

3-27-2006

## Graduate Research Fair Program, 2006

EMU Graduate School  
*Eastern Michigan University*

Follow this and additional works at: [http://commons.emich.edu/grf\\_prog](http://commons.emich.edu/grf_prog)

---

### Recommended Citation

EMU Graduate School, "Graduate Research Fair Program, 2006" (2006). *Graduate Research Fair Programs*. Paper 14.  
[http://commons.emich.edu/grf\\_prog/14](http://commons.emich.edu/grf_prog/14)

This Article is brought to you for free and open access by the University Archives at DigitalCommons@EMU. It has been accepted for inclusion in Graduate Research Fair Programs by an authorized administrator of DigitalCommons@EMU. For more information, please contact [lib-ir@emich.edu](mailto:lib-ir@emich.edu).

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

Many of Eastern Michigan University's 4,500 graduate students are actively engaged in research and creative activity, working in relative solitude under a faculty mentor or collaboratively with their fellow graduate students. Many are patrolling the boundaries of human knowledge; some are actively creating new knowledge. All are doing what researchers do: asking questions and insisting on answers that will withstand the rigorous methodology of their disciplines.

When the bright light of truth and beauty breaks through the cloud of human ignorance, it is the natural instinct of the researcher to want to share this epiphany with others. That's why we set aside a special day to celebrate our graduate scholars and artists. The Graduate Research Fair recreates a setting familiar to professional scholars, the academic conference, with poster sessions and public presentations of scholarly and creative work. This marketplace of ideas expresses the ancient principle of peer review. Here's the idea: scholarly and artistic endeavors of any merit ought to be able to survive critical judgment and public scrutiny. Truth and beauty flourish best in a critical environment. Constructive peer review, intimidating as it may be to a graduate student, ultimately produces better scholarship and better art.

This Graduate Research Fair gets bigger and better each year. This year 165 students are putting their best work on the line. And every year, increasing numbers of EMU doctoral students share the stage, with master's-level students, raising the bar even higher. We salute their hard work, intelligence, creativity, skill and courage.

We also want to acknowledge the faculty and staff who gave generously of their most valuable possession – time – to mentor these students. The reputation for academic quality that EMU enjoys is primarily defined by the scholarship and art work produced by its faculty and students for more than 150 years.

I encourage you to participate in the Graduate Research Fair by examining as much student work as you can. I know you will be impressed, as I have been, by its exceptional quality. Please join us at the awards ceremony and reception at the conclusion of the day's events.

Robert Holkeboer  
Associate Vice President  
Graduate Studies and Research

## Table of Contents

Welcome letter	Inside front cover
Index of presenters	2
<b>College of Arts and Sciences</b>	
Department of Art	3
Department of Biology	3
Department of Chemistry	6
Department of Communication and Theatre Arts	7
Department of English Language and Literature	8
Department of Foreign Languages and Bilingual Studies	10
Department of Geology and Geography	11
Department of History and Philosophy	12
Department of Music	13
Department of Physics and Astronomy	13
Department of Political Science	13
Department of Psychology	15
Department of Sociology, Anthropology and Criminology	17
Women's and Gender Studies Program	18
<b>College of Business</b>	
Department of Accounting	19
Department of Management	19
Department of Marketing	19
<b>College of Education</b>	
Department of Leadership and Counseling	20
Department of Special Education	21
Department of Teacher Education	21
<b>College of Health and Human Services</b>	
School of Health Promotion and Human Performance	22
School of Health Sciences	23
School of Nursing	25
School of Social Work	26
<b>College of Technology</b>	
School of Engineering Technology	26
School of Technology Studies	27
<b>Interdisciplinary</b>	
Bioinformatics Program	28

G r a d u a t e R e s e a r c h F a i r 2 0 0 6

Oral Presenters by location and time	29
Poster Presenters in Guild Hall by time	31
Thank you	32
McKenny Union map	Inside back cover

## Index of Presenters

### A

Adams, Robert .....3, 29  
 Agnihotri, Rahul.....26, 31  
 Alam, Intakhab.....19, 30  
 Alschuler, Kevin .....15, 31  
 Aman, Rebecca .....25, 29  
 Amin, Sarjak .....26, 30  
 Armstrong, Jennifer.....8, 30  
 Arnett, Jesusa .....26, 30

### B

Baird, Jamie .....23, 31  
 Barge-Siever, Steven.....19, 30  
 Becker, Miles .....3, 29  
 Behnke, Zoe .....18, 29  
 Bell, Virginia.....20, 29  
 Beyer, Christopher .....11, 29  
 Bigelow, Benjamin.....3, 31  
 Borders, Matthew .....11, 30  
 Bosshart, Judy .....8, 30  
 Boynton, Jessica.....8, 29  
 Breck, Paul .....8, 29  
 Brown, Scott .....15, 30  
 Brown, Teleyia.....23, 31  
 Brown, Kristina.....8, 30  
 Buist Carrie .....17, 29

### C

Ceronsky, Courtney.....9, 30  
 Chamberlain, Jessica.....16, 29  
 Chartier, Neil.....3, 29  
 Chidester, Cheryl .....11, 31  
 Childs, Kellie .....23, 31  
 Coyne, Michele .....20, 29  
 Cullen, Kathy .....18, 30

### D

Dave, Nimita .....5, 31  
 Davis, Jade .....13, 30  
 Derksen, Emily.....24, 31  
 Distelzweig, Peter .....13, 30  
 Dowling, Annie Marshak .....11, 29  
 Duhl, Carrie.....11, 30

### E

East, Traci .....24, 31  
 Eldred, Trevor .....4, 31  
 Etikala, Archana.....26, 30

### F

Fabian, Sarah.....9, 29  
 Falk, Sean.....19, 30  
 Ferguson, Vanessa.....14, 30  
 Frye, Ashley.....25, 31  
 Fryling, Anthony .....16, 31  
 Furgason, Summer .....18, 30

### G

Garretson, Sr. Maximilian Marie.....21, 29  
 Geinzer, Nathan .....14, 30  
 Glenn, Derek .....23, 31  
 Graham, John .....4, 29  
 Grant, Rebecca .....23, 31  
 Graupner, Meredith.....9, 30  
 Gray, Melissa .....23, 31  
 Green, Ambrose .....25, 31

### H

Hall, Janelle.....23, 31  
 Hamway, Pamela .....14, 30

Heard, Irene .....17, 30  
 Henderson, Theresa .....21, 30  
 Henshaw, Erin .....16, 29  
 Hertz, Katie.....23, 31  
 Heuker, Melissa .....21, 29  
 Hieber, Allison .....24, 31  
 Horton, Annette .....24, 31

### J

Jayachandran, Chaandini .....24, 31  
 Jordan, Steven .....19, 29  
 Joung, Daeha .....13, 30

### K

Katakowski, Joe.....5, 31  
 Kaur, Ranjeeta .....5, 31  
 Kennedy, Sarah.....25, 31  
 Khan, Ursula.....25, 31  
 Kong, Mikyoung.....27, 31  
 Kuhl, Elizabeth.....15, 31  
 Kunaparaju, Naveen .....6, 31

### L

LaGrasso, Brooke .....21, 30  
 Laskos, Marie .....23, 31  
 Latocki, Joseph .....25, 31  
 Lawrence, Kathryn .....5, 31  
 Lee, Nancy .....10, 30  
 Lenk, Stephen .....28, 31  
 Likkel, Kenne .....9, 29  
 Lippay, Aletha .....12, 31  
 Lynch, Teresa .....15, 31

### M

Macyda, Kira .....12, 31  
 Mahoney, Erin .....24, 31  
 Martinez, DeAnna .....4, 31  
 McDowell, Joan.....16, 31  
 McGovren, Kathryn .....25, 31  
 McMahan, Susan .....4, 29  
 Merritt, Jessica.....18, 30  
 Mezza, Jacqueline.....16, 29  
 Miller, Sabrina .....4, 31  
 Miller, Katie .....23, 31  
 Miuccio, Amanda .....25, 31  
 Monzy, Suja.....26, 31  
 Moore, Kristi .....24, 31  
 Morris, Kathy .....20, 31  
 Mourer, Marissa .....22, 29  
 Moyad, Mia .....18, 30  
 Muhammad, Bayyinah.....7, 29

### N

Nanua, Saloni .....5, 31  
 Newman, Michael.....11, 30

### O

Okray, Lauren.....24, 31  
 Olgren, Erin .....5, 31  
 Ong, Adrian .....19, 30  
 Ottenbreit, Erin .....19, 30

### P

Parker, Camille .....9, 29  
 Parker, Robert .....17, 31  
 Parmar, Ashish .....19, 30  
 Penumatcha, Rajesh.....6, 31  
 Philip, Benjamin .....5, 29  
 Phillips, Marcia.....12, 31

Preiss, Anna .....24, 31  
 Przystup, Theresa .....10, 30

### Q

Quinlivan, Pamela .....14, 30

### R

Reddy, Renuka .....27, 29  
 Reiland, Sarah .....16, 31  
 Reynolds, Alexis .....12, 31  
 Richardson, Stanley.....27, 31  
 Robbins, Pamela.....13, 30  
 Roesler, Erika .....13, 30  
 Rooks Jordan, Alfreda.....15, 30  
 Routel, Christie .....22, 30  
 Row, Renuka.....19, 30

### S

Sattler, Maranda .....25, 31  
 Schaefer, James .....7, 31  
 Schaeffler, Annette.....22, 30  
 Schuster, Alison .....23, 31  
 Scott, David.....15, 31  
 Sellers, Andrea .....17, 31  
 Sengupta, Aditi.....6, 31  
 Shah, Hiral .....27, 29  
 Shin, Sook-il .....28, 31  
 Siddamsety, Santosh .....27, 30  
 Skomra, Elizabeth .....28, 29  
 Sloan, Rebecca .....24, 31  
 Smith, Tammy.....10, 29  
 Soltis, Asta .....23, 31  
 Stackhouse, Lisa.....5, 31  
 Steinmetz, Emily .....22, 29  
 Stevenson, Tamara .....20, 29  
 Stock, Salena .....23, 31  
 Stotley, Todd.....5, 29  
 Stratz, Shannon .....23, 31

### T

Thakur, Pooja.....5, 31  
 Thomas, Laura .....15, 30  
 Trax, Jeffrey .....3, 29

### V

Venkataram, Sowmyashree .....5, 31  
 Vogt, R. Aaron .....7, 31

### W

Walton, David .....12, 29  
 Warner, Joni .....7, 29  
 Weaver, Theresa.....20, 31  
 Weese, Rachael .....22, 29  
 Wier, Claudia .....7, 30  
 Wilson, Eli .....17, 31  
 Wilson, Tolice .....23, 31  
 Wilson-Tobin, Emily.....7, 30  
 Wimsatt, Kristen .....23, 31  
 Winborn, Regina .....21, 30  
 Winhold, Lisa .....6, 29  
 Withrow, Kathryn .....24, 31

### Y

Yerram, Mamatha .....6, 31  
 Young, Del .....23, 31

### Z

Zajac, Kristy.....23, 31  
 Zapor, Lucas .....25, 31  
 Zdrojowski, Megan .....10, 29

## College of Arts and Sciences

### Department of Art

#### **Benjamin Bigelow**

Department of Art  
Professor Richard Fairfield

#### **The Different Uses of Appropriated Art in Modern Studio Practice as it Applies to Originality, Historical Perspective and Public Consciousness**

The researcher investigated different purposes and uses of appropriated art images in the print-making process and how mainstream America uses iconic art images as means of personal expression. The uses of appropriated art in modern studio practice surveys modern artists in how they use appropriated art in their own practice to a) impart a new meaning to an art icon, b) use humor and c) deal with art historical giants. In addition, the researcher has pulled random images by surveying a segment of the population of computer users who have appropriated artworks and put them into the public domain. The researcher used Google™ image search to find appropriated images on a broader scale and combined them into a narrative format.

Guild Hall, 4:30 p.m.

#### **Jeffrey Trax**

Department of Art  
Professor Guey-Meei Yang

#### **Manga in the Art Classroom as a Meaningful Art Education Experience**

The researcher conducted a case study in the form of an art club. The club was the trial ground for the use of manga as a source for a meaningful artmaking experience. The curriculum centered on teaching the visual culture of manga, as well as manga drawing techniques, to a group of urban middle school students. The group consisted of six to eight middle school students. Over the course of 14 weeks, students were involved in a curriculum that taught manga techniques and manga visual culture, through the use of class discussion, written assignments and drawing assignments. The culminating project was that each student created his or her own manga based on a “big idea” of the student’s choosing that incorporated the style of manga as well as elements of the student’s own visual culture. The student-created manga were presented and assessed by members of the manga club.

Reception Room, Noon

### Department of Biology

#### **Robert Adams**

Department of Biology  
Professor Ulrich Reinhardt

#### **Suction Strengths and Attachment Behaviors of Spawning-Run Sea Lampreys**

Parasitic sea lamprey use suction by their oral disc throughout their life cycle. However, little research has been done on the attachment by suction. Our goal was to

quantify suction creation and attachment behavior and then assess the potential to manipulate lamprey suction behavior in control measures within the Great Lakes. Our first objective was to find a method to measure sea lamprey suction pressures; then we quantified the surface structure that would weaken the suction seal. Water intrusion areas into the oral disk significantly affected suction. To test whether sea lamprey would seek out those surfaces that promoted easier attachment, we did a behavioral experiment reusing the surfaces from the first experiment. There was a trend toward surface selection, but this was not statistically significant. Findings from both experiments should be considered when constructing sea lamprey physical controls, such as traps and barriers.  
Alumni Room, 2 p.m.

#### **Miles Becker**

Department of Biology  
Professor Peter Bednekoff

#### **Response in Loggerhead Shrike (*Lanius ludovicianus*) Foraging Behavior to Prey Availability**

Limited prey availability in modified habitat is a potential factor in population declines of loggerhead shrike (*Lanius ludovicianus*) across North America. Two habitat characteristics likely to influence prey availability are insect abundance and vegetation structure effects on prey accessibility. To identify responses in foraging behavior related to insect abundance, I observed the same shrike territories in northern Texas during the 2005 breeding season and in winter 2005. Three energetically costly behaviors — foraging flight distance, search rate and foraging rate — all increased in winter as insect abundance decreased, while vegetation height stayed the same. To test the effects of vegetation structure on prey accessibility, we mowed areas next to foraging perches to establish discrete vegetation heights. Shrikes foraged more often in mowed areas even though insect abundance was less than in adjacent tall vegetation. Prey availability was affected by both seasonal prey abundance and prey accessibility related to vegetation height.

Main Lounge, 12:20 p.m.

#### **Neil Chartier**

Department of Biology  
Professor Peter Bednekoff

#### **The Influence of Woodlot Size and Location in Suburban and Rural Matrices on Tufted Titmice (*Baeolophus bicolor*) Abundance**

The status of tufted titmice (*Baeolophus bicolor*) has changed dramatically over the last 100 years in southern Michigan. Prior to 1900, titmice were considered accidental visitors. After a major range expansion and growth in population in the early 1940s, titmice are now permanent residents. In order to find the set of landscape conditions necessary for expansion, we looked at current titmice winter abundance in a gradient of woodlot sizes and locations. Titmice surveys were conducted in 45 woodlots in Washtenaw, Wayne and Ingham Counties, Mich., from

December through January, 2004 through 2006. We expected that abundance would be higher in 1) larger woodlots, 2) less isolated woodlots and 3) suburban woodlots with more bird feeder access. Preliminary results indicate that titmice are found in areas where woodlots are mixed with development. The expansion of titmice may have coincided with the regrowth of forests in and around developed lands in Michigan.  
 Alumni Room, 2:20 p.m.

**Trevor Eldred**  
 Department of Biology  
 Professor Peter Bednekoff

**Behavioral Variation of Sandhill Cranes (*Grus Canadensis*)**

Sandhill crane (*grus canadensis*) populations have increased in Michigan over the past 70 years, and their nesting habitat has come in increasing contact with human development. I analyzed their behavior to determine their time budget over the breeding season. Sandhill cranes were observed in their summer range between March and December 2005. I used video playback to analyze vigilance behavior during the breeding and fall migratory seasons. It was found that males are significantly more vigilant than females, and that vigilance decreases with increasing flock size. Vigilance was not correlated with weather, time of day or presence of juveniles. Understanding time budgeting by sandhill cranes is an important component in management and conservation of these birds.  
 Guild Hall, 12:30 p.m.

**John P. Graham**  
 Department of Biology  
 Professors Michael Angell and Daniel Clemans

**A Model System for the Study of NF- $\kappa$ B Activation in Cystic Fibrosis Airway Epithelial Cells**

Cystic fibrosis (CF) is the most common genetically inherited disease of Caucasians. Persons born with CF often succumb to lung degeneration by age 30. Degraded lung tissue in CF patients results from infection and chronic inflammation. Tissues and cells taken from CF patients have an intrinsic propensity toward inflammation. Nuclear factor-kappa beta (NF- $\kappa$ B) when activated, is responsible for many aspects of inflammation. CF airway epithelial cells display exaggerated activation of NF- $\kappa$ B signaling molecule CD40 by lymphocytes attracted to inflamed tissue may amplify the exaggerated activation of NF- $\kappa$ B, in turn, this inflammation to even greater levels. We have devised a model system to study the activation of NF- $\kappa$ B in the CF cell line C38. Ligation of CD40 and the receptors for the inflammatory cytokines TNF- $\alpha$  and IL-1 were studied using this model system.  
 Alumni Room, 2:40 p.m.

**DeAnna Martinez**  
 Department of Biology  
 Professor Peter Bednekoff

**Influence of Rehabilitative Care on the Development of Blue Jay Nestling Food-Storing and Retrieval Behavior**

Wild blue jays collect and store food during the autumn months for later use in the winter and spring. Development of this behavior is poorly understood. Understanding this concept is important for wildlife rehabilitators who care for orphaned blue jay nestlings so that caretakers can maximize nestling survival following release. The goal of this study was to observe orphaned wild blue jay nestling development and determine whether food-storing behavior arises in the absence of parental and normal environmental inputs. Six orphaned blue jay nestlings were observed during summer 2005. Birds were cared for with minimal human exposure and no adult conspecific exposure during development. Birds consistently stored and recovered food in captive housing. These results suggest that standard wildlife rehabilitation methods do not disrupt the development of blue jay food storing behavior.  
 Guild Hall, 2:30 p.m.

**Susan McMahon**  
 Department of Biology  
 Professor Catherine E. 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 utilizing the introduced plant, crown vetch (*coronilla varia*), as early as 1974. This study investigates the preference and performance of *E. baptisiae* on *B. tinctoria* and *C. varia*, by comparing two distinct butterfly populations in southern Michigan, one using *B. tinctoria* and the other using *C. varia* as the host plant. Research in the first summer demonstrated significantly greater pupal weights when *B. tinctoria* was the host plant regardless of the host plant species from which larvae originated. These results, coupled with information gained in future experiments on oviposition and larval feeding preferences, will enable us to make management recommendations necessary to increase butterfly populations.  
 Alumni Room, 1 p.m.

**Sabrina Marie Miller**  
 Department of Biology  
 Professor Allen Kurta

**Bats and Wind Power**

Although wind turbines create electricity without use of fossil fuels, turbines also cause mortality among bats. Northern Power is developing a wind farm in the Thumb region of Michigan and requested preconstruction information concerning bat activity near proposed turbine sites, all of which were located on open agricultural land. Bat activity was monitored by recording the high-frequency

echolocation calls of bats, at ground level and 30 feet in the air, from sunset to sunrise. Of the 3,125 files recorded during a period of 41 nights, 67 percent contained sounds produced by bats; 95 percent of files with bat activity were attributed to big brown bats and 4 percent to red bats. Bat activity over agricultural fields, however, appears to be about 30 percent of that measured at wooded sites in Michigan. Hence, locating turbines in agricultural areas such as the Thumb should result in fewer bat fatalities than if turbines were located near wooded areas.  
Guild Hall, 2:30 p.m.

**Erin A. Olgren**

**Nimita D. Dave**

**Joseph A. Katakowski**

**Ranjeeta Kaur**

**Kathryn R. Lawrence**

**Saloni Nanua**

**Lisa Stackhouse**

**Sowmyashree Venkataram**

Department of Biology

Professors Daniel Clemans and Steven Francoeur

**Identification of Bacterial Isolates Obtained from the Upper Paint Creek Detention Basin Using 16SrDNA Gene Sequence Analysis**

During the fall 2005 offering of "Recombinant DNA Techniques" (BIOL545), students initiated a study to determine the microbial diversity found in the upper Paint Creek detention basin. More than 100 different bacterial isolates were secured from the field samples and stored for further analysis. Eight of the more than 100 samples were selected for further characterization using 16SrDNA gene analysis. Using several different recombinant DNA, microbiological and bioinformatic techniques, eight different bacterial strains were identified belonging to the genera flectobacillus, exiguobacterium, bacillus, serratia and pseudomonas. This presentation will describe the process by which these bacteria were isolated and identified.

Guild Hall, 12:30 p.m.

**Benjamin Philip**

Department of Biology

Professor Cara Shillington

**The Effect of Feeding Rates on Activity and Metabolism in Tarantulas (Araneae: Theraphosidae)**

Spiders are believed to exhibit very low metabolic rates (MR) and altered feeding behaviors as mechanisms to cope with extended periods of limited food availability. We examined the effect different periods of food deprivation had on MR and strike response to a prey stimulus in tarantulas (phormictopus cancerides). Juvenile tarantulas were separated into two feeding groups and fed either once every five or 30 days. Monthly feeding trials were preceded by MR measurements. During these feeding trials, distances between spider and prey at the time when the

spider detected and attacked the prey were used to quantify the strike response. The results indicated that there was a large intragroup variation, and no significant differences in the strike response were found between the two groups. Metabolic rates tended to be higher for the well-fed group, but both groups continued to gain weight throughout the trial regardless of feeding regime.

Alumni Room, Noon

**Todd Stoltey**

Department of Biology

Professor Cara Shillington

**Metabolic Rates and Movement of Male Tarantulas During the Breeding Season**

Male tarantulas (aphonopelma anax) reach maturity at approximately eight years and emerge from their burrows to search for mates each spring. Searching for spatially dispersed females is energetically expensive and also exposes males to extreme environmental conditions and an increased risk of predation. A few weeks after their mass emergence, males appear to completely vanish from the community. I affixed mature males with radio transmitters and periodically captured them over the course of two breeding seasons to address the following questions: 1) do males with higher metabolic rates travel greater distances? 2) how far do males travel? 3) what becomes of the "vanished" males? Initial analyses indicate no relationship between metabolic rate and distance traveled by individual males. Males were found to travel up to 365 meters/night and move up to 2.6 kilometers over the season. Besides senescence, predation appears to be the major cause of mortality.

Alumni Room, 3 p.m.

**Pooja Thakur**

Department of Biology

Professor Marianne Laporte

**Effects of Increased Expression of NADP Malic Enzyme on Guard Cells in Arabidopsis**

Plants lose a majority of their water as transpiration due to stomatal opening and closing, which is governed by guard cells surrounding the stomata. Influx of ions such as  $K^+$  and  $Cl^-$ , from neighboring cells into guard cells, and malate synthesis within guard cells increases turgor pressure opening the stomata. Stomata close when  $K^+$  and  $Cl^-$  are transported out, and the cytosolic isoform of NADP malic enzyme converts malate to pyruvate. We hypothesize that stomatal closure can be controlled by increased NADP malic enzyme activity in guard cells. We have developed transgenic *Arabidopsis* plants that are transformed with a guard cell specific promoter driving expression of maize NADP malic enzyme. Molecular studies have confirmed the presence of the transgene in these transformants. Enzymatic assays show higher malic enzyme activity in these transgenic plants. Stomatal phenotypes are being compared to wild type plants to determine if stomatal opening is altered in transgenic plants.

Guild Hall, 2:30 p.m.

**Lisa Winhold**

Department of Biology  
Professor Allen Kurta

**Where Have All the Red Bats Gone?**

The bat community in southern lower Michigan has changed over the past few decades. Regional, multi-year mist-netting surveys of bats were completed during summer 1978-79 and again in 2004-05. Extensive surveys also were performed at two specific sites: the Fort Custer Training Center in Calhoun and Kalamazoo counties in 1993 and 2005 and over the Thornapple River in Eaton County, Mich., in 1978-79 and 1993-94. In addition to captures, I analyzed submissions to the Michigan Department of Community Health Rabies Laboratory. In all cases, red bats decreased in relative abundance: from 20 percent of the catch in the regional survey during 1978-79 to 10.9 percent in 2004-05; 45.4 percent at Fort Custer in 1993 to 22 percent in 2005; and 9.1 percent over the Thornapple River in 1978-79 to 1.4 percent in 1993-94. In addition, red bats composed 1.9 percent of bats submitted to the rabies laboratory in 1965-82 but only 0.2 percent in 1993-2005.

Main Lounge, 12:40 p.m.

**Mamatha Yerram**

Department of Biology  
Professor Marianne Laporte

**Expression of Autophagy-Related Genes in Arabidopsis Culture Cells under Nutrient and Sucrose Stress**

Autophagy is a regulated recycling process that allows organisms to survive under starvation conditions through the breakdown of cellular constituents. This process is well characterized in yeast and mammals. In the process of understanding autophagy in plants, we used standard bioinformatics techniques to identify putative autophagy genes in arabidopsis. Although at least 27 genes are directly involved in autophagy in yeast, homologs of only 12 are easily identified in arabidopsis. Second, an arabidopsis cell-culture system was developed to determine the environmental conditions that will induce autophagy. We have used this system to identify potential molecular markers for autophagy using RT-PCR. We did not see any marked difference in the expression of the arabidopsis homologs to the yeast genes ATG4a, ATG6, ATG7, ATG9 and ATG18 over time in response to nitrogen deficiency, salt stress and sucrose deficiency. We are now in the process of developing the ultra structural markers for autophagy in plants.

Guild Hall, 12:30 p.m.

**Department of Chemistry**

**Naveen Kunaparaju**

Department of Chemistry

Professor Michael Brabec

**Metabolism of Isomers of Dinitrobenzene by Isolated Mitochondria**

1,2-dinitrobenzene (oDNB) is more toxic to rat lung cell cultures than 1,3-dinitrobenzene (mDNB). oDNB is preferentially metabolized in rat lung cell cultures. I hypothesized that the site of cellular metabolism might be the mitochondrion. Mitochondria were isolated from rat liver and incubated with either oDNB or mDNB, and formation of metabolites monitored at 400 nm. Formation of metabolites from oDNB exceeded that of mDNB by 3-4 fold. The rate of formation was apparently not affected by inhibitors of electron transport or oxidative phosphorylation. These results suggest that selective metabolism of dinitrobenzene isomers by mitochondria may be an important step in the toxicity of these compounds.

Guild Hall, 2:30 p.m.

**Rajesh Penumatcha**

Department of Chemistry  
Professor Deborah Heyl-Clegg

**Synthesis of an Isotopically-Labeled Analog of the Antimicrobial Peptide LL-37**

LL-37 is a cationic cathelin-associated broad-spectrum antibiotic peptide of human neutrophils. Its mechanism of action is disruption of the bacterial cell membrane structure. LL-21 is a simplified form of the peptide that contains only the core portion of LL-37, which retains antimicrobial activity and is easier to synthesize. We synthesized an <sup>15</sup>N-Val labeled LL-21 peptide, which allows us to perform solid-state NMR studies to measure helix tilt in the membrane. This will provide information on its precise mode of action, either detergent-like activity or pore formation.

Guild Hall, 12:30 p.m.

**Aditi Munmun Sengupta**

Department of Chemistry  
Professors Hemendra N. Basu and Steven J. Pernecky

**A Novel Analytical Method Using the Methylation Agent TMSD for Characterization of Prostaglandin Methyl Esters by GC-MS**

The objective of this project is to develop a method for preparation of prostaglandin (PGF2 $\alpha$  and PGE2) methyl esters for characterization by gas chromatography/mass spectrometry. Prostaglandin methylation was affected by the reagent trimethyl silyl diazomethane. Oximes were formed from the carbonyl groups and alcohol groups were subsequently silylated. The molecular ion of the trimethyl silyl ether of PGF2 $\alpha$  is m/z 584 and the methyl oxime of PGE2 is m/z 539. Ion m/z 513 (M-71 for PGF2 $\alpha$  and M-26 for PGE2) is used for identification. TMSD is a safer methylation agent than the commonly used agent diazomethane.

Guild Hall, 2:30 p.m.

**R. Aaron Vogt**

Department of Chemistry  
Professor Tim Brewer

### **Solvent Dependent Effects of Dichloro-ruthenium Hexahydrate Solutions**

The purpose of this experiment is to investigate the effects of various solvents on the activation energy of the fluorescence of dichloro-ruthenium hexahydrate. Data collected previous to this research showed there is a moderate correlation between activation energy and the dipole moment of the solvent. The correlation coefficient was 0.787. More research was done to verify these data and to find other reasons for changes in activation energy. Guild Hall, 12:30 p.m.

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

**Bayyinah Muhammad  
Joni Warner**

Department of Communication and Theatre Arts  
Professor Jessica Alexander

### **Personal Myth-Making: The Introspective Journey of Self-Created Tales**

This presentation will delve into personal experiences and family history, looking introspectively to create personal anecdotes related to motifs of separation, initiation and return. The objective of this project was “to create a myth that would connect our lives to those who have gone before us by conveying what is most important and meaningful to us.” After numerous revisions, a tale was completed that made interconnections through a difficult childhood, the loss of a loved one, a walk through nature, and the undying love that extends from one generation to the next. Salon, 12:40 p.m.

**James T. Schaefer**

Department of Communication and Theatre Arts  
Professor Chris Wood Foreman

### **The Global Implications of the Bush Administration's Memoranda Permitting Torture**

The images of those tortured at the U.S. prison known as Abu Ghraib, or the Baghdad Central Confinement Facility (BCCF), in April 2004 have been burned in the minds of all those who saw them. Who can forget the person with the black cape draped over him, with wires running from his arms? Or the pile of terrified, naked men being tormented by laughing and smiling U.S. military personnel? This research explores the global dimensions when an organization (the Bush administration and military infrastructure) creates texts (secret memoranda) during its everyday life that can be used for immoral and unethical purposes (torture). Guild Hall, 12:30 p.m.

**Claudia Wier**

Department of Communications and Theatre Arts

Professor Patricia Zimmer

### **Production Concept for an Adaptation of Engelbert Humperdinck's Opera *Hansel und Gretel***

This project describes the process of developing an original directorial concept to modernize Engelbert Humperdinck's 19th century opera, *Hansel und Gretel*. The concept springs from research in both historical and modern day sociopolitical conditions. Theoretical writing on the subject of folktales and children's literature also compose a part of the research element, serving to inform and underlie the production concept. Set in the present day and adapted for children to perform, the contemporary reality of the orphaned children is depicted through the elements of scenic design and costuming. Themes about homelessness, child labor and global trafficking in children underlie the production concept. The decidedly political approach raises questions about who the optimal prospective audience could be and what age group should perform it. Alumni Room, 4:40 p.m.

**Emily Wilson-Tobin**

Department of Communication and Theatre Arts  
Professor Christine Tanner

### **An Internship Abroad: A Reflection on the Experience of an American Intern at an International Arts Festival**

The researcher spent two weeks during the beginning of her second year of graduate school serving as one of four American interns for the 15th world congress and “Festival of the Arts for Young Audiences” in Montreal. This festival occurs every three years in cities across the world and is hosted by the International Association of Theatre for Children and Young People (ASSITEJ). Following her return to the U.S., the researcher reflected upon her experience as an intern, sharing and discussing her views with the three other interns. Her findings were examined in a research paper. Highlights from this paper will be discussed in this presentation. Intermedia Gallery, 4:40 p.m.

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

**Jennifer Marie Armstrong**

Department of English Language and Literature  
Professor Sheila Most

**British Conceptions of India in Frances Hodgson Burnett's *A Little Princess* and *The Secret Garden*: A Post-Colonial Reading**

This paper examines the imperial influences present in two of Frances Hodgson Burnett's most well known works, *A Little Princess* and *The Secret Garden*. Burnett, who never lived in India, incorporates the accepted social perceptions of Indians by the British colonizers into both novels. These books evidence a desire to appropriate the legendary treasure and exoticism of India for the texts while at the same time evidence the British belief in its imperial superiority and moral righteousness. Prevalent throughout both *A Little Princess* and *The Secret Garden* is a desire for justice and harmony for its heroines, a justice and harmony that are revealed to be unbalanced/tainted by the spoils of the Empire when read in a post-colonial context. The lack of depth in the Indian characters and untroubled imperialistic treatment of all things Indian in the novel demonstrates Burnett's tacit support of British imperial enterprise.

Reception Room, 4 p.m.

**Judy Bosshart**

Department of English Language and Literature  
Professor Sheila Most

**The "American Myth" and Early Misrepresentations of Native Americans in Children's Literature**

The researcher selected three children's books about Native Americans published before 1965 and illustrated how these books are tacitly based upon the "American Myth" formulated by Shirley Park Lowry in her 1982 publication, *Familiar Mysteries: The Truth in Myth*. The books chosen to validate Lowry's myth are *Caddie Woodlawn*, by Carol Ryrie Brink, the story of a young girl growing up in frontier Wisconsin during the Civil War and the 1935 Newbery Medal winner; *The Thanksgiving Story*, written by Alice Dalgliesh and illustrated by Helen Sewell, a 1955 Caldecott Honor book that tells the story of the Hopkins family who journeyed to America on the Mayflower and observed a Thanksgiving feast; and *Pocahontas*, a historical picture book telling the tale of the Native American, Pocahontas, and her European friends from the Jamestown colony, which was published in 1946 by acclaimed authors/illustrators Ingri and Edgar Parin d'Aulaire.

Reception Room, 4:20 p.m.

**Jessica Boynton**

Department of English Language and Literature  
Professor T. Daniel Seely

**Theta-Role Assignment for Transitive Participial Adjectives**

This research project studies first language acquisition of theta-role assignment for transitive participial adjectives. Theta-roles are the linguistic mechanism for distinguishing a verb's agent from its patient (recipient of the action). Interestingly, adults interpret the noun phrase "the thrown man" to mean that something has thrown the man rather than that the man has thrown something. The central focus of this study is to ask whether children approach the role assignment task in a similar way. Results suggest that children assign theta-roles for agent/patient verbs like "thrown" as easily as adults do, but have greater difficulty assigning theta-roles for sensory perception verbs like "heard" in "the heard man" and experienter verbs like "feared" in "the feared man." The results of this study provide background for a potential reanalysis of verb distinctions and offer further evidence for age-grading in language acquisition.

Tower Room, Noon

**Paul Breck**

Department of English Language and Literature  
Professor Ian Wojcik-Andrews

**Emergent Identity and Emergent Literacy: Theories of Formation and Transformation**

Throughout recorded history, philosophers, rhetoricians, educators and psychologists have struggled to establish a theory of identity: "What is our place in the world? What is our nature?" The search for an answer can begin to shed light on other crucial lines of inquiry: "Can we define identity? How do we learn? How, in turn, are educators to view their students?" A postmodern understanding of identity accepts that identity formation is a continual process. The work of scholars such as Marx, Horheimer, Fromm, Vygotsky, Habermas, and Freire helps us begin this conversation. In a socially conscious environment, identity formation must be fostered. Identity, particularly as it relates to issues of power, individuality and democracy, is inextricably linked to issues of literacy. With an understanding of emergent literacy and identity development, educators can incorporate concepts of community, collaboration, mentorship and ongoing growth into their teaching.

Faculty Room, 2 p.m.

**Kristina Brown**

Department of English Language and Literature  
Professor Nancy Allen

**Stem Cell Research: How Rhetoric Influenced the Past and Will Aid the Future**

The researcher critically examines the role rhetoric has played in both the conservative and liberal arguments regarding embryonic stem cell research. The rhetorical devices of logos and ethos are viewed in the context of the arguments presented. Logos, as a means of persuasion, is analyzed. Arguments from both liberal and conservative logic are examined. The state of California's passage of Proposition 71 is used to exemplify how ethos was used as a rhetorical device. This research suggests that rhetoric is highly influential in both science and politics, and its use

should be better understood by the general public in order for them to make informed and well thought out choices.  
Tower Room, 4:40 p.m.

**Courtney Ceronsky**

Department of English Language and Literature  
Professor Sheila Most

**The Myth of Aryan Supremacy: How Narrative Informed the Politics of the Third Reich**

Like air, myth can be contaminated with pollutants produced in the name of progress – industrial, political or spiritual. This is nowhere more apparent than in how myths from Norse and Hindu traditions, as well as German folklore, were reconceived by the National Socialist Party in order to postulate Aryan supremacy. By taking select features of these myths out of the context of their original cultural sources, the myths were interpreted in ways that promoted German nationalism. Essentially, by drawing discriminately from these ancient sources, the National Socialist Party created its own complex system of myths that informed its identity, spirituality and politics. The intention of this paper is to analyze some of the primary elements that were woven together to create the myth of Aryan supremacy.  
Reception Room, 4:40 p.m.

**Sarah Fabian**

Department of English Language and Literature  
Professor Ian Wojcik-Andrews

**Gifted Children in Inclusive Classrooms: The New Children Left Behind**

For the past three decades, reform concerned with special education in public schools has been overwhelming. With the passing of the Individuals with Disabilities Act (IDEA), public schools have had to make more forceful efforts to include disabled students in regular classrooms. Though much attention has been given to the benefits of inclusion on disabled learners, little has been given to the ways in which inclusive classrooms affect gifted students. The small amount of available literature on the subject, however, questions the feasibility of truly successful programs of inclusion and the level of effectiveness of these programs for all students. In addition, this literature illuminates a number of the negative consequences that inclusive classrooms have on gifted students.  
Faculty Room, 2:20 p.m.

**Meredith Graupner**

Department of English Language and Literature  
Professor Linda Adler-Kassner

**Self-Efficacy and its Effects on the Placement of First-Year Writing Students**

The researcher investigated the relationship between the writing self-efficacy of first-year students at Eastern Michigan University and their placement in composition courses. It was predicted that students with high levels of writing self-efficacy would place themselves, using the guided self-placement method, in English 121. It was also predicted that students with low levels of writing self-efficacy would place themselves in English 120. A sample of Eastern Michigan University students enrolled in English 120 or English 121 during the fall 2005 semester was used to conduct the study. Data collected through questionnaires and brief interviews revealed that students do make placement decisions based on writing self-efficacy, yet it is not safe to assume that it is the only reason for making that decision.  
Main Lounge, 3 p.m.

**Kenne Likkel**

Department of English Language and Literature  
Professor T. Daniel Seely

**English Indefinite Pronouns and Adjectives**

It has been postulated that cross-linguistically, all attributive adjectives are base-generated in prenominal position (as in English: “the red flower”). Postnominal position in the surface structure of some languages (e.g. Spanish: la flor roja, “the flower red”) is explained by theories of noun-movement. Within such theories it has generally been assumed that English is not subject to noun-movement in adjectival phrases since attributive adjectives in English are normally prenominal. However, an English construction exists in which the adjective always appears postnominally, namely [indefinite pronoun + adjective phrases] such as “something borrowed, something blue,” and so on. Are these constructions subject to noun-movement as some theorists have proposed? This presentation examines arguments within a DP-framework both for and against noun-movement as an explanation in the derivation of these phrases in an effort to develop a uniform theory accounting for these linguistic phenomena and to uncover additional evidence of universals in the human language faculty.  
Tower Room, 12:40 p.m.

**Camille Parker**

Department of English Language and Literature  
Professor Ian Wojcik-Andrews

**Riding a Broomstick out of Plato’s Cave: Elements of Plato found in J.K. Rowling’s Harry Potter Series**

Although the *Harry Potter* series was written for and is marketed toward children, it contains elements of and relates to theories from one of history’s most important philosophers. In looking at the *Harry Potter* series, there are aspects of the novels that mirror elements found in Plato’s *The Republic*, specifically his allegory of the cave found in “Book Seven.” Plato’s allegory of the cave can be broken down into four stages of knowledge that separate

the prisoners from each other. Likewise, this paper discusses how characters from the *Harry Potter* series fit within these four stages and how the varying levels of knowledge distinguish muggles from mudbloods and wizards and witches. Seeing J.K. Rowling's books through the light of Plato's analogy, we are able to better understand the different worlds and the varying levels of knowledge held by the characters in those worlds. Faculty Room, 2:40 p.m.

**Theresa Przystup**

Department of English Language and Literature  
Professor Sheila Most

**Modifying the Mabinogion: Lloyd Alexander and the Prydain Chronicles**

Operating under the assumption that any given society's myths were designed, in part, to assist people in finding their place in the world by providing them with self-understanding, the researcher analyzed the collection of Welsh mythology known as the Mabinogion and compared it to the Prydain Chronicles, a series of books written by Lloyd Alexander for young adults. The researcher found that, although Alexander uses the Mabinogion as a starting point to create his fantasy world, he does not remain completely faithful to tales throughout the course of the series. Instead, Alexander draws upon the heritage embedded in Welsh mythology, most notably the idea that honor is to be won in battle, and modifies it, based on his own experiences as a staff sergeant during World War II, to argue that the well-being of others and the simple pursuit of farming is more honorable than any battle could ever be. Reception Room, 5 p.m.

**Tammy S. Smith**

Department of English Language and Literature  
Professor Ian Wojcik-Andrews

**Movement Literature: Reevaluating the African American Children's Literature Canon**

Using black literary theory and the criticism of scholars such as Henry Louis Gates, Jr.; Bell Hooks and Arna Bontemps, I will re-evaluate the African American children's literature canon and focus on some of the well known and lesser known children books, which I will evaluate in terms of aesthetics rather than just as artifacts of race relations. Many of the texts are what I would consider to be movement literature — literature written during or after a particular literary or social movement (such as the Harlem Renaissance or the Civil Rights movement) in order to present positive, heroic images of African Americans that will shape the images and ideologies of African American children. For this to happen, aspects of the movement needed to be articulated in children's literature; thus, movement literature was written. Faculty Room, 3 p.m.

**Megan Zdrojkowski**

Department of English Language and Literature  
Professor Verónica Grondona

**Consonant Clusters or Single Phonemes? The Status of Glottalized Consonants in Wichí**

In an effort to determine the phonemic status of glottalized consonants in Wichí, an endangered Matacoan language of South America, this paper examines the two main works on this topic: Claesson's (1994) *A Phonological Outline of Mataco-Noctones* and Viñas-Urquiza's (1970) *Fonología de la Lengua Mataca*. While Claesson views glottalized consonants as clusters of phonemes, Viñas-Urquiza instead classifies glottalized consonants as single phonemes. Using Wichí data collected during my own fieldwork in Misión La Paz (Salta, Argentina), I build upon Viñas-Urquiza's paper and argue that the scarcity of other consonant clusters, the presence of minimal pairs, and the complication of the syllable inventory provide evidence that glottalized consonants in Wichí are best viewed as individual phonemes and not as clusters of consonants and glottal stops. This research has important implications not only for Wichí phonology but also for historical and comparative studies of the Matacoan language family, typology and phonological theory. Tower Room, 12:20 p.m.

**Department of Foreign Languages and Bilingual Studies**

**Nancy Lee**

Department of Foreign Language and Bilingual Studies  
Professor Wendy Wang

**ESL Issues in the Automotive World: An Analysis of the English Language Needs of Expatriates Working in the Motor City**

The purpose of this research study is to determine the English language needs of automotive executives who come to the Detroit area from other countries such as Germany, Japan and Mexico. These executives are sales managers, human resources managers, financial officers and engineers who represent the Big Three (Ford, DaimlerChrysler and General Motors) as well as other multinational corporations such as Alps Automotive, Benteler Automotive, Bosch, Toyota and Volkswagen. Rising labor costs have forced these companies to tighten their purse strings, but money is still allocated for ESL instruction. Is this money well spent? What are the "real" language needs of these international professionals, and are their needs being addressed by the corporate-sponsored language programs offered to them? Main Lounge, 2:40 p.m.

**Michael Newman**

Department of Foreign Languages and Bilingual Studies  
Professor Wendy Wang

### **Teaching Collaborative Writing Using SubEthaEdit® and iChat®**

The presenter demonstrates how SubEthaEdit® and iChat® computer programs are used in an ESL writing course to encourage collaborative writing among students. Students' individual and collaborative compositions when using SubEthaEdit® and iChat® are compared and analyzed. Their reaction to the use of SubEthaEdit® and iChat® in collaborative writing is discussed.  
Alumni Room, 4:20 p.m.

## **Department of Geology and Geography**

### **Christopher Beyer**

Department of Geography and Geology  
Professor Chris Mayda

### **Site, Situation and Settlement of Ypsilanti**

The site of present day Ypsilanti was once primarily marsh and swampland. Nevertheless, the area was settled and has grown into a mid-sized city with a population of more than 22,000. Drawing from a variety of maps to illustrate the interplay of site, situation and settlement, we learn that this area was settled because the situation was favorable enough to draw people to the area. Ypsilanti originally emerged at the crossroads of two important Indian Trails, and the success of the area was ensured when it became a node along the first road from Chicago to Detroit. The people of Ypsilanti have altered the site in a variety of ways to make the area more habitable. An understanding of the site, situation and settlement of Ypsilanti may clarify the development of other settlements with unfavorable sites.  
Reception Room, 12:40 p.m.

### **Matt Borders**

Department of Geography and Geology  
Professor Ted Ligibel

### **Egyptian Architecture in American Civil War Monuments**

Those of us who have visited Civil War battlefields or have seen community monuments to those who fought in America's bloodiest conflict may have noticed a pattern in many of these monuments. Though there are a wide variety of military monuments in the United States, the use of the obelisk seems to dominate those dedicated to the remembrance of the Civil War. This is particularly interesting when we realize that the Egyptian architecture style lasted for only a very short time in America, from about 1840 to 1847. Why, then, does it reappear in the form of obelisks after the war? The answer is simple: like the Egyptians before them, Americans wished to honor the memory of those who died with an object that symbolized the uplifting spirit and yet was still strong and sturdy. Thus the humble obelisk was a natural choice.  
Alumni Room, 5 p.m.

### **Cheryl Chidester**

Department of Geography and Geology  
Professor Lauren Sickels-Taves

### **The Reading of a Building**

Through observation and analysis of a building's architectural style and decorative elements, materials and techniques of construction and mechanical system elements, the original date of a building's construction can be established. Furthermore, subsequent alterations' dates and the sequence of these alterations can be determined with surprising accuracy. Research conducted following the analysis supported the assumptions made from the "reading" of the Argus I Building located in downtown Ann Arbor.  
Guild Hall, 2:30 p.m.

### **Annie Marshak Dowling**

Department of Geography and Geology  
Professor Lauren Sickels-Taves

### **A Pictorial History of the University of Michigan Fresh Air Camp (1921 to present)**

Fresh Air Camps were a 20th-century movement established by religious organizations as outdoor therapeutic programs working with troubled youth from urban areas. The University of Michigan Fresh Air Camp was established by students to run as part of their education along with meeting the recreational needs of youngsters. Located in a 180-acre preserve on Patterson Lake in Pinckney, Mich., the Student Christian Association operated the camp from 1921-37. It became a training ground for social workers and psychologists from 1944-69, and the School of Education used the camp as a summer teaching facility from 1969-82. Budget cuts and increasing liability issues have brought this once exceptional, active facility to a standstill. Historical and current documentation will be used to illustrate the camp's 85-year history.  
Salon, Noon

### **Carrie Duhl**

Department of Geography and Geology  
Professor Lauren Sickels-Taves

### **A Splendid Table: A Study of Ann Arbor and Ypsilanti's Culinary Roots and Eating Habits from 1888 to Present**

A variety of ethnicities are represented through the grocery stores and eating establishments that exist in Ann Arbor and Ypsilanti. Is this variety a reflection of a diverse population, a sophisticated palate or a combination of the two? The location of eating establishments and their ethnic associations (if any were indicated) were traced through city directories and then analyzed with census data and birth records to see if a correlation existed with the arrival of different ethnic groups to the area or if some of the eating establishments were a result of eating fads. Outside factors were also examined to draw a more complete picture of why such a high number of foreign-born residents now reside in the area.  
Reception Room, 3 p.m.

### **Aletha M. Lippay**

Department of Geography and Geology  
Professor Ted Ligibel

### **Preservation and Restoration of Cobblestone Masonry**

This poster will address the complexities associated with repairing and preserving historic cobblestone construction. It will visually depict this historic material and its interaction with other materials and the environment over time. The presentation will also discuss typical problems associated with cobblestone masonry, such as water damage from continual freeze/thaw cycles that result in the cracking of stones and mortar. Finally, the poster will display solutions to the most common problems by commenting on the most up-to-date restoration practices for repairing and preserving cobblestone masonry. Guild Hall, 2:30 p.m.

#### **Kira M. Macyda**

Department of Geography and Geology  
Professor Lauren Sickels-Taves

### **Material Culture – An Artifact Study of a Pair of Vintage Sunglasses**

The researcher analyzed a pair of vintage sunglasses to determine their cultural significance. The glasses were analyzed using E. McClung Fleming's format. The researcher utilized primary and secondary sources, along with oral interviews, to identify the artifact's five basic properties: history, material, construction, design and function. Four operations were applied to these properties, which were to identify, evaluate, provide cultural analysis and interpret the artifact. Also performed was a product analysis and content analysis. Product analysis determines the mark of a culture on an artifact. Content analysis discovers how an artifact reflects its culture. The study concluded that these sunglasses reflected a burgeoning upper-middle class society in the 1950s and developed a portrait of a woman who expressed herself through her appearance. The poster will use photographs of the woman and her glasses to provoke enquiry. Visitors will learn how one small artifact can relay so much history. Guild Hall, 2:30 p.m.

#### **Marcia Dollar Phillips**

Department of Geography and Geology  
Professor Chris Mayda

### **"I" Stands for Irish**

The researcher investigated the presence of the I-house, long associated primarily with Indiana, Illinois and Iowa, in the Piedmont area of the Appalachians in North Carolina, where the form was adopted and adapted by the migrating Scots-Irish. The result was to link this manifestation with the house form's Virginia origins and the Scots-Irish's pattern of syncretism and to differentiate between the Midwest version and this southern variation. This simple two-story, central hall dwelling manifests itself in the region examined with the common adaptations of a rear ell addition and front porch, but the footprint of an I-house is unmistakable. A microcosmic study presents itself in Davie County, N.C., where the researcher's ancestral home existed and where thousands of examples are extant, proof

that it was a floorplan well suited to the Irish who settled there and to whom this house form belongs as well. Guild Hall, 2:30 p.m.

#### **Alexis Reynolds**

Department of Geography and Geology  
Professor Ted Ligibel

### **City of Ypsilanti Historic Survey**

The researcher helped initiate, coordinate, research and compile a historic survey of 66 properties for the city of Ypsilanti. The survey was conducted by the researcher and students in two Historic Preservation graduate courses: "Preservation Research Techniques" and "Documenting Historic Places." The historic survey will be used to maintain the city's certified local government status, a funding program from the State Historic Preservation Office that provides technical and financial assistance to further preservation activities and awareness in Michigan communities. The resulting survey is a multivolume work that includes reconnaissance and intensive level surveying, in addition to completed Michigan inventory forms, historic American building surveys (HABS) and a national register nomination. Guild Hall, 12:30 p.m.

## **Department of History and Philosophy**

#### **David M. Walton**

Department of History and Philosophy  
Professor Ron Delph

### **The Evolution and Improvement of the Status of the 16th Century Venetian Jew**

Jews in Medieval Europe were persecuted, massacred and at times even expelled from most countries. Many took refuge in Venice where German (Tedeschi) and Italian Jews were housed in the "ghetto nuovo," established in 1516. Beginning in 1492, many other Jews fled the Iberian Peninsula to the Ottoman Empire, assuming a role in the Turkish international overseas commerce. These Levantine Jews then returned to Europe as Turkish subjects. Many migrated back to Italy, taking up residence in Venice; these Levantine Jews were housed in the "ghetto vecchio," which was established in 1541. Contrary to the Jewish experience elsewhere in Europe, between 1541 and 1589 many laws, decrees and regulations were passed and published that improved the status of Jews in Venice. Why was the status of the Venetian Jew ameliorated during this period (1492-1592)? The answer to this question is quite simply that Venetian economic needs and self-interest, coupled with the threat of Protestant activism, curbed any extreme anti-Semitic posturing by the Venetian secular government. Reception Room, 12:20 p.m.

## **Department of Music and Dance**

#### **Pamela Robbins**

Department of Music and Dance  
Professor Louise Patrick

### **Developing a Musical Theatre Program: A Guide for the Music Educator**

During the past few decades, an increase in school district expectations for student performances has been evident. Consequently, more school musical theatre programs have been tailored to elementary students and have become the responsibility of the general music teacher.

The purpose of this project is to provide a complete resource for elementary music teachers who are faced with the task of creating a musical theatre program in their schools. Educators will experience a step-by-step account of a musical play. Resources include rationale statements that speak to the benefits of musical theatre, steps for creating a musical theatre production from start to finish, and applying the proposed process to an actual play, *The Trial of the Big Bad Wolf*, by Val Cheatham. Supportive materials such as survey documents, weekly schedules, notes to send home, set diagrams, choreography and a biography of musical theatre resources complete the project.

Tower Room, 4:20 p.m.

## **Department of Physics and Astronomy**

### **Peter Distelzweig**

Department of Physics and Astronomy  
Professor Diane Jacobs

### **René Descartes and the Mixed Sciences**

At the heart of natural science is the development of mathematical models of natural systems. This was not always the case. In fact, attempts to use mathematical thinking in the study of the natural world were thought to be methodologically ill-conceived in the dominant intellectual tradition ("scholasticism") inherited and eventually rejected by 17th century European thinkers. In that tradition, the so-called "mixed" or "middle" sciences (e.g., astronomy or optics) were problematic precisely because of their mathematical treatment of natural phenomena. René Descartes (1596-1650) was among the most influential thinkers of the early 17th century. He received a scholastic education, was a pioneer in mathematics and the mixed sciences and, though conscious of the scholastic approach, emphatically rejected it. I will present the main outlines of the scholastic attitude toward mathematics in the mixed sciences and examine Descartes' reaction to it.

Main Lounge, 4:40 p.m.

### **Daeha Joung**

Department of Physics and Astronomy  
Professor Marshall Thomsen

### **Photothermal Studies of Bulk Polymers**

This presentation reports on the photothermal method as it is used to study polymers. This method is based on the principle of converting optical energy to thermal energy. When a laser is directed at a sample, part of the optical energy is absorbed and may become thermal energy. This absorbed energy causes localized changes in the sample. These changes can be detected by a probe beam to study various characteristics of the sample. Photothermal methods are used in analyzing optical and thermal properties of various solids, including optical absorption, thermal conductivity, local defects, laser-interaction dynamics, laser damage threshold and thermal impedance at boundaries of multilayer materials. Preliminary results on a Zeonox sample will be reported. These results will be compared to results from an amorphous bis-phenol A polycarbonate.

Main Lounge, 4:20

### **Erika Roesler**

Department of Physics and Astronomy  
Professor James Sheerin

### **Analysis of 2.5-micron Particulate Matter Emission from the EPA-Sponsored Kansas City, Kan. Test Program**

Anthropogenic aerosol emissions are a regulated pollutant because of affects on human health and the environment. In a sponsored study by the EPA, more than 500 cars and light trucks from the Kansas City, Kan. area were tested for instantaneous mass emissions of 2.5-micron particulate matter (PM<sub>2.5</sub>). Particulate matter (PM) is a reactive species because formation parameters such as size, mass, shape and chemical composition depend on initial temperature, concentration, and humidity. Unfortunately, little is known on how the formation of particulate matter in the laboratory relates to the particulate matter formed in real world environments. This project's goals are to investigate how the Kansas City, Kan. test program relates to real world emissions and to find trends of the measured pollutants within the tested group of vehicles.

Main Lounge, 5 p.m.

## **Department of Political Science**

### **Jade Davis**

Department of Political Science  
Professor David Ivers

### **The Water Street Development: A Policy Analysis of Brownfield Development in Urban America**

The research conducted within this study highlights some successful tactics cities have used in order to successfully redevelop brownfields. Brownfield redevelopment is a necessary endeavor for cities that must combat sprawl and shrinking tax bases. The city of Ypsilanti is at war with sprawl and a declining tax base. The Water Street project is a mixed used development, which will contain commercial and residential space. The project is located on a former

brownfield site in which the city has invested millions of dollars in site clean up and infrastructure. However, the city has not been able to attract a developer for the project. Furthermore, as the project stalls, city officials are experiencing waning community support. Also, the repayment of the loans and bonds that the city used for the project depends on the successful revenue creation of the project. The study examined brownfield projects in Traverse City, Mich. and Muskegon, Mich. in order to highlight techniques that Ypsilanti city officials could use in Water Street's implementation. The research culminated with suggestions on how the city of Ypsilanti could successfully complete the Water Street project based upon the success of the Watermark and Rivers Edge. Salon, 2 p.m.

**Vanessa Ferguson**

Department of Political Science  
Professor Dogan Koyluoglu

**News Coverage of Breast Cancer in Major Media Outlets**

One of the most important women's health issues covered by the news media today is the topic of breast cancer. The messages portrayed in these media sources serve as a major source of information for cancer patients and for the general public. In order to determine the types of messages that are conveyed to audiences, this content analysis examined 231 stories that appeared in nine major newspapers, newsmagazines and television network news shows in 2003 and 2004. The results showed that the media had a greater emphasis on treatment methods than on ways to prevent or detect the onset of breast cancer. Other items that were not frequently covered were issues on lifestyle practices or the impact of environmental contaminants on a woman's likelihood of contracting breast cancer. There was also very little information on the risks associated with person's poor diet, lack of exercise, or exposure to chemicals. The analysis contained twice as many stories featuring personal narratives and statistical figures while two-thirds of the items quoted expert medical professionals, researchers or medical organizations such as the American Cancer Society. Intermedia Gallery, 5 p.m.

**Nathan A. Geinzer**

Department of Political Science  
Professor Dogan Koyluoglu

**Principle Shopping Districts: A Rarely Used Downtown Marketing Tool**

The Principle Shopping Districts and Business Improvement Districts Act 120 of 1961 laid the groundwork for an overlooked municipal tool. Amongst other things, this act allowed for the creation of a district where a special assessment can be levied and the generated funds can then be put towards a comprehensive marketing effort for the district. Today's downtowns are being faced with not only increased competition from retail developments inside and outside of their municipal limits, but also from neighboring municipalities. A comprehensive

marketing effort in many downtowns is nonexistent. For downtowns to remain economically viable and successful this must be addressed. A principle shopping district is a way to address this need. Salon, 2:20 p.m.

**Pamela Ann Hamway**

Department of Political Science  
Professor Dogan Koyluoglu

**Minor in Possession: An Overview of Michigan Law**

Historically, possession of alcohol by minors has been addressed by penalizing those who sold or provided the alcohol: shop owners, barkeepers. The Michigan Legislature has now criminalized possession of alcohol by minors, with progressively harsher punishment for each offense. Though the statute does not provide for the imposition of jail time for first-time offenders, some Oakland County district court judges are imposing conditions of probation that inevitability are violated. Rather than sentence in accordance with the violation of probation statute, some judges are finding the violator in contempt and sentencing him or her to jail. In addition, most municipalities have enacted minor-in-possession ordinances designating the offense a misdemeanor with jail time as a possible punishment for all offenders. On appeal to the circuit court, these cases present issues concerning local control of alcohol, preemption and conflict of laws, separation of powers, courts' sentencing and contempt powers, and due process. This paper presents a history of minor-in-possession laws, identifies issues that arise on appeal, and provides an overview of the law in each area, with a focus on sentencing practices in Oakland County. Intermedia Gallery, 4 p.m.

**Pamela Quinlivan**

Department of Political Science  
Professor Raymond Rosenfeld

**Has the HIPAA Privacy Rule Thwarted Clinical Research Recruitment?**

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) has taken a prominent place in the struggle to maintain the privacy of individually identifiable health information and clinical research recruitment. The HIPAA Privacy Rule differs from past clinical research recruitment activities in that it now focuses on how to maximally protect the privacy of personal health information — including the use and disclosure for research purposes — but the question is, at what cost? Has the Privacy Rule thus thwarted clinical research recruitment? This paper examines the impact of the Privacy Rule, focusing partly on the two existing case studies listed above, along with 1) identifying and analyzing key Privacy Rule implementation issues; 2) identifying top-level, critical issues, challenges and barriers faced by health care entities as the Privacy Rule is implemented, including barriers to the flow of patient data needed for core clinical research activities; 3) identifying the impact on business operations of those conducting clinical research and 4) identifying areas of the

regulation where modifications, guidance and/or clarifications from the U.S. Department of Health and Human Services.  
Salon, 2:40 p.m.

**Alfreda Rooks-Jordan**

Department of Political Science  
Professor Joseph Ohren

**Performance Improvement Process: A Model for Hospital-Based Volunteer Programs**

Continuous quality improvement (CQI) and total quality (TQ) have been around since before World War II beginning with the work of Walter Shewhart. W. Edwards Deming and Joseph M. Juran later expanded on Shewhart's pioneering work. Quality processes used in industry proved to be transferable to health care institutions. CQI/TQ processes in the health care setting are primarily used in clinical and technical areas that provide service, care and treatment to patients. Rising health care costs and staffing shortages make volunteers crucial to augment the care and support provided by professional staff. The JCAHO standards include volunteers who provide care, treatment and service in the same capacity as staff subject to the same standards and competencies as staff. This work focuses on applying process improvements to nonclinical nontechnical units such as the Volunteer Service Department in hospitals and health care settings. The recent switch from announced to unannounced JCAHO surveys make it pertinent for hospital-based volunteer programs to have infrastructures in place that support effective volunteering and are in JCAHO compliance. Seven key strategies are recommended for establishing the infrastructure that may be used as a model by volunteer administrators.  
Intermedia Gallery, 4:20 p.m.

**Laura L. Thomas**

Department of Political Science  
Professor Claudia Petrescu

**Waza Flo Club: Analysis of a Unique Organization**

Organization theory embraces four models: rational systems, natural systems, open systems and hybrids. Understanding the characteristics of these models helps us to understand an organization's current state of operations. Waza Flo Club, an independent soccer organization, exhibits features of a rational system but falls more precisely under the post-1960 theorists' conceptions of an open-rational system. Tom Burns' and G. M. Stalker's mechanistic and organic systems theory explains the rational aspects of Waza Flo Club while Arthur Walker's and Jay Lorsch's product versus function theory unpacks its open-rational nature. Daniel Katz' and Robert Kahn's organization and system concept theory is used to examine the club's response to its internal and external environments, key characteristics of an open system, while James Thompson's propositions explain the synergy of the club's rational and open-rational features. Fritz Roethlisberger's classic Hawthorne experiments, Abraham Maslow's hierarchy of needs and Irving Janis' theory of "groupthink" all explain the behavioral aspects of Waza Flo Club.

Salon, 3 p.m.

**Department of Psychology**

**Teresa Lynch**

**Kevin Alschuler**

**Elizabeth Kuhl**

**David Scott**

Department of Psychology  
Professor Flora Hoodin

**Differential Effects of Physical and Mental Health on Perceived Quality of Life in College Students**

College students display a variety of physical and mental health problems associated with the construct of quality of life. This study examined the extent to which aspects of physical and mental health affect perceived quality of life for 163 undergraduate students. The most frequently reported physical problems were allergies (29 percent), asthma (15 percent), and headaches (27 percent); students also indicated clinical levels of depression (22 percent), state anxiety (17 percent), and trait anxiety (27 percent). Hierarchical multiple regression analyses indicated that 13-53 percent of the variance in quality of life was accounted for by depression and/or anxiety ( $p < .001$ ) but not physical conditions or visits to physicians and emergency rooms, suggesting that mental health significantly influences perceived quality of life while physical health does not. Therefore, college healthcare providers should be alert to the impact psychological problems may have on their physically ill patients' quality of life.  
Guild Hall, 2:30 p.m.

**Scott Brown**

Department of Psychology  
Professor Alida Westman

**Religious Orientation and Flow**

This study explored the nature and extent of relationships between religious orientations, religious orthodoxy, and flow, which is a positive consciousness experience akin to "being in the zone" in sports. The three religious orientations are intrinsic religiosity, which involves accepting and shaping one's life around religious beliefs; extrinsic religiosity, which involves trying to gain rewards, such as social status, from religious participation; and quest, which involves seeking religious meaning, as opposed to accepting traditional religious doctrines. Data analyses indicated that individuals scoring higher on extrinsic religiosity tended to have less intense flow experiences and experience flow more often during public religious gatherings than during private prayer or meditation. A stepwise regression procedure found a predictive model for flow intensity consisting of religious orthodoxy and both intrinsic and extrinsic religious orientations. Other results were found during further correlational and descriptive analyses.  
Faculty Room, 5 p.m.

**Jessica Chamberlain**

Department of Psychology

Professor Carol Freedman-Doan

### **Gender and Race Differences in Parent-Adolescent Communication about Sex**

The negative consequences of risky adolescent sexual behavior are profound and include health, educational, economic and social limitations (Maynard, 1996). Therefore, it is valuable to explore what factors relate to risky sexual behavior. Adolescent sexuality differs by ethnicity and by gender (Downie and Coates, 1999; Huebner and Howell, 2003). Additionally, parental communication appears to affect adolescent sexual behavior, but some researchers find that increased parental communication decreases sexual risk-taking in adolescents (Raffaelli, Bogenschneider and Flood, 1998), while others report that it leads to greater sexual activity (Somers and Paulson, 2000). Inconsistency in the literature may be due to lack of information about what parents actually communicate to their children and how this information affects adolescents of different genders and ethnic groups. This study examines gender and race differences in parental communication about sex. Participants are approximately 2500 15- to 18- year-olds who participated in the *National Longitudinal Study of Adolescent Health* from 1994-96. Intermedia Gallery, Noon

**Anthony Fryling**

**Sarah Reiland**

Department of Psychology  
Professor Dean Lauterbach

### **The Relationship Between Social Support, Religiosity and PTSD Symptoms**

Social support is a protective factor for many psychological disorders. For example, higher social support is associated with less severe symptoms of post-traumatic stress disorder (PTSD). Religiosity is also a protective factor against emergence of a broad range of psychological disorders. Social support and religiosity are frequently correlated; consequently, it is important to disentangle the effects of these variables on severity of PTSD. The current study used the *National Comorbidity Survey* data to examine the effect of religiosity on number of PTSD symptoms after controlling for social support. Four hierarchical multiple regressions were computed in which various indices of social support were entered first, followed by various indices of religiosity. The dependent variable was number of PTSD symptoms. Separate analyses were computed for the following four nested groups: 1) lifetime history of PTSD, 2) PTSD within last year, 3) PTSD within last six months and 4) PTSD within last month. Social support was significantly predictive of number of PTSD symptoms for persons with current PTSD (last month and last six months) but not for persons in the remaining groups. Across all analyses, level of religiosity was unrelated to number of PTSD symptoms. Guild Hall, 12:30 p.m.

**Erin Henshaw**

Department of Psychology  
Professor Carol Freedman-Doan

### **The Effects of Religiosity and Contraceptive Knowledge on Adolescent Sexual Behaviors**

The researcher investigated the roles of both religiosity and contraceptive knowledge in determining three aspects of adolescent sexual behavior: a) use of contraception, b) age of first sexual activity and c) number of sexual partners. Data were drawn from the *National Longitudinal Study of Adolescent Health*. Analyses were limited to students who experienced their first sexual intercourse between measurement time one and measurement time two, approximately two years later. Regressions were performed to examine how each measure of religiosity and sexual knowledge was associated with each sexual behavior outcome. Religiosity variables significantly predicted fewer sexual partners. Interactions between religiosity and sexual knowledge variables were also significant for age of first sexual activity and contraceptive use. Intermedia Gallery, 12:20 p.m.

**Jacqueline Mezza**

Department of Psychology  
Professor Carol Freedman-Doan

### **Racial Differences in Media's Impact on Body Dissatisfaction**

Body dissatisfaction is highly prevalent among adolescent girls and has been linked to serious disorders. According to this research, African American girls, even if they have a heavier build, tend to be more satisfied with their bodies and report higher self-esteem than Caucasian girls (Milkie, 1999; Thompson-Leonardelli, 2002). One explanation for differences between African American and Caucasian girls in their body dissatisfaction may be their preferences for media, specifically reasons for watching shows, which is what this study will attempt to explore. It is hypothesized that there will be racial differences in media viewing that then translate to less internalization of the thin ideal and less body dissatisfaction. Preliminary analyses reveal differences in girls' TV viewing and magazine readership. Subsequent analyses will examine the relation between media viewed, as well as the character traits, and the Internalization of appearance questionnaire and the body dissatisfaction index. The implications of these findings in terms of media role models are discussed. Intermedia Gallery, 12:40 p.m.

**Joan McDowell**

Department of Psychology  
Professor Carol Freedman-Doan

### **Parents' Attributions about the Causality and Controllability of Adolescent Depression**

Attributions for depression may foster or hinder the process of healing in depressed individuals by creating an environment of understanding or an environment of criticism. Researchers have established that a negative environment has predictive validity for nonrecovery from depression. However, a consistent link between attributions and recovery has not been established. Identifying which attributions are salient to the social environment, and

therefore to outcomes, will be useful for the design of new treatment models. The current study uses data from surveys of 150 parents of children with depression. In keeping with the findings of our previous study on family and friends of depressed adults, we hypothesize that causal and controllability attributions are not related. In addition, we hypothesize that beliefs about controllability of symptoms are related to the severity of the depression and the quality of the parent adolescent relationship.  
Guild Hall, 2:30 p.m.

**Robert Parker**

Department of Psychology  
Professor Alida Westman

**Who Has Better Interpersonal Conflict Resolution Skills and How These Skills Can Be Improved**

Fifty-four undergraduates answered a questionnaire that measured their ability to resolve interpersonal conflicts, level of self-esteem, pattern of attachment to significant others, stress level and interest in learning about conflict resolution. The following hypotheses were supported: Students would report fewer conflict resolution skills if a) they experienced less problem-solving in the relationship with their caregiver as they grew up, b) they had lower self-esteem, c) their attachment style was insecure rather than secure and d) they were less altruistic. It had been expected that students would report fewer conflict resolutions skills if they experienced more stress, but this hypothesis was not supported. Many students indicated interest in receiving help in learning to resolve conflicts.  
Guild Hall, 4:30 p.m.

**Andrea Sellers**

Department of Psychology  
Professor Alida Westman

**Relationship Between Gender, Religiousness, Political Orientation and Values of Undergraduate Students at Eastern Michigan University**

During the winter 2005 semester, we found that female students were more liberal than male students and that there was a difference in values and political orientations as a function of the majors that students had chosen. Such differences are extremely important for doing and for generalizing from surveys and research studies done on campus. The current study replicated and expanded the description of subgroups on campus.  
Guild Hall, 2:30 p.m.

**Eli Wilson**

Department of Psychology  
Professor Vannie Kay Hodges

**Use of a Strength-Based Measure of Parenting Skills to Promote Collaborative Treatment Planning**

The researcher investigated strengths and weaknesses of parenting skills for a sample of parents whose home life is characterized by substantial abuse or neglect. The data

being collected include that of children served by an agency providing foster care/reintegration services to families that had required out-of-home placement for their children due to child abuse or neglect. At intake and at exit from services, caregivers who participated in the study completed a measure of parenting skills that assesses skills across six domains: providing direction and following up, encouraging desirable behavior, discouraging undesirable behavior, monitoring activities, connecting positively with the child and problem-solving. Data are still being collected and analyses will be conducted to examine scores across all six domains. If the sample size is sufficient for repeat assessment, we will examine change over time as well as the relationship between child impairment on the CAFAS and caregiver skills at intake.  
Guild Hall, 2:30 p.m.

**Department of Sociology, Anthropology and Criminology**

**Carrie Buist**

Department of Sociology, Anthropology and Criminology  
Professor Marilyn Corsianos

**Women in Policing:**

**Impact of Gender Stereotypes Perpetuated in Society and the Media**

The percentage of women working in policing remains low, at less than 13 percent. Reasons as to why this number remains low will be explored within this paper, including the perception and impact of the media, the antiquated ideals associated with gender stereotypes in society and the role that patriarchy plays in everyday life. For women to truly be accepted and properly represented in the world of policing, on all levels, strategies for change must be learned and implemented. Feminist theories will be defined and explored, including the suggestion to combine both radical and postmodern feminist ideals to facilitate this change.  
Intermedia Gallery, 2:20 p.m.

**Irene Hoskin Heard**

Department of Sociology, Anthropology and Criminology  
Professors Denise Reiling, Paul Leighton, and Michael R. Nusbamer (Indiana-Purdue University, Fort Wayne)

**A Neighborhood Study Regarding the Relationship Between Social Identity and Street-Corner Drinking**

This study offered valuable insight into a subcultural setting where heavy drinking on the street-corner occurs among a group of African American men. Data were collected via participant observation, with two primary goals: first, to study street-corner drinking within its larger contextual settings; second, to describe the identity set of the man who drinks on the street corner. It became evident that, despite the large quantity of alcohol they consumed, the men had reached a level of functional tolerance. As such, they were well integrated into, and an important element in, the neighborhood's identity. They appeared to

have developed “racial victorization,” the ability to value their lives despite the uncontrollable external force of everyday racism. Rather than be ashamed of their lives, of which they knew the “outside” world disapproved, their public displays of drinking came to be understood as a political statement in defiance of society’s labels.  
Intermedia Gallery, 3 p.m.

**Jessica Merritt**

Department of Sociology, Anthropology and Criminology  
Professor E. L. Cerroni-Long

**Social and Cultural Effects of Education: The Black Male Experience of Returning to the 'Hood**

The African American population has been slowly but steadily increasing. With this increase, there is a rise in the number of African American males who are entering colleges and universities. The researcher will investigate the impact that education has on the social and cultural experiences of African American males who return to low-income neighborhoods upon graduation. Data comprised an ethnographic study of four men, participant observations in the community, and surveys of a representative sample of the community. Many theories, including W.E.B. DuBois’ theory of double consciousness, were used to interpret and analyze the data.

Tower Room, 2:40 p.m.

**Women’s and Gender Studies Program**

**Zoe Behnke**

Women’s and Gender Studies Program  
Professor Linda Schott

**Suffrage Referenda in 1912 and 1913 in Ann Arbor**

Suffrage research has often been focused on events that influenced the national movement. There are cities, however, that have not been researched and are rich in suffrage history. This paper will investigate events in Ann Arbor. Voters in Ann Arbor approved women’s suffrage in 1912 but vetoed it in 1913. What accounts for this reversal? This paper will examine the seven precinct wards, demographics, and activities of the pro-suffrage and anti-suffrage organizations. It will argue that the pro-suffrage organizations in Ann Arbor did not run a high profile campaign in 1913 and were not able to educate the public on the importance of suffrage, and that led to the defeat. This knowledge will help further understanding the suffrage movements at a local level.  
Intermedia Gallery, 1 p.m.

**Kathy Cullen**

Women’s and Gender Studies Program  
Professor Linda Schott

**The Development of a Three-Credit Undergraduate Course: Women and Achievement**

This course examines the lives of women of extraordinary achievement and illuminates how gender operates in a

variety of societal contexts and in relationship to other societal and cultural variables. In addition, it encourages students to develop effective thinking, evaluation and communication skills. The course utilizes a matrix of factors through which students can explore the political, social and economic realities of women’s lives. The readings introduce students to unknown women of courage and exploration, re-examine the criteria by which we measure achievement and encourage students to reflect critically on their lives and choices. The focus of the course is both historical and cross-cultural as the women’s stories span centuries and cultures. The course encourages students to challenge barriers and create role models. It supports the development of ambition and courage and celebrates the accomplishments of women, many of whom succeeded against incredible odds.  
Alumni Room, 4 p.m.

**Summer L. Furgason**

Women’s and Gender Studies Program  
Professor Sandy Norton

**It’s Great to Be a Girl!**

As the site director for It’s Great to Be a Girl, an after-school program that matches Eastern Michigan University women with sixth grade girls from East Middle School in Ypsilanti, I was given the opportunity to see firsthand how the experiences that a girl has during middle school can continue to shape her life much into adulthood. The goal of the program is to give these middle school girls an opportunity to spend time with positive female role models (“femtors”) in an effort to curb some of the self-esteem, body image and friendship issues that plague the lives of the sixth grade girl.  
Reception Room, 2:20 p.m.

**Mia Moyad**

Women’s and Gender Studies Program  
Professor Sandy Norton

**It’s Great to be a Girl! Part Two**

I enrolled in the It’s Great to be a Girl (G2B2) program during my undergraduate work at Eastern Michigan University. Those girls from East Middle School in Ypsilanti captured my heart on that first day, so naturally I was ecstatic when offered the position of director for Discovery Middle School in Canton, Mich. Part of the magic I see in our short 10-week program is watching the girls go from confusion to relative clarity on issues like the effects of negative self-talk, the objectification of women in the media and the importance of healthy friendships. I’m hoping to further the nurturing of young girls through the development of fun and exciting resources such as games, books and electronics.  
Reception Room, 2:40 p.m.

**College of Business**

**Department of Accounting**

**Intakhab Alam**

**Ashish Parmar**

**Renuka Row**

Department of Accounting and Finance

Professor Susan Moeller

**Investment Opportunities in Emerging Markets:  
Do Indian and Brazilian Stock Markets Allow  
Investors to Better Diversify Their Portfolios?**

This presentation is a comprehensive research analysis of the investment opportunities in Asian and Latin American markets over the last five years. It discusses the emergence of new markets, such as those in India and Brazil. This presentation finds that the growth and expansion of stock markets in India and Brazil have facilitated an expansion of equity flows into these markets. Furthermore, we present a description of these emerging markets, including a detailed economic analysis of each country and an analysis of the expected returns and risk levels along with a discussion of the positive factors that are driving these equity markets.

Correlations between these emerging markets and developed markets in Europe and North America have been calculated. Our findings indicate that low correlations between the returns of these emerging stock markets with developed countries' equity markets can significantly reduce the risk of the investors' portfolio.  
Faculty Room, 4 p.m.

**Steven Barge-Siever**

Department of Accounting and Finance

Professor Angela Hwang

**Compensation Issues for an S-Corporation  
Owner-Employee**

The purpose of this study is to examine the tax impact on payment for wage compensation vs. payment for profit distribution for an S-corporation owner-employee. While the same owner-employee will receive all company profits, there are significant tax implications for this individual. Further, declaring a low wage raises the chances of an IRS audit, which is expensive and time consuming. A spreadsheet is used to simulate the amount of taxes paid at various wage levels when income of the S-corporation is initially set at \$200,000. The findings of the study show that when wages range from \$14,000 to \$90,000, the current taxes are similar to taxes paid on the wages ranging from \$90,000 to \$112,000. This finding dispels the general misconception that tax burdens increase as wage payments increase for S owner-employee taxpayers.

Tower Room, 3 p.m.

**Department of Management**

**Erin Ottenbreit**

**Sean Falk**

Department of Management

Professor Stewart Tubbs

**The Gender Divide**

This research documented the great need for equality between the genders. We will explore how we communicate gender and the importance that language and discourse plays in the process. Finally this presentation will take a look at exactly how these inequalities affect members within the consumer marketplace. Individuals are discriminated against in a variety of different ways including skin color, race, national origin, religion, age, disability (mental or physical), obesity, height, baldness, sexual orientation and gender. In this presentation, we will only look at the inequalities that exist within the marketplace due solely to gender differences. We will examine the automobile market specifically and examine any differences that exist in the deals that are extended to both genders when purchasing an automobile. Our sample consists of 10 dealerships representing five different automakers: Chevrolet, Ford, Chrysler, Honda and Toyota.  
Faculty Lounge, 4:20 p.m.

**Adrian Ong**

Department of Management

Professor Eric Schulz

**Perceptions of Pay Equity Among Graduate  
Assistants**

A prior survey of academic departments at Eastern Michigan University (EMU) revealed that two-thirds of these departments choose to pay varying wage rates among their graduate assistants when the department employs more than one graduate assistant. Reasons cited for why academic departments pay their graduate assistants differently included seniority, superior performance and specialized skill attainment. This study will expand upon the revelation that academic departments pay their graduate assistants different rates of pay by examining perceptions among graduate assistants at EMU about the fairness of their pay. The study will examine whether graduate students at EMU experience attitudes of pay equity and if these attitudes are affected by whether pay rates differ between graduate assistants within the same department. The study will also examine whether graduate assistants view as fair the pay process established for setting graduate assistant pay by the academic departments.  
Tower Room, 2:20 p.m.

**Department of Marketing**

**Steven Jordan**

Department of Marketing

Professor Tammy McCullough

**Beyond Terrestrial: Exploring Satellite Radio  
Awareness and Purchase Intent among College  
Students**

The researcher explores current awareness, acceptance rates and purchase intent of satellite radio among students in the College of Business at Eastern Michigan University using a quantitative study. The survey questionnaires were

completed during class time by 139 respondents. Statistical testing for the study was based on a 90 percent confidence interval and includes analysis of both frequency and cross tabulation. The data reveal that overall awareness of satellite radio is very high among college students. Gender and ethnicity are shown to play a role in awareness. Current subscription levels are low for college students though many indicate future purchase intent. Choice of delivery method is explored as well as the reasons why students would not consider subscribing to satellite radio.  
Faculty Lounge, 12:40 p.m.

## College of Education

### Department of Leadership and Counseling

#### **Virginia E. Bell**

Department of Leadership and Counseling  
Professor Helen Ditzhazy

#### **An Examination of the Implementation of Restorative Justice Programs in Select Michigan Public Schools for the Reduction of Student Behavior Problems**

School discipline is a concern of every school administrator today. Students causing disruptions in the classroom, which interrupt the learning of others, need to be held accountable for their actions and make a change in their behavior, not only for themselves but for their classmates as well. This study examines the implementation of one method of addressing negative student behavior, called restorative justice, and its influence in reducing student misbehavior. The restorative philosophy is based on forgiveness and restitution rather than condemnation and retribution.  
Salon, 12:20 p.m.

#### **Michele Coyne**

Department of Leadership and Counseling  
Professor Helen Ditzhazy

#### **Assessment of the Nature and Extent of Bullying at an Urban School: Strategies for the Reduction and Prevention of Bullying**

This study spotlights the deliberate efforts of one school to combat the menacing nature of bullying among school children. The following elements came together to form a reduction and prevention program: a restructured disciplinary system, increased adult supervision, classroom meetings, weekly schoolwide meetings, silent mentoring for challenging students, student focus groups, positive school-to-home communications and a student reporting system. The main objective was to create a low-cost and usable program that would result in fewer disciplinary referrals and improved school climate. A qualitative research method was employed, along with a quantitative research component. The study design had pre- and postsurveys to gauge baseline data and results before and

after the intervention strategies. The study also examined the number of behavior referrals and suspensions before and after the intervention strategies. During all phases of the investigation, there were participant observations and interviews with individuals and focus groups.  
Salon, 1 p.m.

#### **Kathy Morris**

Department of Leadership and Counseling  
Professor Dibya Choudhuri

#### **“Positively Me:” Building Self-Esteem Counseling Groups Grades Six through Nine**

This presentation outlines a proposal for psycho-educational counseling on self-esteem for students in grades six through nine. Promoting self-esteem for adolescents helps to increase their self-respect, gives a sense of importance, and helps them to believe in themselves. Contained in this proposal are the rationale, ground rules, objectives, goals, experiential strategies and brief session content for a self-esteem counseling group for adolescents in grades six through nine.  
Guild Hall, 12:30 p.m.

#### **Tamara Stevenson**

Department of Leadership and Counseling  
Professor Ella M. Burton

#### **Person, Position, Performance: Multiple Dimensions of the Female Leader**

This researcher sought to learn how women in leadership effectively function in organizations by exploring dispositional aspects (attitudes, values, beliefs, etc.) and situational aspects (occupational goals, expectations, productivity, etc.). Using a case study approach, in-depth interviews were conducted with three women in leadership positions at the following organizations: a religious institution, a private school and a public university. Data revealed, through thematic analysis, commonalities relating to racism and sexism in society, sources of personal and professional legitimacy, identity, image and perceptions influenced by the larger society. Literature supports that such issues contribute to the effective function of women in organizations across professions.  
Faculty Room, 1 p.m.

#### **Theresa Weaver**

Department of Leadership and Counseling  
Professor Dibya Choudhuri

#### **Group Proposal**

Divorce is a major problem in society, with many children experiencing their parents' divorce today. This is a proposal for an elementary school counseling group for children whose parents are separated or recently divorced. Primarily psychoeducational in nature, the focus of this group will be to assist these children with problems they are facing at home and school, as well as reflect on and understand their own reactions to the situation. The group will invite participation from boys and girls who are in grades three through five. The members will be selected by

referral. The goal of this group is to provide a safe space in which to assist children with this common but often distressing and sometimes traumatic event.  
Guild Hall, 12:30 p.m.

**Regina R. Winborn**

Department of Leadership and Counseling  
Professor Ella Burton

**Social and Cultural Issues that Affect Academic Achievement in Adolescent African American Females**

The purpose of this study is to examine the social and cultural issues that play a part in the achievement level of adolescent African American females. The researcher hypothesizes that African American adolescent females who may have high self-esteem and self-concept may not achieve at higher academic levels. The Piers-Harris self-concept scale was administered to African American and Caucasian females, 12 and 13 years old, in a rapidly growing rural district in southeast Michigan. Data revealed that most of the African American females had an average to high sense of self while their achievement levels did not reflect the high self-concept. The study also examined the importance of family, peers and income levels as they relate to the achievement of the population studied.  
Tower Room, 2 p.m.

**Department of Special Education**

**Theresa Marie Henderson**

Department of Special Education  
Professor Steve Camron

**How Charter Schools are Meeting the Needs of Students Receiving Special Education Services**

The author synthesized research from a variety of previously published studies on the delivery of special education services in charter schools. The study served to provide background on special education in charter schools across the nation and charter schools within the state of Michigan. The author also addressed the major issues that seem to hinder more effective special education programming in charter schools, which are 1) deficient planning of special education delivery in the initial stages of charter schools; 2) lack of knowledge regarding special education rules and regulations on the part of charter school leaders; 3) funding issues for students with disabilities and 4) the clashing of visions between special education rules and charter schools' philosophies. Recommendations for improving the delivery of special education services within charter schools were included.  
Tower Room, 4 p.m.

**Melissa Heuker**

Department of Special Education  
Professor Lori Parks

**The Use of Research-Based Instructional Strategies by Elementary Teachers**

The researcher surveyed 100 elementary teachers and examined their use of the research-based instructional strategies compiled by Marzano et al (2005). Comparisons were made between groups of general education and special education teachers, more and less experienced teachers, and teachers of upper and lower elementary grades. Data revealed little difference of strategy usage between all groups of teachers, as determined by multivariate analysis of variance (MANOVA) and T-tests. Implications of this study demonstrate that many teachers are in compliance with recent federal legislation: the No Child Left Behind Act and the Individuals with Disabilities Education Improvement Act. Consequently, all types of teachers have reported using strategies that have been proved to benefit all types of learners.  
Reception Room, 1 p.m.

**Brooke LaGrasso**

Department of Special Education  
Professor Tsai-Ping Li

**Intervention Strategies for a Child with Blounts Disease and Visual Impairment**

This case study focuses on Sean (not his real name), an 11-year-old student with Blounts Disease and a significant visual impairment. The visual impairment is not a direct result of his orthopedic condition; however, many details surrounding his sudden and complete loss of vision remain vague. The possible cause of his visual impairment as well as the impact these disabilities have had on his learning is examined. The success of current intervention strategies as well as the introduction of assistive technology is also considered.  
Tower Room, 5 p.m.

**Department of Teacher Education**

**Sr. Maximilian Marie Garretson O. P.**

Department of Teacher Education  
Professor Elizabeth Johnson

**Suicidal Tendencies of a Culture of Death: Death Attitudes of Postmodern Man**

Common experience confirms a flawed definition of the human person leaving one void of true happiness and authentic freedom. Subtleties of this unspoken definition pervade one's habits of thinking and acting, silently preaching an existence without purpose or meaning. The result is a widespread acceptance of a culture of death – a culture skilled in suicidal tendencies as a way of life. How have we arrived at this ethereal definition, and what can supplant the current culture of death?  
Faculty Room, 12:20 p.m.

**Marissa Mourer**

Department of Teacher Education  
Professor Joe Bishop

**NAFSA: A Historical Narrative**

A historical inquiry was conducted in regard to the founding of the National Association of Foreign Student Advisers (NAFSA). The documents, which span three decades, were obtained from the University of Arkansas Libraries Special Collection. The official meeting minutes of both the executive committee and the board of directors reveal an organization that is remarkably different from the formidable force that NAFSA is today. The historical picture that emerges is one that illuminates elite characters, provides insight into its dependence on the Institute of International Education (IIE), and documents valuable dialogues on membership and inclusiveness. This inquiry has a multitude of implications for colleges and universities today. Of particular significance are the founding members' views on international education for postsecondary students.

Intermedia Gallery, 2 p.m.

### **Christie Routel**

Department of Teacher Education  
Professor Caroline Gould

### **Challenges Facing Older Refugees in the United States**

Older refugees resettled in the United States compose less than 10 percent of the total refugee population but represent a group experiencing extreme stress due to aging in a new culture and past traumatic experiences. This researcher investigated the practical, medical, and social problems experienced by refugees over age 60 including language barriers, depression and loss of status within the family unit. Survey research found high rates of depression, low employment and limited social supports. A case study explored the life of a successful refugee over the age of 60 and the potential factors that improve outcomes for this population.

Intermedia Gallery, 2:40 p.m.

### **Annette Schaeffler**

Department of Teacher Education  
Professor Caroline Gould

### **Issues for Aging Parents as Caregivers of Cognitively Impaired Adult Children**

With increased knowledge and social support, the average life span of persons with cognitive impairments has increased dramatically, and these individuals can now expect to live as long as their noncognitively impaired cohorts. Typically, parents serve as caregivers for cognitively impaired individuals. This research explores issues of caregiving for cognitively impaired adult children and the challenges faced by caregivers who are simultaneously coping with their own issues of aging.

Faculty Room, 4:40 p.m.

## **College of Health and Human Services**

## **School of Health Promotion and Human Performance**

### **Emily Steinmetz**

School of Health Promotion and Human Performance  
Professor Brenda Riemer

### **Establishing a Relationship between EMU Women's Basketball and Community Youth**

Marketing NCAA Division I women's basketball involves developing relationships with people in the community. It is different than marketing men's basketball because of target markets and marketing budget. It becomes necessary for women's basketball programs to look into grass roots marketing and in turn developing relationships in order to increase their fan base. Eastern Michigan Women's Basketball team took that challenge and looked to area elementary schools as their target. One of the ideas, Elementary School Day, was successful. It included a basketball game, half-time promotion and an education piece. There were challenges in transportation, event day issues and getting schools to participate. The day turned out to be a success, with praise coming from principals and teachers and even thank-you cards from students. Future challenges for the women's basketball team are to set up an afternoon game each season and to establish a corporate sponsor for the day.

Faculty Room, Noon

### **Rachael Weese**

School of Health Promotion and Human Performance  
Professor Stephen MacGregor

### **Oxygen Kinetics of Intermittent Cycling at the Power Associated with VO<sub>2</sub> max**

The purpose of the present investigation was to compare the oxygen kinetics of two training protocols for cyclists. Previous research with runners has illustrated that performing at 100 percent velocity associated with VO<sub>2</sub> max (vVO<sub>2</sub> max) for 30 seconds alternating with 30 seconds at 70 percent vVO<sub>2</sub> max until exhaustion resulted in a greater amount of time spent at VO<sub>2</sub> max than a continuous run at 100 percent vVO<sub>2</sub> max until exhaustion. This training protocol has not been investigated in cycling. Therefore, it would be advantageous to determine whether the same protocol would elicit VO<sub>2</sub> max in cyclists. Also if VO<sub>2</sub> max is attained, in cycling, does the same intermittent protocol or a continuous performance elicit greater time spent at VO<sub>2</sub> max? Since training VO<sub>2</sub> max is important from both endurance performance and overall health, information for the current study would benefit cyclists and coaches, as well as individuals interested in improving cardiovascular health.

Alumni Room, 12:40 p.m.

### **Del Young**

School of Health Promotion and Human Performance  
Professor Brenda Riemer

### **Research Methods of Marketing Strategies to Sell Weighted Baseballs**

The research goal was to find the best ways to market weighted baseballs to sell to players and coaches. Weighted baseballs are used to increase throwing velocity; however, in the past, stereotypes about possible injuries and traditional coaching methods limited the use of the weighted baseballs. A survey was created to determine the current reasons why weighted baseballs were not being used in practice. The participants were chosen from the 2005 *American Baseball Coaches Association Buyers and Directory Guide* by using a stratified random sample. From the research done, a marketing plan was formed. Guild Hall, 4:30 p.m.

#### **Kristy Zajac**

School of Health Promotion and Human Performance  
Professor Brenda Riemer

### **Perceptions of Women Coaching Men's Basketball**

The researcher investigated the perceptions of women coaching men's basketball teams. The purpose of this study was to determine the reasons that keep successful female coaches from coaching men's basketball teams. This study reviewed studies concerning Title IX in athletics, as well as studies done in relationship to gender differences in coaching. A study done by the U.S. Department of Education (1996) and a longitudinal study done in 2004 were the primary databases used throughout this study. Descriptive statistics were used in all of the questions to examine the gender differences in coaching as well as the perceptions of women coaching men's basketball. Data revealed that the perceptions of coaches were that the media, athletic directors, players and coaches all push for male coaches rather than female coaches. Guild Hall, 4:30 p.m.

## **School of Health Sciences**

#### **Jamie Baird**

#### **Rebecca Grant**

#### **Kathryn Hertzog**

#### **Alison Schuster**

#### **Asta Soltis**

#### **Shannon Stratz**

#### **Tolice Wilson**

School of Health Sciences  
Professor Judith Olson

### **Early Expulsion: Perceptions of Participants in a Circle of Caring Program**

The purpose of this study is to explore the perceptions of participants in a Circle of Caring Program (CCP) about mental health consultation when a child is at risk of expulsion from day care or preschool. This project is being designed in response to a request from CCP, which is a childcare expulsion prevention program (CCEP). The participants include the mental health consultant, primary

caregiver and the day care provider or teacher. The design strategy for this naturalistic inquiry is phenomenology. The specific research question is "what are the stakeholders' perceptions (caregiver, mental health consultant and day care provider) of the mental health consultation intervention process?"  
Guild Hall, 4:30 p.m.

#### **Teleyia Brown**

#### **Melissa Gray**

#### **Katie Miller**

School of Health Sciences  
Professor Gretchen Reeves

### **Sensory Processing, Body Awareness and Self-Concept in Adolescent Girls with Psychiatric Diagnoses**

The purpose of our study is to examine the sensory processing, body awareness and self-concept in adolescent girls with psychiatric diagnoses. Our subjects will include at least 20 female adolescents aged 13-17 who are receiving outpatient psychiatric services at St. Joseph Mercy Hospital in Ann Arbor. At least half of our participants will be identified as having a history of engaging in self-mutilation. The term "self-mutilation" (SM) is defined as any self-injurious act that is committed by a person with the intent of committing harm to the self and having no intent to die. We will be using the adolescent/adult sensory profile, body investment scale, Piers-Harris self-concept scale and draw-a-person tests to compare the sensory processing, body awareness and self-concept of adolescents identified as self-mutilators and those who are not. We hypothesize that adolescents who self-mutilate will show differences in sensory processing and report poorer body image and self-concept compared to adolescents who do not self-mutilate. Because of this escalating phenomenon and the little research that exists surrounding SM, we think our study will be a significant contribution to understanding adolescent females who engage in SM.  
Guild Hall, 4:30 p.m.

#### **Kellie Childs**

#### **Derek Glenn**

#### **Janelle Hall**

#### **Marie Laskos**

#### **Salena Stock**

#### **Kristen Wimsatt**

School of Health Sciences  
Professor Elizabeth Francis

### **Parenting in the Academy: Gender Role Differentiation**

Parenting is one of the most important occupations of life, and this study examines the issues that face men and women who have the dual roles of parent and academic professor. Using grounded theory, data from this qualitative study is gathered via in-depth interviews of mothers and fathers who are faculty members at Eastern Michigan University. The themes observed thus far include the pressures that mothers experience in balancing work and

child-care responsibilities. Moving up the professional ladder also appears to be more difficult for mothers than it is for nonmothers. The difficulties mothers face seem to be far greater than those a father experiences in the academy. Theoretical saturation, however, has not been reached. We are including more men in the study to get a versatile male perspective on this issue.  
Guild Hall, 4:30 p.m.

**Emily Derksen**

**Kristi Moore**

**Kathryn Withrow**

School of Health Sciences

Professor Valerie Howells

### **Exploring Stigma: The Experiences of People with Mental Illness at a Community Arts Studio**

The purpose of this study is to examine the stigma experiences of individuals with mental illness both prior to and following their participation at a community arts studio. We will perform a secondary data analysis using data collected in the initial, larger study conducted by Valerie Howells and Tom Zelnik. The original study was designed to look at the effect of the integrated arts studio on participants with and without mental illness, specifically addressing quality of life issues, stigma and empowerment. When the interviews from the original study were coded, stigma surfaced as an important issue in both groups of participants and affected their perceptions, experiences and behaviors. For our study, we will analyze the pre- and postparticipant interviews of those with mental illness and then compare participant responses across interviews in order to discern common themes regarding stigma.  
Guild Hall, 4:30 p.m.

**Traci East**

**Lauren Okray**

**Anna Preiss**

**Rebekka Sloan**

Department of Health Sciences

Professor Gretchen Reeves

### **Physiological Responses to Sensory Stimuli Following Occupational Therapy Intervention**

This project has been developed to investigate the effects of calming occupational therapy intervention on the physiological reactions of the study participants exposed to novel sensory stimuli. There is a need for this study because there is no evidence to support intervention strategies used for relaxation and calming. We are using an experimental design, with subjects randomly assigned to two treatment groups. Participants in the study will be voluntarily recruited from Eastern Michigan University. The adolescent/adult sensory profile will be administered to each participant; afterward, the participant will be connected to a laptop, which will record the participant physiologic responses to the sensory stimuli and occupational therapy interventions. It is our hope that the results from this study will help occupational therapy practitioners in selecting appropriate therapeutic interventions.

Guild Hall, 4:30 p.m.

**Allison Hieber**

**Annette Horton**

**Erin Mahoney**

School of Health Sciences

Professor Pamela Lemerand

### **Community-Based Occupational Therapy Clinic for Pediatrics**

The purpose of our research proposal is to secure funding for developing and operating a community-based occupational therapy clinic for children with disabilities. The problems being addressed include a) the limited availability to affordable occupational therapy services within Wayne and Washtenaw counties, a particular concern being the lack of access to service for children of low-income families and b) the issue of limited availability of hands-on practical training under quality supervision in an enriched learning environment. Typically, hands-on experience does not occur until late in the curriculum; the clinic would provide an opportunity for this training earlier on in the educational process within the occupational therapy program. The long-term plan would address the need for multidisciplinary teaching and learning for students, as other disciplines on campus currently benefit from the clinical exposure and supervision within their on-site clinic locations.

Guild Hall, 4:30 p.m.

**Chaandini Jayachandran**

School of Health Sciences

Professor Stephen Sonstein

### **Percentage of New Patients Presenting with Stress, Urge or Mixed Urinary Incontinence**

Urinary incontinence is a common affliction that impairs quality of life and restricts social activity in adult women. Based on etiology and pathophysiology, urinary incontinence is classified into stress, urge and mixed urinary incontinence. Knowledge of the specific type of incontinence helps in determining course of treatment. A retrospective, descriptive, observational study was designed to determine the percentage of new patients seeking treatment for bladder complaints, who were identified by the medical, epidemiological and social aspects of aging (MESA) questionnaire to reflect stress, urge or mixed urinary incontinence. The secondary aim was to investigate any trends, which other variables studied, shown towards association with any particular type of incontinence as diagnosed by provider. The results obtained could give doctors a better idea as to the prevalence of these conditions in their new patients, so they might establish standard operating procedures designed to suit the needs of new patients.

Guild Hall, 4:30 p.m.

**Sarah Kennedy**

**Maranda Sattler**

School of Health Sciences

Professor Carolyn Glogoski

**Child-Resistant Drug Packaging and Arthritis: Can Older Adults (OAs) with Arthritis Access their Medications?**

The ability of older adults (OAs) to access their medications is an important occupational performance area, an activity for daily living. For older adults with arthritis in their hands, difficult-to-open containers, lack of strength, poor grip and pain resulting from arthritis may compromise the ability to execute this activity. This pilot study will be conducted at Eastern Michigan University (EMU) in conjunction with the packaging department at Michigan State University (MSU) and the occupational therapy department at Western Michigan University (WMU). Half of the subjects, (36) OAs with arthritis and 36 matched controls, will take part in the study at EMU with the MSU packaging department. Half of the subjects will take part in the study at WMU with MSU. It is anticipated that OAs with arthritis will have significantly more problems with accessing their medication.  
Guild Hall, 4:30 p.m.

**Ashley Frye**

**Ambrose Green**

**Ursula Khan**

**Joseph Latocki**

School of Health Sciences

Professor Carolyn Glogoski

**Life Domains for Independent Living Well Elders**

This study will examine what life domains are identified as important to wellness in older adults living independently in noncongregate housing. We will determine if the life domains identified by well elders living in senior congregate housing, from a 1999 study differ from older adults in independent non-congregate housing. A qualitative study will be conducted using focus group methodology with multicultural well elder population in Washtenaw County, Mich. It is expected that these populations may share the same life domains, but that differences in life domains exist that could affect functional outcomes and wellness. If the life domains differ, then new focus curricula for the lifestyle redesign program may be required for older adults in noncongregate independent housing.

Guild Hall, 4:30 p.m.

**Amanda Miuccio**

**Lucas Zapor**

Department of Health Sciences

Professor Valerie Howells

**Stigma and Mental Illness: A Secondary Data Analysis to Examine Attitudes and Beliefs after Participation in a Community Arts Studio**

The purpose of this study is to examine the stigmatizing beliefs and attitudes held by people without mental illness who attended and integrated community arts studio. Our study is part of a larger study entitled *The Effectiveness of a Community Arts Studio: Assessing Change in the Lives of Participants with and without Mental Illness*. Stigma was a

theme that emerged during data analysis of the original interviews. The current study will utilize a secondary data analysis to examine stigmatizing beliefs and attitudes and compare changes between initial and exit interviews.  
Guild Hall, 4:30 p.m.

**Kathryn McGovern**

Department of Health Sciences

Professor Stephen Sonstein

**Ethical Considerations of Conducting Clinical Research in Developing Countries**

With the cost of drug development rising to higher than \$900 million per new chemical entity, companies are looking beyond the U.S., Europe and Japan for less costly venues in which to test drugs. Nearly 40 percent of all clinical trials are now being conducted in developing countries such as India, Russia and China. The lack of regulatory oversight in these countries has raised important questions about the ethics and oversight of these trials and the protection of participating patients. Ethical concerns exist relating to patient recruitment practices, informed consent procedures, investigator compensation, and conflicts of interest. There are also ethical concerns of whether the population from which research subjects are drawn could ever benefit from the research, and whether it is ethical to conduct placebo-controlled trials of drugs for which there are standards of care. This study investigated these issues by surveying the current literature and interviewing industry experts about their experiences.  
Guild Hall, 12:30 p.m.

**School of Nursing**

**Rebecca A. Aman**

School of Nursing

Professors Susan Pfoutz and Michael Williams

**Satisfaction of Nurse Practitioners**

With the current emphasis on and expectations of decreasing healthcare costs while increasing quality and quantity of patient care, the American Association of Colleges of Nursing (AACN) anticipates that the nurse practitioner will have a viable role in any healthcare system of the future (AACN, 1998). Frederick Herzberg's model of intrinsic and extrinsic factors was examined in this quantitative cross-sectional descriptive, comparative research study. Nurse practitioners (N=59) were surveyed about their perceptions of their current job satisfaction using the Misener nurse practitioner job satisfaction survey (MNPJSS) created by Terry Misener and Deanna Cox (2001). Results of nurse practitioner satisfaction using the MNPJSS will be described. Differences in satisfaction by age range, NP experience, and length of employment will be discussed. The results of intrinsic and extrinsic factors identified by the nurse practitioners that contribute to their satisfaction or dissatisfaction will be compared to the results of Misener and Cox's study.

Tower Room, 1 p.m.

## School of Social Work

### **Jesusa Arnett**

School of Social Work  
Professor Marilyn Wedenoja

### **A Comparison of Two Head Start Programs in Meeting the Needs of Hispanic Students: An Observational Study**

This study takes place in southeast Michigan and is an observation of two different Head Start programs, which includes four open-ended questions to both staff and administration. The research question asks, "How can the Head Start program better meet the needs of Hispanic students?" The two programs for observation were selected because one currently has a 23 percent Hispanic student population and the other has a 3 percent Hispanic student population. The researcher of this qualitative and quantitative study will observe both classroom environment and teacher qualifications. In the analysis of the data, a comparison of both programs will be made. These results will be shared with Head Start administration, along with suggestions on how to better meet the needs of Hispanic students. Observation criteria will be the result of an extensive review of related literature. It is anticipated that the program currently serving a higher percentage of Hispanic students will have implemented specific strategies on how to meet the needs of Hispanic students.

Reception Room, 2 p.m.

## **College of Technology**

### School of Engineering Technology

### **Rahul Agnihotri**

School of Engineering Technology  
Professor Theodore Provder

### **Surface Energy Measurement of Various Polymeric Surfaces with Dynamic Contact Angle Analyzer**

Contact angle measurement is a method for measuring the surface energy of solids. The intrinsic surface energy of a surface can be determined from the Zisman critical surface tension. Zisman critical surface tension,  $\gamma_c$ , is determined from a plot of contact angle versus surface tension using liquid probes of known surface tension and extrapolating to zero contact angle. In this presentation, the instrumentation, operational variables and methodology for determining  $\gamma_c$  will be discussed, with results presented from some polymeric and marine coating surfaces. Adhesion to polymeric and coating surfaces is dependent on the surface energy. For example, for a marine coating to be potentially effective as a fouling release coating, the critical surface tension should be in the range of  $20 < \gamma_c < 28$ .

Guild Hall, 12:30 p.m.

### **Sarjak Amin**

School of Engineering Technology  
Professors Theodore Provder and Jamil Baghdachi

### **Film Formation of Coatings by Diffusing Wave Spectroscopy**

During the film formation process, an applied liquid film transforms into an adherent solid film through physical and/or chemical processes. The film formation process involves changes in rheology, evolution of mechanical properties and the determination of the ultimate film structure and morphology. In this study, film formation of coatings systems was monitored using a new technique, diffusing wave spectroscopy (DWS), and compared with information obtained from more traditional methods such as BK recorder (set to touch, tack free, dry hard) thermo gravimetric analysis (rate of volatile evaporation) and differential scanning calorimetry (degree of chemical conversion). By combining information from several techniques, a more complete picture of the film formation process was obtained for a wide variety of waterborne and solvent-based coatings. The repeatability and reproducibility of the DWS was determined. The film formation process was studied over a wide range of substrates and as function of volatile organic compounds and poly vinyl chloride for a waterborne paint.

Main Lounge, 4 p.m.

### **Archana Etikala**

School of Engineering Technology  
Professor Erik Lokensgard

### **Building a Better Baby-Changing Table**

In this project, I will conduct research and development on a portable baby-changing table. The product should be three-dimensional, made from a durable childproof, fireproof plastic and contain actual materials to be used to market said product. All materials including fasteners/screws should be researched to ensure that they are durable for use by children and meet regulatory standards. The product should be able to safely hold a child who weighs up to 35 pounds. Pos-ze-tives, Inc., should be consulted in terms of colors and aesthetic design and any variations from original design. The product should be able to be mass produced via injection molding.

Main Lounge, 2 p.m.

### **Suja Monzy**

School of Engineering Technology  
Professor Tony Shay

### **Development of Weatherproof Windshield Protection Cover for Cars**

If a car is a necessity for a person in the United States, something that protects it will not be considered unnecessary. Popular car protection devices available today are either inconvenient or insufficient to use in different seasons. In an attempt to develop a very handy and user-friendly protective device, the student developed a product called weatherproof windshield protection cover. The concept of this product is developed from the working

principle of a regular umbrella; however the configuration and method of operation is modified to fix on a car. Attached fasteners ensure quick and firm attachment to the body of a car. The folded shape of this product is same as that of a regular umbrella. A product like this can put an end to the long and painful process of ice scraping in winter and can protect your car from the effects of destructive UV radiation of summer.  
Guild Hall, 12:30 p.m.

### **Santosh Siddamsety**

School of Engineering Technology  
Professor Philip Rufe

### **Paint Removing Machine**

In this project I will design a paint-removing machine. After much research, I learned that it is easy to paint surfaces but difficult to wash the tools and accessories used. I am going to design and manufacture a machine to be used for removing the paint on tools and accessories. This machine will make the job simple and will help to reduce labor costs.  
2:20 p.m. Main Lounge

## **School of Technology Studies**

### **Mikyoung Kong**

School of Technology Studies  
Professor Giri Jogaratanam

### **Service Experience at Casual-Theme Restaurants: A Comparative Study of American and Korean Customers**

This study explores and compares customer expectations of service encounter quality in two countries, the United States of America and the Republic of Korea. Service encounters and their outcomes are influenced by client perceptions as well as the cultural background of clients. Previous research indicates that customers from different cultural backgrounds have different expectations, as well as different perceptions of service quality. Therefore, it is critical that hospitality firms with a global presence have a clear understanding of those differences in order to better satisfy their customers worldwide. The focus of this research is the casual-theme restaurant industry (e.g., TGI Friday's®, Chili's®, Applebee's®, and Outback Steakhouse®). A convenience sampling approach was adopted to obtain 298 responses in South Korea and 202 responses in the U.S. T-tests were employed to determine differences, and regression analysis helped explain the important dimensions associated with customer satisfaction in each culture.  
Guild Hall, 4:30 p.m.

### **Renuka Reddy**

School of Technology Studies  
Professor Subhas Ghosh

These nonparametric methods are also referred to in the literature as distribution-free methods. In a Delphi study where the primary objective is to obtain a consensual and

### **Ultrasonic Seaming of Spectra®, PET and Polyester-Cotton Blend Textiles**

This study explores the possibility of using ultrasonic energy to join fabrics in place of conventional joining methods (using needle and thread), in products such as clothing, furnishings and technical textile products. The researcher investigated the effect of welding parameters — weld pressure, weld time, amplitude of vibration, seam design and material properties — on joining efficiency and stiffness of the ultrasonic seam. The study was conducted on three materials: Spectra®, PET and polyester-cotton blend. Regression analysis was used to analyze experimental data. Analytical tests including scanning electron microscopy, dynamic mechanical analysis and differential scanning calorimetry were done to study the ultrasonic bond characteristics. Experimental and analytical test results were correlated to develop the ultrasonic bonding mechanism in the three materials.  
Main Lounge, Noon

### **Stanley Richardson**

Department of Technology Studies  
Professor Linda Kinckowski

### **The Advantages of Using Cyber-Surveillance in the World of Information Security Assurance**

Assurance is grounds for confidence that a system meets its security objectives. This can be achieved by evaluating your current procedures to make sure they meet the needs of the organizations. The researcher demonstrates this by installing systems to monitor and physically protect assets. This demonstration operates numerous wireless devices within a cyber atmosphere, enabling security monitoring from any location. The exhibit area and the area of a home will be on display using software called PC Witness®. The following materials and equipment will be displayed: 1) VCM-3M Micro Eye® 2.4 GHZ black and white wireless camera, 2) two Micro Eye Mini® 2.4 GHZ 300 wireless color camera, 3) EZ-Witness® – self-contained camera, 4) LED monitor, 5) DVD recorder, 6) personal laptop, 7) PC-Witness® software and 8) wireless Internet connection.  
Guild Hall, 12:30 p.m.

### **Hiral A. Shah**

School of Technology Studies  
Professor Sema Kalaian

### **Application of Nonparametric Statistical Methods in Delphi Studies**

Nonparametric methods are applicable in many situations where normal theory procedures cannot be utilized due to small sample size and/or skewness of the data. Moreover, such procedures require very general or minimal assumptions as compared to parametric methods and can be used for data with normal, ordinal, interval, or ratio scale measurements.

consistent opinion from a group of experts in two or more successive rounds on a given research subject, nonparametric methods can be applied. This research will

explore the possible nonparametric methods such as McNemar change test using Chi-square test statistic, binomial test and Spearman rank correlation coefficient to obtain a criterion for consistency of results in a Delphi study.

Alumni Room, 12:20 p.m.

**Elizabeth Skomra**

School of Technology Studies  
Professor Subhas Ghosh

**A Comparative Study of Athletic Apparel from Cotton/Flax, Cotton/Polyester and Polyester/Flax Blends**

The desired attributes of sports apparel garments are high performance and comfort characteristics such as wicking, vapor permeability and thermal resistance. Currently, most sports apparel is made from a blend of polyester or other synthetic fibers. Through examining the uniqueness of natural fibers such as cotton and flax, we can determine the advantages and benefits of using a higher percentage of natural fibers when manufacturing comfortable and functional high performance athletic wear.

Main Lounge, 1:00 p.m.

**Interdisciplinary**

**Bioinformatics Program**

**Stephen Lenk**

**Sook-il Shin**

Bioinformatics Program  
Professors Benjamin J. Keller (Computer Science) and Marianne Laporte (Biology)

**Identifying Homologues of Yeast Autophagy Proteins in Arabidopsis Thaliana**

We describe continued work on a strategy to identify in Arabidopsis thaliana putative homologues of proteins known to be involved in autophagy in Saccharomyces cerevisiae (yeast). Autophagy is the regulated process of recycling cell contents in response to starvation and, in yeast, is characterized by the interaction of 27 AuTophagy (ATG) proteins. We refine a strategy presented in 2005 by Chi-Fai Kwan that performs better than standard homologue search techniques. Our work focuses on automating this strategy using better searching tools, and building a database of known homologues needed to initiate the search.

Guild Room, 2:30 p.m.

## Oral Presenters by location and time

### Session I

#### Noon-1:15 p.m.

##### Alumni Room

Noon

**Benjamin Philip\_**

Biology

12:20 p.m.

**Hiral A. Shah**

Technology Studies

12:40 p.m.

**Rachael Weese**

Health Promotion and Human Performance (HPPH)

1 p.m.

**Susan McMahon**

Biology

##### Faculty Room

Noon

**Emily Steinmetz**

HPPH

12:20 p.m.

**Sr. Maximilian Marie Garretson**

Teacher Education

12:40 p.m.

**Steven Jordan**

Marketing

1 p.m.

**Tamara Stevenson**

Leadership and Counseling

##### Intermedia Gallery

Noon

**Jessica Chamberlain**

Psychology

12:20 p.m.

**Erin Henshaw**

Psychology

12:40 p.m.

**Jacqueline Mezza**

Psychology

1 p.m.

**Zoe Behnke**

Women's and Gender Studies

##### Main Lounge

Noon

**Renuka Reddy**

Technology Studies

12:20 p.m.

**Miles Becker**

Biology

12:40 p.m.

**Lisa Winhold**

Biology

1 p.m.

**Elizabeth Skomra**

Technology Studies

##### Reception Room

Noon

**Jeffrey Trax**

Art

12:20 p.m.

**David M. Walton**

History and Philosophy

12:40 p.m.

**Christopher Beyer**

Geography and Geology

1 p.m.

**Melissa Heuker**

Special Education

##### Salon

Noon

**Annie Marshak Dowling**

Geography and Geology

12:20 p.m.

**Virginia E. Bell**

Leadership and Counseling

12:40 p.m.

**Bayyinah Muhammad, Joni Warner**

Communication and Theatre Arts

1 p.m.

**Michele Coyne**

Leadership and Counseling

##### Tower Room

Noon

**Jessica Boynton**

English Language and Literature

12:20 p.m.

##### **Megan Zdrojkowski**

English Language and Literature

12:40 p.m.

**Kenne Likkel**

English Language and Literature

1 p.m.

**Rebecca A. Aman**

Nursing

### Session II

#### 2-2:15 p.m.

##### Alumni Room

2 p.m.

**Robert Adams**

Biology

2:20 p.m.

**Neil Chartier**

Biology

2:40 p.m.

**John P. Graham**

Biology

3 p.m.

**Todd Stoltey**

Biology

##### Faculty Room

2 p.m.

**Paul Breck**

English Language and Literature

2:20 p.m.

**Sarah Fabian**

English Language and Literature

2:40 p.m.

**Camille Parker**

English Language and Literature

3 p.m.

**Tammy S. Smith**

English Language and Literature

##### Intermedia Gallery

2 p.m.

**Marissa Mourer**

Teacher Education

2:20 p.m.

**Carrie Buist**

Sociology, Anthropology and Criminology

2:40 p.m.

G r a d u a t e R e s e a r c h F a i r 2 0 0 6

**Christie Routel**  
Teacher Education

3 p.m.

**Irene Hoskin Heard**  
Sociology, Anthropology and  
Criminology

Main Lounge

2 p.m.

**Archana Etikala**  
Engineering Technology

2:20 p.m.

**Santosh Siddamsety**  
Engineering Technology

2:40 p.m.

**Nancy Lee**  
Foreign Languages and Bilingual  
Studies

3 p.m.

**Meredith Graupner**  
English Language and Literature

Reception Room

2 p.m.

**Jesusa Arnett**  
Social Work

2:20 p.m.

**Summer L. Furgason**  
Women's and Gender Studies

2:40 p.m.

**Mia Moyad**  
Women's and Gender Studies

3 p.m.

**Carrie Duhl**  
Geography and Geology

Salon

2 p.m.

**Jade Davis**  
Political Science

2:20 p.m.

**Pamela Quinlivan**  
Political Science

2:40 p.m.

**Nathan A. Geinzer**  
Political Science

3 p.m.

**Laura L. Thomas**  
Political Science

Tower Room

2 p.m.

**Regina R. Winborn**  
Leadership and Counseling

2:20 p.m.

**Adrian Ong**  
Management

2:40 p.m.

**Jessica Merritt**  
Sociology, Anthropology and Criminology

3 p.m.

**Steven Barge-Siever**  
Accounting and Finance

**Session III**

**4-4:15 p.m.**

Alumni Room

4 p.m.

**Kathy Cullen**  
Women's and Gender Studies

4:20 p.m.

**Michael Newman**  
Foreign Languages and Bilingual  
Studies

4:40 p.m.

**Claudia Wier**  
Communications and Theatre Arts

5 p.m.

**Matt Borders**  
Geography and Geology

Faculty Room

4 p.m.

**Intakhab Alam, Renuka Row,  
Ashish Parmar**  
Accounting and Finance

4:20 p.m.

**Sean Falk, Erin Ottenbreit**  
Management

4:40 p.m.

**Annette Schaeffler**  
Teacher Education

5 p.m.

**Scott Brown**  
Psychology

Intermedia Gallery

4 p.m.

**Pamela Ann Hamway**  
Political Science

4:20 p.m.

**Alfreda Rooks-Jordan**

Political Science

4:40 p.m.

**Emily Wilson-Tobin**  
Communication and Theatre Arts

5 p.m.

**Vanessa Ferguson**  
Political Science

Main Lounge

4 p.m.

**Sarjak Amin**  
Engineering Technology

4:20 p.m.

**Daeha Joung**  
Physics and Astronomy

4:40 p.m.

**Peter Distelzweig**  
Physics and Astronomy

5 p.m.

**Erika Roesler**  
Physics and Astronomy

Reception Room

4 p.m.

**Jennifer Marie Armstrong**  
English Language and Literature

4:20 p.m.

**Courtney Ceronisky**  
English Language and Literature

4:40 p.m.

**Judy Bosshart**  
English Language and Literature

5 p.m.

**Theresa Przystup**  
English Language and Literature

Tower Room

4 p.m.

**Theresa Marie Henderson**  
Special Education

4:20 p.m.

**Pamela Robbins**  
Music and Dance

4:40 p.m.

**Kristina Brown**  
English Language and Literature

5 p.m.

**Brooke LaGrasso**  
Special Education

## Poster Presenters in Guild Hall by time

### Poster Session I

**12:30-1:45 p.m.**

**Rahul Agnihotri**  
Engineering Technology

**Trevor Eldred**  
Biology

**Kathryn McGovren**  
Health Sciences

**Suja Monzy**  
Engineering Technology

**Kathy Morris**  
Leadership and Counseling

**Rajesh Penumatcha**  
Chemistry

**Alexis Reynolds**  
Geography and Geology

**Stanley Richardson**  
Technology Studies

**James T. Schaefer**  
Communication and Theatre Arts

**R. Aaron Vogt**  
Chemistry

**Theresa Weaver**  
Leadership and Counseling

**Mamatha Yerram**  
Biology

**Nimita D. Dave, Joseph A. Katakowski, Ranjeeta Kaur, Kathryn R. Lawrence, Saloni Nana, Erin A. Olgren, Lisa Stackhouse, Sowmyashree Venkataram**  
Biology

**Anthony Fryling, Sarah Reiland**  
Psychology

### Poster Session II

**2:30-3:45 p.m.**

**Cheryl Chidester**  
Geography and Geology

**Naveen Kunaparaju**  
Chemistry

**Aletha M. Lippay**  
Geography and Geology

**Kira M. Macyda**  
Geography and Geology

**DeAnna Martinez**  
Biology

**Joan McDowell**  
Psychology

**Sabrina Marie Miller**  
Biology

**Marcia Dollar Phillips**  
Geography and Geology

**Andrea Sellers**  
Psychology

**Aditi Munmun Sengupta**  
Chemistry

**Pooja Thakur**  
Biology

**Eli Wilson**  
Psychology

**Kevin Alschuler, Elizabeth Kuhl, Teresa Lynch, David Scott**  
Psychology

**Stephen Lenk, Sook-il Shin**  
Bioinformatics

### Poster Session III

**4:30-5:45 p.m.**

**Benjamin Bigelow**  
Art

**Chaandini Jayachandran**  
Health Sciences

**Mikyoung Kong**  
Technology Studies

**Robert Parker**  
Psychology

**Del Young**  
Health Promotion and Human Performance (HPHP)

**Kristy Zajac**  
HPHP

**Jamie Baird, Rebecca Grant, Kathryn Hertz, Alison Schuster, Asta Soltis, Shannon Stratz, Tolice Wilson**  
Health Sciences

**Teleyia Brown, Melissa Gray, Katie Miller**  
Health Sciences

**Kellie Childs, Derek Glenn, Janelle Hall, Marie Laskos, Salena Stock, Kristen Wimsatt**  
Health Sciences

**Emily Derksen, Kristi Moore, Kathryn Withrow**  
Health Sciences

**Traci East, Lauren Okray, Anna Preiss, Rebekka Sloan**  
Health Sciences

**Ashley Frye, Ambrose Green, Ursula Khan, Joseph Latocki**  
Health Sciences

**Allison Hieber, Annette Horton, Erin Mahoney**  
Health Sciences

**Sarah Kennedy, Maranda Sattler**  
Health Sciences

**Amanda Miuccio, Lucas Zapor**  
Health Sciences

## 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:	Lisa Walters, Graduate School Mary Schmaltz, Graduate School Julie Rivette, Graduate School Christina Hayden, Graduate School Jennifer Rieger, Graduate School Graduate School ORD Staff
Graphics:	Logan Walters
Other EMU Offices:	McKenny Union University Publications Parking University Marketing
Businesses	Stadium Trophy PJ Marketing Services, Inc., Ceil Paulsen Flowers, Charlie Borg Tower Inn
Graduate Research Fair Planning:	Deb de Laski-Smith, Graduate Studies and Research associate dean Robert Holkeboer, Graduate Studies and Research associate vice president Patrick Melia, Special assistant to the provost George Liepa, School of Health Services Toni Stokes Jones, Teacher Education Denise Reiling, Sociology, Anthropology, Criminology William Cline, Foreign Language and Bilingual Studies Student Affairs Sub-Committee of Graduate Council

\*Funding generously provided by the Division of Academic Affairs through the  
Provost's Office and Graduate Studies and Research.