’s shoe store located in Birmingham, Michigan, focuses on attracting the customer who is looking for modern footwear fashions, featuring high-quality textiles and craftsmanship, and expects a shopping experience and retail environment like no other. The UrbanSole incorporates modern lines, simple design and contemporary materials to evoke the notion of an urban environment, without detracting from the main emphasis of the store: to sell high-end shoes for men. This is accomplished through the subtle use of sensory provoking elements, sensible fixture placements and a warm color palette.

Eco-Friendly Disaster Shelter
Scott Lauffer
Professors Jiang Lu and Shinming Shyu

This eco-friendly disaster shelter is designed for emergency situations with sustainability and transportability in mind. Using natural and renewable materials, high-efficiency appliances and fixtures, storm and gray water systems, and the natural environment for day lighting and ventilation, the shelter has a low-impact on the environment. The dimensions of the trailer, 14 feet wide by 60 feet long, allow it to be easily and quickly transported on a standard semi-trailer. Modern design and furnishings allow those affected by disaster to feel like they are entering a home, rather than a temporary shelter.

FEMA Sustainable Trailer Home
Eitan Mendelson
Professor Jiang Lu

This trailer home is designed to accommodate a family of four in the event of a natural disaster. The home can be transported via highway to a disaster relief site and set up as temporary or permanent living quarters. The trailer is energy-efficient, constructed with sustainable materials, and designed with “green” furnishings and products to ensure affordability and a low carbon footprint.

Kicks Shoe Store in Birmingham, Michigan
Eitan Mendelson
Professor Jiang Lu

Kicks is a Detroit sports-themed shoe store located on Old Woodward Avenue in downtown Birmingham, Michigan. The store is a design of intertwining modern and retro themes with a touch of Detroit-themed artwork and memorabilia selling the latest athletic shoes and apparel to the constantly buzzing downtown area of Birmingham. The fresh look gives the storefront a boost, particularly in the evening, with illuminated shoe displays and signage. The store includes a 400-square-foot backroom for shoe storage, a manager’s office and an employee restroom.
Sustainable Design for Mixed-Use Occupancy

*Michele Denise Ross and Brittany Ann Bower*

Professor Shinming Shyu

Situated in the center of downtown Ann Arbor, this existing building possesses classical architectural details. Intended to enhance commercial activities and to enrich campus life, the project incorporates the old with the new, by integrating modern design thinking with classic architectural elements to signify the energetic local atmosphere. The interior environment is designed in concert with sustainable principles, while providing inspiration and innovation via the concept of illumination. The project adopts renewable materials and efficient building systems to achieve healthy indoor environment quality.

Sustainable Mixed-Use Renovation: Creating Tranquility

*Jamie Sielski and Erica Mason*

Professors Shinming Shyu and Jiang Lu

Located in downtown Ann Arbor, this building is engulfed by urban hustle and the rush of campus life. This mixed-use project is designed to enrapture students and the public alike, by creating a tranquil and inviting atmosphere to provide a means of escape, where one can find peace, quiet as well as inner-transcendence. Focusing on preserving the historical nature of the exterior of the building, the refreshing interior is comprised of natural materials such as stone, bamboo, re-purposed wood and wallcoverings in a palette of earth-tones. While creating the calming atmosphere within, the entire project is executed in compliance with sustainable design strategies.

Sustainable Transformation: The Creation of a Multi-Use Commercial Space

*Lauren VanHouten and Ashley Cova*

Professor Shinming Shyu

Located in the heart of downtown Ann Arbor, this existing building has the potential to be a focal point for college students and professionals alike. Our vision for transforming the building aims to create a dynamic balance between nature and architectural innovation. By modernizing the facade with enlarged windows to maximize natural light, we are able to bring the outdoors in with a dramatic living wall in the lobby. Each consecutive space is designed with earth-friendly materials and carries themes of nature while maintaining its unique identity. Renovating with sustainable strategies, the design is intended not only to match but to enhance the energetic atmosphere of Ann Arbor.

Building Renovation with Diversity in Mind

*Sarah Watsob and Jennifer Stokes*

Professor Shinming Shyu

From contrast comes focus; from co-existence comes diversity. Utilizing striking unlikeness and placing an emphasis on different tones, the design is intended to intensify each element’s properties, produce a dynamic expressiveness, and create focus. The project is designed in accordance with sustainable principles to be an eco-friendly environment.
Innovative Ideas for Baseball Apparel Design and Technology

Zane Birchler
Professor Cathryn Amidei

This is an exhibit of new designs for baseball jerseys. This concept focuses on the use of lighter weight materials and construction to improve breathability and overall visual appeal.

Perspective Simulated Bowling

Christine Franzen
Professors Linda Kinczkowski and Pamela Speelman

This “Perspective Simulated Bowling” project simulates the act of bowling in two dimensions. The simulation allows bowling to be viewed by the audience from a realistic viewpoint/perspective.

Red: Simulation Heavy Advertising

Bryce Gore
Professors Aunmar Mohammed and Pamela Speelman

“Red” is a simulation that makes heavy use of RealFlow, voronoi fracturing and 3dsMax to create an alluring commercial for a fictional brand of wine. It demonstrates the capabilities of advanced simulation computer software, particularly of fluid simulation.

Digital Forensics: A Hard Drive Clean Box

Caitlin Gravel
Professor Skip Lawver

This project highlights procedures used for hard drive disassembly, platter transplantation and hard drive repair. It allows data on the failing hard drive to be recoverable and not lost due to a defective or broken hard drive. In the information assurance and security field this is a very important step to keeping information secure.

Simulations and Animations Using Autodesk Inventor

Matthew Westley Holmes
Professor Phil Cardon

The development of 3D simulations (training, communication, aid-to-thought, entertainment, prediction or experimentation) can be greatly enhanced through the use of the Autodesk Inventor software. This presentation demonstrates how a person in the simulation, animation and gaming industry can develop a simulated and animated series of objects and shapes in order to serve a specific purpose, without wasting precious resources on a physical model.
Innovative Backpack

Xavier Immanuel Jones and Angelica Helene Renaud
Professor Cathryn Amidei

The objective for this project is the creation of a backpack that is beneficial to people who use cycling as a main source of transportation throughout their daily lives. I created a backpack with minimal design aesthetics that is woven and constructed primarily from recycled yarns/materials. Reflective materials and light sources are incorporated in the design to help riders be more visible during daily travels.

Napalm Site Test Run

Kevyn Kendrick
Professors Aunmar Mohammed and Pamela Speelman

“Napalm Site Test Run” is a video simulation that demonstrates a stealth bomber strafing a simulated field of combatants. Graphics such as this are often used by news programs to better illustrate military situations that would be confusing to the layperson. This simulation is made possible by advanced software packages such as 3ds Max and FumeFX.

The Short Life of a New Planet

Shaun McGeHee
Professors Aunmar Mohammed and Pamela Speelman

“The Short Life of a New Planet” is a computer-generated simulation that takes place in outer space. The simulation flies the audience through a vast sea of stars on the way to the focal point of the video, the theoretical creation and destruction of a planet, as science argues it takes place. This creation was made possible by 3dsMax and FumeFX, as well as other computer graphics tools. It is meant to serve as an educational piece for demonstration to students in classrooms and on television programs around the world.

Sound Environment

David Meek
Professor Cathryn Amidei

This project explores the concept of shaping an environment using light and sound with flexible materials. Using a woven textile as the medium, the user is able to configure or reconfigure their personal space. This concept is designed to consider sound projection or sound deadening capabilities.
The Ultimate Little Black Dress

Andre Moses
Professor Cathryn Amidei

The little black dress (LBD) is an ultimate staple and iconic form of dress that has been present in the realm of fashion for decades. My project focuses on my own personal interpretation of the affectionately named LBD, and how function, performance and fit can be integrated into this classic style.

Fracking Visualizations

Jeremy Zimmerman
Professors Aunmar Mohammed and Pamela Speelman

“Fracking Visualizations” is a simulation to inform the general public of what exactly takes place in fracking when natural resources are extracted from the soil using relatively new methods. This simulation makes heavy use of RealFlow and 3dsMax, and is meant to serve as a visual illustration regarding fracking as viewed by the layperson.
Thank You!

Our appreciation is extended to the following Eastern Michigan University offices and individuals who contribute annually to the success of the event:

Charlynn Searcy and Kayleigh Lemon, graphic design students,
and Ryan Molloy, Art
Steve Dotson, D.C. Rousseau and technology support staff from across campus
John Cooper, Steve Martin and students of Communication, Media & Theatre Arts
John Feldkamp and students of the Honors College
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Paul Majeske, Karen Gabrys, and Susan Anderson, Event Photo Opportunity Team
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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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We are pleased to welcome Dr. Kenneth Massey as he presents the Dennis M. Beagen Undergraduate Symposium Keynote Address at today's event luncheon. Massey is a proud Eastern Michigan University alumnus where he studied biology, concentrating in physiology and chemistry. Massey also participated in the 1984 Undergraduate Symposium and was one of just 51 presenters that year. After earning his EMU undergraduate degree, he attended the University of Texas Southwestern where he earned a Ph.D. in cardiovascular pathophysiology, and subsequently completed post-doctoral work at the University of Arizona.

Following his postdoctoral training, Dr. Massey was an Assistant Professor at the University of Michigan Medical School (anesthesiology and pharmacology) for seven years and ran an independent, grant-funded research program investigating cardiac cell pathophysiology. He then joined the pharmaceutical industry as an Associate Director with Pfizer Inc. in the Clinical Cardiovascular team where he was responsible for the scientific and operational aspects of several drug development programs.

Dr. Massey is currently a Managing Director for MicroDose Life Sciences and its associated venture capital fund, LifeLine Ventures. The focus of these companies is medical device and diagnostic development. Massey leads a cross-functional team in scientific assessment and clinical development activities. He has authored a number of scientific publications and book chapters in the areas of intercellular communication, cardiac cell injury and cardiac clinical trials.

He is a member of the Botsford Hospital Board of Directors, currently the Vice Chair of the Quality Improvement and Patient Safety committee and research advisor for the Institutional Research Review Board. Dr. Massey is co-chair of the recently formed healthcare innovation committee seeking novel ways to facilitate healthcare delivery and improve efficiency. He is a graduate of the Michigan Hospital Association’s Fellowship in Hospital Governance.

In addition to his professional pursuits Dr. Massey has a strong interest in community involvement. As an Eagle Scout, preparedness and service to community are life philosophies. He obtained his paramedic license and worked in that capacity while completing his education. Dr. Massey was elected to the Farmington Hills City Council in 2003 and served as Mayor Pro Tem in 2006 and 2010. On council, Dr. Massey is a founding member of the Farmington Hills Emergency Preparedness Commission and the Farmington Area Suicide Prevention Task Force. He is a member of both the Michigan Municipal League and the National League of Cities. For the NLC, he is also the 2012 chair of Public Safety.

He and his wife Katherine, who received her Master’s degree from EMU, reside in Farmington Hills, Michigan.