

**Mississippi College 15th Annual Graduate Research Forum**  
**Sponsored by the Academic Research Committee & Office of Graduate Studies**  
**Tuesday, April 16, 2013, 6:30 p.m.**  
**Germany Lecture Hall, MCC**

**Welcome & Opening Remarks**

**Dr. David H. Magers, Chair, Academic Research Committee**

**Presentations**  
**[Time Limit, 12 Minutes]**

**Matthew Burke, Kinesiology**

**Suzanne McDonough, Ph.D., Introduction**

**Tailoring Text Messaging to Support Adherence for Participating in Corporate Wellness Programs**

Research Director: Suzanne McDonough, Ph.D.

The purpose of this prospectus study is to examine employee likeliness to participate in corporate wellness programs using text messaging to support adherence. Seventeen employees at MC voluntarily signed up for a wellness program that included a fitness assessment, an assessment of blood pressure, cholesterol, blood triglycerides and a 7-day physical activity recall assessment. The employees were placed in exercise groups held at 6 a.m. and 6 p.m. four days per week for eight weeks. The employees were asked to agree to accepting text messages about their workout times, reminders about nutrition and motivational coaching quotes each day. Texts were tailored to each participant based on preferred options and available times to attend the boot camps. Objective outcome measurements will be overall number of days employees participated in boot camps versus number of days of opportunity, number of minutes of exercise per week, body fat percentage changes, waist circumference changes, blood pressure changes and blood fat/cholesterol changes.

**Madison Thomas, English**

**James Everett, Ph.D., Introduction**

**Howard's End and the Rise of the Automobile as a Symbol of Upper Class Masculinity  
in Edwardian Era England**

Research Director: James Everett, Ph.D.

Mark Twain's incredible talent to perform created an American celebrity, but his desire to be taken seriously failed to reconcile with his need to perform before an audience. When Hank Morgan finds himself catapulted to celebrity status in sixth century England in *A Connecticut Yankee in King Arthur's Court*, he also faces the tensions between the roles of reformer and performer. Neither Hank nor Twain overcomes the fear of being rejected by the audience as both performers ultimately find damnation, not redemption, as they progress from convert, hypocrite, to coward in Twain's self-professed religion of performance.

**Simon Babba, Communication**

**Mignon Kucia, Ph.D., Introduction**

**QR Codes and Their Effectiveness on Advertising and Marketing**

Research Director: Mignon Kucia, Ph.D.

With increasing advancement in technology, it is changing the way that marketers and advertisers are reaching their target audiences. The use of QR (Quick Response) codes by advertisers and marketers is increasing rapidly, but still there is no research done on whether QR codes are effective for marketers and advertisers. This research suggests that QR codes are effective for marketers and advertisers, as the results suggest. The results suggest that there are a greater number of people who would rather use a QR code to access a company store, than there are those who would rather type it in.

**Matt Godwin, Biological Sciences**

**R.C. Sample, Ph.D., Introduction**

**DDE to Diabetes: The Metabolic Implications of Organochlorine Pesticide Exposure**

Research Director: R.C. Sample, Ph.D.

Amphibian population declines as a result of epizootic events have become ever more common. A group of nucleo-cytoplasmic large DNA viruses, with icosahedral symmetry, dsDNA/protein cores, and an internal lipid membrane, in the genus *Ranavirus* family *Iridoviridae* have been implicated in many of these events. Our work has focused on novel techniques applied to protein analysis and electron microscopy. This has facilitated the identification of putative viral assembly intermediates and made possible the development of a refined model of virion morphogenesis.

**Scott A. Lofland, BSRT, RRT, Health Services Admin. Melanie Fortenberry, RN, BSN, MHS, Introd.**

**Respiratory Care Autonomy: Creating a Culture to Succeed**

Research Director: Melanie Fortenberry, RN, BSN, MHS.

This presentation will describe the basics of creating a Respiratory Consult Service that engenders autonomous practice by Respiratory Care Practitioners and delivers promising results to those patients with pulmonary disease in terms of reduced allocation of services, lower cost of care and reduced length of hospital stay. This is all accomplished through the application of care protocols that therapists utilize in assessment of individual patient symptomology.

**Jasmine C. Cole, Art Ms. Diane Williams, Arts Industry Program Dir., MS Arts Commission, Introd.**

**Visual Narratives Affect Commercial Advertising**

Research Director: Stephen D. Cook, MFA.

The purpose of this study is to examine, understand and appreciate how and why storytelling through visual art is a significant factor in creating a psychological connection between an artist's work and the viewers of that work in terms of the visual media that is commercial advertising.

## ***Intermission – 15 minutes***

***Christopher Schroeder, Law***

***Mark C. Modak-Truran, Ph.D., J.D., Introduction***

### ***Uncertainty in the Egyptian Crucible:***

#### ***What Lies Ahead for the Coptic Orthodox Population and Religious Freedom in Egypt***

Research Director: Mark C. Modak-Truran, Ph.D., J.D.

Religious minorities face a multitude of challenges and opposition throughout the world. Operating under a provisional constitution beginning in March 2011, followed by a controversial constitutional vote in December 2012, Egypt faces many uncertainties. Egypt's Coptic Orthodox population is faced with many of these unknown possibilities. By examining the constitutions, and corresponding issues, of other Muslim countries including: a recently written constitution; a hardline Theocratic constitution; and, a secular constitution, the challenges facing Egypt's Copts are clearly defined. The Copts will face a difficult resistance in striving to practice their beliefs.

***Clay Norton, Ed.D., Educational Leadership***

***Tommye C. Henderson, Ph.D., Introduction***

### ***Factors Affecting Performance Levels of Risk Management Behaviors***

#### ***of Mississippi High School Athletic Directors***

Research Directors: Tommye Henderson, Ph.D.

Safety in sport is a major concern for the modern-day sport administrator. Due to an increasing number of sport programs and sport participants, litigation has risen. Research in the area of risk management is critical for those in supervision to manage risk. Sport administrators need risk management plans in order to stay proactive against litigation. The purpose of this study was to measure the degree to which Mississippi High School athletic directors utilize risk management within their overall athletic program and to determine if selected demographic factors contribute to the performance levels of risk management behaviors in the conceptual areas where litigation in sports is often found.

***Melissa Janczewski Jones, History***

***Christian Pinnen, Ph.D., Introduction***

### ***Four Graphic Design Pioneers and Their Timeless Lessons for Future Graphic Designers***

Research Directors: Stephen Patterson, Ph.D. and Christian Pinnen, Ph.D.

In the waning months of Reconstruction, as many as 50 people were murdered in the small college town of Clinton. Of this number, it is estimated that all, save three, were black. This tragic and little-known event in the state's racial legacy became known as the Clinton Riot. The violence erupted on Sept. 4, 1875 at a Republican rally prior to Nov. statewide elections. Rather than continuing the incorporation of freedmen within the state's political process, the rally at Clinton served as the genesis for the infamous MS Plan which effectively disenfranchised the state's African American voters by terror and intimidation. The violence was not a spontaneous riot as depicted by Democratic Party accounts. Rather, the rally itself was perceived as a breach of unwritten racial boundaries and as an affront to white male honor. I will argue that the historic label of the Clinton Riot is a misnomer and that the event rightfully deserves to be historically known for what it was, a massacre.

***Katherine Munroe, Chemistry & Biochemistry***

***David H. Magers, Ph.D., Introduction***

### ***Computing Relative Acidities with Model Reactions***

Research Director: David H. Magers, Ph.D.

In the same way that the pH of a solution is a measure of its acidity, the  $pK_a$  of a compound is a measure of how strong of an acid it is. The  $K_a$  from which the  $pK_a$  comes is the acid dissociation constant and is related to the Gibbs free energy of the dissociation reaction by an inverse logarithmic relationship. Computational chemistry is quite successful at calculating normal energies, but the Gibbs free energy also contains the entropy. In order to overcome these problems, we employ model reactions to compute relative  $pK_a$  values.

***Sarah Bannerman, English***

***James Everett, Ph.D., Introduction***

### ***The Sitting Dead: Post-Mortem Photography During the Victorian Era***

Research Director: James Everett, Ph.D.

The invention of photography allowed the common Victorian to not only capture the pleasant memories of a wedding or a christening, but in the midst of disease and, consequently, the onslaught of death, post-mortem photography (the photographing of a deceased person) was quickly growing in popularity. Its purpose was to provide the living family members with some type of memory of the deceased; not so much to revel in morbidity, but often to serve as the only memorabilia from that individual's life (particularly if the family were poor.) This presentation will explore this trend as well as observe its evolution into a regrettably thriving business.

***Paige M. Rogers, Law***

***Mark C. Modak-Truran, Ph.D., J.D., Introduction***

### ***The Ministerial Exception:***

#### ***An Extension of Church Autonomy or the Creation of Endorsed Discrimination?***

Research Director: Mark C. Modak-Truran, Ph.D., J.D.

In early 2012, the United States Supreme Court, in *Hosanna Tabor Evangelical Lutheran Church and School v. EEOC*, formally recognized the "Ministerial Exception"—a doctrine long adopted by various United States Courts of Appeals, which permits religious institutions to make hiring and firing decisions of those who meet the definition of "minister" without regard to various employment discrimination statutes. This paper analyzes the *Hosanna-Tabor* opinion within the framework of three leading approaches taken to the Establishment Clause of the First Amendment- the Separationist, Accommodationist, and Neutrality approaches, and further argues that the *Hosanna-Tabor* opinion does not align properly with the traditional views of the three approaches, thus creating an overbroad endorsement of sanctioned discrimination. This paper argues for a limit to the ministerial exception, one that eliminates arbitrary labels such as "minister" and "layman" and strikes an appropriate balance between religious freedom and the goals of anti-discrimination statutes.