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# Graduate Research Fair Program, 2007

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ninth annual



**Graduate Research Fair**

March 26, 2007

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**Program Schedule and  
Presenter Abstracts**

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## **Welcome to the Graduate Research Fair**

Thank you for taking the time to explore graduate student inquiry by participation in the ninth annual Graduate Research Fair. Students will share their creative and scholarly efforts through oral and poster presentations. The work can be from a course or research conducted over a period of time. It may be related to a thesis or dissertation but may also reflect internship experiences or other projects unique to the program of study.

We are thrilled that more than 150 students sponsored by 90 dedicated faculty members have joined forces to expand the body of knowledge and then found the courage to share their work with you. This is a learning opportunity for them and for you. Many students take their presentations to local, state, national, and international conferences. They represent EMU proudly. We support and applaud their effort to ask new questions, dig deeper, generate new findings, explore the unexplored, and share the work so others can build upon it. This is the research and scholarly process for which academia is noted.

We hope you will join us for lunch and an opportunity to acknowledge graduate student award winners. Awards will go to authors of outstanding theses and to creators of works of art, along with students who exhibited high achievement in music, writing, and theatre. Outstanding projects from today's event will also be honored.

At the end of the day, we look forward to improving our cardiovascular health by learning more about fish oil from Dr. William Harris. A reception in room 300 will precede his talk.

EMU is proud of its graduate programs and the distinctive professional advantages they offer our graduate students. Enjoy the diversity and quality of the student work exhibited today. We appreciate you spending all or part of the day with us. Enjoy the event!

Deb de Laski-Smith, PhD  
Interim Dean

## Graduate School

Table of Contents

Index to Presenter Abstracts	3
<b>College of Arts and Sciences</b>	
Department of Biology	4
Department of Chemistry	5
Department of Communication and Theatre Arts	7
Department of English Language and Literature	8
Department of Geography and Geology	11
Department of History and Philosophy	12
Department of Music and Dance	13
Department of Physics and Astronomy	13
Department of Political Science	14
Department of Psychology	15
Department of Sociology, Anthropology, and Criminology	18
Women’s and Gender Studies Program	19
<b>College of Business</b>	
Department of Management	19
<b>College of Education</b>	
Department of Leadership and Counseling	21
Department of Special Education	22
Department of Teacher Education	23
<b>College of Health and Human Services</b>	
School of Health Promotion and Human Performance	24
School of Health Sciences	25
School of Nursing	25
School of Social Work	26
<b>College of Technology</b>	
School of Technology Studies	27
School of Engineering Technology	27
Oral presenters by location and time	30
Poster presenters by time	33
Thank you	34
Student Center Map	inside back cover

Index to Presenter Abstracts

**A**

Adkins, Lori ..... 27  
 Ahmann, Catherine..... 8  
 Alamsjah, Peisy ..... 27  
 Al-Jaro, Mohammed..... 19  
 Alschuler, Kevin..... 15  
 Altieri, Matthew ..... 15  
 Amin, Sarjak ..... 27  
 Anderson, Dale..... 7  
 Angelella, Nancy ..... 18  
 At-tauhidi, Hidaayah ..... 26  
 Avudaiappan, Sundaresan ... 28

**B**

Barnett, Jeff ..... 22  
 Bass, Deedra Climer..... 19  
 Berlin, Jamie..... 8  
 Biando, John..... 8  
 Billiot, Jari..... 8  
 Biondo, Deborah ..... 20  
 Botero, Carlos..... 12  
 Brown, Scott..... 15  
 Budarapu, Mahender ..... 5  
 Busick, Deborah Bryzys ..... 25  
 Bylone, Christopher..... 21

**C**

Cameron, Andrew ..... 16  
 Caruso, Pasquale ..... 20  
 Chamberlain, Jessica ..... 16  
 Cheng, Wen Ting ..... 27  
 Chidester, Cheryl..... 11  
 Chriscinske, Samantha ..... 25  
 Clark de Castillo, Rebecca... 20  
 Collings, Amy ..... 18  
 Comer, Stephanie ..... 9  
 Couch, Rebecca ..... 25  
 Craun, Heidi ..... 9  
 Czajka, Katarzyna ..... 20

**D**

DeSloover, Rebecca ..... 14  
 Douglas, Mollie..... 12  
 Drayton, Amy..... 16  
 DuBois, Rachel..... 9

**E**

Edmondson, Roslyn..... 20  
 Elliott, Connie ..... 21  
 Emery, Kimberly ..... 21

**F**

Fabian, Sarah ..... 9  
 Fernando, Roshini ..... 6  
 Fitzpatrick, Christopher ..... 14  
 Fortunato, Leanna..... 16

**G**

Gabor, Michael ..... 4  
 Gannon-Boss, Alice..... 27  
 Giordano, Lori ..... 25  
 Goel, Achin ..... 28  
 Grimble, Lisa..... 9  
 Guenther, Kylee ..... 14  
 Gundlapally, Pushpender..... 28

**H**

Habrecht, Elizabeth.....4  
 Hall, Patricia .....26  
 Handy, Laura .....9  
 Henshaw, Erin.....16  
 Hensley, Chiharu .....22  
 Herring, Lisa .....19  
 Hiehle, Maresa .....25  
 Holtz, Tina .....25  
 Hyde, Hannah .....22

**I**

Ivanoff, Kathleen .....19  
 Ivezaj, Valentina .....18

**J**

Jessani, Ashraf .....20  
 Joshi, Ravi .....28  
 Jounq, Daeha.....13

**K**

Kalmbach, Jason .....14  
 Katakowski, Joseph.....4  
 Kataria, Tiloc .....28  
 Kaur, Ranjeeta .....4  
 Kerr, Ryan .....10  
 Kirkland, Joslyn .....6  
 Ko, Chi Ying .....19  
 Koran, Megan .....25  
 Krempa, Geoffrey .....12  
 Kruse, Lisa .....18  
 Kuhl, Elizabeth .....17

**L**

LaVictoire, Gayle.....7  
 Lefeld, Amanda .....20  
 Leu, Wan-En .....22  
 Lewis, Inel .....14  
 Lezotte, Chris.....19  
 Lindke, Zachary .....10  
 Long, Meredith .....12  
 Lowery, Shaqueala.....25  
 Luo, Chi-Ying .....29

**M**

Malliprakash, Shyam Sundar29  
 Mason, Jesse .....14  
 McCombs, Pam.....10  
 McMahon, Susan .....5  
 Merriweather, Francesse .....25  
 Mezza, Jacqueline .....17  
 Morales, Hannah .....10  
 Mosley, Matthew .....27

**N**

Narach, Montakan.....19  
 Newland, Julie .....6

**O**

Oliver, Delmeer .....19  
 Ozdemir, Gaye .....20

**P**

Parker, Daniel..... 10  
 Parker, J. Robert ..... 17  
 Patterson, Jennifer ..... 13  
 Ponnaluri, Sreelatha..... 4  
 Prado, Marcel ..... 29  
 Procter, Susan ..... 17  
 Puscau, Maria ..... 6

**R**

Ratz, Ian .. ..... 24  
 Repaska, Jana ..... 25  
 Rhoades, Steve ..... 4  
 Richard, Elizabeth ..... 7  
 Robertson, Liane ..... 11  
 Rodzik, Elizabeth ..... 26  
 Rogers, Rebecca ..... 24  
 Ross, Paula Thompson ..... 18  
 Russell, Emily ..... 11

**S**

Salinas, Antonio ..... 13  
 Samiseti, Shyamprasad..... 6  
 Saul, Jennifer ..... 11  
 Saunders-Scott, David ..... 18  
 Schultz, Laura..... 15  
 Schumaker, Ryan..... 12  
 Sengupta, Aditi ..... 6  
 Shah, Hiral..... 29  
 Sinawe, Patricia ..... 4  
 Sinkunas, Andrea..... 25  
 Sizemore, Paula..... 23  
 Slough, Akosua ..... 27  
 Smith, Patricia ..... 23  
 Soule, Patrick ..... 22  
 Steffy, Heather..... 23  
 Stokes, Susan..... 21

**T**

Tath, Kimberley ..... 20  
 Temme, Marliese..... 23  
 Tepper, Erica ..... 23  
 ThathaJohnpasha, Askarali . 29  
 Thick, Melissa ..... 25  
 Tober, Andrea..... 25  
 Tressler, Kelly ..... 7

**V**

Vining, Courtenay ..... 5

**W**

Walton, David ..... 13  
 Waltz, Kathy..... 21  
 Warin, Martin..... 11  
 Weese, Rachael ..... 24  
 Weidner, Nicole..... 27  
 Weilbaker, Timothy..... 29  
 White, Jessica ..... 5  
 Whitlock, Wendy..... 26  
 Whorley, Sarah..... 5  
 Wice, Sarah ..... 18  
 Wright, Sarahanne ..... 27

**Z**

Zhao, Yu.. ..... 24

## College of Arts and Sciences

### Department of Biology

#### **Michael M. Gabor**

Department of Biology  
Professor Marianne M. Laporte

#### **Regulation of Stomatal Density by NADP-**

#### **Dependent Malic Enzyme in *Arabidopsis thaliana***

Stomata are leaf structures critical for plant survival because they modulate the rate of transpiration. This study will examine a possible mode for regulating stomatal density by over-expressing NADP-dependent malic enzyme (NADP-ME), which is thought to deplete the counter-anion pool in *Arabidopsis thaliana* guard cells. We have completed an investigation to understand the effects of NADP-ME over-expression in *Arabidopsis*. First, scanning electron microscopy was employed to determine if any differences exist in numbers of stomatal complexes among transgenic lines and wild-type *Arabidopsis*. Second, we utilized a native PAGE assay to confirm that NADP-ME over-expression occurs only in guard cells. The results indicate a significant increase in stomatal numbers among the transgenic plant lines relative to the wild-type. Altering NADP-ME expression levels may present a novel way for influencing stomatal density.  
*Room 310B, 3:45 p.m.*

#### **Elizabeth Habrecht**

Department of Biology  
Professor Robert Winning

#### **Spatial and Temporal Expression of p190A**

#### **RhoGAP in *Xenopus laevis* Embryos**

RhoGAPs comprise an important family of proteins that regulate the activity of Rho GTPases, which in turn affect cell shape, cell adhesion, and cell migration. Currently, very little is known about RhoGAPs in amphibians. The purpose of this research is to determine the spatial and temporal expression patterns of p190A RhoGAP during *Xenopus laevis* embryonic development. This was investigated by using an antibody against p190A and colorimetric staining to visualize the protein in whole embryos. Results show that p190A RhoGAP is highly localized during embryogenesis, with expression primarily in anterior dorsal ectoderm and mesoderm. I will examine the role of p190A in *Xenopus* embryos by interfering with protein function and observing the effects of this perturbation.  
*Room 310B, 2:00 p.m.*

#### **Joseph A. Katakowski**

Department of Biology  
Professor David Kass

#### **Recent Activity of the Hamster B2 Element**

SINEs are short, interspersed nucleotide elements that are capable of mobility and present at a high copy number in mammalian genomes. The B2 element is a tRNA-derived SINE common among rodent genomes and present at roughly 80,000 copies within the mouse and hamster genomes. We have identified recent B2 element integrations in the genomes of various species of hamster. This provides a useful phylogenetic tool that supports a recent study that greatly restructured the hamster taxonomy. The sequences of the hamster and mouse B2 element differ greatly at the 3'-end region. We have created a hamster B2 element construct to assess its "jumping" efficiency relative to the mouse B2 utilizing a cell culture assay designed to measure the frequency of genomic integrations. These findings depict the recent activity of the hamster B2 element, as well as provide insights into the propagation of transposable elements.  
*Room 301, 1:20 p.m.*

#### **Ranjeeta Kaur**

#### **Sreelatha Ponnaluri**

#### **Steve Rhoades**

#### **Patricia Sinawe**

Department of Biology  
Professor Daniel L. Clemons

#### **Effects of Secreted *Haemophilus influenzae***

#### **Modulins on Respiratory Epithelial Cell Interleukin (IL)-8 Production**

The pathogenesis of nontypeable *Haemophilus influenzae* (NTHi) can be attributed to a variety of molecules such as lipooligosaccharide (LOS), several adhesins, outer membrane proteins, and proteins involved with iron and heme acquisition. We hypothesize that secreted, non-LOS NTHi molecules (i.e., modulins) mediate cellular interactions with respiratory epithelial cells, leading to the production of proinflammatory cytokines. Previous work in this laboratory has shown that the secreted fraction of NTHi clinical isolates and *H. influenzae* Rd was responsible for approximately 60 to 80% of the modulin activity. Current efforts in the laboratory are focused on evaluating candidate modulins from the secreted fraction for their ability to stimulate an IL-8 response from respiratory epithelial cells using an *Escherichia coli* expression system. Our results suggest that some of these secreted factors other than LOS do contribute to the NTHi stimulation of respiratory epithelial cell IL-8 production.  
*Room 310B, 10:00 a.m.*

**Susan McMahon**

Department of Biology  
Professor Cathy Bach

**Preference and Performance of the Wild Indigo Duskywing on its Native Host *Baptisia tinctoria* and on the Introduced Plant *Coronilla varia***

The Wild Indigo Duskywing (*Erynnis baptisiae*) is a butterfly species of special concern in Michigan. The original host plant is the native plant Yellow Wild Indigo (*Baptisia tinctoria*), but very few sites with *B. tinctoria* remain in Michigan. Wild Indigo Duskywings were observed feeding on the introduced plant, Crown Vetch (*Coronilla varia*), as early as 1974. This study investigated the preference and performance of two distinct populations, one using *B. tinctoria* and the other using *C. varia* as its host plant. Pupation success was significantly higher on *B. tinctoria*, suggesting increased fitness as adult butterflies.

Room 301, 1:40 p.m.

**Courtenay Vining**

Department of Biology  
Professor Robert Winning

**p190-A RhoGAP Acts as in Intermediate in the EphA4 Developmental Signaling Pathway**

The EphA4 receptor tyrosine kinase signaling pathway has been shown to be involved with cell-cell adhesion and cell polarity in early development of *Xenopus laevis* embryos. This is likely mediated through p59fyn, a non-receptor tyrosine kinase (NRTK), activation by EphA4 receptors. Previous research has suggested that p59fyn then inhibits RhoA, a small GTPase involved in cytoskeletal reorganization, via one or more intermediates. The intermediate(s), however, are not well characterized. This research focuses on the role of p190-A RhoGAP, a GTPase activating protein, which acts to inhibit RhoA and can be activated by NRTKs. This research shows that p190-A RhoGAP is expressed in early embryos and investigates the role it plays in the EphA4 signaling pathway.

Room 310B, 2:00 p.m.

**Jessica A. White**

Department of Biology  
Professor James VandenBosch

**Learning and Memory in the Ca<sub>v</sub>1.2 Knockout Mouse**

Of the many signaling pathways within neurons, calcium signaling is perhaps the most ubiquitous. Calcium influx through L-type voltage-gated calcium channels (L-VGCCs) is involved in numerous aspects of neuronal function, including activation and regulation of gene transcription, synaptic plasticity, and regulation of neuronal excitability. Because many calcium-related subcellular functions are implicated in

the formation and storage of long-term memory, we investigated the role of an L-VGCC, Ca<sub>v</sub>1.2, in hippocampus-dependent learning and memory. Utilizing the *Cre/loxP* gene-targeting system, the Ca<sub>v</sub>1.2 isoform was conditionally deleted in the forebrain of mice. To test for spatial learning and memory, Morris water maze experiments were performed. Knockout mice showed no deficits in short-term (24-hr) memory trials. On a 30-day memory probe, knockout mice performed significantly more poorly than their littermate controls. These results indicate the importance of forebrain-specific Ca<sub>v</sub>1.2 for long-term spatial memory.  
Room 310B, 2:00 p.m.

**Sarah B. Whorley**

Department of Biology  
Professor Steven N. Francoeur

**Rapid Measurements of Periphytic Responses to Nutrients Using PAM Fluorimetry**

Periphyton is the assemblage of microbes that grow on surfaces in aquatic environments. Periphyton responses to nutrient additions can be used to monitor stream ecosystem health. However, most methods typically involve time-consuming *in situ* growth experiments. I explored the possibility of using PAM fluorimetry as a rapid method for measuring periphytic responses to nutrient addition. A filamentous green alga (*Spirogyra*), a cyanobacterium (*Nostoc*), and a mixed diatom community were grown in either nitrogen- or phosphorus-free Moss media in a growth chamber. I expected a trend of decreasing photosynthetic activity correlating with time spent in nutrient-free media, with a sharp increase once missing nutrients were added. <sup>14</sup>C-bicarbonate uptake assays confirmed the existence of the expected pattern, but PAM-based photosynthetic activity measurements did not detect any response to nutrients. These results suggest that further refinement is required before using a PAM fluorimeter to monitor stream periphyton.

Room 310B, 3:45 p.m.

**Department of Chemistry**

**Mahender Budarapu**

Department of Chemistry  
Professor Deborah Heyl-Clegg

**Synthesis and Purification of an Isotopically Labeled Fragment of LL-21 Antimicrobial Peptide**

Given the increased bacterial resistance to antibiotics in recent times, antimicrobial peptides are a promising alternative to conventional antibiotics since they work through a broader mechanism. LL-37 is an antibiotic peptide of human neutrophils. Its mechanism of action is disruption of the bacterial cell membrane structure. LL-21 is a shorter form of the peptide that contains only the core portion of LL-37, which retains



antimicrobial activity and is easier to synthesize. We synthesized a  $p$ - $^{19}\text{F}$ -Phe labeled LL-21 peptide in order to perform solid-state NMR studies to measure dimerization. The large dipolar coupling present in fluorinated peptides can also determine the effect of aggregation. This will help us to determine its mechanism of membrane destruction.

Room 310B, 10:00 a.m.

**Roshini Fernando**

Department of Chemistry  
Professor Hedeel Evans

**Acetylation of the *A. aeolicus* DHO-ATC Complex Disrupts the Oligomeric Structure**

*Aquifex aeolicus* is an ancient, hyperthermophilic eubacteria that thrives at temperatures close to the boiling point of water. The enzymes that catalyze de novo pyrimidine biosynthesis are associated in multifunctional complexes. The activity of one of these enzymes, dihydroorotase, is entirely dependent on the formation of a complex with aspartate transcarbamoylase, another pathway enzyme. Here, we investigate the role of cysteine in the activation and oligomeric structure.

Room 310B, 3:45 p.m.

**Joslyn Kirkland**

Department of Chemistry  
Professor Ruth Ann Armitage

**Surface Analysis of Plasma-Oxidized Materials: Implications for "Nondestructive" Radiocarbon Dating**

Plasma chemical oxidation has been proposed as a "nondestructive" method for preparing samples from archaeological materials for radiocarbon dating using accelerator mass spectrometry. However, the chemical effects of low-temperature, low-pressure plasma discharges on fragile archaeological materials are not understood. Therefore, we have used Fourier transform infrared spectroscopy with attenuated total reflectance sampling (ATR-FTIR) to examine changes in the surface chemistry of representative modern samples upon plasma treatment. Samples have also undergone a standard pretreatment method. This work will help to clarify the efficacy of plasma treatments on archaeological materials for sample preparation and as an alternate pretreatment method.

Room 310B, 10:00 a.m.

**Maria Puscau**

Department of Chemistry  
Professor Cory Emal

**Design and Synthesis of 1,2-Amino Alcohols as Antimalarial Agents**

1,2-Amino alcohols have been shown to be potent inhibitors of *Plasmodium falciparum*, the most

virulent malarial parasite in humans; however, few studies have been reported that investigate the importance of the relative and absolute stereochemistry of the inhibitors and the resulting effect on potency. The purpose of this research is to synthesize enantiomerically pure 1,2-amino alcohols of known stereochemistry in order to probe the structure-activity relationships against *P. falciparum* and determine the most effective stereoisomer.

Room 310B, 10:00 a.m.

**Shyamprasad Samisetti**

Department of Chemistry  
Professor Deborah Heyl-Clegg

**Synthesis and Purification of a Fragment of Rat Amylin Peptide**

Amylin is a 37-residue polypeptide also known as Islet Amyloid Polypeptide or IAPP. It is found post-mortem in the islets of Langerhans of pancreatic beta cells in type II diabetic patients. Fibrilization of IAPP is assumed to play a role in the development of diabetes. The link between IAPP fibril formation and pancreatic beta cell death through membrane destruction has led to an interest in the mechanism of fibril formation and the structure of fibrils formed by IAPP. The rat form of IAPP does not aggregate as the human form does. This project involves the synthesis of a portion of rat IAPP to study its structural characteristics and its effect on membranes.

Room 310B, 10:00 a.m.

**Aditi Munmun Sengupta**

Department of Chemistry  
Professor Steven Pernecky

**Development of a Method To Characterize Fatty Acids And Prostanoids in Mammalian Cells and Cell-Free Systems**

A variety of procedures have been developed to resolve and quantify polyunsaturated fatty acids and prostaglandins as their methyl esters. This project involved development of a method to esterify lipids using the reagent trimethylsilyldiazomethane. The reagent is safer and easier to use than others, such as diazomethane. Polyunsaturated fatty acids (PUFAS), PUFAs in phospholipids, and prostaglandins (PGE<sub>2</sub> and PGF<sub>2</sub>α) were converted to their methyl esters and characterized by gas chromatography-mass spectrometry. Attempts were then made to characterize these analytes in cultures of mammalian cells, A549 (pulmonary alveolar cells) and 9 HTE (Human tracheal epithelial cells), and in a cell-free system containing prostaglandin H<sub>2</sub> synthase, an enzyme that primarily produces PGE<sub>2</sub>, a decomposition product of PGH<sub>2</sub>. This method compares favorably to other methyl esterification procedures.

Room 320, 3:25 p.m.

## **Department of Communication and Theatre Arts**

### **Dale Anderson**

Department of Communication and Theatre Arts  
Professor Michael Tew

#### **The Power of Personal and Community Narrative: The Use of Rap Lyrics as Narrative to Enlighten Listeners**

This presentation looks at rap lyrics from African American artists and their consumption by Euro American listeners. The purpose of this study is to illustrate the power of narrative and its ability to enlighten listeners on complex social issues. The issue at the center of this study is police and justice system abuses of the African American community. Euro American listeners become aware of these abuses because of narratives in rap lyrics. The conclusion is that rap lyrics can act as an introduction to these injustices, of which Euro American listeners might be otherwise unaware.

*Room 352, 1:00 p.m.*

### **Gayle LaVictoire**

Department of Communication and Theatre Arts  
Professor Jessica Alexander

#### **Fall into the Gap: Health Care**

The theatre artist utilizes personal testimony, statistical research, and common experiences as a means to explore the U.S. health care crisis. This piece attempts to challenge the general assumptions within public discourse about health care and its attainability. From the perspective of a twenty-something university student, this piece attempts to shine light on the struggle to live without and/or obtain health care for those who find themselves in the middle of stability and poverty. The performer speaks for herself and "others" as she represents the unheard voices of those living without adequate health care. This performance asks the audience to examine for themselves the issues and struggles of those with, without, and on the verge of losing health insurance. What is health care really worth to us as individuals, as communities, and as a country? In the end, who is really paying for the health of our nation?

*Room 352, 1:20 p.m.*

### **Julie Newland**

Department of Communication and Theatre Arts  
Professor Patricia Zimmer

#### **Phenomenal Women**

As a mother of a chronically ill child, I know the disconnectedness of that community. Through the use of story, I hope to foster a feeling of connectedness and help these mothers see how strong they really are. I will interview mothers of chronically ill

children, transcribe those interviews, add to those my personal narrative and other texts and media, and create a single person performance, which will be performed for the participants, their families, and health care workers. I am researching how telling stories helps in the healing process and how performing self and other simultaneously can have profound effects as well, not to mention the impact of hearing our own stories performed by another. My hope is that by using autoethnography, I will help these mothers hear similarities in their stories and feel comforted, validated, empowered, and connected.  
*Room 352, 3:25 p.m.*

### **Elizabeth Richard**

Department of Communications and Theatre Arts  
Professor Patricia Zimmer

#### **Swimmer: Bringing a Cultural Perspective of the Life Cycle of Salmon Alive through Drama and Storytelling**

The salmon is a powerful symbol throughout the Pacific Northwest in Native and contemporary culture. The researcher has developed a unit of study for elementary students in creative dramatics and storytelling exploring the life cycle of the salmon within the culture of the Y'upik People. Using the book *Swimmer*, by Shelley Gill and Shannon Cartwright, as a point of departure, the researcher will show how a combination of storytelling, direct instruction, interactive games and exercises, music, and song can bring the concepts and ideas of science as well as a cultural viewpoint to life. The life cycle of the salmon presents dramatic opportunities to explore struggle and triumph and how we, as humans, are connected to nature and responsible not only within our immediate communities but within a much larger community beyond our own. The storytelling techniques of the Y'upik People researched and used in this unit of study offer students the opportunity to explore and reflect in a new paradigm.  
*Room 302, 2:00 p.m.*

### **Kelly Tressler**

Department of Communication and Theatre Arts  
Professor Christine Tanner

#### **Inviting Students to Relate to the Holocaust and Find Hope for Humanity**

The goal of this project was to allow students freedom and safety to explore the immense variety of emotions that surrounds the Holocaust. Aligned with Michigan Benchmarks for Language Arts, I created a workshop for eighth graders based on play through participation in drama/theatre games; "dialogue" responses to teacher-posed questions and other student-generated ideas via a wiki; and creation of their own final project. These were assessed on three levels: plan, project, and reflection. Options for projects were poetry, obituaries, essay, and creation of a CD or

artwork. Students studied *The Diary of Ann Frank*, the Pulitzer Prize-winning play by Goodrich and Hackett; the documentary *Paper Clips* directed by Berlin and Fab; the 1959 movie *The Diary of Ann Frank*; and other cognate materials.

Room 320, 3:45 p.m.

## **Department of English Language and Literature**

### **Catherine M. Ahmann**

Department of English Language and Literature  
Professor Sheila Most

#### **Standing Up Prince Charming: The Cultural Cause and Effect of Feminist Folklore Revisions**

The misogynistic content of folk fairy tales has long been discussed, rationalized, and criticized by literary scholars. The traditional characterization of Cinderella, for instance, receives a great deal of criticism for its passive, quietly subservient heroine who requires a prince to save her from her life of servitude. More recently, the rise of political correctness and a “girl power” cultural mentality has resulted in a more empowered folktale heroine, as seen in numerous modern adaptations of traditional folklore. While this revisionist heroine retains the feminine beauty and virtuous nature that are hallmarks of the traditional tales, she is also invariably sharp-tongued, quick-witted, audacious, and far more likely to wield a well-placed knockout punch than a spindle or a glass slipper. This essay examines the following question: When, in the construction of this revisionist heroine, is it acceptable to stop revising?

Room 350, 2:45 p.m.

### **Jamie Berlin**

Department of English Language and Literature  
Professor Elisabeth Däumer

#### **To Remember the Cruellest Delight: Reading Dante in T.S. Eliot's *The Waste Land***

For T.S. Eliot, modern poetry gains value from not only innovation but also harmonious marriage with traditional European aesthetics. Eliot uses scientific language to describe how the modern poet acquires intimacy with tradition, yet romance seems a more apt metaphor. Beyond admiration or respectful homage, Eliot's modern poet seeks kinship, intimacy, and passion with poetic ancestors. Dante, whom Eliot dubbed “the most European poet,” held his personal devotion. My research explores similarities between the cosmologies of Dante's *The Divine Comedy* and Eliot's *The Waste Land*, comparing the roles of passion and love as prime movers within the *taijitus* of life-in-death and memory-and-desire, and considering their role in the *mestier* of poetry, both in the relationships between modern and antique poet and poet and reader, with poet as conduit. The dialogue

reveals tension between Eliot's ideas and their praxis, which I contemplate using Lacan's psychoanalytic theory of language acquisition.

Room 352, 2:45 p.m.

### **John Biando**

Department of English Language and Literature  
Professor Janet Kauffman

#### ***Existential Emergency and The Zombie Translator***

My exhibit will be a display of two interactive, web-based projects, *Existential Emergency* and *The Zombie Translator*—hybrid works blurring the boundaries between creative writing, digital media, performance, and installation art. *Existential Emergency* is an interactive rendering of random participants performing in an existential art situation. They were given informational pamphlets, told to choose from three existential situations, and asked to “experience” their situation through the medium of a 911 call. *Existential Emergency* lets users plumb archives of these calls for insights into existence, terror, and safety. *The Zombie Translator* is an interactive website that immerses the user in an alternate reality. The user encounters strange, perhaps evolved, methods of communication and ultimately confronts conceptions of language, meaning, and self. Both pieces rely heavily on the user to achieve a complete meaning and challenge traditional notions of storytelling and art form.

Room 310B, 3:45 p.m.

### **Jari J. Billiot**

Department of English Language and Literature  
Professor Abigail Coykendall

#### **The Hag Trope in Victorian British Fantasy Fiction**

This presentation explores the concept of the female hag trope in *Alice's Adventures in Wonderland* and *She*. The hag—the older, evil, and ugly but powerful woman—prevails throughout the texts, clouding the minds and judgments of the characters in such a way that negative views on gender, age, and femininity seem commonplace and heroic. These damaging beliefs permeate our society as a whole and place constraints on the identity and desires of young girls being socialized into women. The role of the hag is that of a villain, but her mere presence hints at a youth and beauty lost. She is the transcendental woman, the ultimate cannibal, ugly and beautiful, acted upon and acting, powerful and irrational. Her existence is vilified and revered and stands as a warning to woman who would follow her example. The hag is the vile abstraction representing all women in the seemingly innocent novellas of our time.

Room 301, 9:30 a.m.

**Stephanie Comer**

Department of English Language and Literature  
Professor Annette Wannamaker

**Worlds Beyond Worlds: Heterotopia in the Novels of Diana Wynne Jones**

The researcher investigated the use of heterotopia, or a multitude of discordant universes, in two novels by fantasy writer Diana Wynne Jones: *The Power of Three* and *The Dark Lord of Derkholm*. Analysis revealed that the interaction between dissimilar worlds is not merely a plot element in these novels but rather a narrative device that can be seen as a metaphor for the sometimes harrowing journey through adolescence to adulthood.

Room 320, 1:00 p.m.

**Heidi Craun**

Department of English Language and Literature  
Professor Ann Blakeslee

**Examining the Links Between Rhetorical Invention and Authorship in Composition**

The researcher examines scholarship in the field of composition to determine how perspectives on rhetorical invention have informed conceptions of authorship within the field since the 1960s. Having explored this, she then questions how scholars' awareness of the links between rhetorical invention and authorship can be used to more clearly understand and, perhaps, question the field's current conceptions of authorship.

Room 301, 9:50 a.m.

**Rachel DuBois**

Department of English Language and Literature  
Professor Annette Wannamaker

**"You Know You Love Me": Trends, Tropes, and the Continued Popularity of Teen Girl Series**

The current climate of young adult fiction is marked by a notable increase in series novels for young women. By far, the most popular and most controversial is Cecily Von Ziegesar's *Gossip Girl* novels, with their bold sexuality, drug use, and surfeit of brand names. Parents, educators, and literary critics have expressed concern over the books' sensational and questionable content. However, a closer look at historically revered series such as *Nancy Drew* suggests that rather than being a new direction for girls' novels, *Gossip Girl* and her ilk are the natural successors to the aspirational and unrealistic world of teen-girl fiction.

Room 320, 1:20 p.m.

**Sarah Fabian**

Department of English Language and Literature  
Professor Craig Dionne

**The Return of the Repressed: "The Real" in Salinger's *Catcher in the Rye***

Despite countless essays written over the years regarding J. D. Salinger's renowned novel, *The Catcher in the Rye*, few critics have looked at the text from a Lacanian psychoanalytic perspective. In "The Disappearing Subject: A Lacanian Reading of *The Catcher in the Rye*," James Mellard focuses on Lacan's ideas of the Symbolic and Imaginary. It is also important to take a look at the text's representations of the third order in Lacan's theory of the psyche—the Real. Holden's depression throughout the novel can be understood as a symptom of his repression of trauma, or in other words, the return of the Real.

Room 350, 3:05 p.m.

**Lisa A. Grimble**

Department of English Language and Literature  
Professor Nancy Allen

**Visual Rhetoric in Museum Display: A Case Study of *Explore Evolution***

Are museums implicitly unbiased purveyors of history, science, and art? Or are museum collections, exhibitions, and practices influenced by topics, audiences, curators, and the museum medium itself? Using the *Explore Evolution* exhibition as a case study, this research project addresses these questions and seeks to find what happens, with respect to visual rhetoric, when research specific to evolution is transformed for a new medium, audience, and purpose. The decisions made by exhibition designers while developing this exhibition were analyzed, as was the actual resultant exhibition. I found that exhibition parameters, topic, and audience needs and issues ultimately shaped not only the methods of visual representation but also the content and focus of the exhibition as well. Additionally, a distinct parallel between the principles of biological evolution and the actual evolution of this exhibition was found.

Room 301, 10:10 a.m.

**Laura Ellen Handy**

Department of English Language and Literature  
Professor Annette Wannamaker

**Bodies Betrayed: Subjectivity and Abjection in *Speak* and *Blood and Chocolate***

This essay uses Julia Kristeva's theory of abjection to trace the protagonists' journey to subjectivity in Laurie Halse Anderson's novel *Speak* and Annette Curtis Klause's novel *Blood and Chocolate*. Both Melinda, introverted and voiceless after being raped, and Vivian, rejected by the boy she chose to show her "wolf" self to, retreat to a state of abjection after

feeling betrayed by their bodies. They lose the ability to see themselves as subjects, instead viewing themselves as animals, dirt, or filth. Refusing to assimilate this betrayal as a part of themselves, they reject it—as one does with abject materials such as feces or urine that have no place within the body—in an attempt to rid themselves of what does not seem to fit with their previous sense of self. It is through this difficult process of abjection that they piece together the fragments to redefine their identity.

*Room 320, 1:40 p.m.*

**Ryan Kerr**

Department of English Language and Literature  
Professor Annette Wannamaker

**Rats and Marxists: A Critical Reading of *The Amazing Maurice***

This paper explores how a seemingly simple children's text, *The Amazing Maurice and His Educated Rodents*, actually serves as a sophisticated rendering of Marxist literary theory. I have explored how the retelling of the pied piper story exemplifies Marx's concern with materiality and break with idealism. By recasting the pied piper motif from the perspective of the rats, Terry Pratchett's fantasy novel illustrates how reality is shaped by the actual physical world and not by some ideal notion of reality, just as Marx argues in "Consciousness Derived from Material Conditions." I also argue that Pratchett's novel is arguably more Marxist than Marx in that it carries Marx's notion of materiality even further than the theorist himself did. The paper explores how this work for children extols a Marxist view of reality that is heavily shaped by material conditions.

*Room 320, 2:00 p.m.*

**Zachary K. Lindke**

Department of English Language and Literature  
Professor Abigail Coykendall

**The Use of the Colonial Discourse to Facilitate, Validate, and Perpetuate British Imperialism**

Historically there has always been a predator-prey relationship between dominant cultures and subjugated cultures. The focus of this presentation is not to determine why one group dominates others but rather to explore how the 18<sup>th</sup>-century British colonial novel defines cultural success and why this imperialistic discourse is still important today. Much like a self-fulfilling prophecy, this Truth validates, facilitates, and perpetuates an ongoing predator-prey relationship between dominant and subjugated cultures. By analyzing 18<sup>th</sup>-century discourse common in British colonial novels like Rider Haggard's *She*, Daniel Defoe's *Robinson Crusoe*, and Bram Stoker's *Dracula*, the paper demonstrates how imperialism is presented to the reader, focusing on what steps each author takes to validate cultural supremacy over the Other. Though the age of imperialism is over, a

nuanced version of this colonial discourse is still evident today in both literature and politics.

*Room 350, 3:25 p.m.*

**Pam McCombs**

Department of English Language and Literature  
Professors Christine Hume and Janet Kauffman

**Remembering**

The project is a slide show in remembrance of the feminine. It consists of photographs I took of a basket of rocks, removing and then replacing one or two at a time, photographing each change. The background music is a sound poem I wrote titled "Goddess of Ancient Anatolia." Incorporated into the slide show are scans of archaeological figurines from Marija Gimbutas' *The Language of the Goddess*. While the slide show is playing I will pass around a project made of brown packing tape in the shape of a human leg. I created the leg to represent the history of women; it has writings from Christine de Pisan, Mary Wollstonecraft, Simone de Beauvoir, Virginia Woolf, Julia Kristeva, Sandra Gilbert, and Susan Gubar, and some Native American and Goddess symbols. The overall effect of slide show and artifact is to remember the ancient past.

*Room 304, 2:45 p.m.*

**Hannah Morales**

Department of English Language and Literature  
Professor Verónica Grondona

**Reduplication in Malayo-Polynesian and World Languages: A Beginning Typological and Universal View**

This presentation describes the forms and uses of reduplication in world languages, with a focus on Malayo-Polynesian languages. It explores the extent to which reduplication exhibits iconicity and possible universal trends in the uses of reduplication. When reduplication is present in the grammar of a language, it tends to mark concepts such as plurality, intensification, and augmentation/diminution.

Examples are drawn from Samoan and Chamorro.

*Room 304, 3:05 p.m.*

**Daniel Parker**

Department of English Language and Literature  
Professors Verónica Grondona and T. Daniel Seely

**Evidentiality in Kwaza**

In the field of linguistic inquiry, the term *evidentiality* refers to a grammatical category whose core function is to semantically encode how a speaker has obtained a particular piece of information or knowledge. From a functional approach, the ability to encode one's source of information provides a speaker with extremely productive means to dynamically shape the interpretation of a linguistic expression. Taking into

account new findings in the typology of evidential systems, this paper describes a previously unrecognized evidential system in Kwaza, an indigenous language of Brazil, and assesses the empirical value it holds for our current knowledge of evidentiality.  
*Room 301, 10:30 a.m.*

**Liane Robertson**

Department of English Language and Literature  
Professor Ann Blakeslee

**An Exploration of the Perceptions Held by Employers of the Writing Ability of College Students Entering the Workplace**

The researcher looks at how students entering the workforce from college are perceived in terms of writing ability and whether those perceptions are positive or negative. Perceptions in the workplace are compared to goals for teaching students writing in college, in an attempt to discover whether a gap exists between the goals of college writing courses and the expectations facing students entering the workforce. The research looks at a segment of the workforce for which writing is a core job skill and assesses how new college graduates measure up to the level of writing ability expected by their employer. Following the initial discovery of workplace perceptions, the research addresses how those perceptions might be addressed by college writing courses and whether or it is, or should be, the role of college writing courses to do so.

*Room 350, 3:45 p.m.*

**Emily Russell**

Department of English Language and Literature  
Professor Elisabeth Däumer

**Searching for a *Nam*: the Struggle to Establish Identity in a Post-Colonial Space**

Kamau Braithwaite is a powerful Caribbean poet who writes with purpose and passion. He uses his medium as a tool to stake out and claim an authentic Caribbean identity in a post-colonial space. He asserts that the Caribbean people must do this by claiming their *nam*—a term he coined to mean the true essence of the self. In my presentation, I discuss the importance of *nam* to both a culture and the individual. I also look closely at the two ways Braithwaite goes about establishing the Caribbean *nam*: through his choice of the Yoruban myth cycle and pantheon as a basis in many of his poems and through his use of what he calls nation language. Nation language encompasses not only word choice but also rhythmic choices that, according to Braithwaite, mimic life in the Caribbean.  
*Room 352, 3:05 p.m.*

**Jennifer Saul**

Department of English Language and Literature  
Professor Ian Wojcik-Andrews

**Images of the Goddess in Sue Monk Kidd's *The Secret Life of Bees***

Sue Monk Kidd's novel, *The Secret Life of Bees*, focuses on Lily Evans' attempt to break free of the patriarchal bonds of her father's home and to reconnect with her deceased mother. However, Kidd doesn't confine Lily's search to an earthly mother. Kidd's use of metaphor, imagery, and allegory in this novel all point Lily towards the Great Mother Goddess, as well as her counterparts in minor goddesses and saints. Images that represent the goddess, such as bees, honey, the moon, and agriculture, are abundant in this novel. There are also numerous direct references to goddess worship through the stories of the Black Virgin Mary. Through these references Kidd shows that Lily's and other women's need for a mother figure can be filled by recognizing the Great Goddess.  
*Room 304, 3:25 p.m.*

**Martin Warin**

Department of English Language and Literature  
Professor T. Daniel Seely

**Pseudogapping in Swedish**

Pseudogapping is a form of ellipsis where constituents inside a Verb Phrase (VP) dominated by an auxiliary move outside the VP, whereupon the VP itself gets elided. Gengel (2006) explores pseudogapping in Scandinavian in general and Icelandic in particular. Gengel proposes the generalization that there are only prepositional remnants in Scandinavian pseudogapping. She also mentions that pseudogapping does not occur in Swedish. In this presentation I will show evidence that there *is* in fact pseudogapping in Swedish, and that—in at least Swedish—it is *not* limited to prepositional remnants. I explore the implications of the Swedish data for ellipsis in particular and for current syntactic theory in general.  
*Room 304, 3:45 p.m.*

**Department of Geography and Geology**

**Cheryl Chidester**

Department of Geography and Geology  
Professor Ted Ligibel

**The Documentation and Preservation of Art-in-Architecture of Michigan: The Section of Fine Arts Projects**

The Section of Fine Arts' art-in-architecture created public and permanent cultural artifacts that expressed and recorded American beliefs, values, and stories for future generations. Many of these artworks have been saved, but others have been neglected, mistreated, or forgotten. This project focuses on The Section's post

office art installations in Michigan. The Section of Fine Arts, one of FDR's New Deal programs of the Depression era, operated under the auspices of the Treasury Department. The program utilized symbols of the common man to tie together a nation's scattered and often isolated communities, to promote a common heritage and purpose, and to relate the past to the present while giving hope for the future. The documentation of these art-in-architecture projects is essential, as is the need to conserve them. Although challenging, the effort is vital to insure the survival of these records of an important and distinctive American chapter.

*Room 310B, 10:00 a.m.*

**Mollie Douglas**

Department of Geography and Geology  
Professor Ted Ligibel

**A Progression Backwards: Restoration of an 18th Century Philadelphia Mansion and the Appropriate Conservation Techniques**

The student intern acted as a member of an architectural conservation team responsible in part for restoration efforts at the Belmont Mansion, a circa 1740 estate located just outside Philadelphia, PA. The bas-relief glazed plaster ceilings represent one of the finest examples of decorative interior finishes from that period, and along with Drayton Hall in South Carolina, the Belmont is one of the few structures to have survived into the 21<sup>st</sup> century. More than 27 layers of paint were removed from the ceiling using a hydrogen-peroxide-based stripper as well as traditional techniques of paint removal. The objective was to determine an accurate layer of paint suitable to the target date of the restoration by completing a paint chronology or history of the finishes. Each stratum revealed clues to the decorating preferences unique to different eras throughout the history of the building.

*Room 310B, 3:45 pm*

**Meredith Long**

Department of Geography and Geology  
Professor Ted Ligibel

**The Necessary: An Examination of the Historic Bathrooms and Tile Work of Meadow Brook Hall**

The researcher examines and documents the historic bathrooms of Meadow Brook Hall and compares the findings to other auto baron homes in the Detroit area. The Hall is the fourth largest museum home in the country and can boast of thirteen of its original 1929 bathrooms, nearly intact. This is a rare find because, as an interior with a specific function, the bathroom is often one of the first spaces to see updates as aesthetic values or technological needs change. The bathrooms of this home are excellent examples of late 1920s bathroom style and technology and are a good indicator of what a wealthy family at this time could afford. The researcher intends to show that these

interiors make Meadow Brook Hall unique among museum homes in Metro Detroit.

*Room 310B, 3:45 p.m.*

**Ryan Schumaker**

Department of Geography and Geology  
Professor Ted Ligibel

**Aladdin Company Sales Records: Data Analysis and Finding Aid Creation**

The researcher studied the Aladdin Company's Corporate Records, which are now held at the Clarke Historical Library. The Aladdin Company was based in Bay City, Michigan, and manufactured pre-cut catalogue homes during the 20<sup>th</sup> century. The research was primarily focused on the sales receipts of catalogue homes from the end of World War I until the mid-1920s. Data collected from these receipts included the order number, year sold, building price, style, quantity, and the delivery location. From these sets of data, the researcher created a finding aid for this section of the collection for patrons and the library to utilize. The data collected were also analyzed to determine the popularity of certain styles of homes in particular regions of the country.

*Room 310B, 3:45 p.m.*

**Department of History and Philosophy**

**Geoffrey K. Krempe**

Department of History and Philosophy  
Professor Robert Citino

**Nazi Foreign Policy and War Preparation, 1939-1945: A Historiographic Analysis**

The purpose of this study was to examine the body of historical literature produced from 1933 to the present in regard to National Socialist foreign policy and war preparation and to analyze the argumentative trends present. Works were categorized both temporally and by their expostulatory direction. Prior to 1939, it was found that works were primarily forewarning the consequences of aggressive Nazi foreign policy or were apologizing for its bellicosity. After the war, much of the literature focused on Hitler's sole responsibility for the direction of foreign policy, which was later subjected to revisionist trends that downplayed the significance of Hitler's intervention in such matters. More current scholarship has attempted to synthesize the two, leaving us with a far clearer picture of the nature of Nazi foreign policy and war preparation

*Room 302, 1:40 p.m.*

**Antonio Salinas**

Department of History and Philosophy  
Professor James Holoka

**Anabasis Revealed: Mapping the Journey and the Battles of Xenophon's Ten Thousand**

In his work, the *Anabasis*, Xenophon tells a tale that takes his army through nearly two thousand miles of hostile territory. To historians and military analysts alike, it is agreed that this was among the most important campaigns in history. Very few maps of both the campaign and the battles exist. Utilizing satellite imagery, this project recreates this epic military campaign. The researcher provides several maps of large-scale operational movements as well as the tactical elements of battles.

*Room 301, 3:25 p.m.*

**David M. Walton**

Department of History and Philosophy  
Professor Joseph Engwenyu

**The U.S. and the End of the Apartheid in South Africa: The Militant Phase 1970-1989**

The U.S. was slow to condemn apartheid and placed more importance upon Cold War politics than commitments to freedom, equality, and justice. The U.S.'s course of action towards South Africa was often in contradiction to the realities of the status and condition of South Africa's native inhabitants. South Africa, on the other hand, based its intra-African foreign policies upon its imperialistic ambitions as well as its desire to curb international condemnation and minimize support of its domestic anti-apartheid movements and to pacify its native African residents. However, Africans throughout the Diaspora, in the West, and within the continent, helped to frame the global perceptions of apartheid and ultimately coordinated a concerted lobby that helped to achieve the demise of apartheid in South Africa. How did the stance of the U.S. coalesce with the internal movement in South Africa to defeat apartheid?

*Room 301, 3:45 p.m.*

**Department of Music and Dance**

**Carlos Andres Botero**

Department of Music and Dance  
Professors Randal Baier and Pamela Ruitter-Feenstra

**The Villancicos of Guatemala City Cathedral**

Eastern Michigan's 1999 McAndless Scholar, Susan Tattershall, requested that the Halle Library reproduce microfilms of a large manuscript from the Guatemala City Cathedral. I chose to transcribe the *villancicos* (Spanish madrigals) of the manuscript for a Collegium Musicum concert in 2008. I discovered that seven microfilms full of unknown sixteenth-, seventeenth-, and eighteenth-century Spanish music had been sleeping for hundreds of years. I will transcribe the

handwritten parts into a modern computer music notation for choir and chamber ensembles. In my presentation, I propose to discuss a brief history of *villancicos*, to show the early manuscript form of the Guatemala City Cathedral *villancicos*, to describe my process of transcribing the music and texts, and to present a performance of selected *villancicos*.

*Room 352, 9:30 a.m.*

**Jennifer Patterson**

Department of Music and Dance  
Professor Louise Patrick

**Elementary Music Assessment and Report Card Practices in Livingston County, Michigan**

This descriptive study explored how elementary schools in the five public school districts in Livingston County, Michigan, report musical achievement to parents. The purposes were to examine what is assessed in K-4 music classrooms, what grading systems are used to report the assessment data, and how school districts use report cards to convey information about students' musical progress to parents. The study involved questioning district curriculum directors, elementary school principals, and music teachers; response rates were above 70%. In addition, music report cards were reviewed and a small sample of parents were surveyed. Analysis of descriptive statistics revealed that elementary music teachers assess musical skills and knowledge in addition to nonmusical factors. Student assessment data were reported in the form of standards-based grades on report cards.

*Room 310B, 10:00 a.m.*

**Department of Physics and Astronomy**

**Daeha Joung**

Department of Physics and Astronomy  
Professor Marshall Thomsen

**Photothermal Studies of Bulk Polymers Using Polarized Light**

The presentation describes a study of polymers by using photothermal methods built on the principle of converting optical energy to thermal energy. As a pump beam is aimed at a sample, absorption of optical energy occurs. This optical energy, in turn, may become thermal energy. The absorbed energy produces changes in the sample. In order to monitor these changes and to identify various characteristics of the sample, the probe beam was polarized. A comparison of results using polarized light and non-polarized light will provide a new insight into changes in structures of polymers. We believe that this is the first time polarized light has been employed in photothermal studies.

*Room 301, 3:05 p.m.*



**Jesse Mason**

Department of Physics and Astronomy  
Professor Ernest Behringer

**Coupled Oscillator Model of the Acoustic Guitar**

The acoustic guitar is a system of coupled oscillators: the strings, top plate, back plate, and air cavity. The strings themselves produce a negligible amount of sound, and guitarists typically damp back plates with their torso; therefore, only the characteristics of the front plate and air cavity are necessary to generate a theoretical model that reproduces the observed low-frequency response of the guitar. Using the model of Christensen and Vistisen, I predicted the sound pressure and top plate mobility (velocity) of the guitar and studied its frequency dependence. Within this model, the two lowest resonances are the result of the coupling of the fundamental mode of the top plate and the Helmholtz resonance of the air cavity.

*Room 310B, 3:45 p.m.*

**Department of Political Science**

**Rebecca DeSloover**

Department of Political Science  
Professor Chris Foreman

**Internal Communication's Effects on External Message Transmission: A Study of Internal Communication in the Fine Art Division, Marygrove College**

This study examined the effect that internal communication had on external message transmission by examining the Fine Arts Division (FAD) at Marygrove College in Detroit, Michigan. The Fine Arts Division had identified challenges associated with internal communication on transmitting its message to audiences and sought to improve message transmission. This study assessed FAD's internal method of communications and made recommendations for strengthening internal communication processes.

*Room 302, 1:20 p.m.*

**Christopher T. Fitzpatrick**

Department of Political Science  
Professor Joe Ohren

**Implementing a 24-Hour/7-Day Detective Bureau Operation in a Local Police Department**

The primary purpose of this research effort was to examine the personnel needs of a detective bureau in a local police department during evening and weekend hours that do not necessitate full shift coverage. A comparative analysis examined what similar departments in southeast Michigan have done and provided recommendations on implementing elements of several prevailing systems that work from both a labor and management perspective.

*Room 320, 2:45 p.m.*

**Kylee Guenther**

Department of Political Science  
Professor Adrian Lottie

**Barrett Paving and Materials, Inc. vs. Freedom Township Residents: The Curse of Water and Gravel**

A gravel pit in Freedom Township, Michigan, owned and operated by Barrett Paving and Materials, Incorporated, petitioned the Michigan Department of Environmental Quality (MDEQ), for permission to expand their gravel mining operations up to 85 acres, not to exceed 140 feet below the earth's surface. Citizens in the township were worried that the expansion of the gravel mining operation would lower the water table, potentially causing wells to go dry and damaging the ecological system of Pleasant Lake, which is located near the center of Freedom Township and only about half a mile from the gravel mining site. The paper studies the nature of the project and its impact on the environment and deals with the future implications if the project were to be given the green light and, thus, become a precedent.

*Room 320, 3:05 p.m.*

**Jason Kalmbach**

Department of Political Science  
Professor James Ivers

**Municipal Wireless: Planning Your Community's Network**

Wireless technology is the buzz among local governments as they strive to enhance the overall character of their community and stimulate economic development. Many communities across Michigan are either deploying or considering deploying a municipal wireless network. This study describes the technology involved, identifies various reasons why some communities are pursuing wireless technology, and recommends best practices for consideration by communities exploring implementation.

*Room 350, 9:30 a.m.*

**Inel J. Lewis**

Department of Political Science  
Professor Colleen Croxall

**The Recruitment and Retention of African American Physicians at the University of Michigan: Real Problem, Real Solutions**

One mechanism for reducing and possibly eliminating health disparities in the U.S. is to increase the number of underrepresented minority health professionals in the workplace. The University of Michigan, representative of most academic teaching institutions, has confronted challenges in recruiting and retaining underrepresented minority physicians. This presentation identifies a number of these challenges, explains the link to health disparities, and offers viable

solutions to the problem, utilizing strategies from other academic institutions in addition to the Sullivan Commission Report.  
*Room 350, 9:50 a.m.*

**Laura Schultz**

Department of Political Science  
Professor Claudia Petrescu

**A Case Study in Volunteer Crisis Management**

The overall goal of this project was to analyze the Monroe County Chapter of the American Red Cross's volunteer management response and practices related to the 2005 Hurricane Season events, to compare and contrast the Monroe County volunteer management processes to peer chapters statewide and nationwide, and to provide a usable, effective problem-solving and quality management model of volunteer crisis management.

*Room 350, 10:10 a.m.*

**Department of Psychology**

**Kevin Alschuler**

Department of Psychology  
Professor Flora Hoodin

**Why College Health Care Would Benefit from Integrated Care**

In primary medical care settings, problems with providing appropriate behavioral care led to development of the integrated care model, providing behavioral services alongside medical services. The present study explored the potential need for this model at a Midwest university health center by investigating how two behavioral questionnaires influenced providers' prescription of psychotropic medications and referrals for behavioral intervention. After random assignment to condition, 109 participants in the experimental condition completed the mental-health-oriented Patient Health Questionnaire and the college-adjustment-oriented College Health Questionnaire, and 91 control participants received treatment as usual. Results indicated significantly higher rates of discussion of behavioral problems and prescription of psychotropic medications (not behavioral referrals) for the experimental condition. Patients in the experimental condition and providers both indicated a desire to use the questionnaires in future visits. These findings suggest that university health services would be fertile ground for implementation of an integrated care model.

*Room 350, 1:00 p.m.*

**Matthew Altieri**

Department of Psychology  
Professor Silvia von Kluge

**The Phases Encountered while Raising a Child with Autism**

Parents from 26 families of children with autism were interviewed to gain insight into the demands and experiences related to raising these children. Both biological parents in middle-class nuclear families were interviewed using a semi-structured format consisting of pre-prepared questions and open-ended oral responses. We were interested in the unique characteristics of their child, the struggles they encountered, any treatments they may have implemented, the coping methods they use, their beliefs about the causes of autism, and the positive experiences they had. The interview was constructed to evaluate issues recently presented in qualitative studies with this population (Gray, 2002; Schall, 2000). From these interviews we distinguish five "phases" or categories of experience that these families shared with us. We also present the positive experiences they had in the course of raising a child with a severe developmental disorder, experiences they related with remarkable ease.

*Room 350, 1:20 p.m.*

**Scott R. Brown**

Department of Psychology  
Professor Alida Westman

**Relationships Between Religious Orientation, Positive Adjustment, and Internal Conceptualizations of People and Experiences**

Three religious orientations have been identified. The intrinsic orientation refers to making religion central to one's life; the extrinsic orientation refers to expecting benefits from practicing religion; and the quest orientation refers to questioning. As people develop, they create abstract representations of individuals and experiences that serve to guide future interactions in similar circumstances. These representations may affect relationships between religion and adjustment. In general, the findings in individual studies and reviews indicate a positive relationship between religion and positive adjustment (e.g., Bergin, 1983). Specifically, Koenig (2001) reported that religious beliefs and practices were related to "greater life satisfaction, happiness, positive affect, [and] morale," (p. 99) as well as hope, optimism, purpose in life, and lower levels of both depression and anxiety. This presentation describes a theoretical model of how religious orientation, positive adjustment, and internalized representations are interrelated, preliminary testing of this model, and implications of the findings.

*Room 310B, 2:00 p.m.*

**Andrew E. Cameron**  
Department of Psychology  
Professor Karen Saules

**Gambling by College Students: Personality Characteristics and Acceptability of Internet-Based Treatment**

Personality disorders are associated with Pathological Gambling (PG) among adults. Little is known, however, about these symptoms in college student gamblers. In addition, little is known about the current prevalence or treatment preferences of college gamblers. I conducted an online survey of gambling practices and personality characteristics as well as a series of focus groups evaluating a web-based gambling treatment program. A higher prevalence of PG was observed among college students than previously reported. College students with PG displayed personality disorder symptoms similar to those in adults with PG. Focus group participants provided favorable reviews of the web-based PG program. However, few students who met PG criteria regarded their behavior as problematic. Results suggest PG may be becoming more prevalent on college campuses, and internet-based treatment may be a viable treatment option.

*Room 304, 9:30 a.m.*

**Jessica Chamberlain**  
Department of Psychology

Professor [Carol R. Freedman-Doan](#) [Alissa Huth-Bocks](#)

**Maternal Misattributions and Mother-Child Attachment: The Role of Domestic Violence**

Mothers who have experienced domestic violence often attribute negative characteristics of their abusers to their unborn children, as well as to their infants and young children. This poster will present a case study of a mother who sought therapy for her preschool-aged son following his repeated exposure to domestic violence. This case study will be examined in the context of attachment theory and recent theoretical and empirical reports about maternal misattributions and problematic care-giving in families experiencing domestic violence.

*Room 310B, 2:00 p.m.*

**Amy Drayton**  
Department of Psychology  
Professor James Todd

**Activity Anorexia: Aversions to Flavors Not Seen During Continuous Access to Exercise**

Activity anorexia (AA) is a phenomenon in which the reinforcement value of food decreases and the reinforcement value of exercise increases. It has been suggested that food becomes less reinforcing because a conditioned taste aversion (CTA) develops to the food eaten immediately prior to exercise. In the study,

male Sprague-Dawley rats were given continuous access to running wheels. Food was made available for 30-90 minutes each day with food intake, wheel revolutions, and the rats' weights recorded daily. The type and flavor of food was changed periodically in a multi-element design to determine if running suppressed the intake of these flavors. The results of these experiments show that while daily, time-limited trials of wheel running apparently creates a CTA, this does not occur during ongoing AA.

*Room 330, 9:30 a.m.*

**Leanna Fortunato**  
Department of Psychology  
Professor Carol Freedman-Doan

**Long-Term Predictors of Consistent Condom Use by Adolescent Girls: A Comprehensive Health Behavior Model**

As the threat of HIV/AIDS has grown, a significant effort has been made to promote safe sexual activity, particularly among young people. Currently, the only effective means of protecting against the continued spread of STDs and HIV among the sexually active is consistent condom use. While there is extensive research that demonstrates the correlates of condom use, there is less that adequately predicts consistent, long-term condom use. This poster will present a comprehensive health behavior model to predict long-term condom use in a sample of adolescent girls in heterosexual relationships. The data are drawn from the National Longitudinal Study of Adolescent Health, which contains three waves of data, spanning adolescence through early adulthood. Regression analyses will be utilized to determine the ability of the comprehensive health behavior model to predict consistent condom use from adolescence into young adulthood.

*Room 310B, 2:00 p.m.*

**Erin Henshaw**  
Department of Psychology  
Professor Carol Freedman-Doan

**The Utility of the Health Belief Model for Predicting Mental Health Help-Seeking Behaviors**

Researchers consistently have found that most people experiencing depression do not seek professional mental health services. However, little is known about how decisions to seek or not seek treatment are made. Theory-based research on this topic is critical for the development and evaluation of interventions to increase treatment-seeking among depressed individuals. The Health Belief Model (HBM; Becker, 1974), based in a socio-cognitive perspective, has been applied to many preventative health behaviors such as condom use and dental visits. This research review will apply the principles of the HBM to create a hypothetical model of mental health treatment-seeking. The presentation will include a discussion of

future research plans to test the model in a healthcare setting.

*Room 330, 9:50 a.m.*

**Elizabeth Kuhl**

Department of Psychology  
Professors Flora Hoodin, Michelle Byrd, and Teresa Lynch, Eastern Michigan University; Michael Mendelow, Wayne State University

**Coping and Quality of Life of Adolescents with Idiopathic Scoliosis**

Adolescent Idiopathic Scoliosis (AIS) is a chronic health condition in which the spine grows sideways and twists. Active treatment (bracing or surgery) and passive treatment (being monitored) is stressful. I undertook this study to evaluate adolescents with AIS cope and learn whether disease-specific stress impacts their quality of life (QOL). Forty-six adolescents (predominantly female) completed the *A-COPE* and *PedsQL* to measure coping and QOL, respectively. Adolescents in active treatment endorsed using more coping behaviors to manage disease-specific stress than those being monitored. QOL did not differ significantly across types of treatment, was comparable to healthy adolescents, and was higher than that of adolescents with other chronic illnesses. In sum, those in active treatment likely experience more stress but generally cope with it effectively. Future research should evaluate effectiveness of specific coping strategies in relation to particular AIS-specific stressors.

*Room 310B, 3:45 p.m.*

**Jacqueline Mezza**

Department of Psychology  
Professor Carol Freedman-Doan

**Does Internalization of Societal Messages Mediate Racial Differences and Body Dissatisfaction? A Question of Measurement**

Researchers have found that African American women, even if they have a heavier build, tend to be more satisfied with their bodies, have less body preoccupation, and report higher self-esteem and fewer disordered eating behaviors than do European American women (Milkie, 1999; Thompson-Leonardelli, 2002). Though several studies have looked at racial differences in the body dissatisfaction of young adult women, few have examined racial differences in body dissatisfaction among adolescent females. One explanation for differences between Black and White girls in their BD may be that European American girls are more likely to internalize societal messages about attractiveness. For this study, it was hypothesized that African American girls would report increasing levels of BD only if they reported increased internalization of societal messages about attractiveness. Participants were 150 Black and White girls, aged 14-16, drawn from several large urban areas. Internalization mediated the relationship between

ethnicity and BD when a nonverbal measure of BD was used (BIA) but not when a verbal measure was used (MBSRQ-AE). Implications of the discrepancy between measures are discussed.

*Room 350, 1:40 p.m.*

**J. Robert Parker**

Department of Psychology  
Professor Alida Westman

**Do Hope, Optimism, and Locus of Control Provide a Link Between Extrinsic and Quest Religious Orientations?**

Three religious orientations have been used to study what motivates people to engage in religion. The Intrinsic orientation refers to making religion central to one's life, the Extrinsic orientation refers to expecting benefits from belonging to a religious group, and the Questing orientation refers to questioning. Previous research indicates positive relationships between Intrinsic and Quest, negative relationships between Intrinsic and Extrinsic, and no relationship between Extrinsic and Quest. Parker (2004) and Brown (2006) found unexpected positive relationships between Extrinsic and Questing. Those with Highly Extrinsic or Questing orientations may have negative outlooks toward life. Results indicate that those with high Extrinsic or Questing orientations have significantly lower levels of hope and optimism than those with highly Intrinsic orientations, as well as lower levels of perceived control over their own lives as compared to the highly Intrinsicly oriented.

*Room 330, 10:10 a.m.*

**Susan J. Procter**

Department of Psychology  
Professor Alida Westman

**Internet Games We Play (and Wish We Could Avoid)**

The age of the Internet has put knowledge quite literally at our fingertips. Despite this ease of access, poor website design can result in increased complexity and frustration for the user. This presentation will focus on the concepts of usability and accessibility and their role in effective web design; adherence to these user-centered design principles is paramount in meeting the needs of the user. Without them, poorly designed websites serve to provide little more than an exercise in futility.

*Room 350, 2:00 p.m.*

**David Saunders-Scott**

**Amy S. Collings**

**Nancy E. Angelella**

**Valentina Ivezaj**

Department of Psychology

Professor Flora Hoodin

**What Most Strongly Predicts Adult BMI: Maternal Diabetes, Lifestyle, or Mood?**

The present study examined the relative contribution of maternal diabetes to adult BMI. Participants were 357 students at a Midwestern university (mean age =  $21 \pm 7.16$  years); 64% were female, 68% were white, 21% black, and 11% other ethnicities. Participants positive for maternal type 1 diabetes had higher BMI [ $M = 30.69 \pm 10$  (overweight)] than all other participants [ $M = 24.93 \pm 5.16$ , (normal weight)]; ( $p \leq .05$ ). Hierarchical Multiple Regression analysis (controlling for demographics in the first block; mother's weight and diabetes status in the second block; dieting, physical activity, and depression in the third block) accounted for 13.6% of the variance in adult BMI ( $p \leq .001$  at each step). All variables except maternal diabetes and physical activity contributed significantly to the final model ( $p \leq .05 - p \leq .001$ ), suggesting that lifestyle and mood, as opposed to maternal diabetes, are important targets for obesity intervention.

*Room 310B, 10:00 a.m.*

**Sarah Wice**

Department of Psychology

Professor Alida Westman

**An Experimental Study Shows That People Who Are Beautiful Are Perceived to Have More Power**

This research examined relationships between attractiveness and perceived power among women and men. Seventy-seven undergraduate students examined 12 photographs of attractive and unattractive students and then completed the Interpersonal Power Inventory (Raven, Schwarzwald & Koslowsky, 1998) adapted for this study. As hypothesized, participants rated more attractive students as having more perceived power than less attractive students. Attractive students were perceived as having expertise, legitimately holding a position of power, more likely to receive rewards, and more likely to be admired. However, they were not perceived as being more coercive than unattractive students. Gender did not affect the perceived relationship between power and attractiveness. These findings support the "what is beautiful is good" stereotype (Dion, Berscheid & Walster, 1972).

*Room 330, 10:30 a.m.*

**Department of Sociology,  
Anthropology, & Criminology**

**Lisa Marie Kruse**

Department of Sociology, Anthropology, and

Criminology

Professor Gregg Barak

**Sexual Predator and Offender Registry Laws: An Evaluation into the Effectiveness on Preventing Recidivism**

Sexual Predator and Offender Registry Laws at the Federal and State level are often passed through sweeping legislation following a highly publicized case of a specific sexual crime. As we move forward in the 21st century, these laws and policies are amended and added with little or no thought of their effectiveness on preventing recidivism. In the following study, the State of Michigan Sexual Predator and Offender Registry laws are examined to determine their overall effectiveness in protecting the public from sexual crimes. A historical analysis of the laws is presented to outline the excess of legislation in respect to evaluations of effectiveness and to highlight the climate of morality during the influx of new and amended laws. Further, an analysis into the crime rate statistics with regards to sexual offending determines the rate at which sexual offending has increased or decreased following the passage of legislation.

*Room 304, 10:10 a.m.*

**Paula Thompson Ross**

Department of Sociology, Anthropology, and

Criminology

Professors Denise Reiling, Clovis E. Semmes, and

Kristine Ajrouch

**A Theory toward the Decline of Racial Solidarity among African Americans**

The researcher explored the fundamental formulations that shape perspectives on racial solidarity among one group of African Americans through in-depth interviews with individuals from two generational cohorts, 18 to 30 (post-Civil Rights era) and 50 and above (Civil Rights era). This study described a process by which racial solidarity appears to have diminished among some African Americans. This transition seems to have occurred as a result of the deterioration of the traditional African American community, the acceptance of externally imposed beliefs about the racial group, and in-group sabotaging behaviors that create numerous problems within the younger generation. Data obtained from participants within the post-Civil Rights generational cohort provide some insight into the existence of these problems. Strategies African Americans can use to improve their situation are also offered.

*Room 310B, 10:00 a.m.*

**Women's and Gender Studies  
Program**

**Kathleen Ivanoff**

Women's and Gender Studies Program  
Professors Margaret Crouch and Karen Sinclair

**Women and Madness in Film: An Exploration**

Utilizing both filmic techniques and narrative structure, this paper analyzes three films—*Lilith* (1962), *Splendor in the Grass* (1964), and *The Hours* (2002)—to illustrate how the construction of restrictive societal gender roles result in stereotypical categories of female behavior that contribute to depression and mental illness. These constructs are reflected in both traditional filmmaking, indicted by feminists as “the male gaze” in the two earlier films, and by a more empathic and causal-oriented view in *The Hours*.

Room 304, 1:00 p.m.

**Chris Lezotte**

Women's and Gender Studies Program  
Professors Margaret Crouch and Karen Sinclair

**Does the Gender and Sexuality of a Filmmaker  
Make a Difference?**

In this presentation, I explore this question by analyzing two recent films with the same literary genesis, Virginia Woolf's *Mrs. Dalloway*. The first is a film of the same name, directed by Marleen Gorris, with a screenplay by Eileen Atkins. The second is *The Hours*, adapted from Michael Cunningham's novel by screenwriter David Hare and director Stephen Daldry. While the two films are markedly different in style, setting, and scope, what distinguishes them most remarkably is how each filmmaker represents Virginia Woolf's original vision on the screen. In the adaptation of the written word to celluloid, the decision to include or dismiss elements of the fundamental source is ultimately in the hands of the director. I argue that the choices made strongly reflect the director's gender and sexuality.

Room 304, 1:20 p.m.

**College of Business**

**Department of Management**

**Mohammed Al-Jaro**

**Chi Ying Ko**

**Lisa Herring**

**Delmeer Oliver**

**Montakan Narach**

Department of Management

Professor Megan Endres

**Communication of Flexible Benefit Plan**

**Information: Individual Preferences versus**

**Current Practices**

Human Resource communications has taken on new significance as organizations struggle to attract employees with flexible benefit choices, despite rising healthcare costs. This research study investigated the relationship between employee satisfaction with benefit communication and the medium through which this communication was sent. A survey was conducted of 160 adult employees with flexible benefit plans in their workplace. Results indicated that most individuals prefer that benefit information or changes be communicated through email. Interestingly, the most prominent method of communication these individuals encounter in their organizations is written. Gender, age, and job type did not affect preference, but individuals with higher levels of financial knowledge and higher incomes reported significantly higher preferences for email and internet communication. The study offers implications for human resources professionals and organizations in their communication of benefits for attraction and retention of satisfied and informed employees.

Room 310B, 10:00 a.m.

**Deedra Climer Bass**

Department of Management

Professor Megan Endres

**Job Satisfaction in Virtual Work Settings as a  
Function of Preference for Introversion or  
Extroversion**

Though the number of employees involved in alternative work arrangements—telecommuting and telework—continues to increase, little is known about what factors affect job satisfaction in such arrangements. In an attempt to broaden this knowledge, this work explores the relationship between job satisfaction and preference for introversion versus extraversion in virtual work settings. The constructs of job satisfaction and introversion/extraversion preferences are measured using previously validated scales on a web-enabled survey. Variables establish a relationship between introversion/extraversion and job satisfaction when moderated by the number of hours spent in an

alternative work environment. Implications for research and practice are provided.

*Room 320, 9:30 a.m.*

**Deborah Biondo**

Department of Management

Professor Megan Endres

**The Importance of Gender in the Selection of Flexible Benefits: Challenges to Past Research Findings**

Gender is promoted in the literature as being an important factor in compensation, but little research focuses on gender preferences in flexible benefit packages. We surveyed 160 individuals who have flexible benefits plans at their workplaces. Contrary to expectations, female subjects were not more likely than men to select family-related benefits (flex-time, unpaid leave) over other benefits. Also unexpectedly, women with flexible spending accounts at their workplace reported higher satisfaction with their overall benefit program than women without these accounts. Women ranked medical coverage as more important than men did, and younger women reported the highest rankings for medical coverage. An important implication of these findings is that companies should reassess assumptions about women's benefit preferences. Future research and practitioner suggestions are offered.

*Room 310B, 10:00 a.m.*

**Pasquale Caruso**

**Rebecca A. Clark de Castillo**

**Ashraf Jessani**

**Amanda Lefeld**

Department of Management

Professor Megan Endres

**An Empirical Investigation of Diverse HR Benefit Needs: A Comparison of Gen X, Gen Y, and Baby Boomer Employees**

Many employers provide human resource benefits to a wide range of employee types, but researchers do not address differences in the three primary working generations—Generation X, Generation Y, and Baby Boomers. Eighty-one individuals were surveyed regarding their needs and preferences for different HR benefits. As expected, Baby Boomers valued disability insurance and retirement contributions significantly more than other groups. Generation Y individuals reported significantly higher value for personal day “spending accounts” and unpaid family leave than other groups. Generation X respondents rated unpaid family leave significantly higher than other groups. Overall, findings suggest that generational differences exist in benefit preferences. Furthermore, organizations can tailor their HR programs and communications to best serve each group's current and future preferences. Implications are provided for HR managers and for future researchers.

*Room 310B, 10:00 a.m.*

**Katarzyna Czajka**

**Gaye Ozdemir**

**Kimberley Tath**

Department of Management

Professor Diana Wong

**The Organizational Development Intervention Project for Reflections Salon & Day Spa**

This presentation discusses the organizational development intervention project for Reflections Salon & Day Spa, a company based in Brighton, MI. The venture was aimed at creating a change plan that would assist the business in identifying and solving its current problems, such as the high employee turnover and poor management structure, which hindered the company's further development. The project was composed of two main sections. The first part consisted of the diagnosis of the company's current situation, where the students used data collecting tools, such as surveys, interviews, and unobtrusive measures in order to make proper recommendations. The second part of the project comprised the design of the goal-setting intervention plan.

*Room 320, 9:50 a.m.*

**Roslyn Edmondson**

Department of Management

Professor Diana Wong

**Job Descriptions for Trainer and Consultant**

This project entailed developing and presenting six job descriptions for Creative Solutions University (CSU), which provides training and support services for Thomson - Creative Solutions' software products. The job descriptions account for different CSU instructor positions identified as trainer, consultant, and senior consultant. The purposes of developing job descriptions at CSU were to update and increase clarity about roles and responsibilities, align job performance with industry standards, provide an approach for career advancement, and enable organizational advancement. The job descriptions provided an entry point into a process of strategic workforce management that involves aligning jobs with the future direction of CSU within Thomson-CS. Next steps propose ideas for an implementation process, performance management, performance appraisal, job evaluation and redesign, and potential initiatives for CSU's future development, emphasizing the importance of a change process to adopt the job descriptions, which capture the momentum for making positive change among the staff.

*Room 330, 1:00 p.m.*

**Connie Elliott**

Department of Management  
Professor Mary Vielhaber

**Best Practices: How an Organization Builds Commitment to a Strategic Plan at All Levels of Staff**

This research project describes how one non-profit organization used a strategic planning process to successfully build commitment to an organization's vision, goals, and objectives among all levels of staff. As a participant-observer, I was able to note the specific communication strategies, techniques, and messages that were used to align the staff of this organization behind its goals. I examined these planning components over a period of seven weeks, using proven theoretical models and guidelines of successful strategic planning within organizations as a framework. As a result of my observations, I recommend that organization leaders who want to retain high quality employees make a determined effort to involve them in a strategic planning process. The result, if not a "perfect" final document, will be well worth the effort for the increased teamwork and sense of empowerment instilled in the employees through the process.

*Room 330, 1:20 p.m.*

**Kimberly Emery**

**Susan Stokes**

Department of Management  
Professor Diana Wong

**Examining the Issue of School Access and the Great Sauk Trail Council of the Boy Scouts of America**

The purpose of this audit was to uncover factors believed to be contributing to the difficulties for one division of the Boy Scouts of America, the Great Sauk Trail Council (GSTC), to gain access to certain schools for the purpose of disseminating information about programs and services to elementary school children. Instruments used to evaluate this issue included questionnaires, surveys, interviews, and unobtrusive data. Each team member focused on one of the four GSTC districts to gather data from all superintendents and a sampling of principals in the associated elementary schools. Results indicate that the lack of communication and relationships are major factors contributing to the barriers between the schools and the GSTC. Input from interviews support increasing communication and relationship building as an opportunity to increase community outreach effectiveness.

*Room 330, 1:40 p.m.*

**Kathy Waltz**

Department of Management  
Professor Jean Bush-Bacelis

**Leadership and Executive Coaching: A Literature Review**

The use of leadership and executive coaching has become an increasingly common method of performance intervention for senior managers in organizations today. Much has been written about the coaching process in business and scholarly journals, with most published materials focusing on qualitative versus quantitative measures of effectiveness in coaching outcomes. Despite the rise in popularity of coaching as a method of producing positive change in executives and organizations, coaching as a professional discipline is still a loosely defined and largely unregulated field. This review examines the history and development of coaching from its origins in organizational behavior theory, highlights essential elements of the coaching process, and discusses methods for measuring outcomes of coaching interventions. It concludes with a list of best practices and suggestions from coaching professionals that may be of value to new and experienced coaches in their respective enterprises.

*Room 320, 10:10 a.m.*

## College of Education

### Department of Leadership and Counseling

**Christopher Allan Bylone**

Department of Leadership and Counseling  
Professor Patricia Pokay

**Passing the Gavel: Succession Planning for Community Interest Student Organizations**

One of the unique aspects of a university is the inclusion of vibrant student organizations that undergo constant leadership change. Detailed succession plans for leadership change in these organizations is critical. Succession planning research is fairly new and has not resulted in agreed-upon techniques, especially in university settings. This presentation will link what has already been done in the business world with what can be done for campus student organizations. Community interest student organizations will also be compared to family businesses. Based on these comparisons, suggestions will be made for student organizations.

*Room 352, 9:50 a.m.*



**Chiharu Hensley**

Department of Leadership and Counseling  
Professor Dibya Choudhuri

**Support Systems for Parents of Children with Disabilities**

Based on a review of literature, the presenter proposes attending to the often overlooked counseling needs of parents of children with disabilities. To help these parents improve their coping and parenting skills, support systems provided by a counselor and other parents who also have children with disabilities appear to be of utmost importance. The presenter also proposes specific individual and group counseling interventions for parents of children with disabilities.

*Room 310B, 3:45 p.m.*

**Hannah Hyde**

Department of Leadership and Counseling  
Professors Diane Parfitt and Sue Stickel

**Student Service in the Secondary Schools: How Students and Schools are Currently Experiencing Community Service**

It has become common for secondary schools to require students to perform some type of community service, either through graduation requirements or service learning curriculum. The presenter has synthesized research on student service, highlighting the differing effects of service programs and emphasizing the methods of student service that are most effective in improving students' academic, civic, and social achievement. By understanding which programs and service types can better promote certain desired effects, school personnel, including teachers, counselors, and administrators, will be able to use the information from this presentation to better design student service programs.

*Room 352, 10:10 a.m.*

**Wan-En Leu**

Department of Leadership and Counseling  
Professors Elizabeth Broughton and Suzanne Dugger

**College Adjustment of American College Students and International Students at EMU**

College students today are dealing with more mental health issues than in the past (Kadison & DiGeronimo, 2005). One of the most frequently discussed issues reported by Eastern Michigan University's Counseling Services is the adjustment of college students to college life. (<http://www.emich.edu/uhs/>, 2006). Good data don't seem to exist, however, about any possible differences between the adjustment by American college students and international students at EMU. The purpose of the study is to examine differences in college adjustment between American college students and international students at EMU as measured by the College Adjustment Scales (Anton & Reed, 1991). Participants will be randomly selected among

undergraduate students. This poster will describe the purpose, background, and methodology of the research.

*Room 310B, 10:00 a.m.*

**Patrick Soule**

Department of Leadership and Counseling  
Professor Yvonne Callaway

**The Contemporary College Counseling Clinic: We Have Built It, but What Will Get the Students to Come?**

This study will use a field-based research approach to identify the counseling needs of EMU undergraduate student populations. This research will be supported by a literature review of college student development theories and research about the developmental and transitional needs of contemporary college students. The study will also seek to identify student concerns around the use of traditional counseling centers and counseling training centers. This information will be developed into related survey questions. Additionally, the staff and faculty of Eastern Michigan University will be asked about ways that group counseling can support student development and the most effective outreach strategies for traditional and nontraditional EMU undergraduate students. This information will also be developed into survey questions. Finally, this project will focus on the use of survey data to identify strategies for adapting counseling clinic services to best attract and serve the EMU traditional and nontraditional undergraduate student population.

*Room 310B, 2:00 p.m.*

**Department of Special Education**

**Jeff Barnett**

Department of Special Education  
Professor John Palladino

**Compassion Fatigue and Teacher Burnout in Michigan Middle School Teachers**

Research examined the relationship between compassion fatigue and the incidence of middle school teacher burnout. A strong connection between the two indicates the need to frame prevention planning and remedial response intervention in terms of the constructs and dictates of compassion fatigue. Eight subjects from Southeastern Michigan public schools were interviewed. Each subject was a novice teacher with less than six years of total experience. The study utilized qualitative methodology to explore theory as it relates to practice (Creswell, 2005). Purposeful sampling was used to select the participants for the study (Creswell, 2003). The study was conducted as a subcomponent of Dr. John Palladino's 2007 project titled "Compassion Fatigue as Precursor to Special Education Teacher Burnout." Subjects were queried across five constructs: the occurrence of student-induced stressful situations, caseload, teacher's family

history, symptoms experienced by the teacher, and, finally, the availability of development and support opportunities.

*Room 310B, 3:45 p.m.*

**Patricia F. Smith**

Department of Special Education  
Professor Alicia Li

**Language Problems in Children Who Have Visual Impairments**

Because language is mostly learned by associating concepts with visual experiences, children with visual impairments must make connections between the two based on tactual and auditory information and without the benefit of visual stimuli. Because of the lack of visual stimuli, the children often experience language problems, including echolalia, prolonged periods of babbling, and/or excessive or inappropriate use of verbalism. Currently, very little research has been done in this area. To complete this study, the researcher will survey teachers of students with visual impairments to determine if these students have language problems. The survey will be completed via written questionnaire, with follow-up interviews to be conducted as needed. The researcher will then summarize the findings of the survey and make recommendations for interventions to improve the speech and language development of children who have visual impairments.

*Room 304, 1:40 p.m.*

**Heather Steffy**

Department of Special Education  
Professor Lizbeth Stevens

**Moebius Syndrome and Considerations for AAC Use: What Every SLP Needs to Know**

Moebius syndrome (i.e. congenital facial diplegia) is a disorder characterized by the underdevelopment of cranial nerves VI and VII. Affected individuals may present with impaired facial expression, speech intelligibility issues with and without concomitant motor problems, and hearing loss; those who are affected severely may require augmentative communication methods. An overview of common characteristics and of concerns of these individuals in determining their need for use of AAC will be provided. Data include personal interviews with several affected individuals. Suggestions for addressing the AAC-related concerns of these individuals and for further research in this area of study will be offered.

*Room 310B, 2:00 p.m.*

**Marliese Temme**

Department of Special Education  
Professor Gilbert Stiefel

**Impact of Socio-Economic Factors on First Grade Literacy Achievement**

Each year the number of students served under the Individuals with Disabilities Education Act increases. Researchers need to continue to investigate the reasons behind this increase so that educational curriculum development responds to these students' needs. One proposed reason for this increase is the impact of cumulative socio-economic risk factors upon the cognitive performance of children. This study will investigate the effectiveness of an evidence-based literacy curriculum on first grade literacy achievement of students with differing numbers of socio-economic risk factors. The selected curriculum will incorporate the research-based instructional strategies in the Houghton Mifflin curriculum. This study questions whether this high quality evidence-based instructional program can offset the deleterious effects of multiple socio-economic risk factors on students in an urban school setting.

*Room 304, 2:00 p.m.*

**Erica Tepper**

Department of Special Education  
Professor John Palladino

**Compassion Fatigue as Precursor to Special Education Teacher Burnout**

The researcher investigated how compassion fatigue theory relates to novice in-service elementary special education teachers' initial experiences in the field of Special Education. One in-depth interview occurred, with eight participants representing elementary special education teachers in Michigan (with less than six years of experience). An outside transcriber was hired to convert each audio-recorded interview into hard copy transcript for the purpose of data analysis.

*Room 310B, 3:45 p.m.*

**Department of Teacher Education**

**Paula Sizemore**

Department of Teacher Education  
Professor Joe Bishop

***Songs: Poetical Considerations on Gender and Ethnic Theories***

Building on selected quotations from gender and ethnic theorists, *Songs* presents the impact of the current power structure from the viewpoint of the victimized. The effects of markers, expression of patriarchal masculinity, female gender conformance, black male compliance, resistance of sexualized females, and the effects of socio-economic conflict are poetically expounded.

*Room 304, 10:30 a.m.*

**Yu Zhao**

Department of Teacher Education  
Professor Joe Bishop

**Teacher Expectations toward ESL (English as a Second Language) Students in U.S. Higher Education**

Since the publication of Rosenthal and Jacobson's *Pygmalion in the Classroom* in 1968, the relationships between teacher expectation and student performance have been well documented. Research shows that K-12 teachers tend to hold lower academic expectations of ESL students because of their language deficiency. However, no relevant research has been done at the higher education level. The present study investigated U.S. professors' expectations toward ESL students. The researcher surveyed 122 professors in a Midwestern middle-sized university about their (1) beliefs of ESL students' ability to learn in U.S. classrooms, (2) actual classroom practices, (3) grading policies, (4) relationships with ESL students, and (5) cultural awareness. Data revealed that professors generally held positive expectations toward ESL students. However, the researcher also used *t* test, ANOVA, and other statistical techniques to analyze belief and behavioral differences among different groups of professors, such as male and female professors, and across different disciplines.

*Room 352, 2:00 p.m.*

to performance, while an Impulse-Response model that used TSS was correlated with performance. TSS may be a more valuable training metric than mileage for competitive runners.

*Room 302, 2:45 p.m.*

**Rebecca Rogers**

School of Health Promotion and Human Performance  
Professor Robert Rhodes

**Postural Sway During Standing and Stationary Marching: Outcomes Assessment of Orthotic Management for Survivors of Stroke**

The primary question in this research study is whether significant improvements in postural sway can be measured as a means for determining the outcome of orthotic management in hemiplegia patients. The specific aim is to establish a convenient method of reporting clinical success in the practice of orthotic prescription and fitting. This study proposes a simplified method of outcomes assessment geared toward generating large quantities of data with respect to orthotic management and care. The procedure of gathering data from postural sway is proposed to be simple and time-efficient. This means that it may provide clinicians with desirable information from a large subject number over a reasonable duration of time.

*Room 352, 10:30 a.m.*

**College of Health and Human Services**

**School of Health Promotion and Human Performance**

**Ian Ratz**

School of Health Promotion and Human Performance  
Professor Stephen McGregor

**Impulse-Response Performance Modeling Using Pace and Duration Correlates to Performance in a 1500 m Olympic Finalist**

We tested the utility of modeling performance of an elite runner using an approach that quantifies training load by integrating pace (intensity) and duration. Training data from 2000 and 2001 was used to calculate training doses (TSS) similarly to that proposed by Coggan (2006). Actual performances were compared to predicted performances from an impulse-response model. Performance measures (MS) peaked (945) one week before national championships (814; 1st) and before the Olympic finals (918; 5<sup>th</sup>) in 2000. MS in 2001 peaked (935) 10 days after national championships (762; 2<sup>nd</sup>). Predicted performance  $p(t)$  was correlated with MS ( $\rho = .73$  and  $.75$ ;  $p < 0.01$ ). MS was not correlated with mileage, although mileage was negatively correlated with  $p(t)$  ( $r = -.38$ ;  $-.33$ ;  $p < .01$ ). In this elite runner, mileage was not correlated

**Rachael K. Weese**

School of Health Promotion and Human Performance  
Professor Stephen J. McGregor

**Intermittent 30s Intervals Performed at 100 and 70 % VO<sub>2</sub>peak Power (pVO<sub>2</sub>peak) Allow Trained Cyclists to Maintain VO<sub>2</sub>peak Longer than Continuous Intervals at 100% pVO<sub>2</sub>peak**

It was of interest to determine if an intermittent cycling protocol would 1) elicit VO<sub>2</sub>peak in trained cyclists and 2) if VO<sub>2</sub>peak were attained, if the intermittent protocol elicited a greater  $tlimVO_{2peak}$  compared to a continuous bout at VO<sub>2</sub>peak. Time to exhaustion ( $tlim$ ) was significantly greater in the intermittent trial (8:52±0:46) than the continuous trial (3:45±0:54;  $P < 0.05$ ).  $tlimVO_{2peak}$  was significantly greater in the intermittent trial (4:41±0:45) than the continuous trial (2:18±0:31;  $P < 0.05$ ). In trained cyclists, an intermittent protocol at 100 and 70 % pVO<sub>2</sub>peak is necessary to elicit VO<sub>2</sub>peak.  $tlim$  and  $tlim VO_{2peak}$  were significantly greater during the intermittent trial than the continuous protocol performed at 100% p VO<sub>2</sub>peak. This intermittent protocol may provide a greater overload and, hence, adaptation, to VO<sub>2</sub>peak than continuous intervals.

*Room 302, 3:05 p.m.*

## **School of Health Sciences**

**Deborah Brzys Busick**  
School of Health Sciences  
Professor Judi Brooks

### **Parent Food Purchases as a Measure of Exposure and its Effects on Preschool-Aged Children's Willingness to Identify and Taste Fruits and Vegetables**

This research explored whether parents who purchase more fruit/vegetables have preschool-aged children who are able to identify fruit/vegetables and, in turn, are more likely to consume them. Sixty-two parent-child pairs were recruited. The data collection included a child interview, a parent/guardian interview, a fruit/vegetable taste test for children, and a month-long food receipt collection by the parent/guardian. As the percentage of fruit/vegetables purchased by parent increased, the child was more likely to accept all of the fruit/vegetables offered to him or her ( $p=.009$ ). Parents who purchased the most fruit/vegetables, causing increased exposure, had children who were more willing to taste the fruit/vegetables offered to them.

*Room 310B, 10:00 a.m.*

**Samantha Chriscinske**  
**Rebecca Couch**  
**Lori Giordano**  
**Megan Koran**  
**Shaqueala Lowery**  
**Francesse Merriweather**  
**Andrea Sinkunas**  
**Melissa Thick**  
**Andrea Tober**

School of Health Sciences  
Professor Elizabeth Francis-Connolly

### **Mothering Young Adult Children: Occupation, Meaning, and Experience**

The ongoing research conducted in this study examines the relationship between mothers and young adult children, specifically, the experience of how the mothers and young adult children feel the relationship has matured and changed over the years. Mothers and young adults are not paired up; instead, a mother from one family and a young adult from another were interviewed. Through this research we are finding that experiences of both mothers and young adults are similar. Themes discovered in the data will be described in this project.

*Room 310B, 2:00 p.m.*

**Maresa Hiehle**  
**Jana Repaska**  
School of Health Sciences  
Professor Gretchen Reeves

### **The Effect of Adult-Directed Versus Child-Focused Strategies on Engagement in Children with Autism**

Play provides an essential role in childhood by presenting opportunities to enhance developmental learning. In children with autism, play may not occur because of their difficulties participating in social relationships. This descriptive study examines mothers' interactions during play with their children with autism and compares the effects of adult-directed and child-focused play. Twenty-two mother-child dyad video samples were coded, using direct observation for characteristics that enhanced and hindered play. Inter-rater reliability was .8-.97. By learning about the most effective strategies that facilitate play in children diagnosed with autism, social engagement may become a more positive experience for all participants involved.

*Room 310B, 3:45 p.m.*

## **School of Nursing**

**Tina Holtz**  
School of Nursing  
Professor Tsu-Yin Wu

### **The Effects of Videotaped Breast Self-Examination Education on the Health Belief Model and BSE Application Among Premenopausal Women**

The American Cancer Society offers breast self-examination (BSE) as an option for breast cancer protection, but many women do not practice it. Studies have found that this is due to lack of knowledge, lack of understanding the benefits of BSE practice, and/or lack of time. The purpose of this study was to demonstrate the effects of videotaped BSE education on the Health Belief Model (HBM) and BSE practice among premenopausal women in an outpatient clinic. Fifty women were randomly assigned to a video group (VG) (N=25) or non-video group (NVG) (N=25). All participants completed a questionnaire related to socio-demographics, BSE frequency, and items within the HBM related to susceptibility, benefits, and barriers. The VG also observed a 7-minute BSE instructional video. Three months later, all participants completed a follow-up questionnaire. Results showed that women in the VG performed BSE more often than did the NVG. The VG also reported feelings of greater susceptibility to breast cancer than the NVG. These results indicate that the BSE videotape does affect a woman's perceptions and performance on BSE.

*Room 301, 2:45 p.m.*

**Elizabeth Rodzik**

School of Nursing  
Professor Naomi Ervin

**Osteoporosis Education in College Students**

Osteoporosis, a degenerative bone disease, is preventable. Women of all ages need to be aware of the risk factors and preventive behaviors. The purpose of this study was to determine if an educational intervention would increase knowledge and influence college women to change their behaviors, exercise, and dietary calcium intake, thus preventing osteoporosis. A random sample of 149 college female students enrolled at a Midwestern community college participated. They completed two questionnaires and were surveyed to determine their knowledge of osteoporosis and their intent to change their health behavior before and after an educational intervention. Statistical analysis indicated that the intervention increased the subjects' knowledge about osteoporosis and elicited self-reported health lifestyle behavioral changes. Significant improvements in basic osteoporosis knowledge occurred at all ages, educational levels, and ethnic groups. These findings suggest that an educational intervention can be implemented to bring awareness to those at risk for osteoporosis and to suggest changes they can incorporate into their lives.

*Room 301, 2:00 p.m.*

**School of Social Work**

**Hidaayah A. At-tauhid**

School of Social Work  
Professor Joan Abbey

**Detroit Bureau of Substance Abuse Prevention, Treatment, and Recovery Services Substance Abuse Needs and Asset Assessment**

Substance Abuse Prevention, Treatment, and Recovery Services (BSAPTR) hired Eastern Michigan University's (EMU) School of Social Work to conduct a *Substance Abuse Needs and Asset Assessment*. BSAPTR is the State of Michigan-designated Substance Abuse Coordinating Agency for Detroit. Its charge from the State includes periodically contracting for a needs assessment. The study's purpose is to assist BSAPTR in planning the expenditure of substance abuse prevention and treatment funds in ways that meet the identified needs. The study has three goals: 1) to obtain an environmental scan of BSAPTR's service area, 2) to understand community perception relative to substance use, and 3) to understand the current and projected need for substance abuse prevention and treatment services in the BSAPTR's service area.

*Room 302, 1:00 p.m.*

**Patricia Hall**

School of Social Work  
Professor Betty Brown Chappell

**Long Term Care and Michigan House Bill 5389: A Policy Analysis**

I examined the Single Point of Entry (SPE) House Bill 5385, emphasizing how the proposal and the actual plan would affect the elderly. The SPE has been proposed as a way to streamline the procedures used to inform and put into place eligibility for the elderly regarding long care. It is based upon the premise that these individuals will be best served with a "one-stop shop" idea. Presently, older Americans may need to seek assistance from multiple sources before they can decide upon proper long-term care. This process may not provide services in the best possible manner. The SPE system will be under the direction of the Department of Community Health, which will designate and maintain locally and regionally based SPE communities. These SPE programs will be carefully monitored with consumer concerns in mind. The helm of each assessment. The annual savings of millions of dollars once the program is underway.

*Room 304, 9:50 a.m.*

**Wendy S. Whitlock**

School of Social Work  
Professor Joan Abbey

**Statewide Evaluation of Michigan's Infant Mental Health (IMH) Model**

The study is designed to determine the efficacy of Michigan's IMH model with two at-risk populations: families experiencing first time births/adoptions and families with second/subsequent births or adoptions. It will also assess the impact of therapist-to-caseload ratio and services duration and intensity on outcomes. Evaluation objectives for the cost analysis include determining the service's cost-benefit relative to child welfare and juvenile justice involvement for youth and distributive efficiency. The study is being conducted in partnership with four mental health agencies: The Guidance Center and Development Centers, Inc., both in Wayne County; Clinton, Eaton, Ingham Community Mental Health Agency in Ingham County; and The Arbor Circle Corporation, in Kent County. These state-contracted public mental health providers deliver this home-based service to families where the parents' depression or another mental disorder places their infant and/or toddler at risk or families with infants/toddlers already diagnosed as having attachment or regulatory disorders and/or serious emotional disturbance.

*Room 330, 2:00 p.m.*

## College of Technology

### School of Technology Studies

#### **Peisy Alamsjah**

School of Technology Studies  
Professor Subhas Ghosh

#### **Nonwoven Polyurethane in the Application of Intimate Apparel**

In order to improve comfort in woman's intimate apparel, a study has been conducted using nonwoven polyurethane (PU) in the manufacture of intimate apparel. Because of its unusual stretching and stretch recovery properties, PU provides a great potential for increasing comfort and aesthetic of the product.

Various performance properties of PU fabric were compared with the currently used cotton, polyester, and PU blend fabric in this study.

*Room 301, 1:00 p.m.*

#### **Matthew Mosley**

#### **Lori Adkins**

#### **Wen Ting Cheng**

#### **Alice Gannon-Boss**

#### **Sarahanne Wright**

School of Technology Studies  
Professor Susan Gregory

#### **Service Audit at Eastern Michigan University: A Student's Perspective**

Students prepared and executed a service audit on the various departments of Eastern Michigan University. The service audits were conducted with the students using the services as they would in a normal situation. Departments were evaluated on various factors that affect the students' perception of the service offered. The researchers used the information gathered from the service audits and developed a SWOT analysis, which identified the internal aspect of the Strengths and Weaknesses as well as the external aspect of the Opportunities and Threats. The service audit was designed to provide feedback for continuous improvement as well as information on what is being done right, with the intent of providing a benchmark for future evaluation.

*Room 330, 2:45 p.m.*

#### **Akosua Slough**

School of Technology Studies  
Professor Denise Pilato

#### **Who Wears the Pants in the Industrial Age? Deskilling and Fear of Emasculation as Seen in 1930s Cultural Output**

Progress in the U.S. has typically been defined by technological advances, though these advances are not always perceived as benevolent to everyone affected

by them. By the 1930s, widespread adoption of factory work and its associated changes in lifestyle, while beneficial to many in myriad complex ways, was not without its negative impacts. These impacts can be seen in technophobic themes found in contemporary cultural outpourings. One such theme, that of fear of emasculation by skill transference from men to machines, is a pervasive theme in the literature, art, and film of that decade. Examples of this theme are readily seen in Sherwood Anderson's novella *Perhaps Women*, Diego Rivera's *Detroit Industry* murals, and Charlie Chaplin's film *Modern Times*.

*Room 330, 3:45 p.m.*

#### **Nicole L. Weidner**

School of Technology Studies  
Professor Subhas Ghosh

#### **High Performance Textiles**

In modern applications of textiles, high performance fibers have become a very important part of the business. High performance textiles, unlike other synthetic textiles, generally exhibit extraordinary qualities. These textiles demonstrate very high strength, high modulus, high temperature resistance, biodegradability, and high elasticity, as well as optical properties. Among these high performance fibers, Kevlar®, Teflon®, and Carbon are particularly useful in high temperature and high strength products such as bulletproof vests; missile nose cones; rocket nozzles; firefighter protective clothing; low friction, high speed turbine housing; and high temperature wire.

Comparative testing of these high performance fibers against traditional PET (polyester) shows a large increase in modulus and strength. As we continue to conduct research in this area, we learn more about how the application of these textile products will flourish within the industry.

*Room 320, 10:30 a.m.*

### School of Engineering Technology

#### **Sarjak Amin**

School of Engineering Technology  
Professor Theodore Provder

#### **Study of the Mechanisms by which Coatings Protect Steel from Corrosion**

Coatings protect metal surfaces from corrosion based on barrier properties of the resins, electrochemical properties of the coatings formulation, or both. Film barrier behavior refers to the physical barrier created by the coating that prevents corroding species from contacting the steel in any way that would cause corrosion. Such behaviors include low permeability to water, ions, and oxygen, and good wet adhesion and resistance to blistering and cathodic delamination. Electrochemical properties relate to interruptions of at least one of the half-cell reactions in the corrosion

circuit and can be assessed by AC and DC impedance measurements. These are commonly associated with inhibitor chemistry and broadly related to all components of the paint. Seven coatings of interest, representing a range of corrosion performance from excellent to fair, were chosen for this study.

*Room 310B, 10:00 a.m.*

**Sundaresan Avudaiappan**

School of Engineering Technology  
Professor Theodore Provder

**Application of EIS to Predict the Corrosion Resistance of Coated Metal Panels**

Electrochemical Impedance Spectroscopy (EIS) was used to determine if EIS testing of unexposed coated metal panels as a function of immersion time could predict corrosion results of other sections of the same panels that were separately subjected to continuous and cyclic corrosion salt spray testing. A multi-coating system of pretreatment plus epoxy primer plus aliphatic polyurethane topcoat on aluminum AA2024T3 alloy was studied. An equivalent circuit model was used to analyze the data. Results depended on the time of residence in the electrochemical cell and on the choice of electrolyte used, suggesting that the corrosion difference between continuous and cyclic corrosion testing may be due in part to the electrolyte used. EIS testing may provide information largely on the barrier component of corrosion resistance and little on the electrochemical component. The corrosion of the coated metal panels appears to be largely controlled by the pretreatment used.

*Room 310B, 10:00 a.m.*

**Achin Goel**

School of Engineering Technology  
Professor Vijay Mannari

**"Smart" Polymeric Surfaces: Chemistry and Characterization**

Coatings are used to decorate and protect surfaces from external environment. Today's coatings technology has evolved to the stage where they are required, in addition to above-mentioned primary functions, to act "smart" and respond to the changes in the surrounding environment. In this research project, the polymeric surfaces, which can switch their properties from hydrophobic to hydrophilic as a function of external environment, were synthesized and characterized using Scanning Probe Microscopy (SPM) and Contact Angle Measurement (CA).

*Room 330, 3:05 p.m.*

**Pushpender Gundlapally**

School of Engineering Technology  
Professor Dan Fields

**Design of a Medical Device**

The objective of this research is to design a medical device that is attached to the stomach in order to remove waste for patients who have had colon surgery. This product is being developed in EMU's Center for Product Research and Development for a private inventor under a research agreement. This device is designed in 3D software CATIA (Surfaces & Part Modeling). After a CAD file is created, the model is printed using a 3D printer rapid prototyping machine. The part is of complicated geometry: a hollow curved shape with two openings. One opening fits to the stomach and the other is for external attachments.

*Room 310B, 2:00 p.m.*

**Ravi Joshi**

School of Engineering Technology  
Professor Theodore Provder

**Title: Comparison of Internally vs. Externally Crosslinked Latexes**

The synthesis of crosslinkable acrylic latexes prepared with either an internal crosslinker (1, 3 – butylenes glycol dimethacrylate) or an external crosslinker (adipic dihydrazide) was studied. Diacetone acrylamide was used to replace reactive sites within the latex for external crosslinker. Systematic comparisons of the film properties of internally and externally crosslinkable latexes were done. The properties of these materials included gel content, thermogravimetric analysis (TGA) evaporation curves, drying curves by Adaptive Speckle Imaging Interferometry, dynamic mechanical properties, stress-strain properties, morphology by Atomic Force Microscopy (AFM) and Scanning Electron Microscopy (SEM), and specific end-use properties. This study provides insight into the effects of internal and external crosslinking on the film formation process and resulting film properties and morphology.

*Room 310B, 2:00 p.m.*

**Tilok Kataria**

School of Engineering Technology  
Professor Vijay Mannari

**Water-Based Coatings for Corrosion Protection**

Protection of steel surfaces from corrosion has been a major challenge since industrialization. Specifically, coatings are effectively used on steel to provide longer service life and prevent losses due to corrosion. This presentation will highlight synthesis of novel epoxy dispersions containing covalently bonded anti-corrosive phosphate groups for corrosion resistant coatings.

Room 330, 3:25 p.m.

**Chi-Ying Luo**

School of Engineering Technology  
Professor Louise Jones

**A Conceptual Plan for the Detroit Book and Tower Building: Exploration of the Conjunction of Historic Preservation and Sustainable Design Concepts**

This project generated an adaptive reuse proposal for the Book and Tower Building in a registered historic district. Louis Kamper designed the 13-story Book Building in 1917, in the Beaux Arts style, to house elite shops and offices. In 1926 the 36-story Tower Building extended the leasable space. This proposal preserved and rehabilitated the historic features in the lobby area and renovated the retail spaces. An Asian Café was designed to both contrast and blend with the Beaux Arts style. The Secretary of the Interior's Standards for Rehabilitation were followed in the lobby area to make the renovation eligible for federal and state tax credits. LEED for New Construction & Major Renovation Criteria grounded the proposal in order to reduce the potentially negative environmental impact associated with renovation of urban high-rise buildings. The contrast of new and old, and East and West, create an intriguing tension in this landmark.

Room 310B, 2:00 p.m.

**Shyam Sundar Malliprakash**

School of Engineering Technology  
Professor Theodore Provder

**Characterization of Marine Fouling Release Coatings**

Marine topcoats based upon Polydimethylsiloxane (PDMS) polymers coated over primers based upon epoxy-based coatings have been characterized in terms of fundamental mechanical properties from stress-strain data and dynamic mechanical analysis. The film formation process was monitored by adaptive speckle imaging interferometry, thermogravimetric analysis volatile evaporation curves, and mechanical recorder determined set to touch, tack-free, and dry hard times. In addition, the surface energy of the topcoats was characterized in terms of Zisman critical surface tension and the contact angle hysteresis in water and artificial seawater. The property profiles of several commercial and model PDMS coatings were established and can be related to end-use performance properties.

Room 310B, 2:00 p.m.

**Marcel Prado**

School of Engineering Technology  
Professor Erik Lokensgard

**Development of a Wine Bottle Cork Cutter**

The purpose of the "Cork Cutter" project is to produce high quality, low-cost plastic cork sealers for wine

bottles. The objective is to design an efficient machine that is able to effectively cut and prepare bottle sealers to specifications while using the minimum level of complexity without sacrificing quality. We are planning to try to use a specific kind of plastic cork whose specifications have already given. The basic idea is to make a spiral cut in the plastic material and play with the pitch and the depth. This will allow us to evaluate the best configuration that guarantees the strength of the cork, the effectiveness of the seal, and the ability to remove and replace it easily.

Room 310B, 3:45 p.m.

**Hiral Shah and Timothy Weilbaker**

School of Engineering Technology  
Professor Tracy Tillman

**The Impact of a Body of Knowledge Delphi Study on the Engineering Management Master's Program at Eastern Michigan University**

The purpose of this presentation is to illustrate the effects of a body of knowledge study of Engineering Management on program success at EMU. Almost 200 experts in the field of Engineering Management participated on a Delphi panel to delineate a body of knowledge to define the discipline of Engineering Management, to guide curriculum development, and to identify competency areas for professional certification. The results of this study were used to modify the curriculum of the Engineering Management program at EMU, resulting in major curricular changes and significant growth in program enrollment. This presentation will describe the evolution of the program, the impact of this study on its overall growth, and the feedback obtained from students in the program.

Room 350, 10:30 a.m.

**Askarali ThathaJohnpasha**

School of Engineering Technology  
Professor Theodore Provder

**Use of DC EIS to Assess the Relative Corrosiveness of Water-Based Coatings**

Floyd et al. have determined that DC Electrochemical Impedance Spectroscopy (EIS) [passivation index (PI) and the current density (I)] can assess the relative corrosion of water-based coatings and their ingredients on steel surfaces. In this work, the methodology has been applied to an aluminum (AA2024T3) alloy surface. DC potentiodynamic scans have been used to determine PI and I values for various ingredients found in the water-based paints as well as in fully formulated water-based paints. The electrochemical results have been correlated to the performance of the paints in corrosive environments (continuous and cyclic salt spray testing). The correlations will be discussed. In addition, the correlations obtained on aluminum surfaces will be compared with the correlations obtained on steel surfaces.



Graduate Research Fair 2007

*Room 310B, 10:00 a.m.*

**Oral presenters by location and time**

**Session I:**  
**9:30-10:45**

Room 301

9:30

**Jari Billiot**  
English Language and  
Literature

9:50

**Heidi Craun**  
English Language and  
Literature

10:10

**Lisa Grimble**  
English Language and  
Literature

10:30

**Daniel Parker**  
English Language and  
Literature

Room 304

9:30

**Andrew Cameron**  
Psychology

9:50

**Patricia Hall**  
Social Work

10:10

**Lisa Kruse**  
Sociology, Anthropology,  
and Criminology

10:30

**Paula Sizemore**  
Teacher Education

Room 320

9:30

**Deedra Bass**  
Management

9:50

**Katarzyna Czajka,  
Gaye Ozdemir,  
Kimberly Tath**  
Management

10:10

**Kathy Waltz**  
Human Resources

10:30

**Nicole Weidner**  
Technology Studies

Room 330

9:30

**Amy Drayton**  
Psychology

9:50

**Erin Henshaw**  
Psychology

10:10

**J. Robert Parker**  
Psychology

10:30

**Sarah Wice**  
Psychology

Room 350

9:30

**Jason Kalmbach**  
Political Science

9:50

**Inel Lewis**  
Political Science

10:10

**Laura Schultz**  
Political Science

10:30

**Hiral Shah,  
Timothy Weillbaker**  
Engineering Technology

Room 352

9:30

**Carlos Botero**

Music and Dance

9:50

**Christopher Bylone**  
Leadership and Counseling

10:10

**Hannah Hyde**  
Leadership and Counseling

10:30

**Rebecca Rogers**  
HHPH

**Session II:**

**1:00-2:15 p.m.**

Room 301

1:00

**Peisy Alamsjah**  
Technology Studies

1:20

**Joseph Katakowski**  
Biology

1:40

**Susan McMahon**  
Biology

2:00

**Elizabeth Rodzik**  
Nursing

Room 304

1:00

**Kathleen Ivanoff**  
Women's Studies

1:20

**Chris Lezotte**  
Women's Studies

1:40

**Patricia Smith**  
Special Education

2:00

**Marliese Temme**  
Special Education

Graduate Research Fair 2007

Room 320

1:00

**Stephanie Comer**  
English Language and  
Literature

1:20

**Rachel DuBois**  
English Language and  
Literature

1:40

**Laura Handy**  
English Language and  
Literature

2:00

**Ryan Kerr**  
English Language and  
Literature

Room 330

1:00

**Roslyn Edmondson**  
Management

1:20

**Connie Elliot**  
Management

1:40

**Kimberly Emery,  
Susan Stokes**  
English Language and  
Literature

2:00

**Wendy Whitlock**  
Social Work

Room 350

1:00

**Kevin Alschuler**  
Psychology

1:20

**Matthew Altieri**  
Psychology

1:40

**Jacqueline Mezza**  
Psychology

2:00

**Susan Proctor**  
Psychology

Room 352

1:00

**Dale Anderson**  
Communication and Theatre  
Arts

1:20

**Gayle LaVictoire**  
Communication and Theatre  
Arts

2:00

**Yu Zhao**  
Teacher Education

Room 302

1:00

**Hidaayah At-tauhidi**  
Social Work

1:20

**Rebecca DeSloover**  
Political Science

1:40

**Geoffrey Krempa**  
History

2:00

**Elizabeth Richard**  
Communication and Theatre  
Arts

**Session III:**

**2:45-4:00 p.m.**

Room 301

2:45

**Tina Holtz**  
Nursing

3:05

**Daeha Joung**  
Physics/Astronomy

3:25

**Antonio Salinas**  
History

3:45

**David Walton**  
History

Room 304

2:45

**Pamela McCombs**  
English Language and  
Literature

3:05

**Hannah Morales**  
English Language and  
Literature

3:25

**Jennifer Saul**  
English Language and  
Literature

3:45

**Martin Warin**  
English Language and  
Literature

Room 320

2:45

**Christopher Fitzpatrick**  
Political Science

3:05

**Kylee Guenther**  
Political Science

3:25

**Aditi Sengupta**  
Chemistry

3:45

**Kelly Tressler**  
Communication and Theatre  
Arts

Room 330

2:45

**Lori Adkins,  
Wen-Ting Cheng,  
Alice Gannon-Boss,  
Matthew Mosley,  
Sarahanne Wright**  
Technology Studies

3:05

**Achin Goel**  
Engineering Technology

3:25

**Tilok Kataria**  
Engineering Technology

Graduate Research Fair 2007

3:45

**Akosua Slough**  
Technology Studies

Room 350

2:45

**Catherine Ahmann**  
English Language and  
Literature

3:05

**Sarah Fabian**  
English Language and  
Literature

3:25

**Zachary Lindke**  
English Language and  
Literature

3:45

**Liane Robertson**  
English Language and  
Literature

Room 352

2:45

**Jamie Berlin**  
English Language and  
Literature

3:05

**Emily Russell**  
Literature

3:25

**Julie Newland**  
Communication and Theatre  
Arts

Room 302

2:45

**Ian Ratz**  
HPHP

3:05

**Rachael Weese**  
HPHP

**Poster presenters in 310B by time**

**Poster Session I:  
10:00-11:15 a.m.**

**Ranjeeta Kaur**  
**Patricia Sinawe**  
**Steve Rhoades**  
**Sreelatha Ponnaluri**  
Biology

**Shyamprasad Samisetti**  
Chemistry

**Maria Puscau**  
Chemistry

**Joslyn Kirkland**  
Chemistry

**Mahender Budarapu**  
Chemistry

**Cheryl Chidester**  
Geography and Geology

**Deborah Busick**  
Health Sciences

**Wan-En Leu**  
Leadership and Counseling

**Deborah Biondo**  
Management

**Mohammed Al-Jaro**  
**Delmeer Oliver**  
**Montakan Narach**  
**Lisa Herring**  
**Chi Ying Ko**  
Management

**Pasquale Caruso**  
**Amanda Lefeld**  
**Ashraf Jessani**  
**Rebecca Clark De Castillo**  
Management

**Jennifer Patterson**  
Music

**David Saunders-Scott**  
**Valentina Ivezaj**  
**Amy Collings**  
**Nancy Angelella**  
Psychology

**Paula Ross**  
Sociology, Anthropology and  
Criminology

**Askarali ThathaJohnpasha**  
Engineering Technology

**Sundaresan Avudaiappan**  
Engineering Technology

**Aarjak Amin**  
Engineering Technology

**Poster Session II:  
2:00-3:15 p.m.**

**Jessica White**  
Biology

**Courtenay Vining**  
Biology

**Elizabeth Habrecht**  
Biology

**Samantha Chriscinske**  
**Rebecca Couch**  
**Lori Giordano**  
**Megan Koran**  
**Shaqueala Lowery**  
**Francesse Merriweather**  
**Andrea Sinkunas**  
**Melissa Thick**  
**Andrea Tober**  
Health Sciences

**Patrick Soule**  
Leadership and Counseling

**Leanna Fortunato**  
Psychology

**Jessica Chamberlain**  
Psychology

**Scott Brown**  
Psychology

**Shyam Sundar Malliprakash**  
Engineering Technology

**Chi-Ying Luo**  
Engineering Technology

**Ravi Joshi**  
Engineering Technology

**Pushpender Gundlapally**  
Engineering Technology

**Heather Steffy**  
Special Education

**Poster Session III:  
3:45-5:00 p.m.**

**Sarah Whorley**  
Biology

**Michael Gabor**  
Biology

**Roshini Fernando**  
Chemistry

**John Biando**  
English

**Ryan Schumaker**  
Geography and Geology

**Meredith Long**  
Geography and Geology

**Mollie Douglas**  
Geography and Geology

**Jana Repaska**  
**Maresa Hiehle**  
Health Sciences

**Chiharu Hensley**  
Leadership and Counseling

**Elizabeth Kuhl**  
Psychology

**Marcel Prado**  
Engineering Technology

**Erica Tepper**  
Special Education

**Jeffrey Barnett**  
Special Education

**Jesse Mason**  
Physics

## Thank you!

The Graduate School would like to thank the many individuals, organizations, and departments whose efforts have made this event a success.

Special appreciation goes to:

### Administration

JillAnne Bauer, Graduate School  
Lisa Mills Walters, Graduate School  
Jennifer Rieger, Graduate School  
Marci McShane, Graduate School  
Carly Moe, Graduate School  
Rebecca Torsell, Graduate School  
Hollie Rowe, Graduate School  
Office of Research Development Staff  
Richard Magyar, ORD

### Graphics

Tadzia Beard

### Other EMU Offices

The Student Center  
University Publications  
Parking Control  
University Marketing

### Businesses

Flowers, Charlie Borg  
Tower Inn  
Freedom Design

### Graduate Research Fair Planning

Deb de Laski-Smith, Graduate School  
Interim Dean  
William Cline, Foreign Language and  
Bilingual Studies  
Student Affairs Subcommittee of  
Graduate Council

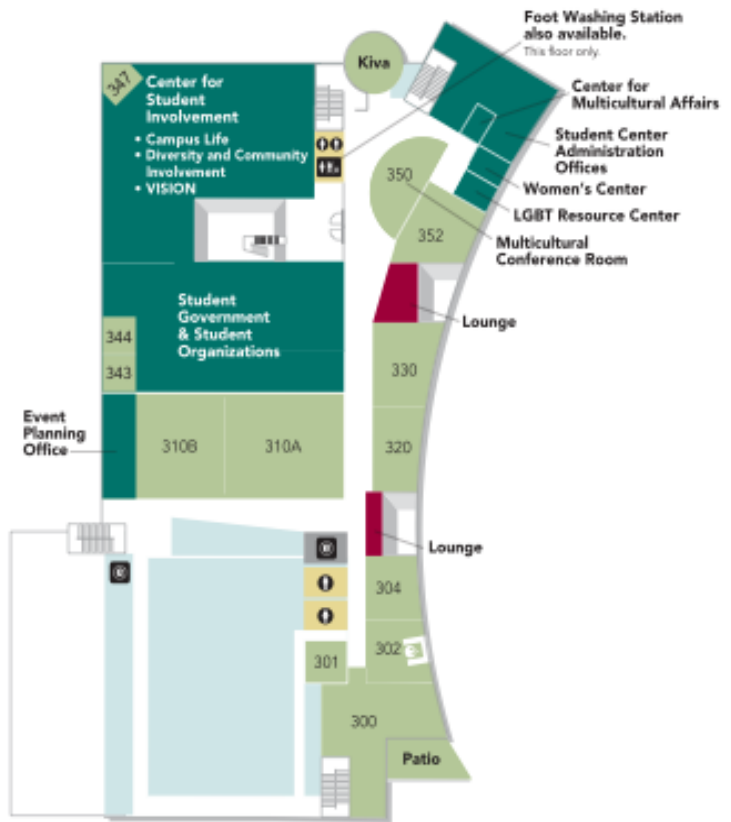
### Faculty Judges

Randal Baier, Library  
Brigid Beaubien, Teacher Education  
Peter Bednekoff, Biology  
\*Tim Brewer, Chemistry  
Karen Carney, Special Education  
Dibya Choudhuri, Leadership and Counseling  
Cathy Day, Foreign Language/Bilingual Studies  
Ronald Delph, History and Philosophy  
Betsy Francis, Health Sciences  
Subhas Ghosh, Technology  
Pamela Graves, History and Philosophy  
Jeannette Kindred, Comm. and Theatre Arts

Pamela Lemerand, Health Sciences  
Jacqueline McGinnis, Special Education  
Sandra Nelson, Nursing  
Kathlyn Parker, Special Education  
Lorena Parks, Special Education  
\*Linda Pritchard, Political Science  
Gretchen Reeves, Health Sciences  
Michael Schroeder, History and Philosophy  
\*Lee Stille, Comm. and Theatre Arts  
\*Jackie Tracy, Leadership and Counseling  
Linda Williams, Teacher Education  
Ian Wojcik-Andrews, English Lang. and Lit.  
Diana Wong, Management

\* Judging Facilitators

**Floor 3**  
**EMU Student Center**



**Legend**

- Event/Conference Rooms
- Service Areas
- i Food & Dining Areas
- Lounges
- f Fireplace
- i Restrooms
- ff Family/Gender Neutral Restrooms
- e Elevators
- Building Support
- a Art Gallery
- ? Information Center
- \$ ATM