SPRING
**2010**

# brother joseph w. stander symposium

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# Letter from the President and Provost

April 2010

Dear Colleagues and Guests,

Welcome to the Brother Joseph W. Stander Symposium, the University of Dayton's annual celebration of academic excellence. This spring event exemplifies our mission to be a "community of learners" here at the University of Dayton. Through exceptional undergraduate and graduate student research, artwork, and performance, the Stander Symposium epitomizes the tradition of Marianist education.

We would like to offer our gratitude to the University's faculty and staff. Your lasting commitment and enthusiasm for success are the building blocks of this annual tradition. The road to student accomplishment is paved through your achievements.

On behalf of the University of Dayton, we thank you for joining us for this year's Stander Symposium, and we wish you an exciting and engaging learning experience.

Sincerely,

Daniel J. Curran, Ph.D.
President

Joseph E. Saliba, Ph.D.,
Provost

# Letter from the Co-Chairs

April 2010

Dear Members of the UD Community,

We are delighted to officially welcome you to the annual Brother Joseph W. Stander Symposium. The Stander Symposium showcases individual and collaborative undergraduate and graduate research, creative endeavors, and academic achievements. Above all, the Symposium and your participation showcase our shared values as members of the University of Dayton community. This is 22nd year of the Symposium, honoring the late Bro. Joseph W. Stander, S.M., Professor of Mathematics and Provost (1974–1989).

This University-wide celebration of academic excellence exemplifies the Marianist tradition of learning in community. The Symposium's alternate day of learning includes poster sessions, hands-on activities, performances, art exhibits, oral presentations and highlights of capstone course work. The achievements and collaborations on display throughout the Stander Symposium reflect the continuing commitment of students and faculty to this great tradition.

The Stander Symposium would not exist without an extraordinary effort from across the campus community – students, faculty and staff. On behalf of the Stander Symposium Steering Committee, we thank you for your support and participation.

Sincerely,

Sukh Sidhu, Ph.D.
Associate Professor, Mechanical
& Aerospace Engineering Department
Co-Chair, Stander Symposium

Kathleen B. Watters, Ph.D.
Associate Professor,
Communication Department
Co-Chair, Stander Symposium

# About the Stander Symposium

**Brother Joseph W. Stander, S.M.**
Professor of Mathematics
Provost (1974 - 1989)

Honoring the late Brother Joseph W. Stander, S.M., Professor of Mathematics and Provost (1974-1989), the Stander Symposium celebrates academic excellence, rich collaborations and many forms of intellectual, artistic, and spiritual growth. The career of Brother Joe embodied the spirit of collaboration and the Stander Symposium stands as a continuing tribute to him and all who carry on the Marianist tradition of education through community.

A distinctive spirit permeates student research at the University of Dayton. The faculty and students of the University are determined that "a community of learners" is not a cliche but a realistic goal. Thus the University fosters an atmosphere that nurtures productive collaboration and a shared search for excellence in learning and in research. The Stander Symposium is a day-and-a-half long event, and constitutes the University of Dayton's principal annual celebration of academic excellence. The Symposium features a keynote speaker, poster sessions, hands-on activities, performances, exhibits, oral presentations and highlights of capstone course work.

All students at the university engaging in research, creative endeavors, and other forms of innovative thinking are encouraged to participate in this student research symposium. Student attendees are key members of a critically reflective audience for their peers. Faculty members serve as mentors and leaders for many of these projects and are the driving force behind scholarship in their fields. The efforts of students, faculty, and staff are critical to making this event successful year after year.

# Acknowledgments

The Bro. Joseph W. Stander Symposium Steering Committee thanks the students, faculty, and staff for their many contributions and university-wide collaboration in the planning of this years' symposium. With over 1,500 presenters, performers, artists, and faculty mentors participating, the Stander Symposium is a last tribute to Bro. Joe and to the Marianist principles of higher education.

For generous support, we specifically owe gratitude to the Office of the President, the Office of the Provost, the Offices of the Deans in the College of Arts and Sciences, School of Business Administration, School of Education & Allied Professions, School of Engineering, Graduate School, and University Libraries. We extend this gratitude to the Ryan C. Harris Learning Teaching Center, the University Honors and Scholars Program, the Research Institute, Enrollment Management, Student Development, Student Government Association, and University Advancement.

In addition to the units represented by the Steering Committee membership, the Committee specially acknowledges the essential and considerable planning and staff assistance received from Kennedy Union, Campus Ministry, Roesch Library, KU Box Office, ArtStreet, Department of Recreational Sports, Department of Visual Arts, Department of Communication, Department of Political Science, Sport Management Program, Keck Lab, and University of Dayton Information Technology (UDit).

Finally, very special thanks are due to students Rachael Bade, Brenda Heitkamp, Brandon Meyer, Michelle Stawicki, Elizabeth Wells, and all the students in Communication 461 for their efforts in developing and promoting this year's events.

# Committee Recognition

## Co-Chairs

Sukh Sidhu, Associate Professor, School of Engineering
Kathleen Watters, Associate Professor, College of Arts & Sciences

## Steering Committee

Deborah J. Bickford, Office of the Provost
Susan Byrnes, ArtStreet
Pamela Gregg, University of Dayton Research Institute
Patricia M. Hart, Honors & Scholars Program
Amy D. Lopez, Kennedy Union
Andrew Mitchell, Graduate Student
Patrick Reynolds, Music, College of Arts & Sciences
Sarah Schoper, Office of Leadership Development
Peter Titlebaum, Stander Cup Advisor
Cari Wallace, New Student Programs
Kathleen Webb, University Libraries

***Unit Coordinators:***

Jayne Brahler, School of Education & Allied Professions
Elizabeth Gustafson, School of Business Administration
Kathryn A. Kinnucan-Welsh, School of Education & Allied Professions
Ed Mykytka, Associate Dean, Graduate School
Frances Pestello, Humanities, College of Arts & Sciences
Joel Whitaker, Arts, College of Arts & Sciences

## Celebration of the Arts Committee

Darrell Anderson, Director, Theatre Program
Paul Benson, Dean. College of Arts & Sciences
Rory Dahlinghaus, University Advancement
Sharon Gratto, Chair, Department of Music
Frances Pestello, College of Arts & Sciences
Patrick Reynold, Department of Music
Teri Rizvi, University Communications
Sukh Sidhu, Co-Chair, Stander Symposium
Ed Valles, University Advancement
Kathleen Watters, Co-Chair, Stander Symposium
Joel Whitaker, Chair, Department of Visual Arts

## Graphic Design

Brenda Heitkamp, Department of Visual Arts '11
Michelle Stawicki, Department of Visual Arts '10

## Stander Coordinator

Andrea Meyer Wade

## Tuesday, March 16

**CELEBRATION OF THE ARTS OPENING PERFORMANCE** Schuster Center, 8:00 PM

An evening of inspiring and entertaining music, theatre, dance and visual art. The event showcases excellence in creativity and performance -- all by UD students.

## Friday, April 9

**STYLE YOUR SOLE** ArtStreet, 4:30-8:30 PM

Customize your own pair of TOMS shoes. Local and campus artists will be on hand to help faculty, staff and students decorate their TOMS Shoes. Enjoy live music, food, and making a difference in style! For details, ordering information, and special discounts visit us online. http://stander.udayton.edu/style

## Monday, April 12

**2010 ISSUE FORUM** Kennedy Union, 6:00-8:30 PM

Join a discussion on the perceptions of Islam at home and abroad. To sign up, email 2010IssueForum@gmail.com.

## Tuesday, April 13

**RED MASS** Immaculate Conception Chapel, 12:05 PM

At the liturgical opening of the Stander Symposium, we celebrate together through Mass which calls down the Spirit's gifts of Wisdom, Learning and Creativity to be the animating force for the research and creative performances we celebrate at Stander.

## Tuesday, April 13 (continued)

**KEYNOTE ADDRESS BY** RecPlex, 7:00 PM
**BLAKE MYCOSKIE, FOUNDER AND CHIEF SHOE GIVER OF TOMS SHOES, INC.**
TOMS' simple promise to give a pair of new shoes to children in need around the world with every pair sold is revolutionizing the way consumers shop. In just three years more than 140,000 pairs of new shoes to children in need.

Admission is free, tickets required. Available at the KU Box Office.

**STANDER CUP** RecPlex, 9:00 PM
Create a six person team and sign-up to participate in the physical and intellectual challenges. Enjoy prizes, pizza, and more! http://campus.udayton.edu/~recsport

## Wednesday, April 14

**DAY AT THE STANDER** Kennedy Union and Various Campus Locations, 8:30 AM-5:00 PM
All day long students from a variety of academic fields will display posters, make presentations, exhibit artwork, give live performances, and serve as audience members for their peers.

**CELEBRATION OF THE ARTS** UD Rike Center, 5:00-7:00 PM
**CLOSING VISUAL ARTS EXHIBITION AND RECEPTION**
The closing event features an evening of open studios, along with the Department of Visual Arts annual Horvath Exhibition and awards ceremony highlighting student artwork. Awards will be announced at 6 PM. Admission is free, tickets are not required.

# Pre-Show Performances

6:30 PM in the Wintergarden

IMPROVISATION ON TEMPORARY SOUND SCULPTURE
Michael Bashaw, Instructor

JAZZ COMBO
Dr. Willie L. Morris, III, Director

PIANO ENSEMBLE
Dr. Eric Street, Director

VISUAL ARTS DISPLAY IN THE WINTERGARDEN
Elaine English
Tracy Flagg
Hansoo Ha
Laura Mack
Elise Kelly
Kimberly Simons
Michelle Stawicki

# Celebration of the Arts Program

WELCOME

Dr. Daniel J. Curran, President

VESUVIUS (1999) — Frank Ticheli (b. 1958)

**Symphonic Wind Ensemble**
Dr. Patrick Reynolds, Conductor

SCAPIN: THE BAG SCENE (excerpt) — Bill Irwin and Mark O'Donnell adapted from Molieré

Scapin: Brian Gravunder
Geronte: Mark Perkins
Sylvestre: Frank Stanko

**University of Dayton Theatre Program**
Professor Linda Dunlevy, Director

POEMAS DE AMOR — Stephen Paulus (1949)
SONABA — (16th Century Spanish, Anonymous)

Translation:

| | |
|---|---|
| Sonaba yo que tenia | I dreamt |
| alegre mi corazon, | that my heart was happy, |
| mas a la fe, madre mia, | but my faith, Mother, |
| que los suenoa, suenos son. | dreams are just dreams. |

NADA TE TURBE — Joan Szymko (1957)

Translation:

| | |
|---|---|
| Nade te turbe | Let nothing disturb you, |
| nada te espante | nothing frighten you, |
| todo se pasa. | All things are passing. |
| Dios no se muda, | God never changes. |
| La paciencia todo alcanza | Patience obtains all things. |
| Quien a Dios tiene nada le falta | Whoever has God lacks nothing. |
| Solo Dios basta. | God is enough. |

LOCH LOMOND — arr. By Jonathan Quick

Professor John Benjamin, pianist
Anthony Houston, percussion
Professor Shelbi Wagner, cello

**University of Dayton Chorale**
Dr. Robert Jones, Conductor

LAS GALLANITAS — Aaron Dale
DAYRIDE — Stanley Clarke
arr. by Chris Crockarell

**Percussion Ensemble**
Professor James Leslie, Director

BESIDE ME TO GUIDE ME

Music: *Bring Me to Life*
Vitamin String Quartet

*Misguided Ghosts*
Paramore

*Thanks for the Memories*
Vitamin String Quartet

**University of Dayton Dance Ensemble**
Jeri Dickey, Choreographer

CITYSCAPES I: LAKESHORE DRIVE — Ricky Hirsch

**First Flight Saxophone Quartet**
Dr. Willie L. Morris, III, Director

KWANGENA THINA BO (sung in isiZulu) — South African Song
collected from Papie Aaron
transcribed by Susan W. Mills

Literal translation: When we came in all was quiet and women were ululating (a vocal response) when all was quiet

FLOWER DRUM SONG — Chinese Folk Song sung in Mandarin
arr. Jing Ling Tam
Mandarin assistance, Dr. Jack Ling

Translation: With the gong at my left hand, the drum at my right hand, I sing a song. I don't know any songs other than this Flower Drum song. My fate is bitter and fragile. I could not find a good woman for my wife who knows the art of embroidery. My wife only has big feet that measure more than a foot long!

Christopher Chan, percussion
Professor James Leslie, percussion
Anthony Houston, percussion
Kevin Sylvester, piccolo

**World Music Choir**
Dr. Sharon Davis Gratto, Director

BOOGIE STOP SHUFFLE — Charles Mingus
arr. by Andrew Homzy

**Dayton Jazz Ensemble**
Dr. Willie L. Morris, III, Director

CELEBRATE — Donald Lawrence
orch. Robert Streng, UD Alumnus '02

Dr. Minnita Daniel-Cox, soprano

WE ACKNOWLEDGE YOU — Donald Lawrence
orch. Robert Streng

Mary Carman, soprano

**Ebony Heritage Singers**
Dr. Donna Cox, Conductor

**Dayton Jazz Ensemble**
Dr. Willie L. Morris, III, Director

# Celebration of the Arts
# Closing Visual Arts Exhibition and Reception

UD Rike Center
5:00-7:00 PM (6:00 PM Awards)

The Department of Visual Arts will be hosting a reception and evening of open studios as the closing event of the University's annual Stander Symposium. The evening features the awards ceremony for the Department's annual Horvath Exhibition, a juried exhibition highlighting student artwork on display March 24 through April 21.

Included in the open studios will be demonstrations and the exhibition of faculty-sponsored student artwork from across the Department.

# Blake Mycoskie

Founder and Chief Shoe Giver
TOMS Shoes, Inc.

Blake Mycoskie is the Founder and Chief Shoe Giver of TOMS Shoes, Inc. TOMS' simple promise to give a pair of new shoes to children in need around the world with every pair sold is revolutionizing the way consumers shop. The One for One business model has encouraged conscientious consumers to purchase and give more than 140,000 pairs of new shoes to children in need in just 3 years. By the end of 2009, TOMS will give an additional 500,000 pairs of new shoes to children in need all around the world, including at home in the US. The One for One business model is redefining social entrepreneurship for a new generation.

Can the purchasing power of individuals be used to foster the greater good? Can an entrepreneur succeed financially and make the world a better place? The amazing success of TOMS Shoes proves that the answer to both of these questions is a resounding "Yes!"

Embodying the entrepreneurial spirit of a new generation, Mycoskie has created five businesses since college. In the Bill Gates Time magazine article, "How to Fix Capitalism," TOMS is cited and Mycoskie caught the attention of AT&T, who has featured him in a major national ad campaign for the last several months. Among many engagements, Blake has spoken at the TED Conference, the Aspen Ideas Festival, and the Clinton Global Initiative University.

For more information on TOMS Shoes visit www.TOMSshoes.com.

### Department of Teacher Education Teacher Residency Conference Welcome and Overview

Keynote Speaker — 8:30 AM-9:30 AM
Advisor(s) - Rochonda L Nenonene — Sears Recital Hall

As a welcome for the EDT 110 Teacher Residency Conference, speakers knowledgeable about Ohio's Teacher Residency Model will give an overview and update on the proposed model for Ohio's beginning teachers.

### Dayton Alive

Visual Arts Exhibition — 8:30 AM-5:00 PM
Senior/Capstone Project — ArtStreet Studio E
Advisor(s) - Judith L Huacuja
Student(s) - Katherine G. Norris, Leah N. Winnike

Two student artists explore the heart(s) of the Dayton region. One uses audio, combined with photography, to reveal the powerful potential of individuals as community leaders and change-makers at the heart of revitalizing Dayton. The other utilizes unexpected locations and innovative media to reunite Dayton citizens with the water resources at the heart of this region.

### 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center

Oral Presentation — 9:00 AM-1:00 PM
Senior/Capstone Project — Kennedy Union Boll Theatre
Advisor(s) - Donald V Chase
Student(s) - Jason K. Basil, Joseph M. Bayer, Matthew J Berner, Megan M. Bramini, Jonathan D. Burkhardt, John J. Cahill, Daniel R. Haney, Jonathan H. Hartzell, Kathleen A Henriksen, Geoffrey S. Holmes, Nicholas G. Hoog, Zachary S Kaczor, Dave R Klug, Brian P. Larson, Michael A. Mancini, Mark T Menninger, Nicholas M Mueller, Christopher L. Nichols, Clayton S. Pennington, Nicholas M Piekarski, Thomas J. Schoen, Dane M Sommer, Alexander P Stricker, Todd E Stuart, Lee M Thieman, Nicholas A. Utrevis, Matt C. Vrtovsnik, Zachary T. Weiss

The senior civil engineering capstone design project for 2010 was to investigate potential UD uses for land located along the Mad River Northeast of downtown Dayton and to design civil engineering infrastructure to support these uses. The students' design included a lodge, multi-purpose educational facility, a low ropes course, walking trails, as well as a walking bridge across the Mad River. The capstone project combines all previous civil engineering coursework into an intensive, interdisciplinary project completed over a six month period. This presentation summarizes the design developed by the senior civil engineering class of 2010.

### Assessing Assessments: The Impact of Student Evaluation on the Ohio Teacher Residency Program

Oral Presentation — 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_H1 — Chaminade Hall 202
Advisor(s) - Patricia M Hart
Student(s) - Stacey A Buckman, Carol Ann Harper, Meghan C Henry

This session will examine a critical aspect of the Ohio Teacher Residency Program - student assessment and its impact on students and teachers. The debate on formative, summative, and Value-Added assessments, which plays an integral role in evaluating teachers' instruction and students' learning in the state of Ohio will be discussed.

### Developing Standards for Pre-Service Teachers.

Oral Presentation — 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K1 — Chaminade Hall 204

Advisor(s) - Judith N Oberlander
Student(s) - Emily M Dolan, Christine M Mercede, Kelly M Raffenberg, Emilee Schuermann

In the effort to improve teacher quality, Ohio educators are developing a new set of standards for preservice teachers. To accomplish this task, Ohio is looking to other state models. This presentation will discuss how Ohio is developing preservice teacher education standards that align with th Ohio Standards for the Teaching Profession.

### Formative and Summative Assessments in Teacher Residency Programs

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K3 Chaminade Hall 102
Advisor(s) - James B Rowley
Student(s) - Alexandra C Cole, Jaclyn E Leffelman, Emma M Waddell, Kara E Walsh

As a group we explored the relationship between formative and summative assessments as they might be administered in a teacher residency program. Some examples of both types of assessments and how they show evidence of a resident educator's growth and development with regard to the Ohio Standards for the Teaching Profession will be included.

### Learning from Other Professional Fields: Attorney Residency Compared to Teacher Residency

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 315
Advisor(s) - Patricia M Hart
Student(s) - Hayley R Makowski, Lauren E Scott, Amy M Sullivan

This session will compare the typical undergraduate, graduate, and post graduate experiences for attorneys with those same experiences for a teacher. The anticipated outcome of the presentation is to examine how the professional development of attorneys can influence the professional development of teachers.

### Nursing Residency Program

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 308
Advisor(s) - Rochonda L Nenonene
Student(s) - Laura E Butsch, Elizabeth M Hoskins, Alysha E Mallon

This presentation will explore current practices utilized in nursing residency programs. The focus of the presentation will be the identification of structures, programs, and evaluation methods that could be adapted and integrated into the Ohio Teacher Residency model.

### Program Evaluation

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 201
Advisor(s) - Rochonda L Nenonene
Student(s) - Kaitlin A Kenny, Thomas K O'Rourke, Brad A Wenclewicz

This presentation will explore the effectiveness of teacher residency models. Areas of evaluation will include formative and summative assessments of new teachers, the mentoring process and the structure of the program.

### Psycho-Therapy Residency Applied to Teacher Residency Program

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 323
Advisor(s) - Judith N Oberlander
Student(s) - Maureen M. Brady, Emma R Kiefer, Kelsey N Mann, Rachel M Sebastian

This presentation will discuss how different aspects of the residency program for psycho-therapy leading to licensure can be used as a model for Ohio Teacher Residency Program. The differences and similarities in purposes and intents of the program will also be discussed.

### The Race to the Top and Ohio's Teacher Residency

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 114
Advisor(s) - Judith N Oberlander
Student(s) - Zoe Elizabeth Eilbeck, Caitlin E Larock, Britt Lebeau, Nicholas Alan Nagel

The Obama administration is implementing a competitive funding program to reform educational systems called Race to the Top, in which states must meet certain requirements to receive funding. This presentation will discuss requirements necessary to receive funding, the educational priorities and changes emphasized in the program, and how these priorities align with the objectives of Ohio's new Teacher Residency program.

### State and National Educational Policy in Relation to Teacher Residency

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 208
Advisor(s) - Patricia M Hart
Student(s) - Matthew W Cariola, Anne E Kujawa, Meghan E Oconnor, Alexandra S Sitko

In this presentation, there will be a discussion about educational policy in terms of teacher residency programs at a state and national level. The group will examine the effectiveness of these educational policies.

### Urban Residency Program

Oral Presentation 9:20 AM-10:00 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 322
Advisor(s) - Rochonda L Nenonene
Student(s) - Danielle L Knapper, Kristian L Schumacher, Lauren M Sweeney

This presentation will explain existing urban teacher residency programs and identify elements that could be adopted to fit the needs of The Ohio Teacher Residency model. Exemplary elements of models of the urban residency will also be highlighted.

### The Impact of Physician and Teacher Relationships with their Preceptor/Mentor on their Residency Experience.

Oral Presentation 10:10 AM-10:15 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 315
Advisor(s) - Rochonda L Nenonene
Student(s) - Julia Marie Ahrns Kathleen A Gibboney MacKenzie K. Wahlen

This presentation will explore the types of relationships new physicians and new teachers experience with their preceptors and mentors during their residency programs. Key factors explored: the importance of these relationships; the formal and informal structures;and the benefits for both parties.

### The Effects of Teacher Residencies on Private, Parochial and Charter Schools

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 208
Advisor(s) - Patricia M Hart
Student(s) - Duncan J Fischley, Kara M Kindel, Emily M Motz, Robert R Sander, Anne E Weidner

Various questions about the impact of the Teacher Residency Model on Private, Parochial and Charter Schools will be discussed in this session. Questions include: Will the residency program be required in private, parochial and charter schools? If not, how beneficial would it be to complete the residency, and then teach in these types of schools? Will these schools require a completed residency? How will they fund a residency program? All of these questions and more will be addressed in our presentation!

### Four-Year Residency Programs: Ohio Vs. Other States

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_03 Chaminade Hall 114
Advisor(s) - James B Rowley
Student(s) - Josh P Baran, Peter R Boylan, Christine E Busse, Michelle R Weininger

This group will explore Ohio's notion to create an induction program for beginning teachers. In doing so, we will compare Ohio's effort to other states and see how the induction initiatives compare and contrast.

### How Engineers can be a Model for Developing Teachers

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_03 Chaminade Hall 308
Advisor(s) - James B Rowley
Student(s) - Laura M D'Arcy, Erin E Dowdle, Kristina C. Tackett-Ritchey, Joseph R. Ulrich

For our project we will investigate how new engineers and teachers become familiar with their respective field. We will look at internship and co-op programs for engineers in comparison to the new teahcer residency program and see how the new program can benefit from this design.

### How Student Assessment Might Be Used to Evaluate Teachers In Ohio's Residency Program

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 202
Advisor(s) - Patricia M Hart
Student(s) - Jennifer M Clark, Patrick M Coyle, Kathleen C Kelly, Mark G Lenz

This presentation will examine how student assessment outcomes will be incorporated into the evaluation of teachers in Ohio's teacher residency program. Student assessment will be discussed in relationto the impact on teacher licensure.

### Mentoring Resident Educators

Oral Presentation 10:10 AM-10:50 AM
Other: Course Project- EDT 110 Chaminade Hall 102
Advisor(s) - James B Rowley
Student(s) - Amanda L Bordewick, Kyle E Frobose, Catherine A. Glubisz, Samuel R Hall

This presentation will provide answers to a series of questions focused on the role of mentor teachers and Ohio's new four-year residency program. Those questions will include: What are the roles and responsibilities of mentor teachers working in a four-year residency program? What criteria should guide the selection of such mentors? How should they be trained and what can be done to insure their competency and on-going professional development?

### National Board Certification and How it Relates to the New Teacher Licensure Structure

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 204
Advisor(s) - Judith N Oberlander
Student(s) - Anna E Albain, Nicholas M Doyle, Stefanie K Hirota, Miranda D Lammers

The National Board Certification allows teachers to teach in any state around the country without having to be individually certified in a specific state. This presentation will examine how Board Certification relates to the new Ohio Teacher Residency program and will report on the Board practices and assessments that show promise for teacher residency programs. Controversies surrounding the National Board certification will be addressed.

### The Pre-Service Teacher Connection to the Ohio Residency Model

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 201
Advisor(s) - Rochonda L Nenonene
Student(s) - Lauren E Kleist, Mary K. Nolan, Emily H Ortman, Ellen T. Williamson

In this presentation, we will discuss what must be accomplished in order to adequately prepare preservice teachers for the teacher residency program. Significant emphasis will be placed on the importance of clinical observations and student teaching.

### What Ohio's Teacher Residency Program can Learn from Preparation of Clergy

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 323
Advisor(s) - Judith N Oberlander
Student(s) - Abigail M. Duvall, Peter J Gettings, Anne E. Sharp, Nicole L Smith

Teachers and clergy are both service professions to society and youth. These two groups influence the individuals with whom they work. This presentation will discuss the features, both similar and different, of the preparation of clergy that can inform Ohio's Teacher Residency Program to better instruct Ohio's youth.

### What to Teach a Teacher: A Closer Look at the Teacher Residency Curriculum

Oral Presentation 10:10 AM-10:50 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 322
Advisor(s) - Rochonda L Nenonene
Student(s) - Elizabeth M Bowling, Meghan R Cugliari, Chelsea M. Daddona

This presentation will explore possible content for the Ohio Teacher Residency Curriculum. Curriculum topics will be assessed for relevancy in relation to their alignment with the Ohio Standards for the Teaching Profession.

### Bulk-Heterojunction Photovoltaic Cells: The Effect of Interlayer Morphology on Device Performance

Oral Presentation 10:30 AM-11:00 AM
Honors Thesis Kennedy Union 207
Advisor(s) - Vladimir A Benin
Student(s) - Eric Scott Harper

The world currently relies on fossil fuels as its primary energy source, but these resources are being depleted at ever faster rates and are non-renewable. Fossil fuels have also been shown to cause pollution. These pollutants have been linked with climate change, as well as the cause of environmentally damaging phenomena, such as acid rain. Together, the increased energy consumption along with the negative impact of fossil fuels proves the need for alternative energy sources. An investigation into organic photovoltaic cells was conducted, specifically the interlayer of Bulk-Heterojunction photovoltaics (BHJ's). A brief history of solar cells will be given, along with advancements in solar technology. The particular theory behind photovoltaic cells, especially BHJâ??s, is also included. Different experimental treatments were applied to the "interlayer" of BHJ's and the resulting device performance was measured to determine a link between interlayer morphology and device performance. It was found that the interlayer surface morphology could be modified, and through experimentation, it was determined that the interlayer morphology does impact the device performance, with rougher surfaces resulting in higher

device performance. Continuing research should focus on more precise and effective means to produce morphological changes, and how to further increase device performance.

### Inner City Education: A Look Into Which Type of School is Most Successful in Inner City Areas.

Oral Presentation 10:30 AM-11:00 AM
Senior/Capstone Project St. Joseph's Hall 023
Advisor(s) - Claire M Renzetti
Student(s) - Allise L Free

A lot of people cannot stress enough the importance of education for a successful future. Having a quality education can open up so many doors for so many people. But for many people, a lot of those doors will not be opened due to the fact that they are not given the gift of a good education. There has been a lot of debate as to the effectiveness of certain school types in different areas. Many studies have studied the success of charter, private, and public schools in other cities. This project will compare and contrast a charter, private, and public school in inner city Dayton. The goal is to see if a certain type of school is better in terms of success rates based on test scores and number of graduating students.

### John Paul II's Guide to Dating: Effectively Teaching Catholic Doctrines on Sexuality in a High School Classroom

Oral Presentation 10:30 AM-11:00 AM
Honors Thesis Marianist Hall Learning Space 206
Advisor(s) - Jana M Bennett
Student(s) - Adam J. Eakman

Recently pregnancy, abortion, and STDs have been continually increasing in adolescents while their understanding of the Catholic Church's teaching on sexuality has been decreasing. This thesis is a guide for educators who seek to address this issue by effectively teaching healthy sexual decision making and an understanding of the Catholic Church'Â?s teachings on human sexuality in a Catholic high school classroom. It surveys relevant educational techniques that have been proven effective for sexual education and synthesizes this information with Pope John Paul II'Â?s theology of sexuality. Together, this information is combined into a unique approach to teaching sexuality that is more a guide to developing a healthy romantic relationship than an attempt to scare students out of sex. It contains the necessary material for a detailed explanation of Church teaching so educators can finally give adolescents the effective Catholic sexual education that is called for in the new millennium.

### Modern Irish History: Robert Emmet's Last Speech

Oral Presentation 10:30 AM-11:00 AM
Senior/Capstone Project Kennedy Union 311
Advisor(s) - Marybeth Carlson
Student(s) - John P. Scurfield

Robert Emmetâ??s Last SpeechRobert Emmet was a famous Irish nationalist who led the failed Rebellion of 1803. Emmet would become a popular romantic hero in Ireland after he gave a stirring nationalistic speech when he was sentenced to death for his actions against the English government in Ireland. The speech would later go on to inspire future generations of patriots not just in Ireland, but abroad. I will present an abridged version of Emmetâ??s famous speech to the court that convicted him and the future patriots he would inspire.

### Research on the Effects of Mentor Programs

Oral Presentation 10:30 AM-11:00 AM
Course Project 10_WI_UDI_394_MP Marianist Hall Learning Space 218
Advisor(s) - Nancy A Miller
Student(s) - Casey A. Aldrich, Jill C. Bucaro, Laura E. Getz, Amanda E. Hortsman, Sarah A. Hrabik,

Amanda W. Orr, Nicholas V. Pesola, Kaitlin M. Stretch

The 2011 Dayton Civic Scholar cohort capstone project will be a carefully designed mentor program with aim to better inform 5th and 6th grade Dayton Public School students about the importance of education, specifically college education. The first step of this program will be researching the impact of similar mentor programs and how these programs can best be implemented with positive and rewarding results. This presentation will give an overview of the cohort members' research on mentor programs that will ultimately help shape the capstone project.

### USAMTI: United States Army Mental Toughness Inventory

Oral Presentation 10:30 AM-11:00 AM
Course Project 09_FA_PSY_333_01 Kennedy Union 310
Advisor(s) - Joseph P Tedesco
Student(s) - Michael J. Lotz, Christopher R. Randall

Military mental toughness is the psychological mindset necessary to endure the hardships and stress encountered by troops serving in the United States armed forces. The United States Army Mental Toughness Inventory (USAMTI) aims to assign incoming applicants of the Army Reserve Officer Training Corps (ROTC) program into one of the four Functional Alignments (FA) of the United States Army. The United States Mental Toughness Inventory is a fifty question paper-and pencil inventory, that assess five main criterion characteristic of mentally tough Cadets. The USAMTI will be administered to contracted first year ROTC Cadets at Dayton, Wright State, and Ohio State Universities. This inventory will accompany their Individual Accession Packet to help match the profile of the applicant to the needs of the Army.

### What Sort of Community? The Catholic Vision of the Church after Toleration

Oral Presentation 10:30 AM-11:00 AM
Graduate Research LTC Team Space
Advisor(s) - William Portier
Student(s) - Coleman Fannin

The transformation of Western culture from that of Christendom, such as it was, to pluralism has manifold and complex origins. Yet it was facilitated by the rise of toleration, which, along with subsequent developments, produced what H. Richard Niebuhr called the "enduring problem" of Christ and culture in the modern world. Today a small but significant number of Baptist theologians have sought a path away from individualism and Americanism and toward community and catholicity, among them the late A. J. Conyers. In The Long Truce and its sequel, The Listening Heart, Conyers presents a two-part catholic vision: first, he diagnoses the problems engendered by the way toleration came to be understood in modernity; and second, he argues that in the midst of pluralism the church must embody an alternative model of toleration grounded in a sense of vocation. In this essay I highlight benefits of Conyers' vision for contemporary theology and consider it alongside the work of James McClendon, a Baptist who outlines a "catholic baptist" ecclesial vision, and William Cavanaugh, a Catholic who identifies the church as its own politics. Conyers shows that whereas the modern doctrine of toleration is violent and fractures community, the pre- and postmodern practice of toleration is nonviolent and enables catholicity. McClendon and Cavanaugh demonstrate that such an alternative must be grounded in a robust ecclesiology and the ongoing practices of communities sustained by tradition. Both are required to sustain the sort of moral formation that enables Christians to live together, dialogue with those with whom we disagree, and follow the way of the cross rather than acquiesce to the security of the state.

### Around the World in Dayton: Anthropology Projects at International Places of Business

Oral Presentation 10:30 AM-11:30 AM
Course Project 10_WI_ANT_150_04 Kennedy Union 312
Advisor(s) - Kristen E Cheney
Student(s) - Sean M. Casey, Molly C. Daniels, Amanda L. Fioritto, Benjamin P. Moore, Katherine J. Trempe

Students will present on their fieldwork projects from Cheney's Introduction to Cultural Anthropology class, in which they visited international places of business around the Dayton area and made cultural observations.

### The Branding of Cities: A Case Study of Dayton, Ohio and Lexington, Kentucky

Oral Presentation 10:30 AM-11:30 AM
Honors Thesis Miriam Hall 213
Advisor(s) - Barbara Heroy John
Student(s) - Deborah L. Crowdus

Just as products and services are facing extremely high levels of competition in an increasingly globalized marketplace, cities now face unprecedented competition with others for tourism dollars, business investment, young talent, and a diverse set of residents. The 21st century society has created the most mobilized workforce of modern times due to the influence of technology, transportation, and globalization. In response to these trends, cities are discovering a pressing need to differentiate themselves to potential customers by an innovative new marketing strategy: city branding. By packaging and promoting their unique identity, history, and attributes, cities are developing their own intensive branding campaigns. This trend has brought the cities of Dayton, Ohio and Lexington, Kentucky to create very different branding efforts in recent years. This study will compare and contrast these two cities separate approaches to extending and accentuating their existing market positions to promise a unique future position, as well as discuss their campaigns' successes and failures.

### Marianist Social Transformation: Reflections on MST 310

Panel Discussion 10:30 AM-11:30 AM
Senior/Capstone Project Marianist Hall Learning Space 217
Advisor(s) - Una M Cadegan
Student(s) - Philip R. Erford, Megan Rose Falter, Adrienne D. Hillman, Elizabeth A. Markus, Mark E. Motz, Kyle G. Rodden, Michael A. Sievers

MST 310, Reading the Signs of the Times, is the capstone course in UD's new interdisciplinary minor in Marianist Social Transformation. It was offered for the first time in Fall, 2009. Students who enrolled in the course will describe the projects they researched and presented, and reflect on how the ideas and commitments that shape Marianist social transformation relate to their own intellectual and professional plans.

### Marketing Strategy Plan for Five Rivers MetroParks

Oral Presentation 10:30 AM-11:30 AM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - William F Lewis
Student(s) - Michael A. Dilillo, Joshua D. King, Michael C. Morante, Timothy G. Rahill, Jennifer M. Roettker, Erica L. Strassner, Katherine A. Wilson

This marketing strategy plan was composed for Five Rivers MetroParks so that they could be more effective in their marketing efforts, and more efficient in their advertising.

### OPS 480 Student Research in Supply Chain Management

Oral Presentation 10:30 AM-11:30 AM
Course Project 09_FA_OPS_480_01 Miriam Hall 207
Advisor(s) - John J Kanet
Student(s) - Molly C. McCarty

In this session three senior Operations Management students will present the results of their research in Supply Chain Management which they completed in partial fulfillment of the requirements for OPS 480. Molly C. McCarty will present her project entitled "Exchanging with E-Procurement". Angie Vega will describe her research project "Shoppers Vs. Seekers: Accommodating the Purpose of the Retail Customer", and Eric Ranes will present his project " Buyer and Provider: Perspectives and Relationshipsin Third Party Logistics".

### The Social Revolution: An Assessment of the Current and Projected Use of Social Media by Generation Y and the

Oral Presentation — 10:30 AM-11:30 AM
Honors Thesis — Miriam Hall 213
Advisor(s) - Irene J Dickey, William S Sekely
Student(s) - Kathryn E. Sunday

With the dawn of the digital age upon us, the possibilities for using the Internet to connect with others are seemingly endless. One of the most common ways in which Internet users connect and network with each other is through "consumer generated media", or rather, content that is provided and maintained by the user. It is clear that social media, such as Facebook and LinkedIn, are becoming increasingly pervasive in the lives of students, professionals and consumers. With high volumes of participants, social media sites are the latest way for businesses to reach out to consumers and connect with them. This thesis seeks to better understand the current use and perceptions of social media by the college-educated members of Generation Y and the implications of such for marketing practitioners.

### The Sophomore Entrepreneurship Experience

Oral Presentation — 10:30 AM-11:30 AM
Course Project 10_WI_MGT_221_01 — Miriam Hall 109
Advisor(s) - Robert F Chelle
Student(s) - Joseph J. Fliss

The presentation will be by students from the first two courses in the Entrepreneurship curriculum, The Sophomore Entrepreneurship Experience. These two linked courses are designed to immerse Entrepreneurship majors into the dynamics of starting and running a micro-business. They focus on identifying market need, determining the financial viability of a business venture to meet that need, and marshalling resources (among them, sales, marketing, financial, human, technical and motivational) to launch and operate a micro-business. The course is coordinated through the Crotty Center for Entrepreneurial Leadership. In general, these two courses introduce a sophomore majoring in Entrepreneurship to most of the basic functional areas of running a small business through the creation, planning, operating, and closing or harvesting of a micro-business.

### What You Can't Read Could Kill You: Issues in Health and Science Literacy

Oral Presentation — 10:30 AM-11:30 AM
Course Project 09_FA_ENG_114_H3 — Kennedy Union 211
Advisor(s) - Sheila Hassell Hughes
Student(s) - Taylor M Piatkowski, Kyle P Rismiller, Joseph R Salomone

How do we learn and teach about science and health in ways that promote health and advance our national interests in science? What kinds of reading/writing constitute "literacy" in the sciences and in health? These presentations address issues in health and science literacy, and argue for extending these discourses more broadly. Taylor Piatkowski's "The Dirty Truth about Hand Care" reveals flaws in health literacy today. A major concern in the medical community is preventing the spread of contagious illnesses. Proper hand care is one significant way to do so, but the lack of public health literacy has led to improper and dangerous approaches to hand care, especially regarding hand sanitizer. This presentation warns against some of the most common risky practices. Joseph Salomone's "Health Literacy and Diabetes: Questions and Answers" explains that poor health literacy impairs a patient's ability to follow a doctor's instructions, read directions on medications, or understand treatments or procedures. Those who suffer from chronic diseases such as diabetes face even greater difficulties because of the complexities of day to day treatment. The health care community must recognize problems posed by insufficient health literacy and able to identify and help those in need. In "The Discourse of Science Writing," Kyle Rismiller considers science as a language or "discourse community" whose rules seem foreign to outsiders. Although most children begin learning science early, many feel alienated by science's discursive nature"--an alienation that may never subside. Such alienation presents a problem because it contributes to a general lack of science literary and limits the pool of students for advanced scientific education. What causes such alienation and how can we reduce it? In a world driven by technology and innovative science, scientific integration is necessary to facilitate the learning of all children instead of turning them off science.

### The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts

Oral Presentation 10:30 AM-12:00 PM
Course Project 10_WI_POL_421_01 LTC Forum
Advisor(s) - Margaret P Karns
Student(s) - Allison R Ackermann, Brandon S. Beech, Bridget T. Corcoran, Abagail M. Lawson, Caryl M. Nunez, Zachary Tyler Sideras

As the Cold War ended in the 1990s, the world saw the rise of interventions by the United Nations, major powers and her international organizations in the domestic affairs of nation-states around the globe. Labeled "peacebuilding" by UN Secretary-General Boutros Boutros-Ghali in 1992, these interventions stand in stark contrast to the traditional UN peacekeeping operations. Originally, Boutros-Ghali outlined peacebuilding in the Agenda for Peace as "action to identify and support structures which will tend to strengthen and solidify peace in order to avoid relapse into conflict." The experiences of this new form of intervention and the growth of scholarly attention to these topics have led to a voluminous literature debating the concept of peacebuilding and the actions undertaken by external actors to bring about a lasting peace. This panel will explore the role of particular peacebuilders, their objectives in a post-conflict setting, and the mission outcomes. Four research projects will be presented as part of this session. This includes: two sets of case studies discussing the strategies and outcomes regarding the repatriation of refugees and Internally Displaced Persons, one comparing Bosnia and Herzegovina and East Timor, while the other focuses on Mozambique and Liberia; other presentations address the role of diaspora communities in peacebuilding; and the United Nations' involvement in Iraq and Afghanistan. Questions and discussion will be encouraged following the presentations.

### Politics of Alternative Transportation: Getting Around on Bike, Bus or Train

Oral Presentation 10:30 AM-12:00 PM
Course Project 10_WI_POL_300_02 Kennedy Union 331
Advisor(s) - Grant W Neeley
Student(s) - Stephanie M. Vermillion

Our Political Science of Alternative Transportation class has spent this semester studying transportation in the Dayton area with a focus on bikes, trains and buses. While so many Americans opt for travel by car, it is important to make known the possibilities for alternative transport to decrease pollution and increase sustainability. We have put a great deal of emphasis on the fact that students need to know the possibilities for recreation, dining, shopping and entertainment beyond Brown Street. The Dayton areaâ??s RTA buses and bike paths can get students to most if not all of these exciting places, which is something that if UD learns to market can be a great draw for the university. To find out what students and faculty wish they could do but are limited within the boundaries of UD, we conducted several focus groups and surveys to collect data. We then used this data to begin developing a Web site where students and faculty can find information on the amenities they want, be it entertainment, shopping, transportation, dining or recreation and how to get there using alternative transportation. We hope this class and these projects will make the UD community aware of all the City of Dayton has to offer, increasing the variety of experiences students and faculty can partake in, and hopefully cut down on pollution and save gas money by getting there via bike or bus.

### Under Our Lady's Mantle: The Hopes, The Fears, and The Lives of Our Local Latino Community

Visual Arts Exhibition 10:30 AM-12:00 PM
Course Project 09_FA_VAH_490_07 ArtStreet Studio B
Advisor(s) - Judith L Huacuja
Student(s) - Elise K. Kelly

My artistic project documents the often marginalized lives of some of Dayton's Latino immigrant population. These Latino immigrants are a hidden and important element in our service sector economy. Many are undocumented workers, earning low wages for arduous, menial labor. They often face ridicule, stigmatization, and injustice. I hope this project will shed light

on the lives of the undocumented workers in this area. I also hope this exhibition will stimulate dialogue and remedial action.

### Globalization and Its Discontents

Oral Presentation 10:30 AM-4:30 PM
Course Project 10_WI_ECO_461_01 Miriam Hall 102
Advisor(s) - Barbara Heroy John
Student(s) - Christopher M. Archbold, Jenna E. Auriema, Matthew L. Barnes, Wayne D. Bethel, D'Andre A. Boulden, Joseph Z. Bruggeman, Cory M. Butcher, Robert W. Calabro, Adam J. Caraboolad, Kelsey L. Chapic, Christina L. Council, Sarah A. Cubar, Matthew D. Cuculic, Jordan F. Fisher, Kevan W Halma, Leanne C. Harrison, Amy K. Heck, Alex M. Henderson, Brooke K. Horan, Lauren K. Kral, Corey J. Lamm, Kevin A. Lemelle, William N. Magnuson, Alissa D. Monahan, Patrick S. Morrison, Shannon L. Mulvihill, Amber M. Niekamp, Anastasia L. Nunn, Gregory T. Piepmeier, Enrique J. Pieras, Eric F. Pijuan, Elizabeth C. Ranz, Adam M. Rey, Michael J. Rohana, William J. Ruffner, Kevin J. Rushing, Michael R. Sahm, Colleen E. Scherer, Mary K. Schott, Marc C. Sease, William M. Shearon, Emily C. Sheridan, Valerie E. Smith, True C. Sulier, Ryan J. Thornlow, Lucian Tigga, Danielle S. Torchia, Andrew P. Walters, Kyle R. White, Kyle M Young, Tingting Zeng

Globalization--increasing economic integration--has enabled some nation-states to enhance the living standards of their citizens. But for others, the costs seem to have exceeded the benefits, or the distribution of the net benefits has been skewed in such a way that social problems, even violations of basic human rights, have been attributed to globalization. This series of 50 vignettes by students in ECO 461-International Economics will explore the implications--good, bad and ugly--of globalization for particular economies and human constituencies.

### Modern Irish History: Sinn Fein and the Politics of the IRA

Oral Presentation 11:00 AM-11:30 AM
Senior/Capstone Project Kennedy Union 311
Advisor(s) - Marybeth Carlson
Student(s) - Ian T. Freeman

My presentation will address the Irish political party Sinn Fein. It will be concentrating on the partyâ??s connection to the IRA and explore how that connection has shaped the politics of the party and, in turn, the politics of Ireland. This presentation will focus on Sinn Fein in the modern political climate of Ireland beginning in the 1970s and continuing to the present. It will include a brief history of the origins of the Sinn Fein and progress to discuss the party's politics and how they are connected to those of the IRA. In this presentation I hope to show a direct connection between the IRA and Sinn Fein by giving evidence that influential leaders of the political party have origins in the IRA. This presentation will also discuss the Irish peopleâ??s feelings towards Sinn Fein. My goal is to show how the IRA has impacted Irish history through political means.

### The Portrayal of Elderly Individuals in Television's Sitcom "The Golden Girls"

Oral Presentation 11:00 AM-11:30 AM
Senior/Capstone Project St. Joseph's Hall 023
Advisor(s) - Claire M Renzetti
Student(s) - Megan K. McPheron

I conducted a content analysis in order to determine how the elderly are portrayed throughout the media. The study explores the differences between gender, relationships and the attractiveness of older individuals in the television sitcom "The Golden Girls". I will investigate if the media is refuting or reinforcing the stereotypes that are in the literature I have chosen to research.

### Beginning Teacher Licensing: From Policy to Practice

Oral Presentation 11:00 AM-11:40 AM

Course Project 10_WI_EDT_110_K3 Chaminade Hall 308
Advisor(s) - James B Rowley
Student(s) - Anna R Jaeger, Greggory J Stetter, Ashley E Stoetzel

In the past decade there has been a major, national policy movement to improve teacher quality by establishing more rigorous standards for teacher licensure. The development of the Ohio four-year teacher residency program is an example of such policies taking form. Comparisons will be drawn about how different states enact policies and implement them with regard to teacher licensing. Current trends will be observed and analyzed.

### Beginning Teacher Licensing: Licensing and Teacher Evaluation

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K3 Chaminade Hall 102
Advisor(s) - James B Rowley
Student(s) - Caroline M. Smith, Peter B Tonon, Shannon M. Van Horn

This presentation will explore the relationship between the processes of teacher evaluation at the district level and the assessment of novice teachers for the purpose of licesure. This presentation will include a discussion of how these two assessment processes are carried out in other states as well as in Ohio's new teacher residency program.

### A Comparison Between Lawyer and Teacher Residencies

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 322
Advisor(s) - Patricia M Hart
Student(s) - Kaitlyn E Malson, Madie K Szaller, Caroline M Thomas

By considering graduate educational requirements, assessment tools used during residencies, and job placements during and after residencies, this presentation will analyze the similarities and differences between residency programs for lawyers and teachers.

### Educational Policy for Teacher Residency in the State of Ohio

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 208
Advisor(s) - Patricia M Hart
Student(s) - Grace M Callahan, David H Foster, Ruth A Monnier

This session will explore the connection of the teacher residency model to teacher quality in the state of Ohio. The political forces behind the Ohio teacher residency program on the state, district, and school level will be examined.

### Ohio's Four-Tier License Structure

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 114
Advisor(s) - Judith N Oberlander
Student(s) - Paula M. Boulos, Maeve E Drohan, Emily M McCauley, Kelly A. Weisenborn

This presentation will examine the relationship of the Ohio Teacher Residency Program and new licensure structures designed to promote career ladders and career lattice approaches to the teaching profession. The possible impact of these license structures on Ohio schools and teachers will also be discussed.

### Parallels Identified between the Residency Program of Physicians and Teachers

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 323
Advisor(s) - Rochonda L Nenonene

Student(s) - Steven J Ahlrichs, Antonina G Rosales, Melissa E Wilson

This presentation will explore the structure of physician residency programs and identify aspects of program development that may be adapted to benefit the Ohio Teacher Residency program.

### Preparing to Take Flight

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K3 Chaminade Hall 315
Advisor(s) - James B Rowley
Student(s) - Molly C Coveny, Kari L Daugherty, Kensie Christine Everhart, Kathleen A Nicolello, Anna C Spittler

This presentation will explore the various ways in which commercial airline pilots aquire the knowledge and skills necessary to prepare for effective job performance. In addition, this presentation will connect the preparation and development of classroom teachers and commercial airline pilots.

### The Role of the Ohio Standards for the Teaching Profession

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K1 Chaminade Hall 204
Advisor(s) - Judith N Oberlander
Student(s) - Caroline R. Clements, Margaret R Finch

This presentation will explain the Ohio Standards for the Teaching Profession (OSTP) and will examine the relationship between the performance levels articulated in the OSTP and the new four-tier license structure. Similar efforts in other states will be reported also.

### Testing Teachers: An Exploration of Teacher Evaluations

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_H1 Chaminade Hall 202
Advisor(s) - Patricia M Hart
Student(s) - Colleen Federici, Sarah K Mulkie, Kristen M Shiring, Nicole A Sullivan

This presentation will examine the ways teachers are presently evaluated, including the policies on ineffective teachers, and how the teacher residency model may impact these practices. Comparisons will be made for the methods of evaluations involved in the teacher residencies at the local, state and national levels.

### Urban Teacher Residency Programs

Oral Presentation 11:00 AM-11:40 AM
Course Project 10_WI_EDT_110_K2 Chaminade Hall 201
Advisor(s) - Rochonda L Nenonene
Student(s) - Megan E Mazzella, Natalie E Resparc, Elizabeth N Wagner

This presentation will explore the conditions of urban schools, and why urban districts have taken the lead in the development of teacher residency programs. Exemplary aspects of urban residency programs will be identified and suggestions made on how to adapt these effective practices to Ohio's residency model.

### The Passion of the Tango - The Music and Dance of Our South American Neighbors.

Performance 11:00 AM-12:00 PM
Course Project 10_WI_MUS_390_09 Sears Recital Hall
Advisor(s) - Willie L Morris
Student(s) - Alison E. Brady, Daniel R D'Alessandro, Samuel C Day, Melvin R. Files, Rebecca C. Holloway, Lyndsay J. Hoying, Robyn L Kammer, Evan T. King, Fiona B. McGowan, John J. Raptis, Matthew S Schroeder,

Joy M. Willenbrink

Come and listen to a diverse program of music from around the world written for the saxophone quartet. The program will include music from North and South America, Japan and other Asian countries, the Pacific Islands, and other exotic and exciting places. The music will be performed by three of the UD student saxophone quartets. Those quartets are the First Flight Saxophone Quartet, the University of Dayton Saxophone Quartet, and the Flyer Saxophone Quartet. Don't miss this opportunity to take a musical cruise around the world!

### 3D Animated Visualization of the Proposed UD Mad River Center

Oral Presentation 11:30 AM-12:00 PM
Course Project 10_WI_VAR_445_01 Marianist Hall Learning Space 218
Advisor(s) - Timothy A Wilbers
Student(s) - Souha Azmeh, Stephen M. Olszewski, James M. Westerheide

A Visual Arts presentation of a 3D computer modeling and animation concepts and techniques utilized in the visualization of the proposed "University of Dayton Mad River Center" in conjunction with the Civil Engineering Department, 2010 Senior Design Project. The presentation will highlight a proposed new research lab facility and retreat lodge complex, new bike paths and walkways. The lodge interior, exterior and environment will be depicted as well key features of the research lab by means of "peel-away" and "walk-through" animation techniques.

### Appropriate Technologies: Rocket Stoves

Oral Presentation 11:30 AM-12:00 PM
Course Project 10_WI_EGR_330_P1 Kennedy Union 211
Advisor(s) - Philip T Aaron, Margaret F Pinnell
Student(s) - Candida M Crasto

Rocket Stove technology is a relatively new concept being developed and implemented over the last 30 years. The application of rocket stove principles is used in cooking, heating, and most recently drying. Rocket stoves use efficient combustion of fuels such as wood at high temperatures to produce sufficient conditions for cooking and heating. The use of simple materials and the ease of construction make rocket stoves an appropriate technology suitable for many developing countries. This summer ETHOS will be applying this technology in Africa, in the form of a barn used to dry tobacco.

### Domestic Violence and the Media

Oral Presentation 11:30 AM-12:00 PM
Senior/Capstone Project St. Joseph's Hall 023
Advisor(s) - Claire M Renzetti
Student(s) - Mary Claire G. Hellman

We often hear about domestic violence situations in the news. It seems to be a popular thing to report. We also often hear about spousal homicides. I would like to research how the news media presents these cases to the public, focusing on articles containing spousal homicide and a previous history of domestic violence against the woman. Who is the blame placed upon? Who is the real victim? Was there and reporting of domestic violence prior to the incident? I will be using news articles from the Dayton Dailey news over the past 20 years in order to perform my research, and overall gain perspective on how the news media displays cases containing spousal homicide with a history, reported or not, of domestic violence against the woman.

### Gay Nation: Decolonizing the Forgotten

Oral Presentation 11:30 AM-12:00 PM
Honors Thesis Marianist Hall Learning Space 206
Advisor(s) - John A Inglis
Student(s) - Kurt M. Blankschaen

Gay Nation: Decolonizing the Forgotten The question that seems to come up in many respects for our generation is the gay question. In terms of legal, social, economic, or religious inclusion, the gay question is asked: "How should gays be included" While there are many answers to this question, few of them talk about how gays are included. Gays, in all reality, are asked to assimilate to cultures they already belong to. In this respect, gays are treated as another nation "foreigners assimilate, natives do not" and so I make the claim that gays should think of themselves as they are treated. I argue, therefore, that gays constitute a nation. Societal inclusion of gays can be summed up as false assimilation. Assimilation existed on the condition that gays remained socially, politically, and economically lesser. Belonging only on society's periphery, gay identity fragmented. Gay nationalism gathers the fractured gay identity and binds it together to form a politically viable method of resistance. Gay nationalism, instead of being destroyed by separation, flips the reality of separation on its head. Separatism is no longer imposed on gays, for gay nationalism begins with separatism; it is the first word in answering the gay question. The gay nation, however, is not an immortal nation; it exists insofar as itsâ?? common history of exclusion is present. When this condition of exclusion by desire disappears, the foundation for a gay nation vanishes as well. In this sense, the aim of gay nationalism is not to usurp roles of power; it demands "it does not ask" for something to be proud of, not something to take pride in. The goal of gay nationalism is d©tente, not hegemony. But d©tente is not only an easing of tensions; it is also the discharge of a crossbow.

### Gender Differences in Observations: Do Men and Women Work the Hyphen from Differently?

Oral Presentation 11:30 AM-12:00 PM
Course Project 10_WI_EDU_991_01 LTC Forum
Advisor(s) - Andrew William Place
Student(s) - Frederick A Ferris, Korrin M Ziswiler

This session presents preliminary results of a qualitative research study. The data were collected by observing a "Teacher of the Year" award winner at the University of Dayton. The research involves observation of normal class instruction, during normal class time, and an examination of the observed differences between a male and a female observer. Lincoln and Guba (1985) portray the researcher as the primary research instrument in qualitative research and it is with this understanding that we will examine gender differences in observation of the same participant in the same setting and deepen our understanding of the voice to which the researcher gives the participant. Weis and Fine (2000) refer to this as working the hyphen in their book Speed Bumps. Fine stated earlier (1994) "By working the hyphen, I mean to suggest that researchers probe how we are in relation with the contexts we study and with our informants, understanding that we are all multiple in those relations." (p. 72) Gender plays a defining role in our identities, but is there a difference in the way this male and this female observer collected qualitative data about generic phenomena and gave voice to informants? With our observations of the same phenomena we hope to deepen our understanding of the effect gender has on working the hyphen.

### Modern Irish History; "Irish Sexual Revolution and De-Catholicization"

Oral Presentation 11:30 AM-12:00 PM
Senior/Capstone Project Kennedy Union 311
Advisor(s) - Marybeth Carlson
Student(s) - Kathleen D. Althaus

In the years following World War II, Ireland saw unprecedented levels of economic growth and expansion. With this economic success came an increasingly consumerized society, where many Irish citizens were able to purchase luxury goods, travel abroad, and participate in leisure activities for the first time ever. As young Irish people became exposed to the rest of European society through this travel and consumerization, they began to become aware of the vast disparities between their own liberties and those of their Western counterparts. One important area in which strict Irish social policies came into tension with the increasingly liberalized youth population was in regards to sexual rights, particularly reproduction rights and access to contraception. Throughout the later half of the 20th century, the Irish Catholic Church and national government together fought a losing battle with young people over their rights to legalized contraception; a battle which, ultimately, contributed to the distrust and decatholicization of a genteration.

### Novel Carbon-engineered Materials as a Tissue Scaffold

Oral Presentation 11:30 AM-12:00 PM
Graduate Research Kennedy Union 211
Advisor(s) - Khalid Lafdi
Student(s) - Jarema S Czarnecki

There is an urgent need for high performance tissue scaffolds. Current tissue membranes improve healing but lack in mechanical strength. Mechanical failure increases the number of surgeries, patient discomfort and recovery time. Novel carbon scaffolds are proposed as materials that optimize the mechanical strength, durability and healing capabilities. In this study, textile carbon fabrics were developed as a replacement to the commonly used tissue membrane. Tensile tests indicated that carbon scaffolds exhibit excellent mechanical properties. Fibroblast growth studies revealed strong biocompatibility of carbon scaffolds. This carbon-engineered material shows promise as a tissue scaffold because of its biocompatibility, active surface area and high mechanical properties.

### Out of the "City": How Backlash and Postfeminism have Shaped Third Wave Feminism

Oral Presentation 11:30 AM-12:00 PM
Honors Thesis Kennedy Union 207
Advisor(s) - Leslie H Picca
Student(s) - Grace J. Crivello

Many scholars have pointed out that the second wave of feminism led to a backlash in the 1980s and early 1990s; the most prominent of which is Susan Faludi. Using her book "Backlash: The Undeclared War against American Women" as a jumping off point, I undertook a critical reading of what has been loosely termed third wave feminism. Third wave feminism has been thought to start as early as 1991, and extending until today. However, the 1990s were a decade of intense change in feminist theory and praxis. This decade began with the Riot Grrrl movement, which burst on the punk scene in Seattle, WA in response to the male dominated punk scene. This movement had a devotion to equality and a do-it-yourself (DIY) attitude. Kathleen Hanna, lead singer of Bikini Kill, wrote a manifesto for the movement, calling it anti-sexist, anti-capitalist and anti-consumerist. This phenomenon was soon appropriated by mainstream culture in the form of "girl power". This lead to what I am arguing is another form of backlash. Ariel Levy best characterized this by calling this type of feminism "fuck-me feminism" which is practiced by "female Chauvinist Pigs". This was also termed postfeminism and was focused on illustrating all the ways in which feminism has failed women and only wants to make them victims. It is only after this, when postfeminism had lost mainstream appeal that the true third wave has emerged. Even though I argue that the third wave only emerged in the last ten years or so, it does include key players from Generation X as well as younger women.

# POSTERS

### The History of Physical Education and Sport: Stories for the Ages and Lessons from the Legends of Famous Women (Section 1)

Course Project 10_WI_HSS_275_01 — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union 222
Advisor(s) - George M DeMarco

The purpose of these studies was to describe and interpret major events and the lives and times of significant individuals in the history of physical education and sport throughout the millenia. At once interesting, inspirational, edifying, and enlightening, the stories told by the students of the course HSS 275 - History of Physical Education/Activity and Sport - speak powerfully to the transcendent nature of sport and physical activity across all generations, cultures, and topical interests. From football to rodeo to cheerleading; From Paul Brown to Brandi Chastain, to Ernestine Bayer, these original research projects utilized an array of primary and secondary sources, including interviews, personal narrative, print media, photographs, and vintage video.

### Anaerobic photocleavage of supercoiled DNA by a ruthenium(II) substituted fluorinated porphyrin

Senior/Capstone Project — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Mark G Nielsen, Shawn M Swavey
Student(s) - Melissa A. Carlone, Anna M McCrate

Photodynamic therapy (PDT) is used as a noninvasive treatment for destruction of diseased cells and tissues. It is a process that utilizes light, a photosensitizer and molecular oxygen to generate reactive oxygen species (ROS) capable of eliciting cell death. Photosensitizers are molecules that can absorb light energy causing transfer into an excited state. Once in the excited state, they react with oxygen or molecular components to form radicals that ultimately cause cellular destruction. Porphyrins are ideal photosensitizers because they are flat, planar and similar to heme that is already present in biological systems. Two ruthenium substituted porphyrins differing only by the substitution of a mesopentafluorophenyl group were compared. The characterization of each is shown in addition with DNA binding studies. Supercoiled DNA photocleavage studies were performed by irradiation, with visible light above 400nm, of aqueous solutions of each complex combined with supercoiled DNA in the presence and absence of oxygen. Each porphyrin was shown to photocleave DNA in the presence of oxygen, but the incorporation of the pentafluorophenyl group provides greater photodynamic efficiency. The mesopentafluorophenyl substituted porphyrin also showed DNA cleavage in the absence of oxygen while the mesophenyl substituted porphyrin did not.

### Analyzing the Safety and Operational Impacts of Installing Roundabouts in Ohio

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Deogratias Eustace
Student(s) - Aline R Aylo

The pace of designing and constructing roundabouts in the U.S. has been increasing exponentially. The state of Ohio in recent years has also joined the furor for roundabout construction with central Ohio in the lead. The objectives of this study were three-fold: to perform a safety performance comparison using the before-after study design to better estimate the nature and magnitude of crash after installation of roundabouts in Ohio; to perform a crash pattern study to compare the severity of injuries between the before and after situations; and to perform an intersection operational analysis for the before intersection type and the current roundabout using SIDRA software. Due to the lack of traffic volume counts, a Naive before-after study design was used in this study because it requires traffic crashes only as input data. The results from the Naive before-after safety study show that the number of crashes and the severity of injuries have decreased after the installation of roundabouts. Also, the results from SIDRA software indicate that a roundabout improves the intersection's measures of effectiveness (MOE's) when using the commonly used criteria: (1) 95% largest back of queue, (2) average intersection delay, (3) largest average movement delay, and (4) degree of saturation. The number of crashes and severity of injuries may be expected to decrease further with time when drivers get more experience with roundabouts. In addition, a public

education campaign through fliers and other media advertisements including the addition of roundabout driving materials in the Ohio driver's manual will be highly helpful. Future before-after safety studies are recommended utilizing a larger number of roundabouts as the number of roundabouts in operation for at least three years increases in Ohio and traffic counts coverage becomes available in order to utilize the empirical Bayes, a more robust modeling method.

### Another Day of Learning: Examining Student Perception of the Stander Symposium

Senior/Capstone Project — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Jee-Hee Han
Student(s) - Meghann K. Heft

This project is an examination of student perceptions toward the Stander Symposium as part of the requirements for CMM 461: Public Relations Campaigns. Dr. Han's senior public relations students have been working with the Stander Symposium committee to increase student attendance and participation at the Stander Symposium; this project was completed as an additional assignment to better understand student perceptions and attitudes while creating a public relations campaign.

### Assessing the Implications of Arbuscular Mycorrhizal Colonization in the Invasive Shrub Amur Honeysuckle (Lonicera maackii)

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Carl F Friese
Student(s) - Sarah E Alverson

Lonicera maackii (Amur Honeysuckle) is a non-native invasive shrub that poses a significant threat to floral biodiversity across the mid-western United States. Previous research has shown significant reduction in native herbaceous growth and fecundity, as well as, tree seedling survival in areas heavily invaded by L. maackii. However, the competitive mechanisms used by L. maackii against native flora are not fully understood. One potential mechanism could be disruption of the symbiotic relationship between arbuscular mycorrhizal fungi and native flora. We hypothesized that mycorrhizal colonization and the percent of arbuscular structures would be significantly reduced in roots under L. maackii shrubs when compared to control sites without the invasive shrub. In May, June, and August of 2009, soil samples were collected below L. maackii shrubs and in control sites. Roots were picked, stained and scored for mycorrhizal fungi colonization. In May and August, roots under L. maackii did not have a significantly greater percent total root length colonized than control sites. However, June total root colonization levels under L. maackii were significantly higher than controls. The percent total root length colonized with arbuscules was significantly higher under L. maackii for May, June and August (2.3, 4.1 and 3.8 times higher, respectively). Contrary to our hypotheses, mycorrhizal colonization was not reduced under L. maackii but was equal to or significantly greater than colonization in control sties. The high arbuscular formation in L. maackii roots indicates a large benefit to the shrub, with increased nutrient exchange between shrub and fungus. This strong symbiosis between a native fungus and an invasive shrub could play an important role in the invasive success of L. maackii. Additionally, increased arbuscule formation in L. maackii roots compared to native herbaceous plants could provide a competitive nutrient advantage, enabling L. maackii to out-compete native flora.

### Assigning Allocation Weights to Industry Groups Through Technical Analysis

Course Project 10_WI_FIN_498_P1 — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Dion A. Roberts

The purpose of this study is to assign appropriate weight allocations for three industry groups in three different sectors. The industry groups are Food Distribution, Oil and Gas Services, and IT Consulting. The corresponding sectors are Consumer Staples, Energy, and Information Technology. The hypothesis tested is that over short periods of time, industry groups whose prices are above their long term moving averages will decline in value; conversely, if their prices are below the moving average they will increase in value. Comparing the 200-day moving average to each industry group's closing market price on a

quarterly basis from 2008 through 2009, I developed an index of under- or over-value for each group and assigned allocation weights to the degree each was over or underpriced. Starting with a $1 million portfolio, I tracked the performance of the portfolio on a quarterly basis through 2009.

### Beam Steering Performance of Electrowetting Microprism Arrays

Graduate Research 10:30 AM-12:00 PM
Unknown - Individual Kennedy Union Ballroom
Advisor(s) - Joseph W Haus
Student(s) - Wei Han

Electrowetting phenomenon is studied and Electrowetting Microprism (EMP) beam steering arrays are proposed and theoretically characterized in one dimension (1D) and two dimension (2D). An extended beam propagation method is used and numerical calculations of near-field and far-field intensities are performed for both designs. For both 1D and 2D cases, the EMP arrays are investigated and determined in terms of beam steering efficiency using an incident Gaussian beam. For the phased arrays the diffraction angles are discrete due to the well known grating effect. The angles between the diffraction peaks can be covered by applying a tilted phase to the input field. The efficiency is measured over continuously changed far-field angles for different situations.

### Biocontrol of Sphaerotilus natans

Graduate Research 10:30 AM-12:00 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Denise G Taylor
Student(s) - Lindsey M Staley

The objectives of this project are to isolate bacteriophages (phages), which are viruses that only infect bacteria, that infect the bacteria Sphaerotilus natans from wastewater samples, identify the optimum phage concentrations at which S. natans is controlled, and evaluate what conditions might impact the biocontrol of S. natans.A reliable method to grow the bacteria S. natans will be determined by testing different growth conditions. Wastewater samples will be collected from many different wastewater treatment plants then filtered to remove bacteria and other particles from the sample, leaving only phages in the filtrate. These filtered samples will be enriched in order to increase the concentration of the phages that infects S. natans, if such phages are present. Three tests will be conducted on different concentrations of the enriched phages and S. natans. These different tests may provide evidence of infection at different times, which may make one test more practical than the other two. The growth/infection curves that are obtained from these tests will be used to indicate if there are phages of S. natans in the enriched phage samples that can be multiplied and for comparing the impacts of different conditions that simulate the conditions under which phages might be added into an operating wastewater treatment plant. This project will potentially supply an alternative method for controlling S. natans and other filamentous bacteria in wastewater treatment plants. By adding phages to the activated sludge process, the bacteria which are infected by the phages will be controlled.

### Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents

Graduate Research 10:30 AM-12:00 PM
Graduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler, Betsy K Donahoe-Fillmore, Mary I Fisher, Terri M Glenn
Student(s) - Phillip Lee Brown, Erin Elizabeth Fening

Purpose: To determine if prognostic factors associated with cardiovascular disease risk are present at significantly different levels by gender and age in a convenience sample of adolescent children (13-17 yr). Methods: Anthropometric (ht, wt, body fat percent, body mass index). hemodynamic (systolic and diastolic blood pressure and heart rate), and fitness (sit ups, push-ups, shuttle run, lumbar extensions, 40-yd dash, V-sit and reach, and mile run) data were collected from 61 adolescent male and female junior high and high school students attending Dayton Early College Academy (DECA). Approximately ninety percent of the children appeared to be of African American race, but race data were not solicited. Multivariate general linear model tests were conducted for all measured variables and age and gender were entered into the model as factors. Tests of

between subjects effects were consulted for statistical significances and profile plots were drawn for trend analyses. Alpha was set at 0.05. Results: There were statistically significant difference between genders and by age for very few variables. However, these results are likely due to the small number of observations for each age within each gender. The visual trend analyses told a completely different story. On average, female adolescents in this study were clearly at higher risk for developing cardiovascular disease compared to the male participants, and the femalesâ?? risk profile worsened with advancing age while that of the male participants did not. Conclusion: Given the fact that women in minority groups are less physically active than the general American population, and the overall health status of people of color (including African American women) is lower than that of the general America population, the current results clearly indicate a need to target the adolescent girls of DECA with an intervention program that might interrupt their progression into cardiovascular disease.

## Catharsis through Art

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - Jennifer A. Swafford

Art as therapy has produced much interest, but little strong empirical support for its beneficial effects. The present research focuses on the emotional well-being of participants throughout the process of art engagement. Specifically, the researchers predict that participants (University of Dayton undergraduates) will express emotions through art in a process termed catharsis, creating increased psychological well-being, with the greater initial distress producing the most improvement in mood. Before engaging in the art therapy activity, participants will be asked to complete 6 self-report questionnaires. Participants will be asked to create self-portraits using various materials that will be provided by the researcher. While engaging in the art experience, participants may be asked if more detail could be added to convey thoughts and feelings. In the first and last of 4 sessions, participants will each be asked to think about how they see themselves, including how they generally feel as a person. The self-portraits are instructed to be a reflection and representation of who they are. The second session is based similarly on a self-portrait activity, except participants are asked to think about and represent how they would like to be seen by others. In the third session, participants create a self-portrait from the point of view of a caring friend, as well as from that of an enemy. Questionnaires administered before and after each session are expected to support an elevation in mood (decrease in depressive symptoms) through catharsis and art engagement. Those with emotion-oriented processing and coping styles are expected to benefit more than those with avoidant-oriented processing and coping styles, as indicated by participants' responses to the mood and catharsis assessments obtained at the end of each session. This has important implications for the role of art therapy in the treatment of psychological distress and the process of coping.

## Characterization of Metal and Metal Oxide Nanoparticles for Nanotoxicological Studies

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Mark G Nielsen, Jayne B Robinson, John J Rowe
Student(s) - Timothy J. Gorey

The expanding field of nanotechnology has brought a myriad of new products that incorporate nano-scale particles in commonly used household products. Smaller particles lead to a high surface area to volume ratio, and this can lead to hyper reactivity of normally chemically inert materials. With increased exposure to the consumer and manufacturers of these products , there is a critical need to assay nanomaterials for toxicity . We are working to develop a screening system that correlates particle characteristics with toxicity. Varied particle characteristics can induce very different biological responses; therefore, careful characterization of nanoparticles in both dry and aqueous environments is imperative to such nanotoxicological research. Physical properties such as individual particle size, individual particle morphology, and individual particle surface morphology of silver, polysaccharide coated silver, zinc oxide, and titanium dioxide were examined under vacuum conditions using a Hitachi H-7600 Transmission Electron Microscope (TEM) by placing nano particles on a carbon coated copper grid. Particle-solution interactions were investigated using a Malvern Instruments Zetasizer to determine dynamic light scattering (DLS) characteristics and zeta potential (z) readings. Different concentrations were prepared by placing nanopowder into either water or biological media. Dynamic light scattering showed that individual nanoparticles aggregate into larger

agglomerates in aqueous or biological growth media. Zeta potential also indicated that nanoparticles were typically unstable in aqueous suspension, which supports the results of dynamic light scattering analysis. These results indicate that the specific nanoparticles examined do not remain as individual nanoparticles when they are suspended in an aqueous environment; rather, they cluster as much larger agglomerates. Thus, if toxicity is size dependent, the importance of understanding conditions that result in agglomeration or dispersion is critical.

### The Coloring Game on Certain Outerplanar Graphs

Independent Research
Undergraduate - Individual
Advisor(s) - Wiebke S Diestelkamp
Student(s) - Charles J. Suer

10:30 AM-12:00 PM
Kennedy Union Ballroom

Graph coloring games have been studied quite extensively, but there are still many unsolved problems. In this paper we discuss an activation strategy for Alice to use on a certain subclass of outerplanar graphs. Using this strategy, we prove that for all graphs in this subclass, the game chromatic number is less than or equal to 6, and the 2-clique-relaxed game chromatic number is less than or equal to 3, where the game chromatic number is the least number of colors needed such that Alice has a winning strategy in the original coloring game and 2-clique-relaxed game chromatic number is the corresponding number for the 2-clique relaxed coloring game.

### Comparative Time Series of Functional Group Stream Assemblages Relative to Habitat Degradation in the Republic of Palau

Independent Research
Undergraduate - Group
Advisor(s) - Mark E Benbow, Albert J Burky
Student(s) - Carolyn T. Teter, Jonathan B. White

10:30 AM-12:00 PM
Kennedy Union Ballroom

Many archipelagoes of Pacific Oceania are on the brink of commercial development, especially those island nations that depend on tourism for economic stability. The Republic of Palau is one such nation located in the southwest corner of Micronesia, where coral reefs and mangroves are threatened by stream silt load and sedimentation associated with road construction and maintenance. A bioassessment program, using macroinvertebrate functional feeding group data and associated ecosystem attributes, began in 2003 was conducted subsequently in 2004 and 2009. During each year, one reference stream was selected to test functional group ratios and associated ecosystem attributes against streams of variable effects from road construction. It is hypothesized that channel stability decreased with increasing effect, whereas food quality for filtering-collectors is degraded in riffle habitats. In pool habitats, shifts from autotrophic to heterotrophic production will indicate degree of impact. At each stream site, two habitats corresponding to different flow velocity ranges (riffles vs. pools) were randomly chosen and 3 standardized, 30 second dip net samples were collected and composited to represent the community. After laboratory sorting and identification, functional feeding group composition and percentages will be determined for each stream. Appropriate statistical analyses (i.e. t-tests and one-way ANOVA p=0.05) will be used to make comparisons between streams and years. Such information is important for understanding the effect of human development on natural ecosystems, while improving management of limited freshwater resources.

### The complex interactions of Hippo signaling with the intrinsic cell death pathway in the regulation of Hippo-m

Graduate Research
Graduate - Individual
Advisor(s) - Madhuri Kango-Singh
Student(s) - Shilpi Verghese

10:30 AM-12:00 PM
Kennedy Union Ballroom

Hippo pathway has emerged as an important regulator of organ size as it controls the number of cells in a developing organ. Hippo exerts this effect mainly by regulating the expression of the Drosophila inhibitor of apoptosis gene 1(Diap1), and the cell cycle regulator Cyclin E (CycE) - two target genes directly involved with regulation of cell death and cell proliferation. Loss of function of hippo, salvador, mats or warts (the positive regulators of Hippo signaling pathway), and gain of function of

yorkie (the negative regulator of the Hippo pathway) lead to overgrowth due to increased cell numbers in growing organs. Activation of Hippo signaling by over-expression of pathway components is sufficient to trigger the activation of its pathway. It is known that activation of Hippo signaling induces apoptosis by induction of Hid and Diap1, members of the intrinsic cell death pathway. However, co-expression of Hid or DIAP1 does not rescue the cell death induced by over-expression of Hippo suggesting that the regulation of cell death by activation of Hippo signaling is complex. We have investigated the roles of various components of the Caspase dependent cell death pathway to understand which of these components are required by Hippo to induce cell death. Our data suggests that (1) Hippo mediated cell death requires activity of the pro-apoptotic genes, and (2) diap1 is not a transcriptional target of Hippo activation. We are testing the role of the upstream activator caspase Dronc in Hippo mediated apoptosis. We will present our findings on the interaction of various components of the cell death pathway with Hippo mediated apoptosis.

### Computational Investigations of the Interactions between Phosphate Esters and Metal Carbides

Graduate Research — 10:30 AM-12:00 PM
Unknown - Individual — Kennedy Union Ballroom
Advisor(s) - Vladimir A Benin, David W Johnson
Student(s) - John Eric Hils

In an attempt to improve the performance of jet turbine engines, mechanical bearings with greater hardness have been developed. This increase in hardness was achieved by carburizing the steel surface to form metal carbides. The chemical and physical characteristics of transition metal carbides allow for higher operating temperatures. However, it has been found that carbides interact with lubricants and additives differently than the metal oxides normally found on the surface of alloys. In particular the additive, tricresyl phosphate (TCP), is intended to aid in the lubrication role at high temperatures and pressures. Instead TCP reacts with the surface and the ester to initiate the decomposition of the lubricant blend. In order to understand how TCP is able to initiate this complex series of reactions, the interaction of the molecule with carbide surfaces must be explored. Density functional theory (DFT) calculations were used to model both the TCP molecule and a carbide surface. These models were then used to study what happens when TCP attached to the surface. This example system was able to show stress and distortion of both the TCP as well as the surface. It is also seen that TCP bonds to the surface using three bonds to both carbon and the metal. The distortion caused by the bonding is the likely source of the initial decomposition of TCP.

### Davis Center Investment Club: Socially Responsible Investment Portfolio

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - John E Rapp, Deborah McKay Sexton
Student(s) - Alexander J. Ohlemacher

Socially responsible investing (SRI), also known as socially-conscious or ethical investing, describes an investment strategy which seeks to maximize both financial return and social good. The University of Dayton's Davis Center for Portfolio Management Investment Club started an SRI portfolio in January of 2008 and is currently outperforming the S&P 500 by approximately 7%. The investment club's SRI screenings adhere to the Catholic values that are taught by UD's Marianist community. Students meet on a weekly basis to discuss the portfolio's holdings and with the assistance of Jack Cartwright, an executive in residence, make buy/sell recommendations based on qualitative and quantitative analysis.

### Defective proventriculus (dve), a new member of DV patterning in the eye.

Graduate Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Amit Singh
Student(s) - Michaela A. Minichello, Oorvashi Roy Gajendranath Puli

Axial patterning is crucial to eye development. During eye development, Dorso-ventral (DV) axis determination isthe first lineage restriction event. The early eye primordium begins with the default ventral fate on which thedorsal eye fate is estab-

lished by expression of GATA-1 transcription factor, pannier (pnr). Loss-of-function (LOF) ofdefective proventriculus (dve), a homeobox gene which is a target of morphogens viz., Decapentaplegic (dpp) andWingless(wg), exhibit dorsal eye enlargements and antennal duplications. Dve is known to play role in midgut-specification. However, its role in eye development is not fully understood. The dve homeodomain is intermediatebetween Pit-1, Oct-1/2 and Unc-86(POU) and orthodenticle (OTD) class homeodomain. Our preliminary datasuggests that dve may be a new member of Dorso-ventral patterning in the eye. Since LOF phenotypes of dve aresimilar to LOF phenotypes of pnr, we will present its developmental and genetic interaction with pnr. pnr actsantagonistically with genes involved in ventral eye growth and development. We will also present the interactionsof dve with ventral eye genes L/Ser to discern the role of dve in DV patterning.

## The Design, Implementation, and Evaluation of a Pointing Device for Wearable Computers

Honors Thesis
Undergraduate - Individual
Advisor(s) - Saverio Perugini
Student(s) - Andres A. Calvo

10:30 AM-12:00 PM
Kennedy Union Ballroom

US Air Force combat controllers are highly trained special tactics units who use a wearable computer called the MR1. The MR1's current pointing devices, a touchpad and a trackpoint, are inefficient and uncomfortable to use since they were designed for traditional laptops rather than wearable computers. Input devices must evolve for wearable computers just as the mouse for desktop computers evolved into the touchpad and the trackpoint with the advent of laptop computers. This thesis studies the design, implementation, and evaluation of two input devices for combat controllers using the MR1. The first design uses the AcceleGlove, a glove which contains accelerometers on its fingertips, to allow the user to move the mouse pointer by measuring a finger's orientation with respect to gravity. The second design consists of gyroscopic sensors attached to a user's finger to move the mouse pointer by measuring the finger's angular velocity. We expect the results to indicate that the new designs provide more efficient and comfortable pointing than the touchpad and trackpoint. This research is part of a larger effort to improve the performance of combat controllers.

## Determination of a novel amino acid, L-dopa, in newly-formed shell material of the Eastern oyster Crassostrea virginica.

Independent Research
Undergraduate - Individual
Advisor(s) - Douglas C Hansen, Karolyn M Hansen
Student(s) - Kevin Christopher Janek

10:30 AM-12:00 PM
Kennedy Union Ballroom

The complex assembly mechanism of molluscan shell matrix proteins and calcium carbonate is the Rosetta Stone for molluscan biomineralization research. Shells are composed of approximately 95-99% inorganic material (calcium carbonate and other ions) and approximately 1-5% organic material; the ratio of organic to inorganic varies by species, age, season, health status, and growing conditions. The composition, spatial localization, and function of several molluscan shell proteins have been reported and a suite of soluble and insoluble matrix molecules has been shown to function in shell formation. A novel amino acid shown to be present in tissue involved with shell formation is L-3,4 Dihydroxyphenylalanine (L-Dopa). L-Dopa is known to occur in the protein matrix of mollusc shells but is inherently difficult to quantify due to participation in protein matrix cross-linking during the process of shell mineralization. This difficulty arises from the fact that upon cross-linking, L-Dopa is rendered undetectable by standard laboratory methods. The objective of this research effort is to directly determine the presence of L-Dopa in nascent shell material in the Eastern oyster, Crassostrea virginica. This has been achieved by inducing new shell formation in oysters. Rapid induction of new shell formation is accomplished by selectively removing old shell along the growth margin; the organism responds by depositing new shell at the removal site. New shell material has been harvested from oysters as a function of time, and submitted to acid hydrolysis for the direct determination of amino acid content. Amino acid analysis of the nascent shell material verified the presence of L-Dopa, the concentration of which appears to be dependent on the age of the new shell, which presumably is correlated with the degree of cross-linking and mineralization.

### Determining the Mutational Paths and Molecular Mechanisms Generating Phenotypic Variation

Graduate Research
Graduate - Individual
Advisor(s) - Thomas M Williams
Student(s) - William A Rogers

10:30 AM-12:00 PM
Kennedy Union Ballroom

It has been shown that variation in the non-coding regions of genes significantly contributes to the evolution of animal form, human phenotypic diversity, and human disease. One important class of non-coding sequences are known as cis-regulatory elements (CREs) which function to control when, where and at what level a gene or genes are expressed. In spite of this importance, these sequences are poorly understood compared to the protein-coding sequences of genes. Thus, mechanistic studies are needed to elucidate the functional attributes of CREs and how genetic variation alters their function. The extent of abdominal pigmentation in female Drosophila melanogaster fruit flies varies and the key genes involved in pigmentation production and their CREs are known. We have demonstrated that there is a genetic association between particular bric-a-brac (bab) locus alleles and variation in female abdomen pigmentation. This locus contains the genes bab1 and bab2 which encode transcription factor proteins that repress black pigmentation and whose expression is regulated in the abdomen by two CREs known as the dimorphic regulatory element and the anterior regulatory element. By performing a genetic complementation test, we found that the causative genetic variation is allelic to the bab locus and likely resides within a CRE(s). Currently, we are testing whether the Bab proteins are expressed differently between light and dark pigmented females and whether such an expression difference is due to genetic variation in either or both of these CREs. The ultimate goal for this study is to determine the genetic differences and corresponding molecular mechanisms that alter Bab gene expression and hence, female pigmentation. These results may further the molecular understanding of CREs and how they contribute to evolution and human development and disease.

### Developing an Optimal Portfolio of Dividend Paying Stocks in Turbulent Markets: The 2008 - 2009 Period

Course Project 10_WI_FIN_498_P1
Undergraduate - Individual
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Kristine M. Arend

10:30 AM-12:00 PM
Kennedy Union Ballroom

The purpose of the study is to develop a portfolio of dividend stocks and track the performance against the S&P 500 index, for the period 2008 through 2009 on a quarterly basis. The key attributes of the stocks in the portfolio are the dividend yield, earnings growth, low beta, and low volatility. The hypothesis is that the dividend paying stocks will outperform the `S&P 500 during a down market and underperform during an up market.

### Development and Characterization of a Laser-Based Local-Oscillator Detection System for a Simple Reflecting Target

Independent Research
Undergraduate - Individual
Advisor(s) - Joseph W Haus, Perry P Yaney
Student(s) - Christopher J. Bushmeyer

10:30 AM-12:00 PM
Kennedy Union Ballroom

An optical system was set up for detecting a reflecting target (flat mirror) illuminated by a collimated 633-nm beam from a helium-neon laser, which was measured by the "knife-edge" technique. The system used a "local oscillator" beam derived from the laser to produce an optical one-dimensional (1-D) interference pattern on a 2-D CCD camera. This digital "holographic" image from the camera was then analyzed by computing the 1-D power spectral density (PSD) function using the Igor Pro software. This function provided a spatial frequency spectrum of the image, which reveals the presence of the target as a distinct peak in the spectrum. The objective of this work was to determine the limiting detection sensitivity of the local oscillator technique. This was done by attenuating the power of the laser beam on the target and measuring the peak signal in the PSD spectrum of the recorded image. Received powers from the target ranged from 2 microwatts to less than 1

nanowatt for powers incident on the target starting at 46 microwatts, which were attenuated by combinations of calibrated neutral density filters. A signal-to-noise ratio of higher than 20 for less than 1 nanowatt incident on the system was observed. The average system responsivity was 3.7E10/W with observed peak PSD signals ranging from approximately 2.5E5 to 20.

## The Development, Validation, and Testing of the Psychosocial Adjustment to Burn Questionnaire (PABQ) for Child

Graduate Research 10:30 AM-12:00 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Keri J B Kirschman, Mark S Rye, Catherine Butz (Nationwide Children's Hospital)
Student(s) - Terri J Pelley

In 2002, approximately 92,500 children under the age of 14 were treated in emergency rooms for burn injuries (National Safe Kids Campaign, 2004). Children under the age of five account for more than 50% of all pediatric burns (Tarnowski & Brown, 2003). Psychosocial problems post-burn have been well-documented. Empirically validated techniques to reliably assess for psychopathology in children following a burn injury are crucial toward timely and comprehensive treatment efforts. Early identification of psychosocial problems has been shown to prevent or reduce the severity of psychological problems later in life. Screening instruments are valuable in fast-paced medical settings because they are simple to administer, require less training to deliver and interpret, are brief, time efficient, and inexpensive. The primary goal of this study was to create a brief comprehensive screening tool for psychopathology in children under the age of five who have suffered a burn warranting medical attention. Parents were asked to complete five forms: Psychosocial Adjustment to Burn Questionnaire for Children Under the Age of Five (PABQ), Child Behavior Checklist-Parent report (CBCL), PTSD Checklist (of parent), Behavior Assessment System for Children II (BASC II) and a demographics form. In addition, a subset of families agreed to participate in a follow-up phone interview 2-weeks after initial data collection. Participants in this study were children under the age of five who experienced a burn injury at least 2-weeks prior to data collection, and their families, attending a Children's Hospital outpatient burn clinic. To date, data has been collected from 50 participants. Psychometrics of the PABQ will be determined via inter-item analyses, test-retest reliability, and convergent validity with tools currently used in the field of psychology.

## Differences in soil respiration rates of the invasive shrub Lonicera maackii (Amur Honeysuckle) and the native shrub Lindera benzoin (Common Spicebush)

Independent Research 10:30 AM-12:00 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Carl F Friese
Student(s) - Thomas J. Himmelman

Lonicera maackii is an invasive shrub that was introduced to the United States from Asia as an ornamental. It has become important to study this shrub's competitive strategies and effects on native plant communities. Previous research has documented reduced tree seedling and herbaceous plant growth and abundance under L. maackii, which has led this shrub to be a big problem around the Eastern and Midwestern U.S. This study looks at the possible differences in the rate of soil respiration underneath L. maackii shrubs and its control plots verses a native shrub, Lindera benzoin, and its control plots. The expectation is to see a higher rate of soil respiration under L. maackii shrubs compared to its controls verses the L. benzoin compared to its controls. Sampling was performed in November 2009 and March 2010 on plots found in Caeser Creek State Park and Sugarcreek MetroPark. A respiration meter was used to measure CO2 emitted from the soil over five-minute increments .The rate of CO2 emissions or soil respiration was calculated and the differences in rate between controls and shrubs were analyzed with t-tests for statistical significance. Preliminary data suggests that there is a higher rate of respiration under the native L. benzoin verses its controls, which is expected; and hopefully new data from March will confirm the hypothesis that L. maackii will have higher rates compared to its controls than that of L. benzoin and its controls. This will most likely be due to a high degree of mycorrhizal integration in L. maackii roots. This could be an important observation since previous studies have found soil respiration to be the biggest contributor to overall ecosystem respiration and also that root and mycorrhizal respiration amount to about half of all soil respiration.

### Do Corporations Advance Education in Japan?

Graduate Research
Graduate - Individual
Advisor(s) - Joseph Watras
Student(s) - Kaori Takano

10:30 AM-12:00 PM
Kennedy Union Ballroom

This study presents the business perspectives of company representatives responsible for delivering lectures in public schools in Japan. In the United States, Boyles (2005) claimed that American corporations indirectly encourage consumption of their products and provide support to schools so students embrace attitudes favoring consumerism and materialism, which are not educative in nature and hinder promoting critical citizenship. This research is intended to determine whether these issues are also being raised in Japan due to the emerging involvement of corporations in public schools. Beginning with the 21st century, major Japanese food companies began conducting food education lectures in public schools as part of their corporate social responsibility. This qualitative research examines the voices of three major corporations by interviewing company representatives. The researcher unexpectedly finds that unlike American corporations, the Japanese companies appear to have been very careful about invasion into the educators' territory and have avoided company promotion.

### Drosophila Model to study Microphthalmia, a birth defect affecting eye growth

Independent Research
Undergraduate - Individual
Advisor(s) - Madhuri Kango-Singh
Student(s) - Kathleen S. McGillicuddy

10:30 AM-12:00 PM
Kennedy Union Ballroom

Microphthalmia is a birth-defect due to defective genes where children are born with one or both eyes being small. Eye growth during development is regulated through a sequence of steps. The Hippo signaling pathway during development regulates organ size by inhibiting cell proliferation and promoting programmed cell death. Drosophila flies were used as the model. The goal of this research was to test levels of Hippo signaling in mutants with an eyeless phenotype, and then test if the size of developing eyes could be restored by inactivating the Hippo pathway. We found that the 'eyes absent' mutants did show the smaller eye phenotype. The data suggested that the size of developing eyes of the next generation of flies was restored when the Hippo pathway was inactivated. Therefore, the Hippo signaling pathway does affect eye size. We are currently testing if altering levels of Hippo signaling has a similar effect on sine-oculis-Dominant(soD), another eyeless mutant in the eye development pathway. The findings from these experiments will be discussed.

### Drowning In Waste: A study on water usage at the University of Dayton

Course Project 09_FA_ASI_343_H1
Undergraduate - Group
Advisor(s) - Daniel C Fouke, Sukhjinder S Sidhu
Student(s) - Kathleen M. Coffey, Kristen G. Crum, Daniel H. Fink, Joshua Trick, William T. Weger, Joseph M. Zaworski

10:30 AM-12:00 PM
Kennedy Union Ballroom

The University of Dayton currently consumes approximately 1.7 billion gallons of water yearly, and although the greater Dayton area has an abundance of water there are still benefits to reducing water use and runoff. The University of Dayton contributes to water pollution in significant ways, mostly through the impact of runoff the campus produces. Our team set out to understand where our water was coming from, how the campus impacted our water supply, why people should even pause and think about changing their water-wasting ways, and if there were any solutions the University of Dayton could implement in order to conserve water or reduce runoff.

### E,E-farnesol inhibits surface motility in P. aeruginosa through PilJ methylation and rhamnolipid production

Graduate Research
Graduate - Individual
Advisor(s) - Jayne B Robinson

10:30 AM-12:00 PM
Kennedy Union Ballroom

Student(s) - Tracy L Collins

Pseudomonas aeruginosa and Candida albicans both exhibit cell-to-cell communication through the use of quorum-sensing molecules (QSM) known as autoinducers. Because there is a positive correlation between the presence of P. aeruginosa and C. albicans in opportunistic infections, we examined whether the QSM of one organism can affect the other. Previous research has shown that P. aeruginosa QSM cognate, 3-oxo-C12 HSL, mimics C. albicans QSM cognate E,E-farnesol by preventing the conversion of yeast to mycelium. These results suggest that P. aeruginosa is capable of communicating with C. albicans through 3-oxo-C12 HSL. In order to determine the effect of farnesol on P. aeruginosa, a population of cells were exposed to E,E-farnesol and AHL production was assessed using thin layer chromatography (TLC). TLC analysis revealed that E,E-farnesol substantially inhibited production of QSMs by P. aeruginosa cells. Because twitching and swarming motility are both quorum-sensing controlled in P. aeruginosa, we examined the effect of E,E-farnesol on each. Twitching and swarming motility were both decreased when wild-type PAO1 cells were exposed to E,E-farnesol. Interestingly, pilJ mutant cells retained there ability to swarm in the presence of E,E-farnesol. Expression studies showed that E,E-farnesol did not affect pilJ expression; however, we were able to demonstrate that E,E-farnesol altered methylation patterns of PilJ, a methyl-accepting chemotaxis protein. In addition, there was an increase in rhamnolipid production when cells were grown in the presense of E,E-farnesol. These biosurfactants are known to regulate swarming motility in P. aeruginosa. Our results indicate that E,E-farnesol is sensed by P. aeruginosa through PilJ which regulates the Type IV pili signal transduction pathway. This pathway is directly involved in twitching motility and has been implicated in swarming motility as well.

## Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard

Course Project 10_WI_ASI_346_H1 — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Daniel C Fouke, Sukhjinder S Sidhu
Student(s) - Laura A. Estandia, Roberto J. Garcia, Bradley R Lonsway, Lisa Lorek, Sylvia Uriostegui

Our class project involves working with members of the South Park community, a neighborhood in Dayton. The project is a part of a larger effort to make Dayton a green and sustainable city. Our goal was to come up with suggestions for sustainable improvement of the South Park Boulevard located on Park Drive. We have suggested the addition of LED lights to the boulevard, housed inside historic lamp posts. We have also suggested the use of native plants in the boulevard to encourage biodiversity and the sustainablity of the wildlife that is already present on the boulevard. Other suggestions include the the removal of a stump, more permiable walk-ways, and storm runoff reduction ideas. We also suggest a nature park for the children of South Park to be added to Blommel Park.

## The Effect of Treatment Integrity on Student Achievement: A Quasi-Experimental Study

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Susan D Gfroerer, Sawyer A Hunley
Student(s) - Karolyn M MacLennan

Previous research suggests that repeated reading interventions improve student reading rate (Strong, Wehby, Falk, & Lane, 2004; Welsch, 2006; Yurick, 2006). However, little research exists in the literature regarding the degree to which an intervention must be implemented in order to obtain positive student outcomes. Therefore, the current study used a repeated reading intervention at varying levels of treatment integrity with 16 second grade students identified as struggling readers in a quasi-experimental design. The repeated reading intervention was applied to three groups of students at either: 100%, 80%, or 60% integrity, and the results were compared to students in a control group. Three out of four students receiving the intervention at 100% integrity demonstrated positive g-index scores. Only half of students in the 80% and 60% groups, and none of the students in the control group achieved positive g-index scores. Potential implications, suggestions for future research, and limitations are included.

### The Effects of Task and Feedback on Confidence

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - Kristina M. Galaska, Andrea L. Hennel, Jordan P. Latore, Anthony L. Lopresti, William D. Miller, Kendra L. Rutschilling

When estimating their ability to make correct judgments individuals tend to be overconfident, predicting high ability levels that do not coincide with their level of performance. In particular, people with stronger narcissistic personality traits (self-esteem, including self-image or ego) tend to be overconfident and engage in high levels of risk-taking behaviors; this could include an increased willingness to gamble. The present research examines the effects of type of task and feedback on confidence in performing a task, and also evaluates the possible interaction between overconfidence, narcissism, and risk-taking behaviors. Participants either state their confidence in their answers to general knowledge questions or engage in a gambling task on the computer where they bet virtual money on their answers to general knowledge questions. General knowledge questions are based on geographic and historical knowledge, among other topic areas. Some participants are given feedback about the accuracy of their answers. Participants also complete questionnaires assessing their confidence in their answers, narcissism, and risk-taking behaviors. It is expected that participants who receive feedback will demonstrate a more positive relationship between their confidence in their performance and the accuracy of their performance. Additionally, participants who demonstrate greater overconfidence are expected to demonstrate more narcissism and greater risk-taking-behavior. The potential interaction between overconfidence, narcissism, and risk-taking behaviors could be used in future research studying social networking websites where many people display a combination of these personality characteristics.

### The Effects of Thin-Ideal Media on Body Image: An Examination of Hypothesized Moderator Variables

Graduate Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Roger N Reeb
Student(s) - Kathleen R. Burkhart, Susan F Folger

This research integrates two interrelated lines of exploration. First, research suggests that thin-ideal media negatively affects body image and eating disorder tendencies (see meta analysis by Grabe et al., 2008), and this research aims to extend this finding. However, not all people subjected to thin-ideal media develop such problems, and thus, the second line of research examines an interrelated set of psychosocial factors, including borderline personality disorder tendencies, self-esteem, and a history of abuse, that may explain under what circumstances or for whom (Frazier, et al., 2004) thin-ideal media has this debilitating effect. An experimental design was used with 100 female undergraduate college students randomly assigned to either an experimental condition (i.e., view thin-ideal media) or a control condition (i.e., view neutral media images), and a series of hierarchical multiple regressions was used to test if the hypothesized psychosocial factors act as moderating variables. Results indicated that negative affect and body esteem for sexual attractiveness became more negative after viewing thin-ideal media, while no such change occurred for those viewing neutral media. Furthermore, a history of physical abuse, sexual abuse, and emotional neglect, and the presence of borderline personality disorder traits, moderated the effects of thin-ideal media on negative affect. This suggests that experiencing these types of abuse or neglect and exhibiting these personality characteristics accounted for a unique amount of variance in the increase in negative affect for people viewing thin-ideal media. Results have theoretical implication, since an understanding that the increase in negative affect after viewing thin-ideal media is moderated by specific variables enhances conceptual models of etiology. From a clinical perspective, a better understanding of risk and protective factors of eating disorders will allow us to alleviate (or even prevent) these dangerous conditions.

### An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom

Advisor(s) - Robert D. Dean David A Sauer
Student(s) - Joel J. Forquer, James E. Scharpf, Michael F. Witt

The purpose of this study is to determine the intrinsic value (theoretical price) of the 30 Dow Jones Industrial Companies using the Morningstar three stage Dividend Discount Model. The theoretical prices will be compared to actual prices at monthly intervals to determine if over or undervalued conditions prompt quick reaction in the marketplace. The theoretical prices will also be used to determine allocation weights for each stock in the index and an evaluation made to determine if the weightings based on valuation improve the Dow Jones performance.

### Estimation of Center of mass and 'r' Vectors of a Robot (Biped).

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Andrew P Murray, Raul E Ordonez
Student(s) - Sravankumargoud Cherlapally

Humans possess amazing ability unequaled by modern robotics. Consider how ordinary people navigate crowds of people, uneven surfaces, and unsteady terrain like sandy beaches, all instinctively with incredible efficiency. Then there are powerful sprinters, graceful dancers and precise acrobats. All these have stability in performing actions like human beings. Stability can be obtained by determining the Center of Mass (CoM) and supporting that point like Human beings do, while performing a crucial task like tight rope walking. Tight rope walkers maintain their balance by positioning their center of mass directly over their base of support, i.e., shifting most of their weight over their legs. Determination of center of mass of a system like Robot involves a good estimation of all mechanical parameters like Mass, Distance between motors, etc. Dr Murray of University of Dayton has described a process to determine the CoM using Statically Equivalent Serial Chain (SESC). This approach is to be applied for a Human like robot with 16 DOF (Degree of Freedom).

### An Exploration of Rotorua Geothermal Activity and its Applications for the Dayton Area

Course Project 10_WI_GEO_495_01 — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Umesh K Haritashya
Student(s) - Thomas A. Davis

Geothermal Activity means heating of surrounding areas by radiogenic material because of the decay of radioactive isotopes that are common in the mantle and core. This heating can be exploited for energy. Geothermal applications have existed since the early 20th century and their importance lies in their very cheap and clean energy after initially setting up the system. The Rotorua area of New Zealand is both historically and modernly important with the use of geothermal activity for environmental friendly energy. The Maori culture of New Zealand has realized this importance for geothermal activity for centuries. Research and use of geothermal energy is extensive. However, in the United States, use of this energy has declined in the past years; even with many opportunities to exploit these sources. In fact, applications in geothermal activity have been explored for UD â?? the basketball arena could be cooled by the system using cool river water. This process would be a reversal of Rotorua area geothermal use but principles and system designs used in Rotorua could be applied to the University of Dayton. These findings could provide a cheap and sustainable way to cool the arena that is already prone to flooding. In addition, the use of this source of cooling would be parallel to the University of Daytonâ??s sustainability initiative by being a very green way of cooling our important arena.

### Exploring Interactions Between Tumor Cells and Innate Immunity in-vivo in a Drosophila Tumor Model

Course Project 09_FA_BIO_421_P1 — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Madhuri Kango-Singh
Student(s) - John B. Shearer

Suppression of immune response has been implicated in the growth of tumors in mice and humans. Further, tumor progression is associated with immune suppression (or lack of immune surveillance). Thus, it is important to study the relationship between tumor growth and progression and immune response. Here we present our studies from the interaction of tumor cells and immune response in a Drosophila tumor model. The tumors we studied are caused by loss of the tumor suppressor gene scribble. Scribble is a scaffolding protein that regulates the apical-basal polarity of epithelial cells as well as normal cell-to-cell communication, and mislocalization of Scribble is associated with malignant tumor progression. We studied if loss of scribble or other tumor suppressor genes from the Hippo pathway causes a systemic defect in the immune response. We quantified hemocytes, which are the Drosophila immune cells to address this question. Next we asked if mislocalization of ECM components is linked to tumor progression. To address this question we used immunohistochemistry approach and tested the levels of ECM proteins in scribble mutants and Hippo pathway mutants. Here we present the data from these studies, and show that loss of tumor suppressor genes leads to over-proliferation of tissues as well as a robust innate immune response. Furthermore, loss of scribble and other Hippo components show altered levels of expression of ECM proteins.

### Fabrication & characterization of GaP thin films by physical vapor deposition

Graduate Research — 10:30 AM-12:00 PM
Unknown - Individual — Kennedy Union Ballroom
Advisor(s) - Andrew M Sarangan, Qiwen Zhan
Student(s) - Jian Gao

Optical materials with high indices of refraction have many applications in electro-optical devices, particularly multi-layer structures that employ alternating high/low layers. While there are Physical Vapor Deposition (PVD) films with index of refraction greater than 4 in the infrared region, in the visible spectrum the highest index of refraction is typically in the range of 2. Gallium Phosphide (GaP) is one potential material with an index of refraction above 3 and is mostly transparent in the visible spectrum. However, most prior PVD efforts, including RF sputtering, evaporation and pulsed laser deposition have been unsuccessful due to difficulties in controlling the stoichiometry and absorption losses. In this presentation, we report a successful fabrication of GaP thin films with refractive index above 3.2 and very low absorption loss. Process parameters such as temperature, pressure, and power etc. are found to have great influence on the film properties. Due to the different volatilities of nature of Gallium and Phosphorous, a low power RF sputtering is found to be the most suitable method followed by an annealing process to recover the 1:1 stoichiometry. Energy-Dispersive X-ray (EDX) test and spectroscopic ellipsometry are used to characterize the compositional and optical properties. An in situ transmission spectrum monitoring system is designed to study the effect of annealing to further improve the film quality. This low-loss thin film broadens the upper limit of available transparent optical material.

### Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Mark W. McCausland, Natalie J. McGregor, Stephen C. Scheuble

The purpose of the study is to determine S&P 500 sector valuations using a two step discounted cash flow model. The first step is to forecast sector revenues using regression analysis. The second step is to determine historical cash to revenue ratios in order to derive future cash flows. The discounted future cash flows provide a â??theoretical priceâ?? price for each sector which can be compared to actual prices. The period of analysis is March 31, 2009 through March 31, 2010.

### FIRST Robotics at DECA High School

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Kevin P Hallinan
Student(s) - Taylor R. Chenoweth, Nathan A. Maier

FIRST is a nationwide and partially worldwide robotics program to help develop young minds. FIRST has competitions for all different levels of a student's primary education but we have dealt specifically with the First Robotics Competition (FRC). FRC is a program designed for high school students in which they design, build and test a robot; which they then compete with. The students are given guidance by professionals including engineers and college students. This year's objective was to compete in the game designated "Breakaway", which is a variation of soccer. We worked with Dayton Early College Academy (DECA) students to form a team based on campus. This was our teams rookie year. We have about thirteen students and seven mentors. The game, or objective, was released in early January, and we had six weeks to construct the robot. Much of the robot was designed strictly by the students. The students learned a lot of valuable information including programming, machining, design processes and much more. A large part of the FIRST mentality is teamwork and as such we have worked with another FRC team based in Vandalia. Our students have learned to work with other teams even though they are our competition, in a professional and gracious way. We had a competition in March, and many of our students traveled to St Louis. There, the students met other experienced teamsand learned a lot. FIRST gives these students access to an education they would not have had access to before. It allows them to work with actual engineers and other professionals; it opens doors for these students. So if sometime you see a robot driving through campus, it may be us! Go DECABotz!

### Fitnessgram Predicts Disease Risk in Students

Course Project 09_FA_HSS_428_H1 10:30 AM-12:00 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Bethany A. Demars, Sarah E. Picklo

Dayton Early College Academy (DECA) middle and high school students (n=49) completed Fitnessgram assessments (Body Fat%, Body Mass Index (BMI), mile run, sit-ups, sit and reach, and push ups) and had systolic and diastolic blood pressures measured. Each subjectâ??s Fitnessgram data was assigned a Disease-Risk Score based on Fitnessgram standards by age and gender. Results show that DECA students who did not meet Fitnessgram standards for age and gender, as analyzed by Percentage, were significantly (p=.05) more likely to have higher systolic blood pressures than DECA students who did meet the Fitnessgram standards for both age and gender (r2=.163).

### Geothermal Activity at the Taupo Volcanic Zone in New Zealand

Course Project 10_WI_GEO_495_02 10:30 AM-12:00 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Umesh K Haritashya, Andrea M Koziol, Allen J McGrew
Student(s) - Julianne Charlotte Morgan

The Wairakei-Tauhara geothermal system in the Taupo Volcanic Zone (TVZ) is a current point of discussion among hydrogeologists because of the Wairakei Power Stationâ??s effects on the surrounding area. This paper evaluates the geological history and development of the Wairakei-Tauhara system and more recent trends in the geothermal activity â?? for instance, the surrounding Taupo Volcanic Zone has caused processes of pressurization and depressurization on this area, resulting in vertical deformation and crustal movement throughout the geothermic fields. Moreover, there have recently been decreased subsidence rates, possibly due to drilling in the geothermal fields in the 60s. Drilling in the Wairakei-Tauhara field in the 50s and 60s resulted in three blowouts, causing thermal manifestations and landslides. Such drilling practices have since been remedied, but other problems in the area persist. The geothermal fields represent a source of renewable energy for the inhabitants of New Zealand, but such power stations have resulted in environmental effects like increased activity, reduction in steam volumes, ceasing of output of hot chloride springs, increased concentrations of calcium and CO2 in shallow drainwater (resulting calcite in some wells), and increased natural temperatures. Such consequences are causing geologists to re-evaluate the impact of geothermal power stations. The Maori people have often included the geothermal fields as a part of their culture and rituals, and this paper examines the geothermic changes' impact on this culture.

### A Graphical User Interface for Solving the Falkner-Skan Equation

Course Project 10_WI_MTH_556_01 10:30 AM-12:00 PM
Unknown - Individual Kennedy Union Ballroom
Advisor(s) - Muhammad Usman

Student(s) - Giacomo Flora

A Graphical User Interface (GUI) has been developed to solve the Falkner-Skan equation. This famous nonlinear third order Falkner-Skan equation on infinite interval describes several fluid dynamic problems under varying the value of two constant coefficients. The developed GUI enables the user to input these two coefficients, which will characterize the behavior of the corresponding solution, and the parameters necessary for the iterative methods used to solve the equation. At this regard, a shooting method developed by Zhang J. and Chen B. has been adopted. The required parameters for the numerical solution are represented by the initial shooting angle, the initial free boundary and two tolerance criteria.

## Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Mark E Benbow, Albert J Burky
Student(s) - Melanie I. Ajdaharian, Kimberly A. Galaska, Kathleen R Gorbach, Lindsey A. Hellwig

Variations in the hydraulic environment affect the distribution, abundance, and diversity of benthic organisms. Stream riffle and run habitats differ in numerous ways, such as substrate size, depth, and flow velocity. The objectives of this study were to determine the effects of flow regime on benthic community structure within and between riffle and run habitats in the Little Miami River, Ohio. It is hypothesized that the density, diversity, and standing stock biomass within the two habitats will differ significantly. In June and September 2008, a modified Surber sampler (0.0625m2) was used to collect random benthic samples (N=6) from three run and three riffle habitats. At each sample, depth was measured and a SonTeki?¤ Flowtracker was used to generate a water column velocity profile. Samples were sorted and larval length of the dominant taxa was measured using an ocular micrometer. Published regression equations were used to determine ash-free dry mass (AFDM). Appropriate statistical analyses (i.e. one-way ANOVA p=0.05) will be used to determine significant differences in community structure and biomass within and between riffle and run habitats. Results will provide deeper insight into the distribution and energetic production of macroinvertebrates within lotic habitats of varying flow regimes.

## Helium Contribution to the Signal of Vacuum Photodiodes

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Todd B Smith
Student(s) - Michelle R. Tomczyk

The NPDGamma Collaboration at Oak Ridge National Laboratory is installing the first nuclear physics experiment on the Fundamental Neutron Physics Beamline at the Spallation Neutron Source to measure parity-violating directional gamma-ray asymmetry when polarized neutrons are captured by para-hydrogen. This asymmetry describes the size of weak interaction between nucleons carried by pions, and is expected to be of order 10-7. To reach the statistical goal, systematic errors must be controlled below the statistical sensitivity. 2.2 MeV gamma-rays from the capture produce scintillation light in cesium iodide crystals, which is viewed by vacuum photodiodes (VPD). Helium gas used in the experiment exists in a low concentration in the atmosphere; if the helium penetrates the VPDs, it can produce additional charge output and dilute the measured asymmetry. This study estimates the upper limit of helium concentration before the measurement is affected. Trajectories of electrons were studied in 90 V electrical (E) and 10 G magnetic (B) fields, and were considered for cases where B is parallel or perpendicular to E. The minimum density of helium required for ionization is given by the mean free path of the electron-helium collision, which must be shorter than the maximum electron path length. With the known permeability of helium in the VPD glass, the helium concentration in the vacuum of the VPD was calculated over time assuming a helium concentration of 133.3 Pa in the atmosphere. Results indicated that the minimum helium pressure of 34 Pa required for ionization is not reached until the VPD has been in an atmosphere with a helium concentration of 133.3 Pa for 4 years. This is much longer than the projected 1.5 year course of the experiment, so helium permeation in the VPD will not increase the signal noise or dilute the asymmetry in the NPDGamma experiment.

### High Power Erbium-doped Fiber Laser Generating Switchable Radially and Azimuthally Polarized Beams at 1.6 um Wavelength

Graduate Research
Unknown - Individual
Advisor(s) - Joseph W Haus, Qiwen Zhan
Student(s) - Renjie Zhou

10:30 AM-12:00 PM
Kennedy Union Ballroom

An erbium-doped fiber laser cavity design is demonstrated to produce radially and azimuthally polarized beams. A c-cut calcite crystal is set within a three-lens telescope system in the laser cavity. Due to the birefringence of the crystal, radial and azimuthal polarizations are focused to different foci. The ray behavior through the crystal is discussed in details with birefringent ray tracing. By translating a collimation lens, one can select either the radial or the azimuthal polarization to lase in the cavity. The maximum output power obtained is about 140 mW for both polarizations.

### Historic Homes and the Potential for Green Renovation in South Park

Course Project 10_WI_ASI_346_H1
Undergraduate - Group
Advisor(s) - Daniel C Fouke, Sukhjinder S Sidhu
Student(s) - James A. Merlo, Andrew D. Molnar, Jessica M Northridge, Nathanial S. Perry

10:30 AM-12:00 PM
Kennedy Union Ballroom

The goal of our project has been to analyze the utility usage for two homes in the neighborhood of South Park. One of the homes, 623 Oak Street, has already been renovated. Unfortunately, green building practices and appliances were not the first priority in this home. We performed and audit on this building to detect further improvements that can be made to their current renovation strategy. Across the street from 623 Oak is 634 Oak. This home is completely gutted and ready to be renovated. Through working with Theresa Gasper at Full Circle Development, we have made specific recommendations for a green renovation of the home. Our recommendations involve the appliances, water heating, cooling and usage, as well as the heating and air conditioning of the home and improvements to the buildingâ??s outer shell. Through the usage of new, green technologies, we are going to be able to make recommendations that will both decrease the environmental impact of this home after its renovation and reduce the annual utility costs. We are hoping that our recommendations can begin to ignite a passion for environmental responsibility within the South Park community, a neighborhood that is in the midst of renovation and is a perfect candidate for new, environmentally friendly, ways of thinking about restoration. We are working in conjunction with two other teams. One team is analyzing the main boulevard of the neighborhood and making recommendations on how to plant native trees and shrubbery to improve the water run-off and absorption, as well as the overall look. The second team is mapping the ecological history of South Park and the surrounding areas. We are anticipating that our recommendations will help South Park lead the green revolution in the City of Dayton.

### An Implementation for Cycle Detection in Large Datasets

Independent Research
Graduate - Individual
Advisor(s) - Jennifer Seitzer
Student(s) - Gandhi Babu Chilaka

10:30 AM-12:00 PM
Kennedy Union Ballroom

OBJECTIVES: The proposed research falls in the discipline of Artificial Intelligence and involves causal cycle detection in large knowledge bases. In the upcoming work, I am attempting to accomplish the following objectives: To build a system that performs fuzzy cycle mining of large data sets which are inherently noisy. To mine -cycle and-cycle, one of the underlying formalisms of the paradigm. To explore the use and implementation of the Exhaustive Traversal Tree (ETT), a data structure used in cycle mining of graphs. To accurately and efficiently enumerate all cycles in a given graphII. METHODOLOGY:In this work, I am implementing a computer system that will have the following functionality.1.Transforms a general relational database to a causal graph mapping2.Represents the attributes of a relational database as vertices of the graph.3.Builds the implied complete graph.4.Builds an ETT based on the above mentioned complete graph.5.Enumerates all possible cycles by traversing the ETT6.Renders the ETT using an external tool called Graph-Viz.III. SIGNIFICANCE:This research falls in the realm of Artificial Intelligence. As larger and larger data sets become available (e.g., from human genome project, gene expression data, customer behavior data from organizations such as Wal-Mart) it is getting essential to find better ways to

extract patterns (inferences) from them. Cycle mining algorithms identify meta-patterns of these associations depicting inferences forming chains of positive and negative rule dependencies. Meta-pattern identification is important because it helps us determine inherent relationships among the data. A powerful aspect of a cycle is its inherent implication of continuity. Extraction of a cyclic pattern alerts a system that by targeting any of the cycle participant activities, the rules, one can assure continuous attainment of the goal (at least until the cycle is broken).

### Influence of disorder on the omnidirectional bandgap in multilayered metamaterial structures

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Partha P Banerjee
Student(s) - Rola R Aylo

Transmission and reflection spectra of periodic and random stacks comprising positive index materials and metamaterials have been extensively studied. In this work, we study the influence of disorder on the omnidirectional bandgap in a one dimensional stack of alternating positive and dispersive negative index materials. We achieve this through using the transfer matrix method to study wave propagation properties. In the case where the number of periods becomes infinitely large, the limit of the transmittance is derived from the trace of the matrix, and thus reducing the calculation complexity. The origin of the transmission resonances and their relation with the field localization for random systems is analyzed and compared with that of the periodic case. Our result shows that the zero average refractive index bandgap is not affected by small disorders in layer thickness or refractive index, and thus the multilayer stack is robust against fabrication. We also show that a random mixture of positive and dispersive negative index materials in equal ratio always possesses a zero average refractive index bandgap. Differences between the zero average refractive index bandgap and Bragg bandgap are also illustrated. It is shown how these bandgaps can be used as the basis for designing sensors with minimal cross-sensitivity. The finding is expected to achieve potential applications in optoelectronic sensor devices such as omnidirectional reflectors in airplane radomes.

### Interactions between the Hippo and Scribble pathway in the regulation of growth

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Madhuri Kango-Singh
Student(s) - MacKenzie M Sullivan

The growth of an organ such as wing disc in fruit flies is regulated to produce wings (organs) of particular sizes. When the growth rate is agitated by increased propagation, increased cell size or decreased cell death, generally, mechanisms called compensation prevent formation of organs of abnormal size (larger or smaller). The Hippo signaling pathway is responsible for controlling organ size by coordinately restricting cell proliferation and promoting apoptosis. Scribble pathway regulates the apical-basal polarity of cells and signaling interactions between cells. Loss of Scribble in wing discs leads to development of multilayered tumorus discs with abnormal cell contacts and reduced union between cells. We want to investigate if (and how) the Hippo and the Scribble pathways interact. First, we compared the growth rates of wing discs the Hippo pathway mutants to understand the relative differences in the growth regulation of individual components of the pathway. The growth rate of mutant wing imaginal discs from expanded, fat and warts mutant from the Hippo pathway, as well as the growth rate of hetero-allelic combinations, like (ex697/ exAP49) was studied. The study of the genetic interactions between the Hippo and the Scribble pathway was accomplished by testing wing disc growth in ex697/+; scrib2/dt 14 flies over differing time periods. Together, this data will reveal important insights into the growth properties of Hippo pathway components, and the interaction between restriction of cell proliferation (by Hippo signaling) and loss of apical-basal polarity (by Scribble signaling) during development and in cancer.

### Land Water Interfaces: Invasive Honeysuckle Effects on Stream Invertebrates

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Mark E Benbow, Ryan W McEwan
Student(s) - Tiffany B. Blair

The impact of invasive Lonicera maackii (Amur honeysuckle) in riparian forests is unknown, specifically the effects of senesced honeysuckle leaves and leaf leachate on stream macroinvertebrate communities and ecosystem function. The objective of this study was to evaluate lethal and non-lethal effects of honeysuckle leaching on Hydropsychidae Trichoptera in laboratory microcosms. The effects of two treatments of honeysuckle leaves were compared to a native treatment of ash/sycamore and a control incubated in Midwestern autumn stream water (15°C) for 7 days. Insect mortality, individual mass and behavior were measured at 24 hour intervals. At 96 hours, control Trichoptera experienced no mortality, while mean total mortality was 8.3%, 50% and 75% for native, low honeysuckle and high honeysuckle treatments, respectively. Standardized observations indicated insects in control microcosms were active and responsive while insects in treatment microcosms became less responsive over time, with the highest degree of negative change in low honeysuckle treatments. These results indicate lethal and non-lethal effects of introduced L. maackii on one dominant taxa and suggest a potential for impacts on entire stream communities.

## Microbial and necrophagous insect community assembly, succession, and species richness associated with Sus scrofa carcasses across multiple seasons

Graduate Research
Graduate - Individual
Advisor(s) - Mark E Benbow
Student(s) - Andrew J Lewis

10:30 AM-12:00 PM
Kennedy Union Ballroom

Most carrion decomposition succession research has been primarily centered on entomological research. Insects are one group of invertebrates that are mostly noted for aiding in the decomposition process. However, there are other organisms that participate in the utilization of this common food fall, such as microorganisms. Not much is known about the identification and community structure of the microbial communities or even if they follow a pattern of succession as the decomposition of the carrion progresses. Also, it is not known if there is variation in these ecological processes across differing deceased organisms or dependent on abiotic factors (i.e. temperature, moisture). To test for the effect of season on these communities, Sus scrofa carcasses (N=6) were placed in a forested habitat near Xenia, OH during spring (March 15th - June 8th) and summer (July 23rd - August 31st) 2009. Skin biopsies and swabs of the anus and mouth of each carcass were composited to compare with microbial community succession in soil underneath and 1m away over decomposition; standardized insect samples were also collected. Biolog ECOplates, a phenotypic microarray that measures a microbial community metabolic profile (MCMP) using 31 different carbon sources, were employed to characterize microbial community succession. Two-way ANOVA with Bonferroni post-tests revealed significant differences in MCMPs between soil and carcass both over decomposition and between seasons ($p<0.0001$ for both). These results demonstrate that there is community variation between substrates and across time, which infers that the microbial communities undergo ecological succession. During spring and summer, insect species richness ranged from 1-4 and 1-6, respectively. During the summer trial, 1 out of 6 pigs demonstrated an inconsistent succession pattern when compared to the others. Also, several genera of beetles were only present during specific seasons. These data confirm that insect community variation does occur across seasons, substrates, and replicates.

## Optical Trapping: Tests in Microsphere Manipulation

Honors Thesis
Undergraduate - Individual
Advisor(s) - Todd B Smith
Student(s) - Kevin M. George

10:30 AM-12:00 PM
Kennedy Union Ballroom

Optical trapping allows for the manipulation of micro to nano-scale objects such as polystyrene spheres, nanoparticles, or biological cells. Using various optical lenses and mirrors, laser light is tailored to create an electromagnetic well capable of attracting and holding these small objects due to their index of refraction. Utilizing laboratory equipment, an optical trap was designed and constructed. A number of tests were conducted in order to characterize the trap (strength, depth, size). Additional tests concerning index of refraction, beam profile, and other parameters were also performed.

### Performance Enhancing Strategies in Turbulent Markets: The GARP Model

Independent Research
Undergraduate - Group
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Andrew J. Gerbetz, Drew G. O'Connor

10:30 AM-12:00 PM
Kennedy Union Ballroom

The purpose of this study is to evaluate the Performance of a Portfolio of "Growth at a Reasonable Price Stocks" during the turbulent market period of 2008 and 2009. Three different approaches are evaluated: 1) buy and hold 2) systematic rebalancing and 3) reweighting each stock based on expected returns and risk. Preliminary results indicate that both rebalancing and reweighting provide better returns that a simple buy and hold strategy.

### Performance Strategies for Exchange Traded Funds (ETFs)

Independent Research
Undergraduate - Individual
Advisor(s) - David A Sauer
Student(s) - James Hankenhof

10:30 AM-12:00 PM
Kennedy Union Ballroom

The purpose of this study is twofold. First, to evaluate ETF performance using the following strategies: (1) simple buy and hold with equal weighting of stocks (2) buy and hold with market weights and (3) weighting based on selected fundamental metrics such as ROE, ROIC, operating margin etc. Second, to determine if more concentrated portfolios i.e., reducing the number of stocks in the ETF, provide better performance than less concentrated portfolios. This study is ongoing- findings will be presented at the Stander Symposium.

### Pricing Options in Mean-Reversion Jump-Diffusion Model by Radial Basis Functions

Graduate Research
Graduate - Individual
Advisor(s) - Ruihua Liu
Student(s) - Elham Negahdary

10:30 AM-12:00 PM
Kennedy Union Ballroom

In this work we use Radial Basis Functions (RBF) to compute the option price in mean-reversion jump-diffusion model. The meshfree method based on RBF interpolation, instead of traditional mesh-based methods like Finite Differences (FDM) or Finite Elements (FEM), is used for solving Partial Integro-Differential Equation (PIDE) for non-dividend paying stocks in the mean-reversion jump-diffusion model. We used Gaussian (GA), Multiquadric (MQ) and Inverse Multiquadric (IMQ) and compared them with Monte Carlo simulations. Unlike the application of RBFs to the Black and Scholes PDE, here we try to numerically solve the PIDE with the non-local integral term. Differential and integral terms are both treated using RBF on an equal footing. After transforming the PIDE to a system of ODEs by RBF, we can solve the ODEs with an ODE solver such as Runge-Kutta forth (RK4). The new feature of the research is that in our model, the Black and Scholes PDE is replaced by a Partial Integro-Differential Operator or PIDE, involving a non-local term in the form of an integral operator. Our main contribution is to show how to numerically solve these equations in an efficient way using RBFs. The method in principle can be extended to Levy-models. Our Model can be considered as a particular example of a Levy model for describing the price dynamics of the underlying risky asset with jumps, which describe rare events such as crashes and draw downs at random intervals in a financial market such as the energy market.

### Prisoner Rehabilitation Programs

Course Project 10_WI_SOC_208_01
Undergraduate - Individual
Advisor(s) - H Frances Geyer Pestello
Student(s) - Karen E. Kopulos

10:30 AM-12:00 PM
Kennedy Union Ballroom

This project involves a research design to test the effectiveness of rehabilitation progams in prisons. Different characteristics of prison rehabilitation programs will be analyzed to determine their success.

## The Relationship between Quest Religious Orientation, Forgiveness, and Mental Health

Graduate Research
Graduate - Individual
Advisor(s) - Lee J Dixon
Student(s) - Berhane Messay

10:30 AM-12:00 PM
Kennedy Union Ballroom

Quest religious orientation is characterized by belief that spiritual development involves questioning and doubting. Personal qualities such as increased helping behavior, compassion, and anti-prejudicial attitudes (e.g., Batson et al., 1981) that are characteristic of â??questersâ??, have been shown to foster forgiveness tendencies (e.g., Koutsos et al., 2008). Interestingly, studies have found that the compassion felt by questers may be contingent upon the perceived world-view of the individual in need of help (e.g., Goldfried & Miner, 2002). In addition, conflicting results have been found regarding quest and its relation to psychological distress (Salsman & Carlson, 2005). Recently, quest has been recognized as a multi-dimensional construct (Beck & Jessup, 2004). Consequently, a clear relationship between quest, forgiveness, and mental health may require taking into account moderating effects and specific dimensions involved.Approximately 100 participants completed the following measures: the Quest Scale (Batson & Schroenrade, 1991) to assess overall quest, the Beck & Jessup (2004) Multi-Dimensional Quest Orientation Scale, the Forgiveness Scale and the Forgiveness Likelihood Scale (Rye et al., 2001), and the Lovibond & Lovibond (1995) Depression Anxiety and Stress Scale to assess trait psychological distress. Preliminary analyses indicated that while overall quest was not related to forgiveness, the relationship between quest and forgiveness was moderated by the perceived tolerance of the offender, $F(1,99)=6.03$, $p < .05$. Specifically, when the offender was perceived to have an intolerant world-view, forgiveness and quest were inversely related. Further,as hypothesized, certain dimensions of quest appear to be better predictors of forgiveness. For instance, Moralistic Interpretation was positively related to forgiveness ($r = .273$, $p < .01$), while Religious Angst ($r = -.310$, $p < .01$) and Existential Motives ($r = -.242$, $p < .05$) had negative associations with overall forgiveness. The latter dimensions were also found to be positively related to distress (Religious Angst, $r = .41$, $p < .01$; Existential Motives, $r = .29$, $p < .01$).

## Reprogramming Mouse Embryonic Fibroblasts into Neuronal like Cells using a Chemically Defined Medium

Graduate Research
Graduate - Individual
Advisor(s) - Yiling Hong
Student(s) - Pavan Rajanahalli.K

10:30 AM-12:00 PM
Kennedy Union Ballroom

Reprogramming of mouse embryonic fibroblast (MEF) cells to induced pluripotent stem (iPS) cells have been achieved by forced expression through a combination of retroviral stem cell factors. After transfection, retroviral genes integrate into the host genome thereby giving room to genetic instability and tumorigenicity. The use of non integrating plasmid DNA for reprogramming has shown promising results with a similar efficiency to that of retroviral reprogramming. Our results show successful reprogramming MEF cells into neuronal like cells by using a chemically defined medium containing a combination of simple small molecules and growth factors without the use of any retroviral or plasmid DNA which eliminates the cellâ??s susceptibility to tumorigenicity and genetic instability. MEF cells are grown to confluency, trypsinized and then cultured in a chemically defined medium containing growth factors for two days. The cells are further exposed to 1ÂµM retinoic acid for 20- 25 days by changing the media every 3-5 days. After 30-35 days, the cells undergo differentiation and show neuronal like cell morphology. Phase contrast images show darkened embryoid body formation after 10 days of exposure to the chemically defined medium. Immunostaining results show neuronal like cells positive for neuron specific class III Î²-tubulin (TUJ 1), Type VI intermediate filament protein expressed only in nerve cells (Nestin) and an ectodermal marker (Î²-tubulin). Further analysis will be performed for protein quantification using western blotting and immunostaining cells with other neuronal markers including synapsin, a neuronal specific nuclear protein (NeuN) and a microtubule associated protein of the brain tissue (MAP2).

## Risk Factors for Low Back Pain in Adolescents

Graduate Research
Graduate - Individual

10:30 AM-12:00 PM
Kennedy Union Ballroom

Advisor(s) - Claudia J Brahler Betsy K Donahoe-Fillmore Mary I Fisher Terri M Glenn
Student(s) - Cheryl M Potocki

Background: Low back pain (LBP) is a common problem for adolescents and the problem appears to be positively correlated with advancing age within adolescence, decreasing levels of physical fitness and being of the female gender. Objective: The purpose of this descriptive study was to assess LBP risk in a convenience sample of adolescents. Methods: This study was approved by the University of Dayton (UD) Institutional Review Board. Subjects (n=54; mean (SD) age 14.9 (1.7) years; females n=32; males n=22) returned written informed consent forms that had been signed by their parents or legal guardians prior to participation. UD students completed fitness testing on the adolescents (number of curl-ups, superman's (one minute), and v-sit-and reach (inches)). Gender was recorded. A LBP score was calculated as the sum of all variables for which each student tested positive, according to reference ranges from the published literature. Regression analyses were completed to quantify the trends between age, gender, and LBP risk. Results: LBP risk decreased with advancing age for males ($r2 = 0.30$) but increased slightly as females aged ($r2 = 0.08$). Females and males risk scores were, on average, 53% and 38%, respectively (both out of a total of 100%). The variables for which the sample was at most risk were tests of abdominal and lumbar strength. Conclusions: The current results are not in total agreement with the published literature. Sato (2008) showed that LBP became increasingly common as children aged, but in this study, the risk for LBP decreased as boys aged and increased only slightly as girls aged. The current results are in agreement with the current literature, in that females were found to be at higher risk compared to males. This research indicates that adolescent females should participate in activities that promote core strength to decrease likeliness of low back pain as adults.

## A River Palimpsest - The Interdisciplinary Value of Water: Learning the Great Miami River Laterally through Ecology, Chemistry, Geography, Photography and History

Honors Thesis — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Ryan W McEwan
Student(s) - Katherine G. Norris

The overall purpose of this thesis research project is to utilize interdisciplinary areas together to create a valuable, spatially lateral and chronological baseline picture of the Great Miami River. The intent is to track changes in water quality and nutrient loading variability along the rural/suburban/urban continuum of land use change including the influence of significant riparian zones. Test sites were chosen based on this continuum, with data collection including chemical, biological and habitat surveys. The research set a baseline for the Great Miami River through a comprehensive overview and data collection during two five-day river trips, starting at the headwaters at Indian Lake down to the City of Dayton. By using a systems thinking framework within the context of an interdisciplinary approach, this study attempts to understand the relationships and interactions of the river/watershed/landshed system.

## The Rucksack Physical Fitness Test: Does the Addition of a 15.91 kg Rucksack Eliminate the Bodyweight Bias in

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Philip A Anloague, Lloyd L Laubach, Carolyn S Ridenour, Paul M Vanderburgh
Student(s) - Nicholas S Mickley

Physical fitness tests (PFT) are mandatory for all military personnel, the scores of which influence promotions and advancement. Recent research has demonstrated a body weight (BW) bias based favoring lighter, not just leaner, service members. These BW biases also have theoretical bases linked to biological laws of allometry. Mathematical models have hypothesized that a distance run with a rucksack of universal weight would eliminate BW bias. Therefore, the purpose of this study was to determine if the two mile-run and a two-minute push-up tests, each while carrying a 15.91 kg rucksack, eliminated the BW bias. Two tests were performed for each of 56 university ROTC male cadets: unloaded (no rucksack) and loaded (with rucksack). Results indicated a significant BW-unloaded 2 mile run time correlation ($r = 0.380$, $p = 0.004$) but a near-zero correlation in the loaded condition ($r = 0.063$, $p = 0.646$). Similarly, the BW bias for push-ups unloaded was significant ($r = -0.382$, $p = 0.004$) and, in the loaded condition, was near-zero ($r = -0.069$, $p = 0.615$). The loaded test appears to not only

remove the BW bias for both the run and push-ups tests but also has occupational relevance, in that military personnel are not only expected to carry their own weight but external loads as well.

### S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach

Course Project 10_WI_FIN_498_P1 — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Kevin J. Abels, Gregory M. Hoefert, Drew G. O'Connor

The purpose of this study is to assign sector allocation weights to 9 S&P 500 sectors over the periods 2006 through 2010. Our approach will be to use a modified Markowitz maximum return - minimum variance model to assign the allocation weights. The allocation weights will be determined based on the expected returns and standard deviations of these returns. The historical period for calculating the returns and standard deviations of the returns runs from 1995 through 2005. However, for each year of analysis (ie. 2006 through 2010), the expected returns and standard deviations will be updated year by year, sequentially. Three weighting models will be used; first, the expected returns divided by the standard deviations of the sectors; second, the inverse of these standard deviations; third, the coefficient of variation for each sector.

### Seasonal Water Fluctuation Effects on Invertebrate-Bacterial Community Associations in Vernal Pools

Independent Research — 10:30 AM-12:00 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Mark E Benbow
Student(s) - Allison R. Gansel, Elizabeth J. Gazdick

Benthic bacterial communities, invertebrate density and taxa richness were evaluated in vernal pools at Lawrence Woods Nature Preserve in Hardin County, Ohio. The objective of this investigation was to understand how hydroperiod characteristics influence the structure of bacterial and invertebrate communities and ultimately, how they are associated. The hypothesis was that variability in vernal pool stability would be related to different microbial and invertebrate community structure. The stability of nine vernal pools was measured during the summer (May-August) of 2009. Water fluctuation (i.e., hydroperiod) of each pool was quantified by weekly distance-to-bank and depth measurements, area estimates and fixed-point photography. The mean (SD) rate of depth change among pools was 0.055m (0.045m) per week; the average rate of bank distance change was 2.254m (1.919m) per week. In addition, monthly biological samples were taken using stovepipe and sweep net techniques to determine invertebrate density and taxa richness. Taxa richness ranged from 1-8 among pools, with Diptera and microcrustaceans most abundant. Chaoborus sp. were only collected from pools with stable hydroperiod, while Daphinia sp. only found in ephemeral pools. Benthic soil samples (N=3) were taken with a core sampler at 0.005m from each site to determine the bacterial communities in areas of inundation. Furthermore, hydroperiod was manipulated in a laboratory microcosm experiment (N=6/treatment) to characterize bacterial succession using Biolog EcoPlates. Succession was described under two treatments of inundation: unstable and stable.

### Sensation Seeking, Drinking Motives, and Perceived Norms as Mediators in the Association between College Major and Drinking Patterns

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Catherine Lutz Zois
Student(s) - Emily Minarchek

Excessive problem drinking on college campuses has been investigated extensively in psychological literature. One form of problem drinking, binge drinking, often leads to a host of negative consequences for college students. Recent research suggests that one group of students in particular consumes alcohol at higher rates than comparable peers: business students. While some studies suggest that business students consume alcohol at higher rates, there is a lack of research exploring mechanisms that account for this consumption difference. The focus of this study was to determine to what extent the

following variables mediated the relationship between choice of major and drinking behavior: drinking motives, perceived drinking norms for that major, and sensation seeking tendencies. A total of 170 undergraduate students at the University of Dayton completed survey packets in exchange for one research credit. The packets included measures assessing the following: alcohol consumption (i.e., binge drinking frequency, frequency of drinking, and drinking problems), trait anxiety, sensation seeking tendencies, social desirability, perceived drinking norms for that major, and professed motives behind their alcohol consumption. The results indicated that business students and arts and sciences students significantly differed from each other in binge drinking frequency only. Contrary to hypotheses, the results revealed that drinking motives and sensation seeking tendencies did not mediate the relationship between choice of major and binge drinking frequency. The results did indicate that perceived alcohol consumption norms fully mediated the relationship between choice of major and binge drinking frequency. In conclusion, business students may engage in binge drinking more frequently than arts and sciences students due to the perceived drinking norms within their group (i.e., major). Treatment and prevention implications from this study include education concerning perceived versus actual drinking norms on college campuses.

### Simulation and Optimization of Hybrid Solar-Geothermal Systems in Heating-Dominated Climates

Honors Thesis — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Andrew D Chiasson, Kevin P Hallinan
Student(s) - Andrew J. Morrison

Geothermal energy systems use the earth as a heat storage medium to achieve significant energy savings in building heating and cooling applications. Geothermal systems have lower energy consumptions and greenhouse gas emissions than traditional furnaces and air conditioners, but the initial cost of installation presents a significant barrier to more widespread adoption. A challenge in designing these systems arises when a building's annual heating requirements exceed its cooling requirements; in these cases, the geothermal system annually extracts more heat from the earth than it rejects. Over the life cycle of the system, the earth temperature falls, requiring a larger ground heat exchanger to serve the building's energy requirements and driving up system first cost. A solar-geothermal hybrid system uses collected solar energy to make up the annual difference between heating and cooling requirements, which stabilizes the earth temperature over an annual cycle and reduces the required size and cost of the ground heat exchanger. Stabilizing the earth temperature also reduces the energy consumption and energy costs of a hybrid system. A computer simulation method of sizing and designing a hybrid geothermal system is presented which uses the Transient System Simulation (TRNSYS) software and optimization routines to optimize the sizes of the ground heat exchanger and solar thermal collector.

### Solid-State NMR Studies of Selenomethionine Structure and Dynamics in Clay Minerals

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Garry Crosson
Student(s) - Yunyun Zhou

Selenomethionine is a selenium containing amino acid which can be produced as a byproduct of certain biological reactions in soils. In this study, macroscopic batch sorption experiments are performed to evaluate methionine and selenomethionine sorption to montmorillonite clay. The ultimate goal is gain insight into the dynamic processes associated with sorption to clay minerals and to elucidate the amino acid structure when sorbed to the clay. To accomplish this, we attempted to use of Solid-state Nuclear Magnetic Resonance (NMR) Spectroscopy. 1H-13C Cross-Polarization-Magic Angle Spinning (CPMAS) NMR experiments showed that sorption did in fact take place. However, sorption dynamics remain unclear. In future work, we plan to eluciate the sorption dynamics and determine the amino acid structure on clay using 77Se NMR.

### Spatio-temporal cryospheric changes in Southern Alps, New Zealand

Course Project 10_WI_GEO_495_02 — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Umesh K Haritashya

Student(s) - Kelly M. McClanahan

Glaciers are sensitive to their climate and show response to climatic changes on a delay. Through longitudinal research of observation and measurements, climatic variation can be determined. Cues of climate change can be difficult to measure. Some functional cues include; temperature variation, elevation level, precipitation, amount of debris cover on the glaciers, velocity, and retreat history. These significant characteristic clues for glacial differences and changes are evident from the time of the Holocene to the current day. A comparison of results from pre-existing studies on New Zealand glaciers of the Southern Alps show that glacial ablation has been occurring. This supports theories of global warming.

### Students as Reflective and Purposeful Learners: Metacognition through Rubrics

Senior/Capstone Project — 10:30 AM-12:00 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Susan M Ferguson
Student(s) - Haley M. Todd

When given a descriptive rubric, do students' metacognitive reflection/self-assessement using the rubric prior to a teacher's assessment affect their success on the paper? Two sections of first-year students in College Preparatory English at an urban Catholic high school will participate in the study. Students will submit their Catholic Social Teaching Action Plans, and I will evaluate them based upon the rubric given at the beginning of the assignment. I will return students' Action Plans without their grade. They will self-reflect, identify strengths and weaknesses using the rubric, then revise their work. I will grade their Plans again without viewing their first grade, and I will examine the variance in scores as data. Results will conclude if students' metacognitive self-reflection using rubrics increases learning.

### Studies on Dyanmics, Mechanism and Characterizationfor Thermal degradation products of Beta-Carotene by GC-MS

Graduate Research — 10:30 AM-12:00 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - David W Johnson, Mark B Masthay
Student(s) - Yuan Zhao

The thermal degradation kinetics of beta-carotene, as a function of temperature, were determined and the influence of oxygen on the rate of its degradation were assessed. Solid Beta-Carotene was heated in Pyrex ampoules sealed under vacuum to ensure minimal oxygen and open tubes to evaluate oxygen influences. Analysis of kinetic data suggested a first-order reaction for the thermal degradation of beta-carotene by UV-Vis spectroscopy. The kinetics parameters, rate constant k, activation energy Ea, and pre-exponential factor A have been calculated. Isomerization from trans to energetically favored cis conformation of beta-carotene was observed in gas chromatography-mass spectrometry (GC-MS) analysis. The degradation products, retinol, ionone etc are confirmed by GC-MS, most of them are believed to be apocarotenoids and epoxy compounds. These findings will help give hints to its biosynthetic pathway and determine optimal processing conditions to minimize the degradation of beta-Carotene in food sources.

### Study of optical vortex beams in free space optical communication system

Graduate Research — 10:30 AM-12:00 PM
Unknown - Individual — Kennedy Union Ballroom
Advisor(s) - Qiwen Zhan
Student(s) - Wen Cheng

This study focuses on the free space optical communications with optical vortex beams. The goal is to build up a comprehensive communication system including generation, propagation and detection of vortex beams. The results from simulation have shown that the potential advantages of using vector vortex to mitigate atmospheric effects. The inhomogeneous polarization property of vector vortex beam will be utilized to develop applications in beam shaping and sensing areas. Further investigations by controlling and modulating phase or polarization of vortex beams will have very important applications in material processing, optical recording and optical trapping. The generation and detection of single vortex beam has been

experimentally demonstrated. The next step is to generate and detect the mixture of vortex beams with different topological charges and investigate their actual performance as information carriers through propagation.

### Technical Analysis, Sector weighting and portfolio construction: An empirical study

Course Project 10_WI_FIN_498_P1 10:30 AM-12:00 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Mark W. McCausland

The purpose of this study is to use both long and short term moving average to assign sector allocation weights for the years 2008 and 2009. The key assumption is that looking forward, sectors whose current prices are above their moving average will subsequently decline in price and sectors whose current prices are below their moving averages will rise in price. Sector weights will be determined based on the ratio of current sector prices to their moving averages. Based on the above weighting procedure, a sector portfolio will be constructed and evaluated on a quarterly basis for 2008 and 2009. The sector portfolio will be compared to the S&P 500 to determine if it outperforms consistently in both declining and rising stock markets.

### Traumatic Brain Injury: School Psychologist Training, Knowledge, and Skills

Graduate Research 10:30 AM-12:00 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Susan D Gfroerer
Student(s) - Dana Doran-Myers

Traumatic Brain Injury (TBI) is a brain injury caused by an external force to the head. Despite research supporting specialized service delivery for students with TBI, relatively few students with head injuries are identified under the TBI label. Data from 2007 indicate that only 23,805 students received special education services under the TBI category (IDEA, 2007) although actual incidence rates are likely much higher. The objective of this study is to explore the knowledge, skills, and training of school psychologists regarding students with TBI or suspected TBI. It is hypothesized that the school psychologists who have experience with TBI will have more knowledge and skills when evaluating and educating students with TBI. In order to improve the identification of and service delivery for students with TBIs, school psychologist training, knowledge, and skills regarding TBI will be evaluated. A survey will be distributed to a sample of school psychologists (N=1000) using an online survey tool. This survey will address training, knowledge, and skills of school psychologists. Potential participants will be identified and randomly selected through professional associations of school psychologists.

### Tunable High Voltage Interdigital Capacitor (HVIDC)

Graduate Research 10:30 AM-12:00 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Guru Subramanyam
Student(s) - Andargachew D Alemayehu

The application of interdigital capacitors in electronics, sensors and communications are widespread. Interdigital capacitors (IDCs) are made based on a ferroelectric thin film in between two non overlapping signal lines. The currently existing IDCÃ¢Â?Â?s have all the inter-digitated fingers on a single layer. The operating voltage and the tune-ability of IDCÃ¢Â?Â?s have been a bottle neck for the widespread applications of these devices. In this research, we have worked on improving the tunability and range of operating voltage. We have designed simulated, fabricated, tested and analyzed different designs of HVIDCs. The parameters that affect the operations of IDCÃ¢Â?Â?s include length, width, spacing and number of fingers. In addition to the above parameter we have designed the two sides of the signal structure on a different layer. The designs, simulations and tuning have been made using AWR software. An HP 8720 Vector Network Analyzer has been used to capture the scattering parameters of the fabricated devices with 0.5-18 GHz frequency range. The HVIDCs exhibted tunability of 44.771% and could support operating voltage of well above 400V.

### Two Photon Fluorescence Characterization of Spiral Plasmonic Lenses as Circular Polarization Analyzers

Graduate Research
Graduate - Group
Advisor(s) - Qiwen Zhan
Student(s) - Weibin Chen, Zhi Wu

10:30 AM-12:00 PM
Kennedy Union Ballroom

The spiral plasmonic lens is capable of focusing the left hand and right hand circular polarizations into spatially separated plasmonic fields caused by the geometric phase effect. Single Archimedes' spiral grooves with lateral sizes of approximately 4 times of surface plasmon polariton wavelength (~2.8 micron) were milled into a gold thin film using focused ion beam. The function of such simple spiral plasmonic lens serving as a circular polarization analyzer was experimentally characterized with two-photon fluorescence microscopy. The circular polarization extinction ratio of the two-photon fluorescent signal is estimated to be larger than 200 for a detector diameter up to 0.3 times of surface plasmon polariton wavelength.

### What Women Want: Wish Lists for Friends and Romantic Partners

Graduate Research
Graduate - Individual
Advisor(s) - Carolyn Roecker Phelps
Student(s) - Michelle A Roth

10:30 AM-12:00 PM
Kennedy Union Ballroom

Women with a history of childhood sexual abuse (CSA) are at an increased risk for revictimization. CSA victims have a three times greater risk of revictimization compared to women without a CSA history (Widom, Czaja, & Dutton, 2008). CSA is also a risk factor for pervasive interpersonal difficulties (DiLillo, 2001). King and Terrance (2008) proposed a reciprocal link between psychopathology and the ability to sustain satisfying interpersonal relationships; however, whether this relationship can be generalized to CSA is unclear. Undergraduate UD students (N = 80) were asked to self generate 15 words to comprise a wish list in 4 separate categories: wish for in a best female friend, wish for in a romantic partner, wish to avoid in a best female friend, wish to avoid in a romantic partner. After completing all four lists, subjects were asked to rank their top five choices in each category. Subjects indicated the gender of their current best friend (if applicable), ideal romantic partner, romantic relationship status, and gender of the majority of their friends. Frequency distributions were constructed to examine personality trait preferences between wish list categories. Results found women with more female relationships list communication and shared interests as important factors in interpersonal relationships, where women with more male relationships cite intelligence and attractiveness as important qualities. This study indicates that the personality traits women desire in a best female friend and romantic partner is moderated by their relationship status and the gender of their current friends. Future studies could extend the study by exploring how the personality and gender of friends moderates the risk for women with a history of CSA to be revictimized.

### Women in the Police Force

Course Project 10_WI_SOC_208_01
Undergraduate - Individual
Advisor(s) - H Frances Geyer Pestello
Student(s) - Caitlin E. Emmerich

10:30 AM-12:00 PM
Kennedy Union Ballroom

This research design to look at the role of women in the police force. It will develop a project to examine women's experiences in and attitudes about policing. It will also consider whether women approach the role of policing and their relationship to victims differently than their male counterparts.

### Integration Bee Luncheon

Luncheon — 12:00 PM-1:00 PM
Advisor(s) - Maher B Qumsiyeh — Science Center Atrium

The Mathematics Department will host a pizza lunch in the Science Center Atrium prior to the Integration Bee.

### Teacher Residency Conference Luncheon (Invitation Only)

Luncheon — 12:00 PM-1:00 PM
Advisor(s) - Patricia M Hart, Rochonda L Nenonene, Judith N Oberlander, James B Rowley — Chaminade Hall Basement

This will be a celebration lunch for all of the EDT 110 Teacher Residency Conference presenters and their guests.

### Dayton Alive

Visual Arts Exhibition — 8:30 AM-5:00 PM
Senior/Capstone Project — ArtStreet Studio E
Advisor(s) - Judith L Huacuja
Student(s) - Katherine G. Norris, Leah N. Winnike

Two student artists explore the heart(s) of the Dayton region. One uses audio, combined with photography, to reveal the powerful potential of individuals as community leaders and change-makers at the heart of revitalizing Dayton. The other utilizes unexpected locations and innovative media to reunite Dayton citizens with the water resources at the heart of this region.

### Positive Rewards for Positive Behavior: Would a Rewards System Work?

Oral Presentation — 1:00 PM-1:30 PM
Independent Research — Kennedy Union 331
Advisor(s) - Corinne M Daprano, Peter J Titlebaum
Student(s) - Eric M. Beadle, Stacey M. Ferranti

Drinking in college has always been a major issue that each campus has to face. Students leave home for the first time and are thrust into a social scene where drinking is viewed as the only way to have fun. Survey results from the National Institute on Alcohol Abuse and Alcoholism in 2005 show that 1,700 college students die from alcohol related injuries each year and an additional 25 % of college students suffer from declining grades due to alcohol consumption. Based on research collected at a private university in the mid-west, this study will examine and explore student willingness to consider a Rewards System program designed to reward students from engaging in some non-alcohol related activities. Additionally, college leadership will need to be educated to develop a larger solution than just Recreational Department programming, as this is only one of many alternative programs available. The study focuses on the Reward System concept that would be based on students receiving points for attending approved events and activities, often taking place on weekend nights. The proposed rewards would include discounts on academic books, credit for campus food plans, and gift cards from local restaurants/stores. This could also create an opportunity for partnership with the local community, who would participate with the goal of improving student patronage. A survey was sent to 6,500 students asking them about their interest in a program that would allow them to gain rewards by attending approved events. Surveys were completed by 1,940 students just below 30% return rate indicating that a Rewards System was viewed as a favorable idea. Ultimately, a Rewards System is worth implementing based on what the data has revealed. A similar program should be developed to contain the serious issue of drinking on college campuses.

### Predictor of Successful Adolescent Transitions (PSAT)

Oral Presentation — 1:00 PM-1:30 PM
Course Project 09_FA_PSY_333_01 — Kennedy Union 311
Advisor(s) - Joseph P Tedesco
Student(s) - Kristina M. Galaska, Sara Robertson, Zachary T. Warner, Nikki Winchester

The present study aims to predict social success in middle school students at the critical transition period between elementary school and junior high. Researchers consulted two experts and the Youth Self-Report in order to create a testing instrument to predict how children will transition from grade school to junior high. This instrument would help counselors to identify and assist students in their transitions. This would mean that students would have a better chance at succeeding in junior high than they would without a counselor's assistance.

### Return to the Sources: The Work of Henri de Lubac as a Historical and Theological Resource for Baptists

Oral Presentation — 1:00 PM-1:30 PM
Graduate Research — Marianist Hall Learning Space 206
Advisor(s) - William Portier
Student(s) - Derek C Hatch

Baptist theological discourse often finds itself running in circles, especially when it concerns giving a theologically sound account of baptism. While this practice is a hallmark of Baptist life and thought, various historical and social factors (e.g., aversion to anything that appears to be Catholic, strains of anti-intellectualism) have prevented the necessary theological reflection within the Baptist community as a whole. As a result, Baptists have often been left with explanations of baptism and other aspects of the Christian life (e.g., discipleship) that, when examined more closely, are deficient, specifically regarding issues of divine and human agency. Moreover, Baptists occasionally fall prey to heterodox theological arguments because of this lack (e.g., inability to recognize the specter of Gnosticism that looms over a hyperindividualized Christian relationship with the divine). This paper, based on a Summer Research Fellowship, aims to explore the possibilities for a renewed Baptist theological discourse, arguing, ultimately, that Baptists need to engage elements of Catholic theology, notably the categories of nature and grace. For the purposes of this research, the work of French Jesuit Henri de Lubac is particularly helpful for thickening Baptist efforts at ressourcement (literally, "return to the sources"). In other words, de Lubacâ??s work on a nuanced, non-competitive, yet still distinguishable, relationship between the natural and the supernatural offers rich resources for Baptist theological discourse in areas such as sacraments, ecclesiology, and the mediation of grace to humanity. In the end, a robust comprehension and appropriation of the terms of the nature/grace problematic serves Baptists well by transforming the contours of present theological arguments (both within specifically Baptist and more generally Protestant circles), better enabling Baptist theological discourse to be re-envisioned precisely by being re-connected with the broader Christian tradition.

### Worthy Victims: How the Media Falsifies True Victims of Crime

Oral Presentation — 1:00 PM-1:30 PM
Senior/Capstone Project — St. Joseph's Hall 023
Advisor(s) - Claire M Renzetti
Student(s) - Devon M. Dean

For my Senior Research Project I have studied the social construction of victims in the media. Statistics show that teenage African-American males are the most likely to be victimized and that males are victimized more frequently than females. These statistics however, do not coincide with many of today's popular crime shows which often depict single, white, females as the culprits of victimization. My research examines the media's construction of certain groups of people as more "worthy" victims than others.

### Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease

Panel Discussion — 1:00 PM-2:00 PM
Course Project — Kennedy Union 312
Advisor(s) - Ronda M Scantlin
Student(s) - Karinza M Akin, Katherine Anderson, Alessandra B. Besser, Sarah L. Bidwell, Alice L. Blaney, Christina M. Chaffin, Catherine G. Dipasquale, Bridget A. Duniec, Jamie M. Eastman, Andrea F. Graham, Ryan M. Handbury, Mallory A. Hofherr, Natalie K. Horras, Lisa M. Kaminski, Caitlin C. Kennedy, Kendra L. McGill, Erin K. Moulton, Casey G. Niepokoj, Erin M. Phelps, Grace A. Rodney, Janelle M. Schneider, Anne M. Schulte, Adam J. Schweikart, Shannon E. Smyth, Katherine M. Tejkl, Jessica M. Vonder Haar

Diabetes is a chronic disease that can have serious long-term consequences for all organ systems in the body. The Juvenile Diabetes Research Foundation (JDRF) describes Type 1 diabetes (often called juvenile diabetes because it is typically diagnosed during childhood or adolescence) as an autoimmune disease in which the pancreas stops producing insulin. Type 2 diabetes (often diagnosed in adulthood) is a metabolic disorder in which a person's body continues to produce insulin but cannot use it effectively. According to the work conducted at JDRF, nearly 24 million Americans have diabetes and roughly 3 million Americans may have Type 1 diabetes. Approximately 15,000 children are diagnosed with diabetes in the United States each year. That is 40 children diagnosed per day! Given the increasing prevalence of this disease for people of all ages, education is at the forefront of prevention and treatment. At the request of Children's Medical Center of Dayton, faculty and students in the Department of Communication have conducted a comprehensive literature review on the topic of diabetes. This review will serve as a foundation for the development of educational video materials, print materials, and an online web

site intended to educate children, parents, caregivers, and teachers about this disease. Panel participants will discuss the key elements of this educational project: (1) Prevalence and outcomes of diabetes in childhood, adolescence and adulthood; (2) How children learn best from educational television and video media; (3) Cognitive processing capabilities of children from different ages and how health-related messages should be crafted to educate various age groups; (4) The use of interactive technologies to assist children and parents in managing their health conditions; and (5) Assessments of programs (video, web, and print) used to educate parents and teachers about health-related topics and issues.

### DSS Sweeping Service: Data Gathering & Integration Project

Oral Presentation 1:00 PM-2:00 PM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - Harvey G Enns, Arthur R Santoianni
Student(s) - Jonathan D. Dombek, Alec J. Dorn, William J. Kolesar, Michael A. Lanham, Patrick J. Weinandy

The Automated data collection and software integration team (ADCSI), comprised of Jon Dombek, Alec Dorn, Billy Kolesar, Michael Lanham, and Patrick Weinandy consulted for DSS Sweeping Services in Dayton, Ohio. The client specializes in commercial parking lot sweeping, construction site cleanup, snow removal, and landscaping. The company wanted the team to help in developing a system to automate the data collection of their hourly sweeper drivers while integrating that data with all other software packages. The team researched handheld devices for automated data collection, and researched new software packages. The scope of this project included researching, buying, and implementing handheld devices for the automated collection of work time by an employee sweeping a lot, finding a new software package to replace their existing one, and integrating it efficiently with other route optimization and billing software. This project was feasible for the company and the team because all necessary resources, such as prior handheld device research, access to current software, and availability of the CEO and president to answer questions, were all present. The investment in new handheld devices and software was a rational business decision for DSS in terms of increasing efficiency and increasing profits through the return on their technology investment. The client hopes to reduce operating costs by reducing downtime for their employees on a job, and being able to more accurately assess the cost of each job. Other problems the system solved were the integration of current software packages and the need to manually enter data (which the team solved with the handheld devices). The team extensively researched all options and provided the client with the best option based on the business needs of the company.

### Equity Valuation Modeling

Oral Presentation 1:00 PM-2:00 PM
Independent Research Miriam Hall 118
Advisor(s) - David A Sauer
Student(s) - Joel J. Forquer, Mark W. McCausland, Natalie J. McGregor, James E. Scharpf, Stephen C. Scheuble, Michael F. Witt

The Davis Center for Portfolio Management Excel and Valuation Team will present several methods for determining the expected value of an equity security.

### Faces Among the Masses: Teenage Refugees in Dayton

Oral Presentation 1:00 PM-2:00 PM
Course Project 10_WI_POL_334_01 Marianist Hall Learning Space 217
Advisor(s) - Natalie Florea Hudson
Student(s) - Sarah A. Asip, Michael A. Czajka, Allison R. Due, Rosemary C. Eyerman, Laura E. Getz, Michael R. Graham, Caitlin S. Jacob, Ann C. Keefer, Caryl M. Nunez, Rebecca A. Pierson, Danny P. Schlingman, Lauren A. Simcic, Hope L. Smalls, Victoria A. Spencer, Michael J. Veselik, Kaylie A. Welsh, Ingrid M. Zibritovsky

Lady Liberty exclaims: "Give me your tired, your poor, your huddled masses yearning to breathe free, the wretched refuse of your teeming shore. Send these, the homeless, tempest-tossed to me, I lift my lamp beside the golden door!" Follow us as we journey through the stories of the trials and tribulations of refugee youth living right here in Dayton, Ohio. Based on our

video documentary, "Faces Among the Masses," this research presentation will profile refugees from a wide-range of countries, including Iraq, Tanzania, Sudan, and the Congo, that have been resettled by Catholic Social Services in our community.

### Flyer Consulting Organization and Projects: Past, Present & Future

Oral Presentation 1:00 PM-2:00 PM
Independent Research Miriam Hall 207
Advisor(s) - John W Shishoff
Student(s) - Kelsey L. Chapic, Elizabeth C. Wells

Flyer Consulting was established in Fall 2009, after a year-long feasibility study. Teams of students are organized to provide business consulting to Not-for-Profit organizations in the Dayton area. The presentation will discuss the responsibiliy of the management team and how projects are selected and how the consulting work is organized. Examples will be drawn from two completed projects (Bing Davis Studio and Crayons to Classrooms) and current constulting projects at Chaminade-Julienne High School. The session will include time for questions and answers.

### Issues in Communication Research

Oral Presentation 1:00 PM-2:00 PM
Graduate Research Kennedy Union 310
Advisor(s) - Teresa L Thompson
Student(s) - Kimberly A. Balio, Jacqueline J. Boyle, Patrick T Fries, Brian C. Pierce, Carrie L Scherer

Issues in Communication Research: Carrie Scherer and Pat Fries -- "To Love Not Wisely, But Too Well": An Analysis of Romantic Jealousy Literature in the Context of Shakespeare's Othello; Kim Balio -- Blog Statements and Credibility; Jacqueline Boyle -- The effect of Sex and the City on female college students' attitudes about romantic relationships; Brian Pierce -- Gendered Communication

### Miller-Valentine: Digital Dashboard Initiative

Oral Presentation 1:00 PM-2:00 PM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - Harvey G Enns, Arthur R Santoianni
Student(s) - Wayne D. Bethel, Zachary L. Fisher, Matthew F. Purpus, Sarah A Vidmar, Michael A. Vonderhaar

The Miller-Valentine Digital Dashboard Initiative project was created to provide a reusable architecture for developing digital reporting dashboards using Microsoft SharePoint. The purpose of these dashboards is to visually represent reported data in a manner which facilitates decision making. The current UD MIS project team includes Dan Bethel, Zach Fisher, Matt Purpus, Sarah Vidmar, and Michael Vonderhaar. The architecture will be the catalyst towards changing the current business practices to include an emphasis on a single source of the truth for data in reporting. Architecture deliverables include decision tools which will mandate consistent practices in order to achieve this goal. Such deliverables will include, but are not limited to: the Webpart Decision Matrix and the Client Information Gathering Outline. These deliverables will allow the IS staff to take a user request and accomplish the necessary requirements gathering to build a dashboard. Due to the nature of the project, nearly all of the testing will take place during the iterative phases of the project's methodology, as the last half of the project involves identical iterations to improve the established prototype. It is through these iterations that the prototype will be used to analyze and execute the steps of the process.

### The Proctor & Gamble Marketing Challenge

Oral Presentation 1:00 PM-2:00 PM
Independent Research Miriam Hall 109
Advisor(s) - Irene J Dickey
Student(s) - Lauren A. Bolmeyer, Emily M. Hungler, Zachary R. Jernigan, Lauren E. Johnson, Michael J. Kelly, Elizabeth G. Kimball, Jacquelyn L. Mueller, Timothy G. Rahill, Kelsey L. Weber

Learn more about this intense competition where P&G charges four teams of the University of Dayton's best marketing majors with researching, analyzing, creating and presenting the best holistic campaign for a P&G brand to P&G managers. In our 10th competition, each semester, the Challenge raises the bar, becomes more expansive and more innovative, and is able to provide P&G with even better information about its target markets and marketing strategy to those markets. This is all a testament to the training, hard work, passion, and creativity of our students who have developed some of the most viable, holistic marketing tactics that P&G has ever seen.

### River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River

Panel Discussion 1:00 PM-2:00 PM
Senior/Capstone Project Kennedy Union 207
Advisor(s) - Leslie W King
Student(s) - Francis J. Berkemeier, Jessica Ciraldo, Jaye S. Flavin, Tracey L. Horan, Karen E. Kopulos, Elizabeth A. Markus, Andrew J. Morrison, Katherine G. Norris, Maggie Varga

After being involved in the River Stewards Program for two-and-a-half years, the 2010 cohort of Stewards was challenged to come up with a culminating project in which they would both apply the information and skills they learned to serve the community. The Stewards, inspired by efforts to build a regional vision for the Great Miami River and a collective affinity for outdoor recreation, decided they would kayak the entire northern section of the Great Miami River, from its headwaters at Indian Lake south to Dayton. The River Stewards decided they would stop in towns along the river and interact with community leaders to learn more about historic and economic developments in the region and the part the river has played in these developments. This panel discussion will provide an overview of the River Stewards Program and explore students' experiences and interactions with individuals and communities along the river.

### Standard Register LLC Engine

Oral Presentation 1:00 PM-2:00 PM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - Harvey G Enns, Arthur R Santoianni
Student(s) - Nathanial L Allen, Michael R. Benash, Scott C. Clemmons, John J. Raptis

The Standard Register Company is an international business solutions provider. A significant portion of its revenues result from printing and selling documents for businesses. Similarly, the process of producing and shipping these documents makes up a large portion of Standard Register's cost structure. The Lowest Landed Cost Engine (LLC Engine) is a cost-minimizing decision support system that helps internal subject matter experts to minimize these costs. The Engine is designed as a tool to help users estimate the lowest cost of producing a specific quantity of a product and shipping it to a given location. A graphical user interface requires a user to enter the product specifications and a desired quantity, as well as the postal code of the location to which the completed order must be shipped. The LLC Engine then calculates the cost of completing the order on various printing presses, factoring in both production costs and freight costs. The result is a list of options presented to the user, organized by lowest cost. This information includes the candidate press, its location, the destination, total production and freight costs, and the same costs given plus or minus 20% of the specified quantity. The result of the LLC Engine is a convenient, quick, and easy to use tool that facilitates decision-making and helps subject matter experts estimate order costs.

### Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009

Panel Discussion 1:00 PM-2:00 PM
Other: presentation/Immersion Kennedy Union 211
Advisor(s) - Julius A Amin
Student(s) - Theodra E. Bane, Jill C. Bucaro, Katherine M. Cobb, Kristen A. Davis, Karl W. Eckberg, Lisa A. Finley, Allison M. Frost, Kevin M. George, Shannon C. Hallinan, Daniel P. Harms, Nastacia A. Moore, Zachary R. Parish, Kimberly J. Pritchard, Brittany A. Quinn, J.W. R Terry, Joy M. Willenbrink

The Presentation will focus on the experiences of the students in Cameroon and Zambia. They will address why they took the trip, and the impact of the experience on their education here at the University of Dayton campus and beyond. Students will also state how the experience helped them to achieve some of the learning outcomes articulated in the Habits of Inquiry and Reflection document which is now at the foundation of the revision of the general education curriculum on campus.

### The Dynamic Palette of Bing Davis: Blending Artistic Inspiration with Social Integrity

Panel Discussion 1:00 PM-2:30 PM
Course Project 09_FA_VAH_490_07 LTC Forum
Advisor(s) - Judith L Huacuja
Student(s) - Elise K. Kelly

This essay is about the powerful, versatile, and experimental artwork of Bing Davis. Willis Bing Davis is an artist/teacher who is socially concerned and consciously aware of his urban modern environment and his traditional African culture. He brilliantly integrates this awareness into all of his sculptures, paintings, and photographs so that others will become consciously aware of traditional African cultures. Davis is able to help individuals, groups, and communities not only learn about their forgotten and suppressed cultures but the cultures of others.

### 8th Annual Integration Bee

Interactive Competition 1:00 PM-3:00 PM
Advisor(s) - Maher B Qumsiyeh Science Center 255

The students compete in teams of 2-3 people. This is organized in a similar way to the traditional spelling bee. Teams will be evaluating integrals that are projected on a screen. If a team incorrectly evaluates an integral, the team is eliminated from the competition. After the elimination rounds, we will hold the lightning rounds. The first 'y' many teams to correctly evaluate the given integrals will proceed to the next round. We do this until there is a 1st, 2nd and 3rd place team. First, second, and third place teams will receive math t-shirts.

### Honors Recital Auditions

Performance 1:00 PM-3:00 PM
Honors Recital Sears Recital Hall
Advisor(s) - Phillip C Magnuson
Student(s) - Jodi L Birkemeier, Megan J Brewer, Anthony E. Degregorio, Amanda L. Garrison, Carl C. Hayslett, Rebecca C. Holloway, Evan T. King, Samuel M. Kreidenweis, Kiersten M. Noble, Megan C Schilter, Kevin J. Sylvester, Joy M. Willenbrink

This event will present 12 music students in performance, competing for one of six spots on the annual Department of Music Honors Recital, which will be held Friday, 23 April 2010.

### Photography Capstone Presentation

Oral Presentation 1:00 PM-3:00 PM
Senior/Capstone Project ArtStreet Studio B
Advisor(s) - Joel A Whitaker
Student(s) - David A Bondy

This is the second of two capstone seminar courses required for all photography majors. The courses are to be taken in the first and second semester of the senior year. Throughout these courses, students examine the aesthetic, cultural, ethical, and pragmatic issues involved in and relating to photography, as well as, preparing for a career in the field.

### Who's Finding Love in College?

Oral Presentation 1:30 PM-2:00 PM
Senior/Capstone Project St. Joseph's Hall 023

Advisor(s) - Laura M Leming, Claire M Renzetti
Student(s) - Neiah N. Blackwell

This research project investigates the intent of college students to find a lifetime partner during their college years. To determine this, a survey was distributed to college students with a series of questions concerning their different types of relationships in college as well as their plans of finding a lifetime partner. Follow-up interviews of willing participants were also conducted seeking to gain a deeper understanding for the intentions of intimate realtionships of college students. The results of the survey and interview illustrates that there are several factors that influence students' decisions to maintain their individual forms of relationships. In relation to other work, many have found that college students gravitate to those who share similar social locations as they do. The social institution of marriage is important to college students which is taken into account when deciding to engage in intimate relationships.

### Abandoning Aristotle for a Raining Elevator: Ovidian Myth in Contemporary Theatre

Oral Presentation 2:00 PM-2:30 PM
Honors Thesis Kennedy Union 331
Advisor(s) - Kay D Bosse
Student(s) - Thomas R. Motz

In my thesis I make the claim that modern theatre artists â??particularly playwrights â?? are reinventing Ovidian myth for the stage as a way to explore classical themes in nontraditional formats. The reasoning behind this is that Ovidian myth does not rely on the Western literary standard of the Aristotelian A-frame that places the greatest emphasis on crafting a plot in which events stem logically from one another. Rather, Ovidian myths are constructed more as vignettes than fully formed plots, forcing the focus not on events but on character and the interpersonal. I explore these notions via my staging of Sarah Ruhlâ??s play Eurydice. This play, as a prime example of the modernist theatrical use of Ovid, is unpacked in the thesis and examined as both a literary work and as a fully-formed and realized piece of theatre.

### Community Activism and Crime: A Synthesis on the Relationship Between Community Mobilization and Crime Rates In Urban Neighborhoods.

Oral Presentation 2:00 PM-2:30 PM
Senior/Capstone Project Kennedy Union 211
Advisor(s) - Jefferson L Ingram
Student(s) - Michael E. Plaspohl

Urban neighborhoods in the United States currently suffer from high rates of violent and drug crime. One possible solution to the problem lies in the hands of the residents of a neighborhood. This article will review past case studies and research that address the effectiveness of community mobilization on crime rates and property values in urban neighborhood, the proceed to investigate the effectiveness of community activism in urban areas.

### Modern Ireland: the political styles of Grattan and Flood

Oral Presentation 2:00 PM-2:30 PM
Course Project 10_WI_HST_486_P1 Kennedy Union 312
Advisor(s) - Marybeth Carlson
Student(s) - Kyle A. Schneider

This presentation will view the similarities and differences of the political styles of Henry Flood and Henry Grattan and the effects of their policies on Ireland and the relationship between Ireland and Great Britain.

### A Psychological Perspective on Police Interrogation: A Synthesis of Current Police Practice and Psychological Research

Oral Presentation 2:00 PM-2:30 PM
Senior/Capstone Project LTC Team Space
Advisor(s) - Jefferson L Ingram

Student(s) - Brendan T. O'Reilly

When physical evidence is not available or reliable, police turn to interrogation. Although established interrogation methods and tricks are the result of an evolving tradition, current research into human physiological response provides a greater insight into interrogative techniques. This paper will construct a synthesis of the best and most effective current interrogation procedure and psychological research yielding novel interrogative techniques that benefit from the combined experience of law enforcement professionals and experts in psychology.

### Replacing the Juvenile Justice System

Oral Presentation — 2:00 PM-2:30 PM
Senior/Capstone Project — St. Joseph's Hall 023
Advisor(s) - Jefferson L Ingram
Student(s) - Moira E. Hendrickson

The Juvenile Justice System is constantly under scrutiny for its lack of adequate deterrence and lack of help for the children and families who come in contact with the system on a daily basis. Juveniles are placed in an adult system not suited for them, or cast into a detention center once found guilty of minor charges. This paper will take theories of educating minors combined with the skills of mental health counseling in order to replace the Juvenile Justice System with a system that works for the development of societyâ??s younger generation.

### The theology of John Hugo and its influence on Dorothy Day

Oral Presentation — 2:00 PM-2:30 PM
Graduate Research — Kennedy Union 311
Advisor(s) - William Portier
Student(s) - Benjamin T Peters

John Hugo (1911-1985), a priest from Pittsburgh, is perhaps best remembered as Dorothy Day's spiritual director and the leader of "the retreat" memorialized in The Long Loneliness. Yet, he was also an active participant in debates concerning nature and grace taking place in the U.S. prior to Vatican II. Criticism of Hugo came from prominent American theologians like Joseph Clifford Fenton and Francis Connell, who charged that Hugo's understanding of the relationship between nature and grace constituted "exaggerated supernaturalism." In late 1942, Hugo's bishop even prevented him from giving the retreat, and he was thus not able to lead another retreat for over a decade. While Hugo has been noted by scholars, he is usually portrayed as promoting "Jansenis" views, and as having had minimal influence on Day. In this paper, I argue three points. First, that Hugo and the retreat had a profound effect on Day, and that only by understanding Hugo's theology can Day be properly understood. Second, that Hugo's understanding of nature and grace was not "Jansenist" but rather that it was part of larger challenge within early twentieth Catholic theology to neo-Thomism, a neo-Thomism embodied in the U.S. by Fenton and Connell (in fact, Hugo argued positions very similar to those being argued at the same time by Henri de Lubac). Finally, I will suggest that Hugo can be read as offering some insights into the contemporary theological conversation regarding nature and grace.

### A Quest in Assisi: Spirituality, Art and Culture

Hands-On Activity — 2:00 PM-3:00 PM
Experiential — Alumni Hall 101
Advisor(s) - Maura S Donahue, Angela Ann Zukowski
Student(s) - Sonya L. Bilocerkowycz, William B. Blakeley, Margaret R. Eckart, Karl W. Eckberg, Philip R. Erford, Megan Rose Falter, Christopher J. Jackson, Emily M. Krehnovi, Sara L. McManus, Joanna M. Pfahler, Sarah E. Picklo, Kevin A. Pitstick, Kyle G. Rodden, Jared E. Stoffel

In preparation for their May pilgrimage to Italy, the Vocation and Arts students have created a cultural experience for appreciating the spiritual and cultural landscape of Assisi. The informal session introduces guests to a virtual orientation to Assisi with specific cultural and spiritual highlights that designates Assisi as one of the significant sacred places in the world!

### Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs.

Oral Presentation 2:15 PM-3:15 PM
Service and Learning Experience Miriam Hall 109
Advisor(s) - Peter G Wagner
Student(s) - Philipp Berger, Jessica Ciraldo, Mark D Ewalt, Kevin E Fisher, Timothy N. Renner, Nathan M. Somerset, Kathryn E. Sunday

University students increasingly realize that international experience is almost a prerequisite for securing a first-rate job after graduation, and learning about and understanding diverse cultures make us all better world citizens. How can you as a student expand your horizons while still maintaining a high level of academic professionalism? With the SBA (School of Business Administration) international programs that include Summer Study Abroad, Semester Exchange, and ETHOS (co-sponsored by the SBA and the Department of Engineering), to name a few, students become world citizens by embracing unfamiliar and diverse cultures in rigorous educational environments that can include service activities. This presentation will inform students on becoming a more educated citizen through a study abroad and/or service experience in Europe, Asia, Central or South America, and more. Students may take business and general education classes taught by University of Dayton faculty or take a foreign language. Opportunities for service activities through ETHOS engage students in life-changing experiences while giving back to the global community. Past program participants will present their stories and discuss the unique opportunities awaiting students in all majors.

### Cox Arboretum Kiosk Project

Oral Presentation 2:15 PM-3:15 PM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - Harvey G Enns, Arthur R Santoianni
Student(s) - Dorothy A. Fogarty, Brittany L. Najor, Eric R. Nietfeld, Doug T Powers

Cox Arboretum has developed a database cataloguing all of the trees, shrubs, and memorials and their GPS locations in the Arboretum. Our goal is to make the information in this database available to the public on a kiosk system on the Arboretum grounds as well as on the new Cox Arboretum website. Visitors will be able to search for a tree, shrub, or memorial if they know the name of it, or they can just browse a list. The kiosk and website will be able to display the information about any particular tree, shrub, or memorial the visitor selects, as well as a map of the Arboretum with the item's location pinpointed so visitors can easily find the selected item. Our mission on this project is to create authentic, inspirational value for visitors by using technology to bring to life the collection of trees and shrubs at Cox Arboretum. We want to show that Cox is a place that should be experienced and is a place full of life and energy focused on a long and successful future.

### The Davis Center for Portfolio Management Team

Oral Presentation 2:15 PM-3:15 PM
Independent Research Miriam Hall 118
Advisor(s) - Robert D. Dean, David A Sauer

Members of the Davis Center for Portfolio Management Team will talk about the various opportunities that are available within the Davis Center for Portfolio Management. The presentation will highlight the various resources that are available with the Davis Center, the $10 million Flyer Investments Fund and the University of Dayton RISE (Redefining Investment Strategy Education) Forum.

### Flyer Enterprises: Entrepreneurship in Action

Oral Presentation with Video 2:15 PM-3:15 PM
Independent Research Miriam Hall 207
Advisor(s) - John W Shishoff
Student(s) - Megan E. Arko, Joseph R. Guy, Courtney M. Heinekamp

Flyer Enterprises are the student run businesses at the University of Dayton. Flyer Enterprises are the third or fourth largest student run business on a university campus with seven operating locations, sales of more than $1.5 million annually and 150 student employees. This presentation, which includes a video prepared for UD's Board of Trustees, will cover Flyer Enterprises' history, current operations and future initiatives in terms of both business, student learning and service outcomes.

### Operations Management Capstone Consulting Projects - Part I

Oral Presentation 2:15 PM-3:15 PM
Senior/Capstone Project Miriam Hall 213
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Rachel N. Bush, Jenny A. Cannon, Daniel S. Daykin, Dean B. Freson, Robert G. Gogolin, Kevan W Halma, Kurtis R. Huelsman, Molly C. McCarty, Anthony J. Metzger, Timothy N. Renner, Casey J. Rindler, Anyodely E. Vega, Sarah A Vidmar

In this session four teams of senior Operations Management students will present the work they have in progress for their senior capstone Operations consulting projects. The teams include Kurtis Huelsman, Anyodely Vega, Sarah Vidmar with project "Consumer Call Forecasting at GE Money" (Advisor: Gorman); Rachel Bush, Robert Gogolin, Anthony Metzger, Timothy Renner with project "ER Patient Flow at VA Hospital" (Advisor: Groman); Jennifer Cannon, Dean Freson, Molly C. McCarty with project "Inventory Model Review at Shumsky Enterprises" (Advisor: Kanet); and Daniel Daykin, Kevan Halma, Casey Rindler with project "Inventory Record Accuracy at Emerson" (Advisor: Kanet).

### ThreeWitt Enterprises Sales Tracking System

Oral Presentation 2:15 PM-3:15 PM
Senior/Capstone Project Miriam Hall 214
Advisor(s) - Harvey G Enns, Arthur R Santoianni
Student(s) - Michael J. Berg, Shaun P. Donaldson, Matthew D. Kniess, Casey J. Rindler, Jacob A. Weber

The Management Information Systems senior project team helped ThreeWitt enterprises track company sales more effectively. ThreeWitt Enterprises owns three Milanos and ten Buffalo Wild Wings restaurants throughout the Dayton area. The student team worked to move sales data from cash register systems into a data-warehousing environment. The team then created reports to allow executives and managers to use the data to support business decisions. The team designed a database that establishes the foundation for future reporting and business intelligence operations. The project is about creating a sustainable way to store accurate and relevant sales data for recall whenever needed.

### Framing the Environment: A Look at the Cartagena Protocol on Biosafety

Oral Presentation 2:30 PM-3:00 PM
Independent Research Kennedy Union 207
Advisor(s) - Natalie Florea Hudson
Student(s) - Brian B. Gravunder

In 1992, the Convention on Biological Diversity became the first international hard law to address the rapid decrease of life variety in the World. A supplementary agreement known as the Cartagena Protocol on Biosafety was adopted in 2000 to address the need to safely transport living modified organisms which result from advances in biotechnology. These actions show that there is something to be said about the way we view our changing world. This research project looks specifically at the drafting and passage of the Cartagena protocol to determine in what way activists and scientists have framed the issue of biodiversity in international law. Knowing how this movement is framed will be important to increasing participation of people, leaders, and states. A cause can move persons to listen, but a reason can move nations to action. Finding that reason can be the key to progress.

### Jewish Mystical Traditions in Early Syriac Baptismal Imagery

Oral Presentation 2:30 PM-3:00 PM
Graduate Research Marianist Hall Learning Space 217
Advisor(s) - Silviu N Bunta

Student(s) - Meghan A Sullivan

Title: Jewish Mystical Traditions in Early Syriac Baptismal ImageryIntroduction: Twenty years ago Thomas M. Finn astutely noted the importance of the sacrament of baptism, describing it as "the hinge upon which Christian identity turns." He added, "To understand what the rite discloses about Christian identity today...one must understand what it disclosed in antiquity." The western understanding of how early Christians perceived the sacraments evolves as scholars uncover previously unexplored areas of ancient Christianity. Due to its geographical and cultural proximity to Palestine, the birthplace of Christianity, Syria has essential resources for developing a more complete picture of the sacraments in early Christianity and for understanding today's theological dialogues.Sebastian Brock notes, "Several important areas of Syriac literature have been passed over in silence." By illustrating how Jewish mysticism influenced Syriac baptismal imagery, my research findings contribute to an area of Syriac literature that has been commonly passed over. My research findings also help illuminate early Christian understandings of baptism.Methods:My methodology included close readings and textual analyses of translated poems and homilies written by Aphrahat, Ephrem, Narsai, and Jacob of Serugh. I also examined biblical passages and noncanonical texts related to these writings. In addition, I analyzed Syriac literature in the context of existing scholarship on the Syriac baptismal liturgy and Jewish mysticism.Findings:Several Jewish mystical traditions influenced the imagery used to describe the Syriac baptismal liturgy. In particular, the Jewish mystical concepts of deification and angelomorphism, as well as heavenly twin and mirror imagery, shaped Syriac descriptions of the baptismal oil, water, and robe. Conclusion:My findings show that Judaism influenced theology and literature in eastern Syria in the fourth and fifth centuries. Syriac Christianity was not divorced from Judaism but, rather, relied heavily on Jewish mystical concepts in its understanding of the baptismal liturgy.

## Police Response to Domestic Violence

Oral Presentation — 2:30 PM-3:00 PM
Senior/Capstone Project — St. Joseph's Hall 023
Advisor(s) - Jefferson L Ingram
Student(s) - Joshua A. Wilson

Almost 2.1 million Americans are victims of domestic violence a year, making domestic violence a prevalent problem. The police are usually the first respondents to a domestic violence situation; therefore their respective police departmentâ??s policy is critically whether the problem will be successfully resolved. Police departments use a variety of different methods in order to resolve a domestic violence situation. Some police departments have a mandatory arrest policy, where one participant must be arrested in order to avoid a situation when the police leave the scene. Other police departments involve social services and require the couple to go to counseling in order to try and correct the situation. Each response will be evaluated in order to find the best response a police departments can have to domestic violence cases.

## When there is no flow: Changes in migratory movement and benthic community structure across Hawaiian watersheds of variable size and diversion impact.

Oral Presentation — 2:30 PM-3:00 PM
Graduate Research — Kennedy Union 312
Advisor(s) - Mark E Benbow, Albert J Burky
Student(s) - Kathleen R Gorbach

Anthropogenic removal of freshwater from tropical stream ecosystems modifies the natural flow regime, altering habitat availability, species composition and migratory success through small-scale changes in microhabitat flow dynamics and large-scale effects on ecosystem processes. Two companion studies were conducted to assess these affects in four watersheds of the West Maui Mountains. A baseline survey studied the benthic community response to water withdrawal, evaluating physical stream condition, stream discharge, and habitat scale flow upstream and downstream the highest diversion in each watershed. This was used to compare response differences between riffle and cascade habitats and defined the physical habitat template for each. Secondly, a manipulation experiment studied factors affecting the upstream migration of an endemic amphidromous gastropod, Neritina granosa (Sowerby). It was hypothesized that habitat template, specifically flow parameters, influence initial movement and migration rate and that this effect is strengthened with increased density. Diversions removed 84-99% base-flow, significantly reducing downstream flow. There were significant positive relationships between discharge and total benthic macroinvertebrate densities with 12-73% reductions downstream. Two-way ANOVA revealed

significant effects of watershed and location, including an interaction, suggesting diversion effects on macroinvertebrate density depended on the watershed. Migration rates were significantly different between snail treatments ($p<0.0001$), indicating an overall effect of flow and density. Under reduced flow, movement was initially slow and random, but Froude became an important indicator when a flow corridor was found ($p<0.0001$). Under natural flow conditions, there were significant positive relationships between linear migration and mid-column velocity ($p<0.0001$), with a two-fold increase in slope and 50% more explained variation under increased density. Results indicate the importance of flow to freshwater systems, dictating stream processes and patterns. Without this flow, benthic community structure and migration are compromised, threatening endemic Hawaiian species. In-stream flow recommendations can be made for restoration and management purposes.

### Issues in Health Communication

Oral Presentation 2:30 PM-3:30 PM
Course Project 09_FA_COM_547_01 Kennedy Union 310
Advisor(s) - Teresa L Thompson
Student(s) - Courtney B. Beasley, Jamie M. Eastman, Nicholas T Iannarino, Kathryn L Lecklider, Jessica D. Ledbetter, Grace A. Rodney, Rania M Shakkour

Issues in Health Communication -- Jessica Ledbetter; Campaign Proposal: Bringing Awareness to Diabetes -- Nicholas Iannarino; Humor in Health Narratives -- Jamie Eastman; Issues in Organ Donation -- Grace Rodney; Social Networking in Health PR at a Children's Hospital -- Rania Shakkour; The Portrayal of a Health Organization in the News Media: Miami Valley Hospital in the Dayton Daily News -- Kathryn Lecklider; Birth Control Commercials: American Values and the Application of Social Cognitive Theory -- Courtney Beasley; Health Portrayals and Green Living; -- Julia Ramaccia; Media analysis: "Just Say No" Campaign

### Ana-tummy; Brain Food you can Eat

Interactive Display 2:30 PM-4:30 PM
Independent Research Frericks 50
Advisor(s) - Pamela K Downing
Student(s) - Chelsea Marquette Bach, Taylor M. Barnes, Kelsie V. Bennett, Adrienne F. Berger, Lauren A. Berndt, Emily D. Besancenez, Carolyn A. Brademeyer, Sara K. Brooke, Melissa A. Carlone, Paige E. Copeland, James M Cosgrove, Sarah E. Denk, Jaclyn N. Dintaman, Sarah E. Dippold, Claire C. Ertl, Kelsey A. Flanders, Kelsey R. Glovinsky, Carly S. Hicks, Brenna M. Kaveney, Ashley A. Leopold, Ellen K. Maurer, Alexander J. Reynolds, Sarah E. Russell, Sarah M. Silk, Erica L. Stubbers, Guston G. Zervoudakis, Jennifer E. Zorich

The human body contains many organs and 206 bones making it a complex organism that few truly understand. What better way to inform people of the anatomy than by relating it to something we all understand, food. The edible human body will contain all of the vital organs and muscles, illustrating how it all fits together. The construction of the body will be entirely out of food, ranging from bones made out of bread to intestines made out of hot dogs. This learning experience additionally will provide its viewers with fun facts about the human body and a background on the Health Science Department presented by Department Chair, Dr. Vandenberg. Overall this enjoyable educational experience will leave its viewers hungry for more.

# POSTERS

### The History of Physical Education and Sport: Stories for the Ages and Lessons from the Legends of Famous Women (Section 2)

Course Project 10_WI_HSS_275_01 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union 222
Advisor(s) - George M DeMarco

The purpose of these studies was to describe and interpret major events and the lives and times of significant individuals in the history of physical education and sport throughout the millenia. At once interesting, inspirational, edifying, and enlightening, the stories told by the students of the course HSS 275 - History of Physical Education/Activity and Sport - speak powerfully to the transcendent nature of sport and physical activity across all generations, cultures, and topical interests. From football to rodeo to cheerleading; From Paul Brown to Brandi Chastain, to Ernestine Bayer, these original research projects utilized an array of primary and secondary sources, including interviews, personal narrative, print media, photographs, and vintage video.

### Acute Effects of Whole Body Vibration on Counter Movement Jump, Timed One-Leg Support, Timed Get Up and Go, and Sit and Reach Flexibility Test in Healthy College Students

Graduate Research 1:00 PM-2:30 PM
Graduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler, Harold L Merriman
Student(s) - Eric Hugh Barth, Kirk Michael Rhein

Purpose : The purpose of this study was to investigate the acute effects of whole-body vibration (WBV) on timed get up-and-go test (TGUG), timed one-legged stance test (TOLS), vertical counter-movement jump test (CMJ) and the sit-and reach test at 4 measurement times (10 min pre-treatment; and 2, 15, 30 min post-treatment) in a convenience sample of healthy college students. Methods : The University of Dayton Institutional Review Board approved this double-blind randomized controlled trial (RCT) repeated measures study prior to data collection. 31 college students were asked to participate in the study based on enrollment in a research methods class. Statistical analyses were conducted in SPSS (v 16.0) and alpha was set at 0.05. General linear model repeated measures tests were conducted for each of the dependent measures with treatment duration, time of observation, and gender statistically controlled. Results : 29 subjects completed the study (23 female/6 male, mean age 23.14 ± 7.9 yrs, mean weight 149.00 ± 26.57 lbs., height 66.51 ± 3.43 inches). There was not a statistically significant difference in any of the dependent variables based on treatment duration or time of observation. However, there were significant differences in CMJ, TGUG and sit and reach performances between genders ($p = 0.0001$) and a significant within-group difference in CMJ between 0 and 26 Hz ($p = 0.0001$) when gender was statistically controlled. Conclusion: The current study found gender to have a statistically significant effect on several functional measures in healthy college subjects. Although not reaching a level of statistical significance, the study also found 2 Hz to produce positive acute improvements compared to 0Hz which lends support to the idea that 2 HZ cannot serve as a control or sham treatment.

### Amistad in Action: Uniting the Americas Through the Sister Parish Relationship

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Jana M Bennett, Jeffrey L Morrow
Student(s) - Elizabeth A. O'Connor

This thesis examines the relationship between St. Monica parish in Indianapolis and her "sister parish" in Honduras to explore what it means to have a sister parish, how the relationship functions on each end, and how it plays out in the broader context of helping to unite the Americas into one America. This research integrates concepts such as solidarity, mission, and faith, especially as discussed in Pope John Paul II's apostolic exhortation Ecclesia in America.

### An Analysis of Alpine Glacier Morphology in the Eastern, Central, and Western Himalaya using Remote Sensing Data

Honors Thesis
Undergraduate - Individual
Advisor(s) - Umesh K Haritashya
Student(s) - Todd L. Longbottom

1:00 PM-2:30 PM
Kennedy Union Ballroom

Alpine glaciers of the Himalayas are especially sensitive to variable climate and have exhibited noticeable retreat and supraglacial lake expansion, possibly as a direct result of anthropogenically-driven climate change. The objective of this study is to evaluate glaciers from Eastern, Central, and Western Himalayas. The morphology of these glaciers are worthy of extensive study as they control water availability across Asia. Therefore, in this study we selected cluster of glaciers in and around major mountain peaks in east, west and central part of Himalayas. Since these glaciers are so large in scale and reside in extremely remote areas, contemporary studies rely primarily on satellite imagery. Consequently this study employs DEMs and Orthorectified images from the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) instrument as well as Indian remote sensing data. Images were acquired from 1999-2006, and a decadal analysis was conducted to determine glacier fluctuations, debris cover, ice velocities, area comparisons, vertical change, and supraglacial/proglacial lake extents across the different regions. The glaciers in each geographic region are extremely complex and exhibited starkly different characteristics both spatially and temporally. Generally proceeding from the west to the east the glaciers seem to thin in overall debris cover, lake proliferation, and downwasting/retreat most likely due to regionally varying climatic patterns. There is an urgent need to develop regional climate and energy budget modeling to assess glacier complexities from east to west.

### Any Progress? Portrayals of Women in Domestic Commercials

Honors Thesis
Undergraduate - Individual
Advisor(s) - Teresa L Thompson
Student(s) - Julie B. Ramaccia

1:00 PM-2:30 PM
Kennedy Union Ballroom

This study examines 64 housework and other domestic commercials in order to see how women are portrayed in terms of dress, verbals and nonverbals and demographics. Although many women have advanced in their education and careers, the media continue to present a narrow and stereotypical view of women. This study reinforces this assertion, and also shows that women dress conservatively and seem fulfilled by housework. This study uses semiotics as its theoretical basis and is a content analysis of housework commercials.

### Assessing Habitat Quality Using Standing Stock Biomass in Diverted Mountain Streams

Independent Research
Undergraduate - Individual
Advisor(s) - Mark E Benbow, Albert J Burky
Student(s) - Ryan T. Lemier

1:00 PM-2:30 PM
Kennedy Union Ballroom

A demand for freshwater in areas of Hawaii that receive little rainfall has led to the construction of many diversions that remove a significant percentage of water discharge from the streams. The goal of this study was to analyze the effects of artificial water reduction on the relative benthic biomass of three dominant introduced taxa (Chironomidae, Hydroptila sp., and Cheumatopsyche analis) by comparing organisms sampled from sites upstream and downstream of the diversions. Four West Maui streams were sampled within sites upstream and downstream of the highest diversion (N = 18). Digital images were taken of a 25% subsample and abdominal width or total body length was measured using an image processing program, Image J (http://rsbweb.nih.gov/ij/). Standing stock biomass was calculated using published biomass equations. Although standing stock biomass for Hydroptila sp. and Cheumatopsyche analis was not significantly different between upstream and downstream sites in Iao Stream ($p=0.1535$ $t=1.681$ $df=5$; $p=0.8426$ $t=0.2061$ $df=7$; respectively), there was a 63% decrease in total mean biomass for Hydroptila sp. and a 14% decrease in Cheumatopsyche analis in Iao downstream. Such results suggest that reduced discharge caused by the diversions negatively affects the energetic availability of macroinvertebrate links in

the food chain of these ecosystems. Knowledge gained from this study will aid in the ongoing investigation of the ecological impacts of these stream diversions and provide information for future management and restoration practices.

### The Association Between Gender, BMI and Fitness in Junior and High School Aged Students

Course Project 09_FA_HSS_555_01 1:00 PM-2:30 PM
Graduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Cheryl Ann Basil, Nancy J. Cook

The purpose of this study was to examine the association between gender, body mass index (BMI) classification, and fitness. The University of Dayton institutional review board (IRB) approved the study. A total of 61 seventh through twelfth graders who were enrolled in the Dayton Early College Academy (DECA) Fall 2009 participated in the study. Weight, height and age were obtained previous to testing. BMI was calculated using Children's BMI-percentile-for-age calculator (Baylor College of Medicine), and each subject was assigned to the normal, overweight, or obese BMI category. The three components used as measures of fitness were mile run time, pushups completed in one minute, and V-sit and reach. Pushup performances were significantly different ($p < .05$) between BMI categories, and there was a significant interaction between BMI category and gender in that boysÃ¢Â?Â? pushup performances were negatively impacted by an increase in BMI to a greater extent than were girls, performing 63% fewer pushups in the BMI category obesity compared to normal weight. Mile run times were significantly different between genders and BMI categories ($p < .05$). Although the BMI category by gender interaction was not statistically significant, the trend was for girls' increase in BMI to have a greater negative impact on run times than did the boys' increase in BMI. There was no statistical differences in the sit and reach performances between genders or BMI categories. In conclusion, increasing BMI tended to affect males more in strength performances and females in aerobic performances, while BMI appeared not to have an impact on flexibility.

### Bacterial DNA helicases at the intersection of DNA replication, recombination, and repair

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Matthew E Lopper
Student(s) - Ryan J. Carpenter

All bacterial cells must be able to duplicate their genetic information in order to grow. However, DNA replication can be disrupted due to damage in the cell's genome, causing the process to come to a halt. Bacterial cells must be able to repair damaged DNA and restart the process of genome replication to ensure survival. This process, known as DNA replication restart, is initiated by a DNA helicase called primosome protein A (PriA). As the initiator of DNA replication restart pathways, PriA must accomplish a diverse array of tasks such as recognizing places along the chromosome where replication has been disrupted, binding the DNA at these sites, and manipulating the DNA in a way that helps resume the process of replication. In this study, I examined the function of PriA in Neisseria gonorrhoeae, the pathological agent behind the human disease gonorrhea, and compared its function to the PriA protein of Escherichia coli. Using fluorescence polarization techniques, I determined how well PriA binds to various DNA structures, to what extent it can unwind duplex DNAs, and how rapidly it unwinds duplex DNA. Through understanding these characteristics, a better view of PriA's role in DNA replication restart can be constructed.

### Behavioral Research in a Social Service Agency: A Cautionary Tale

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Wesley C King
Student(s) - David S. Kaufman

Purpose: This paper aims to examine the effectiveness of employment assistance services at a local social service agency as measured through job satisfaction, willingness to engage in citizenship behaviors, and perceptions of justice in the employing

agency. Additionally, this paper provides the author's reflections on the research process itself, including difficulties, surprises, and suggestions for future researchers. Methods: Individual interviews with clients using the employment assistance services using previously-established measurement tools. Findings: Responses were generally positive for satisfaction, citizenship behaviors, and perceptions of justice, and all clients reported satisfactions with the social service agency itself. However, low response rates limit the applicability of these results. This study discusses reasons for the low response rate and strategies to increase responses for future researchers.

### Biological Warfare Leads to Larger Biofilms: the Effect of a Bacterial Virus Attack on the Biofilms of the Bacterium Pseudomonas aeruginosa

Honors Thesis — 1:00 PM-2:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Jayne B Robinson
Student(s) - Jennifer M. Lang

The bacterium Pseudomonas aeruginosa makes harmful biofilms that cause many medical problems. They are more resistant to the host immune system and antibiotics. Due to this, the infection is very difficult to eradicate so new methods of treatment are needed. The use of bacterial viruses, bacteriophage, has been proposed as an alternate method to traditional antibiotics, but our lab previously observed that bacteria respond to bacteriophage attack by increasing in biofilm mass. This unexpected result led to the need for further investigation into how and why this was happening. We determined that there was more DNA in the bacteriophage induced biofilms than the regular biofilms. After ruling out DNA release mechanisms, we believe it is a result of the bacterial cells being burst by bacteriophage release. Also, the induced biofilm stability was tested, and it was found to be more susceptible to the antibiotic tobramycin than regular biofilms. This indicates that the DNA that is released during phage release is not helpful to the biofilms.

### Bioremediation and Sustainability in Dayton's South Park Nieghborhood

Course Project 10_WI_ASI_346_H1 — 1:00 PM-2:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Daniel C Fouke, Sukhjinder S Sidhu
Student(s) - Peter A. Arensberg, Dylan L. O'Loughlin, Kimberly E. Simons

The South Park Community in Dayton is attempting to help the environment by implementing bioremediation in their neighborhood. There are many abandoned houses and plots of land in the South Park neighborhood that are in no way beneficial to the environment. A South Park resident has volunteered one of these abandoned lots to be converted into a healthy ecosystem for this project. The purpose of this project is to make the neighborhood more appealing, while at the same time, eliminating some of the problems that are present in urban environments. These problems include toxins present in the soil, diminished biodiversity, abundance of waste, and introduction of pollutants due the tasks needed to maintain current gardens. The toxins will be removed from the soil through the process of bioremediation. Plants which are native to the Dayton area and grow well in clay will be planted in place of the current grass which will harbor a plethora of insects and birds, therefore increasing biodiversity. Agricultural plants will also be planted in the garden which will provide a small amount of healthy food for residents, making the garden sustainable for the human inhabitants. The plants that will be chosen will not require much maintenance, therefore minimizing the use of fuels for machines such as mowers. Bins will be placed on the site which will act as a composting center for the residents to bring their waste. Educational signs will be posted throughout the garden which will include activities and experiments for children, while also including facts about the plants, soil, and other eco-friendly aspects of the plot. The ultimate goal of this project is to educate the community through an example on how to make their urban environment more aesthetically pleasing and eco-friendly.

### Body Mass Index: Impact on Fitness and Hemodynamic Factors in DECA students

Course Project 09_FA_HSS_428_H1 — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Alexandria C. Harris

This study aimed to determine if there was a statistically significant association between body composition and selected fitness and hemodynamic factors for adolescents in the Dayton Early College Academy (DECA). Subjects were a convenience sample of DECA students (ages 12-17 yr, n=49) in the 2009-2010 academic school year. Fitness factors included mile run, forty yard dash, curl ups, shuttle run, lumbar extensions (supermans), v-sit and reach, and push- ups. Percent body fat and body mass index (BMI) were measures of body composition. Average systolic and diastolic blood pressures were hemodynamic measures. Only one of the DECA students had obesity, 9 had overweight, and the rest were of normal or slightly less than normal weight. There was a statistically significant difference in the mile run times, forty yard dash times, curl-ups, percent body fat, and average systolic and diastolic blood pressures between BMI categories. Based on the known associations between low fitness, overweight, high blood pressure and an increased risk for developing several diseases, DECA is advised to initiate an intervention to target students who are at high risk.

## Children in At Risk Communities: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B3 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Katherine M Boone, Molly C Coveny, Luke E Cummins, Melissa E Wilson

As students at the University of Dayton, we are taught that the fundamentals of every education are learning, leading and serving. With the guidance of our professors and peers we have seen the importance of helping those in need and being strong leaders in our community. Throughout our experiences at Patterson Kennedy Elementary School and the Dakota Center we have been able to positively affect children in urban settings. At Patterson Kennedy and the Dakota Center, we served as enthusiastic mentors and tutors which opened our eyes to an entirely new experience and allowed us to move the theory of learning, leading and serving into practice in our local community.

## Collection of Short Stories

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Stephen W Wilhoit
Student(s) - Alexander S. Whitehead

Heavily based on character, these thematically-linked original stories examine the significance of communication in society and private relationships and explore the consequences surrounding its neglect, failure, or destabilization, while experimenting with voice, setting, structure, and symbolism.

## Comparison of Anthropometric, Hemodynamic, and Presidential Fitness Measures between Male and Female Junior High and High School Students

Course Project 09_FA_HSS_428_H1 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Samuel Fullen, Eric N. Small

Research indicates negative trends in anthropometric, hemodynamic and fitness measures with advancing age in adolescents. For the current study, data were collected on 54 local college preparatory students attending the Dayton Early College Academy (DECA). Anthropometric (body mass index (BMI) and body fat percentage), hemodynamic (resting heart rate, systolic and diastolic blood pressures), and fitness (v-sit and reach, shuttle run, push ups, 40-yard dash. mile-run, and push ups) measures were compared between male and female junior high and high school students using independent samples T-tests (SPSS, version 17.0). Alpha was set at 0.05. For males, there was a significant difference between junior high and high school students in resting heart rate, v-sit and reach, shuttle run, push ups, and 40-yard dash. In females, there was a significant difference between junior high and high school students in resting heart rate, diastolic blood pressure, mile-run, and push ups. There were no significant differences between junior high and high school males' systolic blood pressure, or between junior high and high school females' body fat %, curl-ups, V-sit and reach, shuttle run, supermans and the 40-yard dash. The current

results are contradictory to the current literature in that the high school students' measurements were more favorable from a health perspective compared to those of the junior high students.

### Comparison of anthropometric, sprint, agility, and flexibility between DECA and MHS basketball adolescents.

Course Project 09_FA_HSS_428_H1 — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Angela L. Westerheide

Purpose: To compare measures of anthropometric, sprint, agility, and flexibility between a general group of adolescents at the Dayton Early College Academy (DECA) and a group of interscholastic basketball athletes in nearby Middletown, OH. Methods: Anthropometric, sprint, agility, and flexibility measures were collected on DECA students and compared to a pre-existing data set collected on Middletown High School. Statistical analyses included calculated means, Pearson product-moment correlations, and independent t-tests. The level of significance (alpha) was set at 0.05. Results: Body fat percentage and sprint times were significantly correlated for both male basketball athletes ($r=-.404$) and for females from both study groups (DECA $r=.748$; MHS $r=.488$). Independent samples t-tests revealed that the only significant differences between the DECA and basketball study groups were height ($p<0.001$) and sit and reach ($p<0.014$). Conclusion: The analysis contradicts the current literature as there were very few significant differences in anthropometric or fitness measurements between a non-athletic (DECA) and athletic (MHS) group of adolescents.

### A Comparison of Management in the Film and Television Industry to Management in the Manufacturing Industry

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - John E Gentner
Student(s) - David A. Thomas

In today's business world, the concept of management is extremely subjective to hierarchy, culture and style. The manner in which managers supervise and direct their employees is a topic which has been highly debated, as it can have a huge impact over productivity which ultimately leads to monetary success of a company. When assessing the value of certain management styles, oftentimes broad generalizations are made across a number of industries for the sake of comparison. While no two companies are exactly the same, many do have similar enough components to yield objective results which can be applied to management in general. This thesis will make a distinctive comparison between publicly traded manufacturing corporations in the United States and the entertainment industry as it relates to film and television. The reason that these two industries are being compared is due to the nature of the final product. Like the manufacturing industry, the film/television industry produces a final product (good) and generates revenue off of that product, giving it the appearance of a typical manufacturing entity. However, I propose that there are distinctive differences between these manufacturing corporations and the film and television industry. These differences are so vast that they give the film and television industry a unique business model apart from those that are regularly classified and used for strategic purposes. This business model creates unique demands on managers in this industry, namely the producers of films and television shows. Through a comparison of industry environments and managerial roles, this thesis will demonstrate several distinctive differences which relate to managers in the film and television industry.

### Comparisons of Face Recognition Among Autistic and Typically Developing Children

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Ronald M Katsuyama
Student(s) - Kyle C. Deane

This study compares developmental changes in face perception in children with autism with the corresponding developmental changes among typically developing elementary and middle school children. Forty-five participants ranging from 6 to 14

years were presented with a series of trials, each one involving the presentation of a standard photo of an expressionless human face in either a frontal or side view followed by a choice array of faces in three-quarter view. The children were asked to select the same individual from this array that was depicted in the standard photo. The results showed a general improvement with age in facial recognition among the typically developing children across both frontal and side processing. While a similar trend was observed in the autistic group for side processing, frontal processing did not show a developmental shift. This lends support to the view that frontal face recognition among typically developing children is qualitatively different from the autistic children of the same age.

## Cytotoxicity of zinc oxide nanoparticles in human and mouse dermal fibroblast cell cultures

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Yiling Hong, John J Rowe
Student(s) - Kyle A. Meyer

The production of manufactured nanoparticles is growing rapidly as the field of nanotechnology continues to expand. With the increase in nanoparticle-containing products, there are also concerns about the associated health risks. The current study investigates the response of human and mouse dermal fibroblast cells 4 hours and 24 hours after exposure to zinc oxide nanoparticles. Morphological changes following exposure were examined by phase contrast microscopy. MTT-based cell viability tests indicate a decrease in cell survivorship at 10 mg/l zinc oxide nanoparticle concentration. Zinc oxide nanoparticle exposure induced upregulation of cell cycle p53 protein and p38 MAP kinase protein involved in stress response and DNA repair pathways.

## Design of a Shape-Changing Rigid-Body Parabolic Light Reflector

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Andrew P Murray, David H Myszka
Student(s) - Mark M Plecnik

Shape-changing mechanisms have the capacity to morph between multiple profiles. These mechanisms are composed of multiple hinged joints and rigid bodies, the classical components of mechanical design. The morphing is activated by the rotation of a single input link. The capacity of these mechanisms to change shape may allow for their use in aerodynamics, deployable mechanisms, wave reflection/concentration, and ergonomics applications. This project included an investigation and the design of a practical mechanism for a parabolic light reflector. This project will result in the prototyping of this shape changing light reflector.

## Dorsal eye selector pannier (pnr) suppresses retinal differentiation in the Drosophila eye

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Amit Singh
Student(s) - Sarah M. Oros

Axial patterning is crucial for organogenesis. During Drosophila eye development, dorso-ventral axis determination is the first lineage restriction event. The eye primordium begins with a default ventral fate, on which dorsal eye fate is established by expression of GATA-1 transcription factor pannier (pnr). It was suggested earlier that loss of pnr function shows eye enlargement due to ectopic equator formation in the dorsal compartment of the fly eye. Interestingly, our gain-of-function and loss-of-function studies suggests pnr suppress retinal differentiation. Pnr is expressed in the dorsal eye margin in the peripodial membrane and not in the disc proper. We propose that pnr suppresses retinal differentiation by downregulating retinal determination genes to define the dorsal eye margin and is required for head specific fate. This eye suppression function of pnr is mediated through suppression of Hox gene teashirt (tsh) and is independent of homothorax (hth), a negative

regulator of eye. These studies will help to understand the developmental control of regulation of the dorsal eye boundary in the developing eye.

### Drinking Attitudes and Behaviors

Honors Thesis
Undergraduate - Individual
Advisor(s) - John J Bauer
Student(s) - Leeann M. Chomanics

1:00 PM-2:30 PM
Kennedy Union Ballroom

Excessive alcohol consumption is a major problem on many college and university campuses across the country and a major concern among college administrators because of the dangers it poses to college students. While multiple factors contribute to college student drinking, the role of parents during the high school and early college years is important in understanding college drinking. This study aims to explore the impact of parents as a factor that contributes to college student alcohol use. The study seeks to examine whether students' perception of their parents' drinking habits and perceived approval of drinking impact their own attitudes and behaviors. The research also examines the communication that occurs between parents and students about the students' attitudes and drinking habits, and any negative consequences associated with alcohol use at the family level.

### The Effect of a Cationic Porphyrin on Pseudomonas aeruginosa Biofilms

Honors Thesis
Graduate - Group
Advisor(s) - Jayne B Robinson
Student(s) - Tracy L Collins

1:00 PM-2:30 PM
Kennedy Union Ballroom

Current studies have indicated the utility of photodynamic therapy using porphyrins in the treatment of bacterial infections. Photoactivation of porphyrins results in the production of singlet oxygen that damages biomolecules associated with cells and biofilms, e.g., proteins, polysaccharides, and DNA. The effect of a cationic porphryin on P. aeruginosa PAO1 was assessed by exposing static biofilms and planktonic cells to 5,10,15,20-tetrakis(1-methyl-pyridino)-21H,23H-porphine, tetra-p-tosylate salt (TMP) followed by irradiation. Biofilms were visualized using confocal scanning laser microscopy (CSLM) and cell viability determined using the LIVE/DEAD BacLight viability assay and standard plate counts. At a concentration of 100uM TMP, there was substantial killing of P. aeruginosa PAO1 wild-type and pqsA mutant biofilms with little disruption of the biofilm matrix or structure. Exposure to 225uM TMP resulted in almost complete killing as well as the detachment of wild-type PAO1 biofilms. In contrast, pqsA mutant biofilms that contain less extracellular DNA remained intact. Standard plate counts of cells recovered from attached biofilms revealed a 4.1-log10 and a 3.9-log10 reduction in viable cells of wild-type PAO1 and pqsA mutant strains, respectively. In addition, when planktonic cells were exposed to 225uM of TMP there was a 3.4-log10 and 2.9-log10 reduction in viablility of wild-type PAO1 and pqsA mutant strains, respectively. Exposure of planktonic cells to TMP concentrations as low as 1.25uM and 1 h of light resulted in significant reduction of cell viability. Subsequently, plasmid DNA was completely degraded following exposure to TMP and light. Our results suggest that the action of photoactivated TMP on P. aeruginosa biofilms is two-fold: direct killing of individual cells within biofilms and detachment of the biofilm from the substratum. There was no evidence of porphyrin toxicity in the absence of light; however, biofilms pretreated with TMP without photoactivation were substantially more sensitive to tobramycin than untreated biofilms.

### The Effect of Excess Dead Mass on Allometrically Scaled Fitness Scores

Honors Thesis
Undergraduate - Individual
Advisor(s) - Paul M Vanderburgh
Student(s) - Kimber E. Lucius

1:00 PM-2:30 PM
Kennedy Union Ballroom

The push-up (PU) and distance run (DR) are components of most military physical fitness tests (PFT). Both measure strength relative to body mass, and have been shown to impose a penalty against larger individuals. This has also been predicted using biological laws of allometry, which refers to the relative change in proportion of one attribute compared to another. This bias is of concern because PFT scores have an impact on assignment, promotion, and job retention. One proposed solution

is the use of correction factors based on body mass that essentially eliminate this bias. Correction factors, however, have been criticized for rewarding excess body fat, an undesirable fitness test outcome. Therefore, the purpose of this study was to test this assertion by artificially stimulating the addition of fat mass, or "dead mass," in the form of loaded backpacks, for the PU and DR events. Complete data was collected from 55 male University of Dayton ROTC cadets. Results showed that even with the added dead mass, PU and DR corrected scores were, indeed, worse. This was because the advantage in correction factors in added weight was smaller in magnitude than the disadvantage in the actual raw scores. Such a finding has practical implications for potential changes in military fitness assessment.

### The effect of forest spatial distribution on the population genetics of Ambystoma texanum

Graduate Research — 1:00 PM-2:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Carissa M Krane, Patrick K Williams
Student(s) - Elizabeth A Rhoads

The landscape of western Ohio has been altered from its original forested state and is today dominated by agriculture. Small forests remain, but landuse and distance between patches limits migration of woodland species. Forest patches in this region often contain vernal pools, which serve as breeding habitat for small-mouthed salamanders (Ambystoma texanum). The aim of this study was to compare the population genetics of small-mouthed salamander subpopulations in a series of forest patches. Tail tissue was collected from 20 individuals each from eight pools in Hardin County, Ohio. Three pools occur in the same forest; the other five are in separate forests at distances away from this main forest (200 m â?? 20 km). Genomic DNA was extracted and purified from salamander tissue. Three microsatellite loci were amplified by PCR and genotyped for allele size. The mean number of alleles over the three loci was 12.4 per sample site. The mean fixation index (F) was 0.361. This indicates that although the number of alleles present is fairly high, these subpopulations have lower heterozygosity than expected, which could be attributed to genetic drift and lack of migration between small subpopulations. The most isolated site (Hardin 1) had the fewest mean number of alleles (9.0) and F=0.423, while three sites within the same forest (Hardin 3L-1, 4, 5) had mean numbers of alleles of 13.0, 12.3, and 13.3; and F values of 0.398, 0.334, and 0.192 respectively. The inbreeding coefficient (FIS) was 0.4401 for Hardin 1; and 0.4189, 0.3518, and 0.2114 for Hardin 3L-1, 4, 5. This indicates that the subpopulation in the isolated forest has more inbreeding than the subpopulations occurring in the same forest. The genetic diversity of small-mouthed salamanders is likely dependent on their spatial proximity to other subpopulations, which is often impaired by forest fragmentation in this region.

### Effectiveness of photodynamic therapy against the bacteriophage UT1

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Jayne B Robinson
Student(s) - Elizabeth M. Raphael

Photodynamic therapy involves the use of a photosensitizer to induce inactivation of biological molecules or cells upon activation by light. This project focused on the use of a porphyrin to inactivate the UT1 bacteriophage, a virus that infects and kills the bacterium Pseudomonas aeruginosa. We tested the effect of the cationic porphyrin 5,10,15,20-Tetrakis(1-methyl-4-pyridyl)-21H,23H-porphine (TMP) on UT1 in order to determine the minimal lethal concentration (MLC) and light intensities required for complete inactivation. The porphyrin was successful in complete phage inactivation at a concentration of 1.25 Î¼M combined with 45 minutes of irradiation using a mercury vapor lamp, with incomplete inactivation at lower concentrations and shorter time periods. There was no inactivation in the dark and inactivation of the phage using an ambient light source was not significant. This approach may be effective against other, disease-causing viruses since bacteriophage can serve as a model for more complex viruses, such as those that infect humans.

### Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams.

Independent Research — 1:00 PM-2:30 PM
Undergraduate - Group — Kennedy Union Ballroom

Advisor(s) - Mark E Benbow, Albert J Burky
Student(s) - Margaret M. Ernst, Kathleen R Gorbach, Megan E Shoda

Freshwater demand is constantly growing on islands of the Pacific Ocean. To meet these needs, Hawaii has a history of diverting stream water to support agricultural and economic needs. The effects of this water removal on stream quality have been examined using various biological and physical metrics including water column drift. It was hypothesized that aquatic and terrestrial invertebrate drift within the water column would differ between sites upstream and downstream of a diversion. In August 2007 and May 2008, a standard drift net was used to sample water column drift upstream and downstream of the highest diversion in four West Maui Streams. Sites were sampled on three dates for two hours, to assure consistent data and maximum invertebrate drift. Samples (N=3) were sorted and identified, grouping organisms as terrestrial or aquatic invertebrates. Emergence was also estimated based on exoskeleton data. Organic matter was assessed using ash free dry mass methodologies to describe water column fine particulate organic matter and coarse particulate organic matter. Initial results illustrate a greater density and diversity of invertebrates upstream along with an increased emergence. This variation is most likely due to unnatural flow conditions downstream, negatively affecting community structure and function. Appropriate statistical analyses (i.e. t-tests, two-way ANOVA p=0.05) will be used to compare metrics within and between upstream and downstream sites. Information gained from this study will contribute to the overall understanding of the effects of diversions on natural ecosystems.

## An Ethnographical Exploration of Math and Science Pedagogyin a Kenyan Primary (K-8) School

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - James B Rowley
Student(s) - Eric J. Krissek

In a Kenyan primary school, students are struggling to pass math and science proficiency tests. These tests determine which students are eligible to continue their education in secondary school. This is a significant event, since education is one of the few opportunitiesfor an individual to improve his or her social and economic standing. As a result, what can be implemented, from an educational standpoint, to improve these math and science scores? Before considering all of these interventions, however, the cultural construct of this Kenyanprimary school must be considered. Moreover, the question related to why these students are failing must also be investigated. This problem is explored from a plethora of perspectives to offer insight into the realm of math and science pedagogy in Kenya. It also aims to offereducational interventions that align with Kenyan educational philosophies and other ethnographic research strategies.

## Exploring the Significance of Preconditioning Blood Vessels in Ex Vivo Testing

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Margaret F Pinnell
Student(s) - Alice M. Begovich

The objective of this study was to determine if preconditioning porcine renal arteries prior to using an energy-based surgical tool that cuts and seals these vessels would enhance the repeatability of subsequent burst pressure tests. An advanced surgical scalpel was used on the blood vessels, half of which were preconditioned before cutting and sealing with the scalpel and half of which were not. After the seal was accomplished, the two halves of the blood vessel were subjected to a burst pressure test. The highest pressure that the seal withstood was recorded. It is expected that the preconditioned blood vessels will have a lower standard of deviation in their burst pressures as compared to the standard deviation of the control group.

## Factors related to motorcycle fatal crashes in Ohio

Honors Thesis — 1:00 PM-2:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Deogratias Eustace, Peter W Hovey

Student(s) - Vamsi Krishna Indupuru

Ohio crash data for 2003-2007 were used to investigate the odds of a motorcyclist being fatally injured in a crash and the risk factors involved. The results show that risk factors for fatal crashes significantly increase when the following circumstances apply: the motorcyclist is less than 25 years of age, being the motorcycle rider, use of excessive speeding, use of alcohol and/or drugs, riding without helmet, being involved in a single-vehicle crash at a non-intersection location, crashing on horizontal curves, on graded segments, and on major roadways. The combination of risk factors, such as nigh-time riding at horizontal curves, excessive speeding on major roads, travelling at excessive speed while under the influence of drugs and/or alcohol, and younger riders negotiating horizontal curves, greatly increases the likelihood of fatal injury crashes. In order to reduce the number of fatal crashes this study indicates that the dangers of excessive speed and operating a motorcycle while intoxicated must be fully stressed to the public. The enactment of an Ohio universal helmet law is particularly recommended.

### Fitness or Body Composition: Does physical fitness or body composition have a greater impact on Presiden's Fitness Challenge testing in adolescents?

Course Project 09_FA_HSS_555_01 1:00 PM-2:30 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Kendra Sickinger

The purpose of this study was to determine whether fitness or body composition has a greater effect on the President's Fitness Challenge events. Thirty-seven DECA students in junior high and high school participated in the President's Fitness Challenge and anthropometric testing. Results were divided by fitness and body composition standards to determine the high fit/low fit and high fat/low fat groups. Results showed that body composition significantly affected the President's Fitness Challenge testing in adolescents.

### Genetic Basis of Cell Death in Neurodegeneration in Alzheimer's Disease

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Amit Singh
Student(s) - Rohan M. Modi, Jaison J. Nainaparampil

The cause and progression of Alzheimer's disease (AD), which affects over 450,000 people in the United States each year, are not completely understood. The disorder manifests neurological alterations such as cortical shrinkage, enlarged ventricles and a diminished hippocampus. Although the symptoms are clearly outlined for Alzheimer's disease, the process by which neurodegeneration occurs is not fully understood. The amyloid hypothesis explains how the cleavage of the transmembrane Amyloid Precursor Protein (APP) causes the formation of an abnormal AB 42 peptide rather than a normal AB 40 peptide, resulting in the generation of extracellular amyloid plaques and the onset of neurodegeneration. Owing to the high degree of genetic conservation between flies and humans, we used the Drosophila eye model system to understand the genetic mechanism of neurodegeneration caused by the accumulation of amyloid plaques. Misexpression of amyloid-beta in differentiating neurons results in the onset of neurodegeneration in the eye. Our objective was to understand the genetic circuitry of apoptotic cell death responsible for this phenotype. We will present the results from our candidate gene approach that was employed to rescue the neurodegeneration phenotype. The first two authors contributed equally.

### Geothermal Ground-Source Heating: Using TYNSYS to Optimize a Solar Hybrid System

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Andrew D Chiasson
Student(s) - Senia I. Smoot

This project addresses a common problem found in geothermal closed-looped ground source heating systems. Often, if the climate in which a building is located is heating dominated, the system results in a thermal load imbalance in the ground. It is possible, however, to decrease the load imbalance and increase the system efficiency by introducing a supplementary heat source such as a solar collector. This project focuses on a hybrid system comprised of glazed solar thermal collectors, a heat pump, and ground loops used to heat domestic hot water in a multi-family residential dwelling. TRNSYS, a transient system simulation tool, is used to model the system and determine what optimal system conditions can be obtained for the climate and building.

### Graph Decompositions and Equitable Edge Colorings

Senior/Capstone Project — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Atif A Abueida
Student(s) - Charles J. Suer

A k-edge coloring of a graph G is said to be equitable if the number of edges, at any vertex, colored with a certain color, differ by at most one from the number of edges colored with a different color at the same vertex. An H-decomposition of a graph G is a partition of the edges of $G$ into copies of H. An H-decomposition is said to be polychromatic if the edges in each copy of H are colored with different colors. We study the relation between polychromatic H-decomposition and equitable edge coloring of the complete graph when H is a cycle of size four.

### Hedgehog Signaling as a Regulator of Gastric Physiology

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Yiling Hong, Yana Zavros (University of Cincinnati)
Student(s) - Sally A. Ogle

Objective: Sonic hedgehog (Shh), a morphogen secreted from acid-producing parietal cells in the gastric glands, plays a key role in maintaining the normal adult gastric epithelium. The current study examines how Shh regulates normal gastric physiology by examining its effects on acid secretion and barrier function. Methods: To study the role of Shh in acid secretion, a mouse model with a parietal cell-specific deletion of Shh was generated using Shhflx/flx (loxP sites flanking exon 2 of the Shh gene) and HKCre (cre transgene under the control of the H+,K+-ATPase Î² subunit promoter) pre-existing transgenic mouse strains. To study the role of Shh on barrier function, nontumerigenic gastric epithelial (IMGE-5) cells were grown until the trans epithelial electrical resistance (TEER), measured with an epithelial-vole-Ohm-meter, plateaued. The cells were then treated with vehicle, cyclopamine, or cyclopamine+recombinant human Shh (rhShh), collected, and immunostained for the tight junction protein ZO-1. To further explore tight junction disruption and the resultant loss of barrier function, TEER was recorded and the permeability coefficient (Papp) of cultures incubated with 3, 40, and 500 kDa FITC-labeled dextran was measured. Results: Hyperplasia was observed in HKCre/ShhKO mice by 4 months of age. Gastric acid measurements showed hypochlorhydria in HKCre/ShhKO mice corresponding to an increase in gastrin-expressing cells and a decrease in somatostatin-expressing cells. Inhibition of the Shh signaling pathway in IMGE-5 cells resulted in disruption of ZO-1 expression and a significant decrease in TEER. IMGE-5 Papp increased considerably when treated with cyclopamine further indicating loss of barrier function. Barrier function was recovered with the addition of rhShh. Conclusion: Shh is a key component in regulating normal acid secretion and tight junction formation in the gastric epithelium. Loss of biologically active Shh results in hypochlorhydria and hypergastrinemia. Inhibition of Shh signaling results in loss of barrier function through tight junction inhibition.

### HSS 226 Career Goals and Our Future

Course Project 10_WI_HSS_226_01 — 1:00 PM-2:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Marvin D Ganote
Student(s) - David A. Cable, Elyse M. Klosterman, Elissa C. Mason, Lorin A. Miller

Our presentation will be on our personal goals we wish to accomplish upon graduating in our intended career fields. We will focus on our main goals for the upcoming ten years, and exaplin what we wish to do and about our job we wish to take on.

### Implementing Guitar Effects Using MATLAB

Honors Thesis
Undergraduate - Individual
Advisor(s) - Russell C Hardie
Student(s) - Alexander M. Watson

1:00 PM-2:30 PM
Kennedy Union Ballroom

The novelty of this thesis project pertains to the use of strictly software algorithms defined using MATLAB to create a variety of electric guitar effects to be employed and controlled in real time. The input guitar signal is taken from the microphone jack on the computer and loaded into MATLAB so that various filters can be applied to change the signal based on controllable parameters. These parameters are controlled using a graphical user interface (GUI) tool in MATLAB as well. The end product of this thesis will provide a solid foundation for any future electrical engineer who may be interested in digital signal processing as it pertains to guitar effects to take to the next level. It will contain all the necessary software files I have developed as well as complete and easy-to-follow instructions for setting a new computer up to reproduce the results I have obtained.

### Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir

Graduate Research
Graduate - Group
Advisor(s) - Philip A Anloague, Claudia J Brahler
Student(s) - Corey Michael Guttenberg, Melinda M Kvitko, Rebecca E Wright

1:00 PM-2:30 PM
Kennedy Union Ballroom

The shoe-to-surface conditions required for adequate traction during competitive soccer are associated with excessive loads that may injure the knee joint. Studies provide evidence that injury incidence varies between different shoe cleat designs. The purpose of this study was to quantify the kinematic, kinetic and electromyographic parameters acting upon the knee joint for 3 different soccer shoe cleat designs worn by competitive soccer players completing a change-of-direction maneuver at the apex of a timed 26-meter slalom course. This study was approved by the UD IRB. Ten skilled soccer players, who were free of knee injuries, pain, and joint laxity participated in the study. Retroreflective markers and pre-gelled electrodes were placed at limb landmarks to measure joint kinematic, kinetic and electromyographic data while subjects performed the 180-degree turning movement on a force plate covered with artificial turf. General Linear Model Repeated Measures were completed (SPSS, v 16.0) to identify within-subject effects for 3 shoe cleat constructions (stationery rounded cleat, bladed cleat and disengaging rounded cleat) on knee joint loads (knee abduction and internal knee rotation), EMG, and time to complete the slalom course. There was a statistically significant within-group difference in knee abduction moments ($p = 0.037$; mean values 4.40, 2.92, and 2.88 for the rounded, blade and disengaging cleats, respectively). Knee internal rotation moments and running speed were not significantly different between cleat conditions, but there was a trend for the disengaging cleat to develop lower joint load and complete the course fastest. There was not a significant difference in EMG activity between cleat conditions. It appears that the novel cleat design may result in lower joint loads and faster running times which may reduce incidence of injury and improve athletic performance for competitive soccer athletes. However, more research with a larger sample size is required to confirm these conclusions.

### Isolation and Characterization of Glycoside Hydrolases from Caldicellulosiruptor saccharolyticus.

Honors Thesis
Undergraduate - Individual
Advisor(s) - Donald A Comfort

1:00 PM-2:30 PM
Kennedy Union Ballroom

Student(s) - Andrew M Topp

With growing concern over global warming and waning oil reserves, there has been increased interest in biofuels. A major step forward for biofuels would be the ability to efficiently and economically utilize cellulose rich feedstocks. To accomplish this, newmethods of digesting these complex feedstocks into simpler sugar molecules need to be developed. Caldicellulosiruptor saccharolyticus is a thermophilic bacterium capable of breaking down cellulose. Several enzymes from C. saccharolyticus hypothesized to be involved in digesting cellulose were chosen and expressed in E. coli. The functional activity and biochemical characterization of these enzymes will be discussed.

### The Link Between Value-Added Assessment and Educational Malpractice and Its Implications for Educational Leade

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Terence Lau
Student(s) - Gregory E. Moredock

The public is pushing for more teacher accountability, and schools are responding by developing in a variety of methodologies and systems. I argue that one of these systems, value-added assessment, will have ramifications in the legal realm. Negligent educational malpractice results when teachers harm students intellectually by negligent and ineffective practices. Value-added assessment will provide a basis for courts hearing negligent educational malpractice cases. This legal development will bring about even more accountability for teachers and schools. Currently, negligent educational malpractice suits have not found much success because courts have ruled that it is impossible to determine if a teacher's teaching ability is the cause of the plaintiffâ??s injury. With value-added assessment, school districts can track teachers and hold them responsible for their performance. This holds severe implications for current and future educational leaders and leadership theory, which have yet to address this possible occurrence.

### Long Term Dendrochronological Analysis and Forest History of Germantown MetroPark

Independent Research 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Ryan W McEwan
Student(s) - Grace P. John

In the 1930s, 1665 acres of heavily forested land in Germantown, Ohio was set aside for public use. The diversity of old trees made the area ideal for this study investigating ecological changes to the park over time as well the varying responses among deciduous species to changes in climate. The factors that most influence the forests of South-West Ohio are water and light. Thus, changes in these factors affect the growth rate of trees within the forest, which is reflected in the diameter of the ring produced by the tree that year. In this study Liriodendron tulipifera, Quercus alba, Quercus rubra, Quercus muehlenbergii, and Juglans nigra were sampled using an increment bore and analyzed for climate patterns. Trees conveying old growth features within the 1665 acres were sampled to ensure the most complete climate pattern analysis. By creating a mean chronology for each species growth patterns could be compared between species. This also allowed for development of an establishment date for each species within the park. Based on the analysis of mean establishment dates for each species within our samples, L. tulipifera was the first of the species to establish within the park, followed by Q. alba, Q. rubra, and J. nigra. The establishment date for J. nigra appears to be later than other species sampled and the species appears to have a relatively slower mean growth rate leading the researchers to believe that this species established in the park after the forest was primarily dominated by oak and poplar. Based on the mean chronologies, Q. rubra, Q. alba, and L. tulipifera grew at a fairly consistent rate, while J. nigra demonstrated a decrease in growth over time. The oldest trees of the collection initiated circa 1877 indicating a lack of true old growth within our sampling spectrum.

### Lovasz's Conjecture for Semidirect Products, Dihedral Groups, and Alternating Groups

Honors Thesis 1:00 PM-2:30 PM

Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Arthur H Busch
Student(s) - Matthew P. Magner

A group is a set of elements with a binary operation that follows a certain set of axioms. A Cayley graph is a graph that corresponds to a group and a generating set of the group. Lovasz conjectured that every Cayley graph contains a Hamiltonian cycle. Cayley graphs for semidirect products, dihedral groups, and alternating groups are observed to find some patterns among them. The observations are made on graphs that are easy to visualize and move on to graphs that are far too complex to visualize, and the aid of a computer must be used. The Hamiltonian cycles of the graphs are analyzed.

### Love TV?Love Handlesa proposed link between tv advertisements and obesity

Course Project 10_WI_SOC_208_01 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Mary K. Nolan

This project looks at the link between television viewing and obesity in relation to the kinds of food and frequency it is shown on TV. The project highlights past research such as content analysis and examples of experiments done on children. There is also a design for a new study to examine the way food is presented on TV programs and commercials are an aspect of the American obesity problem.

### Low-Cost Solar Thermal Power: A Design of Experiment

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Kevin P Hallinan
Student(s) - Brock P. Glasgo

Current flat-plate solar water heaters are complicated and expensive systems typically added on to existing roofs. A new system is analyzed which utilizes inexpensive greenhouse glazing materials to integrate solar collecting and roofing functions, drastically reducing the cost of using solar power for domestic hot water use. A design of experiment is being conducted to determine an optimal design and peak system efficiency. The statistical testing method used allows several design parameters, as well as the interactions between these parameters, to be compared and the system's sensitivity to each determined. The results of the study will be used to validate a computer model of the technology which simulates system performance in any climate at any time of year.

### Marcion and His Effect on Mainstream Christianity

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Silviu N Bunta
Student(s) - Colleen E. Fitzsimons

In the second century CE, a man named Marcion challenged the beliefs of the mainstream Christian community and created the first list of books to be considered purely Christian Scriptures. His views forced the Church-at-large to better define its beliefs about justice and love and prompted the eventual creation of the New Testament we have today. First, this thesis describes the complicated and diverse state of Christianity in the second century (Marcionâ??s context). It then explores the complexities of the idea of heresy itself, pointing out that those we now view as heretical were not necessarily so when they were alive and putting forth their ideas. Finally, it outlines what we know about Marcionâ??s life, teachings, and canon, as well as their impact on the development of Christianity into the entity we recognize today. Marcionâ??s claim that the God of the Old Testament and the God revealed by Jesus were different beings forced the church at large to reconcile the deityâ??s portrayals in Old and New Testament writings; his rejection of the Hebrew Scriptures and emphasis on a strictly literal interpretation of Scripture led the church at large to defend Christianityâ??s connection with the Old Testament and

the use of numerous methods of Scriptural interpretation; and his extremely narrow canon prompted mainstream Christianity to insist that a wider variety of materials be included in its canon.

### Measuring Carbon Sequestration and Biomass Products of Algae Using 14CO2

Independent Research 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Jerome C Servaites, Sukhjinder S Sidhu
Student(s) - Julia L. Faeth, Erin J. Graham, Lawrence J Saliba

Carbon dioxide (CO2) is the chief greenhouse gas that results from human activities and may be a key factor in causing climate change. The atmospheric concentration of CO2 has increased from 280 ppm in 1850, the start of the industrial revolution, to 390 ppm today. Efforts are underway at UDRI to reduce atmospheric CO2 by bio-sequestration using algae. The objective of this work is to explore ways to measure the rate of CO2 fixation and the resulting biomass products of different species of algae. Algae were allowed to photosynthesize naturally in a closed system containing radioactive labeled CO2 for up to 24 hours. A linear relationship was observed with respect to carbon fixation over time. Of the species examined, 32% to 42% of the carbon was fixed into lipids with the remainder incorporated into protein and starch. The lipid and starch products have the potential to be made into biodiesel and ethanol, respectively. Combined with a rapid carbon fixation rate, this makes algae an attractive way to sequester atmosphere and produce biofuels.

### The Mediating Role of Silencing the Self in the Relationship Between Rejection Sensitivity and Anger

Independent Research 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Lee J Dixon
Student(s) - Katherine E. Butler, Allison L. Kolick, Frank D. Rable, Leigh E Ridings

Past research has found a link between rejection sensitivity and silencing the self. Previous studies have also found that rejection sensitivity and anger are positively correlated. However, these past studies have failed to account for the reason that rejection sensitivity and anger are related. Although these studies have demonstrated a link between rejection sensitivity and silencing the self, and an association between silencing the self and anger, no studies have examined the mediating effect of silencing the self in the link between rejection sensitivity and anger. The current study examines this relationship between rejection sensitivity and anger, and the role silencing the self plays on this relationship. Our data is drawn from a larger study that looked at the conceptualization of forgiveness. Our sample includes 331 participants between the ages of 18 and 25, with 169 females, 160 males, and 2 non-responders. Our sample was predominately Caucasian, with 277 white participants. Our results suggest that silencing the self may partially mediate the relationship between rejection sensitivity and anger. That is, our study suggests that people who are sensitive to rejection may suppress their feelings (silence themselves) and, as a result, become angry.

### MELEC: Meta-Level Evolutionary Composer

Independent Research 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Jennifer Seitzer
Student(s) - Andres A. Calvo

Genetic algorithms are global search mechanisms in whichabstract representations of candidate solutions are progressivelyrefined until a desired solution is obtained. In thiswork, we use evolutionary computation on two levels: theobject and the meta. At the object level, we employ geneticalgorithms to compose melodic motifs and iteratively refinethem through evolving generations. At the meta level, weform the overall musical structure by concatenating the generatedmotifs in an order that depends on the evolutionaryprocess. That is, the structure of the music is formed by ageneological traversal of the algorithmâ??s execution sequence.We introduce a new data structure that tracks the execution ofthe GA, the Genetic Algorithm Traversal Tree (GATT), anduses its traversal to define the musical structure. Moreover,we employ a Fibonacci-based fitness function to shape themelodic evolution.

### Memory and Comprehension of Short Passages: The Effects of Translation

Honors Thesis
Undergraduate - Individual
Advisor(s) - Ronald M Katsuyama
Student(s) - Christen E. Lopez

1:00 PM-2:30 PM
Kennedy Union Ballroom

This study looks at the effects of translation on memory and comprehension for short reading passages. Participants were students in upper-level French classes at the University of Dayton. Participants were asked to read four short passages, translating two into French and recalling the information from the other two in English. They were then administered a comprehension test to determine their global comprehension of each passage. The experimenter hypothesized that participants would perform better on comprehension test questions regarding the two passages they translated as evidenced by faster response times and more correct answers. This experiment furthers the research in the field of cognitive effects of translation because it is studying people who are not completely bilingual. There is evidence indicating that unbalanced bilinguals have a different cognitive structure for their second language than balanced bilinguals who are completely fluent in each language. The experimenter theorizes that these cognitive structural differences allow the language students to process information at a deeper level when they translate it than when they simply recall the information in their native language.

### The Microarchitecture of the Canine Zona Pellucida: Is it reflective of the health of the oocyte?

Graduate Research
Graduate - Individual
Advisor(s) - Shirley J Wright
Student(s) - Matthew O Lunn

1:00 PM-2:30 PM
Kennedy Union Ballroom

Mammalian oocytes are surrounded by a thin mesh-like extracellular matrix called the zona pellucida (ZP) that sperm bind and penetrate to fertilize the oocyte. ZP structure and function of model organisms has been well studied; however, little is known about the ZP of companion animals. Previously we showed that the canine (Canis familiaris) ZP surface has four morphologies when observed with scanning electron microscopy (SEM), and they are independent of dog breed, age of donor, and maturity of the oocyte as reflected in oocyte size. The objective of this study was to determine whether oocyte health from the time of collection influences ZP surface structure. Oocytes were isolated from ovaries from different dog breeds of a variety of ages. Oocyte health was determined using a live/dead stain in which dead oocytes fluoresces red with fluorescent microscopy. All oocytes were then fixed, critical point dried, viewed by SEM and categorized by ZP surface type: Type I, smooth ZP with no or few small (0.5 Âµm) pores; Type II, fenestrated ZP with regularly spaced pores; and Type III, rough and uneven ZP with irregular hollows and pores; and Type IV, rough and uneven ZP with irregular hollows and pores that were filled with stringy filaments. Our preliminary results showed that living oocytes were significantly larger ($p < 0.05$) than dead oocytes. Differences in ZP surface type were occasionally seen when comparing living and dead oocytes from the same dog; however, when the data from all dogs were grouped, the groups were not significantly different indicating that the health of the oocyte from the time of collection does not significantly influence ZP surface morphology under the conditions tested. Future studies are aimed at increasing the numbers of oocytes used for the study. This research was funded in part by the Graduate Student Summer Fellowship.

### miRNAs in newt lens regeneration: Specific control of proliferation

Honors Thesis
Undergraduate - Individual
Advisor(s) - Panagiotis A Tsonis
Student(s) - Albert L. Trinh

1:00 PM-2:30 PM
Kennedy Union Ballroom

The eye of adult newts can regenerate a removed lens via transdifferentiation of the pigment epithelial cells (PECs) of the dorsal iris. The same source of cells from the ventral iris is not able to undergo this process. In an attempt to understand this restriction, we have previously studied the role of miRNAs and found that miR-148 shows an upregulation in the ventral iris, while members of the let-7 family show a down-regulation in dorsal iris, during dedifferentiation. Here we performed gain- and loss-of-function experiments of miR-148 and let-7b in an attempt to delineate their functions. We found that up-

regulation of miR-148 significantly decreases the proliferation rates of only ventral PECs, while upregulation of let-7b affects proliferation rates of both dorsal and ventral PECs. These regulations should be compared to those in other animal systems to further understand their roles in regeneration. Neither miRNA affect lens morphogenesis nor induction.

### Nano-Enhanced Polymeric Composites for Lightning Strike Protection

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Donald A Klosterman, Jennifer Chase-Fielding (US Air Force Research Laboratory)
Student(s) - Kelly P. Kranjc

Since there is a high level of interest in replacing metallic components of aircraft structure with composite, it is important that the composite materials be able to perform well in response to certain phenomena, including lightning strike. Certain types of nanomaterials, specifically nickel nanostrands and vapor-grown carbon nanofibers, show promise as secondary conductors when paired with either expanded copper mesh or nonwoven nickel-coated carbon fibers in the surface of a composite. Nine panels were produced using different combinations of these materials on Hexcel AS4 carbon fabric with EPON 862 epoxy resin, and five of these panels were duplicated on Hexcel IM7 carbon fabric with CYCOM 977-3 epoxy resin. The panels were characterized before striking using both amplitude and time-of-flight C-scans, X-ray imaging, electrical conductivity measurements, and cross-sectional morphology, and then characterized after striking using both amplitude and time-of-flight C-scans and X-ray imaging. The panels were struck with a peak current of 100 kA, corresponding to a Zone 2A lightning strike. The depth and area of the damage from the strike was determined for each panel to determine the effect of the addition of the nano and macro materials.

### Oil and Governance

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Jaro M Bilocerkowycz
Student(s) - Sarah A. Burpo

Oil-states, for the purposes of this paper, are the top thirty world ranking states for proven oil reserves. These oil-states do not have a common thread throughout, except for the oil wealth, and many of them are victims of the "resource curse." The resource curse is the theory that extreme wealth from resources is actually detrimental, rather than an asset, to the governments and, thus, the population. Oil is a unique resource within this curse due to its volatility in the market and high demand. In focusing on a few specific oil-states and data collection, one can see that the oil curse is also a governance curse.

### On the Mechanism of NaBH4 Hydrolysis: Raman Spectra of Solid Species

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Kevin J Myers, Michael A. Matthews (University of South Carolina)
Student(s) - Hilary S. Marsh

Sodium borohydride (NaBH4) is potentially valuable as a hydrogen storage compound because hydrogen liberated during its hydrolysis can be used in fuel cells. Elucidation of the hydrolysis reaction mechanism is important in the engineering of a hydrogen storage system. When sodium borohydride reacts with steam, hydrogen gas and solid hydrated sodium metaborate, NaBO2xH2O, are produced. In this investigation, the solid species involved in the hydrolysis reaction were characterized in order to lay the groundwork for the reaction to be studied with in-situ Raman spectroscopy. Raman spectra were acquired of the four potential solid products of the reaction, namely the four hydrated forms of sodium metaborate (NaBO2â?¢xH2O where x = 4, 2, 0.5, and 0). These were obtained during dehydration of x = 4 to x = 0 with the use of a temperature controlled reactor cell. In addition, dehydration of the sodium metaborate dihydrate was characterized by Thermogravimetric Analysis (TGA), Differential Scanning Calorimetry (DSC) and by visual observation. Spectra were also taken of the solid reactant, NaBH4, as it was heated from ambient temperature to reaction conditions. Finally, a technique was developed to obtain in-situ Raman spectra as the hydrolysis reaction was taking place. The technique and equipment allow the reaction to take place at different temperatures, pressures, and humidities. Information gained from characterization of solid species and

from spectra taken during reaction will be useful for molecular simulation of the pathway of sodium borohydride hydrolysis. The technique was further evaluated by obtaining preliminary data under reaction conditions.

### An Outlook on Speed and Power Performance between Positions of Basketball Players

Course Project 09_FA_HSS_555_01 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Ashley R. Hemm Stacie Lynn Travis Chad Trudo

The current study aimed to determine if there would be a statistically significant difference in skill test performances between different basketball positions for forty-four high school basketball players (25 males and 19 females). The data had originally been collected by a graduate student during the 2008-2009 academic year and players had been categorized according to playing position using four levels (point guard, wing guard, guard, forward). A review of the current literature revealed that most published studies combined all guards into only one position category and compared them to forwards. Therefore, for the current analysis the data were analyzed using both strategies to see if results would be different using four versus two position categories. Skill tests included the no-step vertical jump (NSJV) and the Beep test. These same two categories were also used to examine how performance is affected throughout a season (Pre-season, Mid-season, and Post-season). There was not a statistically significant difference in performance throughout a season by any position. A repeated measures General Linear Model test showed that there was a statistically significant difference in NSVJ and Beep Test performances ($p = <.001$) between positions using four levels and that the difference reached an even greater level of statistical significance when the data were collapsed into two categories. Due to data not being collected for all the guards on the post season beep test, the test could not be run properly. When data was broken down by four position categories the point guards jumped the highest and ran the fastest. When analyzed by two position categories, the guards did jump the highest and run the fastest but due to too much overlap the differences were not statistically significant.

### Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence

Graduate Research 1:00 PM-2:30 PM
Graduate - Group Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler, Betsy K Donahoe-Fillmore, Terri M Glenn
Student(s) - Allison Marie Ingley, Jennifer Rae Kennedy, Valerie Ann Osterfeld

Purpose: To determine if pelvic floor muscle training exercises were effective in decreasing the degree of stress urinary incontinence. Methods: Subjects were randomly assigned to either the pelvic floor muscle training group (PFMT) or the PFMT with resistance (PFMTR) intervention group. Both groups performed the exercises daily for 3 months. Electromyographic (EMG) data were collected for resting, work and recovery values for long holds (10 seconds), moderate holds (5 seconds), and short holds (2 seconds) at baseline, 4 weeks, 8 weeks and 12 weeks. Results: A total of 6 subjects completed the study (2 in the PFMT group and 4 in the PFMTR group). There was a statistically significant within-group improvement in long hold, moderate hold and short hold measures for both groups ($p = 0.029$, 0.01, and 0.002, respectively). There was not a statistically significant between-group effect for long hold, moderate hold or short hold measures. Paired samples T tests revealed a statistically significant difference in the pre to post ICIQ, UDI6 and the incontinence severity index ($p = 0.025$, 0.028 and 0.039, respectively). Independent samples T tests revealed a statistically significant difference in the gain scores for the UDI6 between groups ($p = 0.043$) but not for the ICIQ or the incontinence severity index. Discussion: The results of the present study are consistent with the findings in previous research that pelvic floor muscle training is beneficial in increasing strength and decreasing subjective views on level of incontinence. Results suggest that both traditional pelvic floor muscle training and pelvic floor muscle training with hip abduction and hip adduction resistance are effective but that there seems to be no statistically significant difference between the two types of training methods; however results at each collection date show greater increases in EMG readings in the PFMTR group.

### Photovoltaic Charging of a Single-Cell Solid-State Lithium-Air Battery

Honors Thesis 1:00 PM-2:30 PM

Undergraduate - Individual
Advisor(s) - Binod Kumar
Student(s) - Peter A. Kolis

Kennedy Union Ballroom

Solid-state lithium-air secondary batteries currently in development boast the highest theoretical energy density of current battery chemistries. The effective combination of solar photovoltaic cells and solid-state lithium-air secondary batteries would allow the renewable, self-charging, and energy-dense storage of electrical power, with applications in portable consumer electronics, the electric auto industry, and residential/commercial solar photovoltaic systems. A solid-state lithium-air secondary battery developed by the University of Dayton Research Institute was monitored as it was charged and discharged to determine its response to direct solarphotovoltaic charging, and the resulting data was analyzed to determine the suitability of this battery chemistry to direct solar-photovoltaic charging.

## Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences

Independent Research
Undergraduate - Group
Advisor(s) - Susan T Davis Jonathan A Hentz
Student(s) - Kathryn E. McKeown, Kristen M. Rock, Kelly M Satterfield, Suzanne M. Thomas

1:00 PM-2:30 PM
Kennedy Union Ballroom

Facial pleasingness and symmetry are two factors that contribute to the overall attractiveness of a person. This role of symmetry is consistent with research on the role of body symmetry in mate selection in other species. For example, female insects and birds have been found to prefer body symmetrical characteristics in males of their species (Perrett, Burt, Penton-Voak, Lee, Rowland, & Edwards, 1999). The present research examines the relationship between gender and ratings of symmetrical and non-symmetrical faces. Participants were assigned to one of four conditions in which they viewed a slideshow of symmetrical and non-symmetrical faces for 100 ms, 300 ms, or 500 ms; the control group was not given a time limit for viewing the faces. Participants rated the pleasingness of individual faces and chose the most pleasing face from symmetrical and non-symmetrical versions of the same face. Results are undergoing analysis and are expected to support previous research which found that symmetrical faces are preferred to and are evaluated more quickly than non-symmetrical faces, and the theory that facial symmetry is indicative of evolutionary advantages (Rhodes, Proffitt, Grady, & Summich, 1998). Thus, both male and female participants are expected to find symmetrical faces more pleasing, although slight differences between men and women may be observed in the speed with which they make their determinations. The results of this research are important for identifying facial features that are taken into account when judging for attractiveness and when seeking a future mate.

## Problems with 'Going Green': The Paradoxof Green Capitalism and an Authentic Presentation of Self

Honors Thesis
Undergraduate - Individual
Advisor(s) - Dan E Miller
Student(s) - Alix A. Omori

1:00 PM-2:30 PM
Kennedy Union Ballroom

Green consumerism is a growing trend in American markets, and companies in every industry are capitalizing on it by marketing products with a â??sustainableâ?? agenda and encouraging consumers to make ethical and environmental purchase decisions. Eco-marketing uses an ethical agenda to promote products (a practice sometimes called â??greenwashing"), so consumers who buy in to this trend are making a personal environmental statement while simultaneously â??jumping on the hybrid bandwagonâ??. However, as green consumerism continues to rise, scholars and environmentalists have begun to debate the authenticity of the trend and its consumers, citing inconsistent consumer behavior and the inherent paradox of green capitalism as reasons for their skepticism. This research examines exactly what it means to â??go green,â?? and challenges the green industry to reaffirm its ecological mission and redirect its focus from the consumer to the environment. Using survey data, secondary data analysis, and scholarly research, this study attempts to quantify American consumersâ?? ecological consciousness and level of commitment to the green movement. That is, does the rise of green consumerism indicate a greater movement towards conspicuous consumption or is it simply a manifestation of the influence of green

marketing? In exploring the answer to this query, one can assess the efficacy of the green movement and predict the future of ecological consciousness and consumerism in the United States.

### Project ACM: Autonomous Music Composer

Senior/Capstone Project — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Jennifer Seitzer
Student(s) - Justin J. Foley

The Circle of Fifths is a music theoretic formalism that characterizes standard harmonic modulations in Western Music. Based on the interval of the perfect fifth, this structure shows how melodic and harmonic motifs can fit together to form aesthetically pleasing music. In this work, I created a binary string representation of the Circle of Fifths to explore musical possibilities along with techniques of Artificial Intelligence (AI). Project AMC delineates and implements this formalism and uses AI techniques of genetic programming and grammatical evolution to compose music.

### Rational Design of Multi-metallic Porphyrins Containing Ru/Cu/Pt Metals as DNA Binding Agents

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Shawn M Swavey
Student(s) - Sindhu V. Ravipati

The porphyrin meso-5-(pentafluorophenyl)-10,15,20-tris-(4-pyridyl) was reacted with three equivalents of Ru(bipy)2Cl2 (where bipy = 2,2'-bipyridine) to give the targeted ruthenated porphyrin. This was then reacted with copper chloride to coordinate copper (II) in the center of the porphyrin ring. The targeted platinum porphyrin complex was then achieved by reacting the ruthenated copper porphyrin with Pt(DMSO)2Cl2 to attach to the platinum complex to the remaining pyridyl nitrogen group of the porphyrin. Each porphyrin was characterized by UV/vis spectrometry and cyclic voltametry. The ruthenium (II) porphyrin showed an intense Soret band and several Q bands in the visible region of the spectra. An intense pi-pi* transition due to the pyridyl nitrogen groups of the ruthenium complex along with a metal to ligand charge transfer (MLCT) band occurred left of the Soret band. The addition of copper (II) showed a merge of the Q bands. The platinum (II) porphyrin showed a more distinct MLCT band. Electrochemical studies showed that there was an irreversible reduction of the porphyrin in the ruthenium porphyrin complex, but once copper (II) was added it became a reversible reduction. Once the platinum group was added, the reduction once again became irreversible and there was also an irreversible reduction of platinum at -0.80V. DNA titrations using calf thymus DNA and the platinum porphyrin give a Kb of 5.8E5 M-1 which indicates a possible covalent interaction between the complex and DNA.

### Regional Theatres and Their Communities: A Look at Economic, Social, and Artistic Changes in Trends between Regional Theatres and Their Communities a Decade into the New Millennium

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Darrell F Anderson
Student(s) - Laura A. Estandia

My research takes a look at three regional theatres of different sizes in the Midwest: the Human Race Theatre Company in Dayton, the Cincinnati Playhouse in the Park, and the Actors Theatreof Louisville. The thesis investigates how these theatres are changing economically in the ways that they gather funding in the down economy. The thesis also explores how regional theatresare relating to their audiences, especially younger audiences in the ways that they market themselves and structure their outreach programs. Ultimately, the thesis explores how the theatre artscan help define a community, and how a community can help define a theatre company.

### Removal of a Bittering Agent Potentially Released to Water Supplies: Implications for Drinking Water Treatment

Graduate Research
Graduate - Individual
Advisor(s) - Kenya M Crosson
Student(s) - Bartina C Smith

1:00 PM-2:30 PM
Kennedy Union Ballroom

The "Antifreeze Bittering Act of 2009" (H.R. 615) was introduced to the U.S. House of Representatives on January 21, 2009, and it mandates the addition of 30-50 mg/L denatonium benzoate, a bittering agent, to antifreeze and engine coolant. At 1-10 mg/L, denatonium benzoate's bitter taste can be detected, and water with 30-100 mg/L denatonium benzoate (DB) is unpalatable. Although denatonium benzoate's environmental fate in soil and water systems has been modeled, it has not been empirically studied, and concern exists that the unintentional or intentional release of DB spiked antifreeze or engine coolant could adversely impact drinking water supplies by rendering water unpalatable. This project addresses concerns related to the potential release of DB to water supplies, by determining if powdered activated carbon (PAC) treatment, a common method employed to remove taste and odor contaminants from water, is suitable for DB removal. If H.R. 615 is passed and significant releases of antifreeze and engine coolant to water supplies occurs, the affected water could be unpalatable. Results herein indicated that PAC removed low concentrations of DB best at the 24 hour contact time and higher PAC doses. At a higher DB concentration, less DB removal by PAC was achieved. A bituminous-based carbon performed slightly better than a lignite-based carbon under all conditions.

### The Ripple Effect?: Examining the Impact of the Global Economic Crisis on the Least Developed Countries (LDCs)

Honors Thesis
Undergraduate - Individual
Advisor(s) - Barbara Heroy John, Margaret P Karns
Student(s) - Marie-Claire Tuzeneu

1:00 PM-2:30 PM
Kennedy Union Ballroom

Economists predicted as early as 2008 that developing countries would experience the effects of the economic crisis even more severely than the countries where the crisis originated. This thesis investigates the veracity of that prediction through a case study based on two months of research, observations, and interviews conducted in Togo, a survey of related development theory literature, and a comparison of those findings with data on several surrounding nations. Ultimately, this research led to the conclusion that, contrary to popular belief, no clear link can be made between the economic crisis and those challenges currently confronting Togo. Namely, Togo currently faces a combination of longterm difficulties caused by political upheaval in the 1990s and contracting commodity sectors and short term issues like the 2008 fuel and food crisis and severe flooding. Had the global economic crisis never occured, Togo would still be suffering from a series of very serious development challenges.

### The Role of Environmental NGOs in Post-Conflict Rwanda: A Case Study

Honors Thesis
Undergraduate - Individual
Advisor(s) - Natalie Florea Hudson
Student(s) - Lauren K. Etzkorn

1:00 PM-2:30 PM
Kennedy Union Ballroom

Using four different environmental Non-Governmental Organizations (NGOs) from Rwanda as the cases, my research examines the nature and impact of the relationship between NGOs and their donors within the organizations, personally to the donors, and within the recipient community.

### Role of protein modifications in regulating the expression of aquaglyceroporin HC-3 in erythrocyte cultures from Hyla chrysoscelis.

Graduate Research
Graduate - Individual

1:00 PM-2:30 PM
Kennedy Union Ballroom

Advisor(s) - Carissa M Krane
Student(s) - Venkateshwar Mutyam

Cold acclimation in Cope's Gray tree frog, Hyla chrysoscelis entails changes in handling and distribution of water and glycerol with concomitant changes in aquaglyceroporin protein expression. We hypothesize that HC-3, an ortholog of mammalian aquaporin 3, enhances membrane permeability to glycerol which acts as a natural cryoprotectant to regulate osmotic gradients formed by extracellular ice crystal formation during freezing. The regulation of expression of HC-3 and the molecular mechanisms that lead to differential regulation under different conditions have not yet been discerned. In this study, Hyla chrysoscelis erythrocytes cultured in complete cell culture media (containing RPMI with L-glutamine, 5% fetal bovine serum and anti-biotic/anti-mycotic) exhibited 96% viability after 96 hrs at 20°C whereas 93% of cells cultured in glycerol-containing hyperosmotic media (at a level similar to or above that which occurs in vivo during freezing) remained viable for at least 96 hours. Western blots using an HC-3 specific antibody identified native non-glycosylated and glycosylated forms of the HC-3 protein. Incubation of the RBC's in media made hypersomostic (400 mOsM) by the addition of glycerol induced a two-fold increase in the non-glycosylated form of HC-3 and a 0.7 fold increase in the glycosylated form after 48 hours as compared to controls. Immunocytochemical staining confirmed HC3 membrane localization. Cells incubated in media deprived of serum showed a differential increase in the amount of glycosylated HC-3 as compared to cells cultured in complete cell culture media. Thus RBC's subjected to stress in vitro, both under hyperosmotic and serum starved conditions show differential regulation of post-translational protein modifications suggesting that glycosylation in vivo may play an important role in the maturation and cell surface expression of HC-3, thereby enhancing membrane permeability to glycerol during the process of cold acclimation.

## The Role of the Protein Neuronatin in Regulating Calcium Homeostasis in Human Osteosarcoma Cells

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Matthew E Lopper
Student(s) - Jeffrey S. Kuerbitz

Production of the protein neuronatin (NNAT) has been shown to be suppressed in several types of cancer. NNAT expression has also been linked to the expression of several proteins linked with regulation of cell proliferation, a key component of tumor development. These observations suggest that NNAT acts as a tumor suppressor. The structure of NNAT resembles that of the protein phospholamban, which regulates Ca2+ homeostasis. It localizes to the endoplasmic reticulum, a primary Ca2+ storage location within a cell. One study has also found NNAT to increase resting Ca2+ levels within a cell. These all suggest that the direct role of NNAT consists in regulation of Ca2+ homeostasis. In this project, human osteosarcoma cells were made to express NNAT, and the effect of NNAT expression upon intracellular Ca2+ levels was tested. The results were not conclusive but were consistent with the hypothesis that NNAT acts as an inhibitor of the Sarco/Endoplasmic Reticulum Ca2+ ATPase, the protein responsible for pumping Ca2+ into the endoplasmic reticulum following a spike in intracellular Ca2+ levels.

## A Simple Solution for Body Mass Bias in a Competition of Muscle Strength and Aerobic Power

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Paul M Vanderburgh
Student(s) - Christina M. Kaiser

The purpose of this study was to investigate mass (M) bias in the Pump and Run (PR) for college age women compared to a standard bench press (BP) weight to be lifted. 34 female subjects ages 18-24 competed in a PR event at the University of Dayton. Run time (RT), bench press repetitions (BPR), M, skin fold measurements (SKF), height, and weight were collected by the research team. The sample was randomly divided into two groups, each with an n = 17. Each group was required to complete two different types of BPR; a standard weight of 70 lbs and a BPR at 70% of her body weight. Group A completed the standard lift of 70 lbs while Group B lifted 70% of their body weight. Group B then completed the standard lift of 70 lbs

while Group A lifted 70% of their body weight. Within the subjects, no significant differences were found among the correlations. Overall, limitations to the study provided low correlations as explained in the article.

### Synthesis and Characterization of a 2'-Spiroisoxazolidine Nucleoside Analog

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Kevin M Church
Student(s) - Krista M. Versteeg

As bacterial, viral and cancerous diseases become more prevalent, there is a need for medications that can target the root of the problem, not just treat the symptoms. Antisense oligonucleotides are medicinal compounds that specifically target and destroy mRNA encoding for specific compounds, thus eliminating harmful proteins. Antisense oligonucleotides are composed of 15-20 base nucleotide molecules, with small substituents which affect their stereochemistry. This thesis project details the process used to create a 2-spiroisoxazolidine analog to be used within the antisense oligonucleotide. This molecule was made using organic chemistry synthesis reactions and the conformation confirmed through 1D and 2D NMR experiments.

### The Toxic Effects of 10nm Titanium Dioxide and Silver Nanoparticles on Drosophila Melanogaster Development

Independent Research 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Mark G Nielsen
Student(s) - Caitlin B. Cipolla-Mcculloch, Ryan T Posgai

Nanoparticles are particles of material which have one or more dimensions on the order of 100 nanometers or less. They are of interest because particles of such a small size have unique properties that differ from their bulk sized counterparts. Nanomaterials are increasingly being used for manufacturing and consumer products. As a result, the chance of human exposure to these materials is also increasing. This research aims to investigate the effects of three types of nanoparticles: uncoated 10nm silver, poly-saccharide coated 10nm silver, and 10nm titanium dioxide, on the development of Drosophila melanogaster using an ingestion mode of particle delivery. D. melanogaster larvae are fed a diet of cornmeal based food media that is laced with various concentrations of nanoparticles. Developmental data is then collected. This data includes: rate of development from embryo until pupation, total number of pupae formed, total number of adults that eclose, as well as, adult phenotype. Both uncoated and coated 10nm silver nanoparticles exhibited significant detrimental effects on the development of D. melanogaster. Titanium dioxide nanoparticles showed no developmental effects at nearly double the concentrations that caused significant adverse effects for the uncoated and coated silver nanoparticles. A critique of nanotoxicology is that all nanoparticles exhibit toxic responses. Our results are contrary to such claims, demonstrating a clear disparity in toxic response that is dependent entirely upon particle type. The underlying mechanism that is the cause of nanoparticle toxicity has not been fully resolved; however, oxidative stress is implicated as the primary responsible factor. Future research will focus on the use of antioxidants as a method of studying the role of oxidative stress in nanoparticle toxicity.

### Understanding the Causes of Familial Adenomatous Polyposis in Families with No Identifiable Genetic Mutation in Kentucky and the Surrounding Areas

Honors Thesis 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Mark G Nielsen
Student(s) - Amanda M. Brian

Familial Adenomatous Polyposis (FAP) is a hereditary predisposition to developing hundreds to thousands of colonic polyps and colorectal cancer. It is caused by a mutation in the Adenomatous polyposis coli (APC) gene and is inherited in an autosomal dominant pattern. The mutation is 100% penetrant, meaning that individuals who inherit the mutation will manifest the disorder. The mutation is detectable by genetic testing in up to 95% of individuals with FAP. However, in Kentucky and the surrounding areas we observed several seemingly unrelated families with FAP but no mutation that could be identified

upon genetic testing. This study compiled a familial basis for the hypothesis that these families are interrelated and share a common founder mutation. Data was gathered through patient interviews and review of family history records. Five families with FAP but no identifiable genetic mutation were found to share a common ancestor who migrated to Kentucky in the late 18th century. We believe that this research will lead to the identification of the mutation that is causing these families' FAP and a new genetic test for the mutation in the future.

### Using a Mental Rotation Task to Assess Narcissism and Gender Biases

Independent Research 1:00 PM-2:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - Michael P Brockman, Jonathan A Hentz, William D. Miller, Hannah E. Nolte, Stacey M Rieck

This study examines the relationship between gender differences and narcissism (the personality trait of self-esteem, which includes the set of character traits concerned with self-image or ego), and their effect on overconfidence using a mental rotation task. University undergraduates were divided into two groups; the first group was presented with a gender bias, which was expected to affect ratings of confidence in performing a mental rotation task, based on gender biasing (i.e., men perform better on spatial tasks and women perform better on verbal tasks). The second group was not presented with the bias. The participants engaged in the mental rotation task to determine whether a rotated letter (e.g., the letter, R, on its side) was identical to the letter they had seen previously. The participants also completed a number of questionnaires to assess narcissism, among other personality traits, and confidence in their accuracy in performing the rotation task. We predicted that when the gender bias is presented it will affect a change in confidence that is consistent with the gender bias, and that should also relate positively to narcissism. Specifically, those participants who are men and who have higher levels of narcissism are expected to express more overconfidence in performing a spatial task that they are told favors male abilities. On the other hand, participants who are women and who have lower levels of narcissism are expected to express less confidence, and, perhaps, even express under-confidence in performing the spatial task. The expected results of this study have important implications for the effect of gender bias on overconfidence in the classroom.

### Using Feedback about Typical Performance to Reduce Overconfidence

Independent Research 1:00 PM-2:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - Carly R. O'Halloran

The overconfidence effect is the general bias that people are more certain of their estimation in making correct judgments than their actual ability demonstrates. This lack of a match between accuracy and estimation (i.e., lack of calibration) has been demonstrated consistently in psychological research. Many factors have been thought to influence overconfidence, including task difficulty and how people are instructed to do the task. Instructions can be used to reduce cognitive dissonance--a motivational state produced by an inconsistency between people's expectations of how well they should be able to perform and their certainty that they can perform a task. Cognitive dissonance reduction (CDR) instructions, such as giving actual performance rates for a task, are expected to have an impact on the participant's accuracy of confidence. This would be demonstrated in post-test confidence ratings that become more calibrated after hearing the CDR instructions. Consequently, the present study investigated the influence of task difficulty, instructions to reduce cognitive dissonance, and certain personality variables on the overconfidence effect. Specifically, overconfidence was measured in participants by asking them to estimate their ability to complete a task correctly. Confidence was measured before and after the task--correct completion of easy and difficult word puzzles such as "LANNNNGUAGE". (The answer to this word puzzle is "foreign language".) The participants also completed surveys measuring the personality characteristics need for achievement and self-efficacy, thought to be involved with overconfidence. Implications of this research include the potential for educating people about (a) the effect of overconfidence and (b) what constitutes appropriate expectations to have about accomplishing any task, including diet, academic achievement, smoking cessation, and the like.

### Validity of the Mile Run Time in Adolescents and the Impact on Estimated VO2peak: Can Shuttle Time Replace Mile Run Time in Estimating VO2peak Using the Cureton Equation?

Course Project 09_FA_HSS_428_H1 — 1:00 PM-2:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Claudia J Brahler
Student(s) - Caitlin M. McKnight, Sara J. Mrowzinski

Students, ages 12 through 18, participated in various fitness tests based on the Presidential Fitness Challenge. The mile run times were used to predict VO2peak; however, due to the confounding effect of motivation, the measured mile run times may not be accurate. Therefore, the shuttle times were converted to an estimated mile time and also used to predict VO-2peak. The results showed a statistically significant difference between measured mile times and estimated mile times. The shuttle run may be a better test for measuring cardiovascular fitness due to possible threats to the internal validity of the mile run.

### Valuation Models and the Efficient Market Hypothesis: an Empirical Analysis

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Robert D. Dean, David A Sauer
Student(s) - Melissa A. Janicke

The purpose of this study is to examine the response time of common stocks to under- or overvaluation in the market. A sample of 25 stocks from different industry groups and sectors in the S&P 500 will be used to make the evaluation. The period of analysis is 2009 and 2010. Using Morningstar's three-stage Dividend Discount model, market prices will be compared to the "theoretical" prices for the 25 stocks and the distribution of response times to over- and undervaluedness will be obtained.

### Why Mary? An Analysis of the Foundations of Three Marian Religious Congregations Between 1600 and 1815

Honors Thesis — 1:00 PM-2:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Francois E Rossier
Student(s) - Kathryn K. Jennrich

The era between the Catholic Counter-Reformation and the Catholic Restoration after Napoleon saw a rise in apostolic and evangelic congregations. The Institute of the Blessed Virgin Mary,founded in 1609 by Mary Ward in England; the Marians of the Immaculate Conception, founded in 1673 by Blessed Fr. Stanislaus Papczynski; and the Sisters of the Presentation of Mary, founded in 1796 by Blessed Marie Rivier, all began during this period. These three congregations are similar, first and foremost in that they all bear the name of the Blessed Virgin Mary. Two are female teaching congregations, un-cloistered, which were revolutionary for this time. The Marians, a male congregation, was also forward-thinking in its devotion and commitment to the spread of Immaculate Conception of Mary, particularly through the education of the faithful. This thesis delves into the lives of these three founders,particularly the reasons why they chose to form these congregations and why they chose to name them after the Blessed Virgin Mary.

### Audit of Inventory Planning Control Procedures at Shumsky Promotional

Senior/Capstone Project — 2:00 PM-4:30 PM
Undergraduate - Group — Miriam Hall 2nd Floor
Advisor(s) - John J Kanet
Student(s) - Jenny A. Cannon, Dean B. Freson, Molly C. McCarty

The University of Dayton Shumsky Team's objective was to raise efficiency of their reorder report, increase forecast accuracy, decrease inventory, and allow for employees other than the current merchandise buyer to reorder inventory effectively. The scope of the project included Shumsky Promotional's ten online stores, excluding any sales representative programs .An analysis and review of the company's current forecasting and inventory planning procedures was then performed. Next, we focused on classifying Shumsky's SKUs into three different categories: those with either continuous or intermittent demand, and those with no demand the last 12 months (excess and obsolete SKUs). Continuous demand SKUs were classified as any unit having little variation in monthly demand or a constant demand. A make-to-stock system was developed for this inventory. Intermittent demand SKUs were classified as units that are ordered for events (tradeshows, promotional events, or one time orders) on a non consistent basis. A make-to-order model was constructed, resulting in savings on inventory carrying costs. The final type of SKUs, excess and obsolete, are SKUs that were found in their data base that had not seen customer demand for at least one year. By classifying each type of SKU, we are able to focus on efficiently making recommendations for each. Our team then compared the proposed systems results with Shumsky's current system and performed an assessment of inventory savings. The UD Shumsky Team has combined their organizational and analysis skills as well as appropriate analytical tools to provide Shumsky Promotional with improved inventory and organizational performance.

## Consumer Call Volume Forecasting Model for GE Money

Senior/Capstone Project — 2:00 PM-4:30 PM
Undergraduate - Group — Miriam Hall 2nd Floor
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Kurtis R. Huelsman, Anyodely E. Vega, Sarah A Vidmar

GE Money utilizes a forecasting method that is very subjective and qualitative to plan for monthly staffing needs. This has lead to disparities between actual call volume and call center capacity. Thus, their current forecasting methodology is being analyzed to improve call volume accuracy and staffing decisions. The UD team has been asked to create a monthly forecast with an error equal to, or less than 5%. The teams goal is to go above and beyond GE's expectations of a monthly aggregate forecast by providing a forecast at the detailed level that GE does its staffing such as customer industry and call center location.

## Emerson Electric: Inventory Record Accuracy

Senior/Capstone Project — 2:00 PM-4:30 PM
Undergraduate - Group — Miriam Hall 2nd Floor
Advisor(s) - John J Kanet
Student(s) - Daniel S. Daykin, Kevan W Halma, Casey J. Rindler

Emerson Climate Technologies is the world's leading provider in heating, air conditioning, and refrigeration for residential, industrial and commercial applications. The scope of this project is limited to the Sidney, Ohio plant which produces condensing units. The focus of this project is the application of inventory management principles to improve this plants inventory record accuracy. Currently, they use a four-wall system and yearly physical inventory counts. The last count showed a problem as only 39% of the parts were accurate comparing the computer on-hand balance to actual physical inventory counts. This creates two problems for them to deal with. One is a shortage of actual parts to the expected amount. This means a line may be set up to run 100 units based on the computer balance and half-way through completion is shut down because they actually have only 50. This created hidden costs, missed deadlines, expedited shipping and is a source of irritation for all stakeholders involved. If the computers reports they have less than actually on the floor, it unnecessarily increases holding costs and takes up additional floor space. Our project was to examine information supplied by yearly inventory counts, inventory information (cost, use, order per year), and knowledge of the shop floor to develop a movement towards a cycle count and methodology of detecting failure modes in the inventory process. The first step was data mining the last six physical inventory counts and spreadsheets containing inventory information. Pivot-Tables were developed to determine trends in inaccurate parts based on additional qualities vendor, orders per year, lead-time, ABC category, warehouse locations, and family code. This led to the development of a control group which is to be a cycle count as well as where to investigate possible failure modes. The investigation was done using Ishikawa diagrams on selected SKU's.

### GE Aviation: Reducing Receiving Cycle Time

Senior/Capstone Project 2:00 PM-4:30 PM
Undergraduate - Group Miriam Hall 2nd Floor
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Benjamin T Berman, Eric S. Ranes, William J. Ruffner, Yi Zhao

GE Aviation's distribution center in Erlanger, Kentucky is looking for a way to accelerate the process by which its materials become available for use or shipment. Thus, the team of UD students is working with GE Aviation to reduce receiving cycle time. This time is defined as the average time elapsed for when raw materials arrive at the dock of the distribution center until they are put away on shelves. According to the GE Aviation distribution center's manager, Scott Miller, it is vital that this time is shortened so that the company can be sure to have all the materials it needs to send out orders as soon as possible. By looking at theoretical process improvements, the theory of constraints, Little's Law (Inventory = Throughput * Time), lean improvement techniques, and thorough cost benefit analysis, the team's goal is to shorten the receiving cycle time at the Erlanger distribution center from an average of 24 hours to an average of 8 hours. Changes currently being considered and analyzed include slight database modifications, work area reorganization, shift restructuring, and large-scale implementation of radio frequency identification technology.

### OPS 495 Capstone: Emerson Climate Technologies Distribution Team

Senior/Capstone Project 2:00 PM-4:30 PM
Undergraduate - Group Miriam Hall 2nd Floor
Advisor(s) - John J Kanet
Student(s) - Jeremy R. Barnes, Bryan M. Rollo, Monique L. Whitehead

The overall goal of the project is to analyze the forecasting and inventory planning processes of Emerson Climate Technologies in order to find the optimum average total finished product inventory. To do this the team will be creating models to compare the current forecasting process. After this is complete we will compare alternative models to see which is more accurate. If the team finds a model that fits more accurately to the historical data than Emerson's current forecasting model, they will be able to recommend that their model be implemented and make suggested safety stock changes which could aid Emerson's primary goal of smoothing production.

### OPS 495 Capstone: Hartzell Fan Inc. Order Process Flow

Senior/Capstone Project 2:00 PM-4:30 PM
Undergraduate - Group Miriam Hall 2nd Floor
Advisor(s) - John J Kanet
Student(s) - Jennifer L. Mann, Gabriel J Miller, Mark E. Plavko

As part of the program for Operations Management at the University of Dayton, students are given the opportunity to consult local companies. This poster outlines the framework that our group followed in reducing order flow time at Hartzell Fan Inc, located in Piqua, OH. Our goal was to deliver a 50% reduction in order flow time through our proposed changes to the process. These changes were developed using the method of analysis described below. An in depth look at the process improvements is included on the poster below.

### OPS 495 Veteran Affairs Emergency Department Flow Improvement Project

Senior/Capstone Project 2:00 PM-4:30 PM
Undergraduate - Group Miriam Hall 2nd Floor
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Rachel N. Bush, Robert G. Gogolin, Anthony J. Metzger, Timothy N. Renner

Since November, the UD team has worked with the Dayton VA Hospital to improve its patient flow time through its Emergency Department (ED) as an Operations Management senior capstone project. The ED faces several obstacles, such as understaffing, underfunding, and facility renovations. They have seen an increase in patients over the past year and the reduction in available space during construction has exacerbated their problems. Our intent was to improve their patient

flow though the ED, as measured by patient flow time and the number of patients spending greater than six hours in the ED. We also sought to improve the ED by decreasing the number of patients who leave before receiving treatment, and also decreasing the number of days the hospital is on diversion. These goals were achieved by implementing more efficient processes and improved staff communication. Staff communication, along with elongated wait times throughout the process, have been a huge issue with the flow time in the observations of the team. Through the identification of these problems, the UD team was able to come up with numerous ideas, recommendations, and solutions to present to the medical staff of the VA. These issues and proposed improvements will be discussed in the presentation.

### Standard Register: Forecasting Revenue

Senior/Capstone Project — 2:00 PM-4:30 PM
Undergraduate - Group — Miriam Hall 2nd Floor
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Nathanial L Allen, Jonathan D. Dombek, Matthew T. Dunham

The University of Dayton Operations Management 495 team consisting of Jon Dombek, Matt Dunham, and Nate Allen look to improve the accuracy of the revenue and revenue realization forecasts of Standard Register (SR). The desired result is to create a defined path or model that will allow Standard Register to significantly improve the accuracy of the method used and the resulting information used to forecast and predict revenues. The current method for forecasting revenue has not shown enough accuracy to allow SR to adequately plan out 12 months and take appropriate action in the cost and operational parts of their business to react to increase and declines accordingly. The team will strive to provide SR with the ability to improve the correlation or use of information to drive predictability in revenue forecasting practices.

### Dayton Alive

Visual Arts Exhibition — 8:30 AM-5:00 PM
Senior/Capstone Project — ArtStreet Studio E
Advisor(s) - Judith L Huacuja
Student(s) - Katherine G. Norris, Leah N. Winnike

Two student artists explore the heart(s) of the Dayton region. One uses audio, combined with photography, to reveal the powerful potential of individuals as community leaders and change-makers at the heart of revitalizing Dayton. The other utilizes unexpected locations and innovative media to reunite Dayton citizens with the water resources at the heart of this region.

### A Comparison Of A Moral Approach To Rehabilitation And A Life Skills Approach To Rehabilitation And Implications For A Successful Program

Oral Presentation — 3:00 PM-3:30 PM
Senior/Capstone Project — Marianist Hall Learning Space 218
Advisor(s) - Jefferson L Ingram
Student(s) - Karen E. Kopulos

In comparing two current models in the criminal justice system, the paper will analyze the moral approach to rehabilitation and also the life skills approach to rehabilitation. The pros and cons of each model will be addressed. Within the moral approach, faith based and non-faith based programs will be included. The life skills approach will focus on preparing the prisoner for interaction with their community. The purpose of the paper is to analyze the characteristics of programs that are most beneficial to prisoners and combine the best practices and aspect of each model to create a novel type of program that will present and offer the lowest recidivism rates.

### "Breakthrough Toward the Beyond": Olivier Messiaen's Musical Theology

Oral Presentation — 3:00 PM-3:30 PM
Graduate Research — Kennedy Union 331
Advisor(s) - Brad J Kallenberg
Student(s) - Dennis M Cox

One of the leading composers of the twentieth century, Olivier Messiaen (1908-1992) was also an important figure in the interconnected history of twentieth-century music and philosophy. In contrast to the immanentist and nihilistic tendencies of many musical modernists, Messiaen's work is marked by a profound fascination with transcendence as it appears in the encounter between the divine and human, the eternal and temporal. Eschewing various modern dichotomies--the separation of religion and music, theology and musicology, faith and reason--that regard music as a purely aesthetic and humanist phenomenon irrespective of religious intentionality, Messiaen, a devout French Catholic, attempted to compose music that would effect in his hearers a "musicosacral blinding" (eblouissement or "dazzlement"). Situating Messiaen's work in the history both of twentieth-century composition and aesthetics, this paper argues first that Messiaen represents a key "site" at which secular and Catholic modernity coincide and the tensions between them are negotiated, and second that by attending to Messiaen's work one may discern not simply a representation of the content of faith but rather the possibility of truth's manifestation, which Messiaen termed the "breakthrough toward the beyond."

### Feasibility Study Framework: A guide to Aid ETHOS in Cameroon for Water Distribution Systems

Oral Presentation — 3:00 PM-3:30 PM
Course Project 10_WI_EGR_330_P1 — LTC Team Space
Advisor(s) - Philip T Aaron, Mark D Ewalt, Kevin E Fisher, Margaret F Pinnell
Student(s) - Geoffrey S. Holmes

Before work begins on a project or business venture, it is in the best interest of all those who have a stake in the project to critically and objectively evaluate the feasibility of the project or business venture. Appropriate time and money should be

invested in performing the feasibility study to reduce the waste of time and money addressing issues that could have been avoided had problems and concerns been previously considered. A feasibility study aims to explore all possible options for implementing the project, achieving a clear understanding of the issues involved, producing enough information to be able to rank the options, and obtaining a clear picture of the way forward. The University of Dayton ETHOS group wishes to aid rural villages in Cameroon who desire to have a clean source of water delivered to their village. This would be done in the form of a water distribution system. In order to best support these villages, the feasibility of the project and the form of cooperation between ETHOS and the villages must be evaluated. Between the dates of May 24th to July 30th of 2010, ETHOS will perform feasibility studies on the villages wanting a water distribution system. The purpose of this paper and presentation is to provide a general outline of what is required and entailed in a feasibility study. This includes understanding the aims and purpose of a feasibility study, the factors addressed by the study, the planning of the study, managing of a study, and the reporting of the study. A focus will be on how ETHOS can adopt this format to better help in evaluating villages desiring water distribution systems in rural Cameroon. This paper and report is to aid ETHOS and other groups in performing feasibility studies.

### Perception of Drug Users in the Media: An Analysis of A&E's Intervention

Oral Presentation 3:00 PM-3:30 PM
Senior/Capstone Project St. Joseph's Hall 23
Advisor(s) - Jeremy S Forbis, Claire M Renzetti
Student(s) - Natasha L. Carlsen

Television as a media outlet in modern Western democracies often provides a central point for moral focus as the current media has an undeniable influence on the mass population's perception of contemporary public events. One of these cultural areas, drug use, likewise produces examinations over the moral outcomes of a population's behavior. The two cultural aspects become entangled and enlarged when drug use becomes the center of attention of a television series. The TV series Intervention on the Arts & Entertainment channel (A&E) provides a stage of illustration of these overlapping areas. Themes that recur in the program – those typically who fall upon the pattern abuse of substances and the affect of their abuse on daily life – as well as how those are demonstrated, offer insights into a number of substantial contemporary moral predicaments. Through an analysis of the television show Intervention, the comparison between statistics of reported drug abusers to the portrayal of those in the television show will occur to see if it may possibly give a larger negative representation of certain demographics than represented in the general public.

### Treating Violent Domestic Offenders: Ohio vs. Texas

Oral Presentation 3:00 PM-3:30 PM
Senior/Capstone Project Kennedy Union 211
Advisor(s) - Jefferson L Ingram
Student(s) - Elizabeth A. Henterly

This paper will focus on analyzing the policies and sentencing for domestic violence in the state of Ohio versus the state of Texas. A thorough study of the effects of mandatory arrest policies will be necessary in order to determine efficient control and treatments of violent offenders. According to the Family Violence Protection Act in Texas, an officer is permitted to make a warrantless arrest if he/she believes an assault has occurred and the victim is in danger of further injury. According to the Ohio Revised Code, if the officer has reasonable grounds to believe a domestic assault has occurred, he/she should treat it as a felonious assault and arrest the primary offender, using discretion in some cases. This synopsis will develop a way to combine the best policies of these two states in order to develop an improved system for the treatment of offenders and the safety of the victims.

### Wave Phenomena in Multi-layer Metal, Negative Index materials (NIMs) and Dielectric Media

Oral Presentation 3:00 PM-3:30 PM
Graduate Research Kennedy Union 311
Advisor(s) - Joseph W Haus
Student(s) - Jean Bosco Serushema

The numerical methods was used to study optical wave propagation phenomena in multi-layer thin films, which include layers of metals, negative index materials (NIMs) and dielectrics to determine the diffraction and dispersion phenomena in the multi-layer stack. In this project, the transmission and reflection characteristics using incident Gaussian beams in space and time were calculated. The beam propagation characteristics in a multi layers composed of NIMs, metals and dielectrics was also studied. The examined phenomena in detail included the Goos-HÃ?Â¤nchen shift and the group velocity of an optical pulse. The resonance phase shifts in reflection and transmission for slow and fast group velocities of optical pulses were identified. The Transfer Matrix (TM) method was applied to calculate transmission, reflection and dispersion properties over a wide range of wavelengths and incident angles. The result of this proposed research may lead to applications like imaging resolution beyond the diffraction limits, making objects invisible to electromagnetic waves (i.e. cloaking the object), steering beams over large angles and other types of beam forming, such as spreading and splitting the beam into several beamlets. The research will help to spur further refinements of multi-layer metal, NIM and dielectric materials to anisotropic materials where tensors are required to describe the material properties. This research was a preliminary to our future examination of enhanced nonlinear optical effects in layered materials.

### Education, Technology, and Scholarship: Transforming the Practice of Education through Semantics

Oral Presentation — 3:00 PM-4:00 PM
Graduate Research — LTC Forum
Advisor(s) - Joseph Watras
Student(s) - Russell Thomas

A recent Gallup survey by the International Technology Education Association (ITEA), the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA) found that upon hearing the word technology, approximately two-thirds of respondents think of only computers and matters related to the Internet, while only the remaining one-third embrace the broader concept of technology as the means of "changing the natural world to satisfy our needs". For education, this distinction, and the question of whether technology is something that can be excluded from practice is one that defies an understanding of the true nature of education as essentially technological, where language, writing, printing, computing â?¦ are all examples of technology. This presentation, as part of a broader study of the relationship between education, technology, and scholarship advances the viewpoint that a transformation in education will only be achieved when changes are made in the way those who are most influential in the field disseminate their understanding of technology through scholarship, and that the semantics related of technology is a key element in understanding and ultimately transforming educational practice.

### A River Palimpsest - The Interdisciplinary Value of Water: My Story of Learning the Great Miami River

Oral Presentation — 3:00 PM-4:00 PM
Honors Thesis — Kennedy Union 312
Advisor(s) - Ryan W McEwan
Student(s) - Katherine G. Norris

Water is an invaluable natural resource to both human and ecological communities, and is currently threatened by global and local pollution and availability. Hypoxia, climate change and local issues all strain river systems to beyond repair. In light of this, communities and scientists must come together to understand the quality and value of natural resources, such as the Great Miami River, in order to inform policy, management and societal perceptions. The overall purpose of this thesis research project is to utilize interdisciplinary areas together to create a valuable, spatially lateral and chronological baseline picture of the Great Miami River. Data was collected during two fiveâ??day river trips, starting near the headwaters at Indian Lake down to the City of Dayton. This presentation will discuss my journey of a multidisciplinary approach to learning, and development of a sense of place.

### Guitar Students of Jim McCutcheon: Original Songwriting Concert

Performance — 3:00 PM-4:30 PM

Course Project 10_WI_MUS_399_40 Kennedy Union Boll Theatre
Advisor(s) - James R McCutcheon

This recital features the creative work of several guitar students who are developing their skills as songwriters and instrumental composers.

### Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course

Oral Presentation 3:00 PM-4:30 PM
Course Project 10_WI_ANT_325_01 Kennedy Union 207
Advisor(s) - Kristen E Cheney
Student(s) - Kathryn M. Bruce, Kathleen E. Jipson, Zachary R. Parish, Hope L. Smalls, Adriana V. White

Students from the Anthropology of Human Rights class will present their projects on corporate practices and human rights abuses in the global economy.

### "The Water Engine", a staged performance of the radio play by David Mamet

Performance 3:00 PM-4:30 PM
Independent Research ArtStreet Studio B
Advisor(s) - Susan Byrnes Sharon Leahy
Student(s) - Robert J Brecha, Kondwani S. Harawa, Stephen J. Kallenberg, Jordan P. Latore, Mary Kathleen Mykytka, Joseph R. Radisek, Rachel M Sebastian, Philip J. Titlebaum

"The Water Engine" An American Fable is a radio play written by David Mamet in 1977. The play is about the fate of a young inventor who discovers how to run an engine powered only by distilled water. This tale will be read by students in a staged setting of a 1930's era soundstage, as if it was being broadcast over the radio.

### Visual Communication Design: Capstone Senior Portfolio Preparation

Visual Arts Exhibition 3:00 PM-4:30 PM
Open Studio College Park Center, Studio 238
Advisor(s) - Jayne Matlack Whitaker
Student(s) - Souha Azmeh, Cynthia C. Burgiss, Ashton C. Daley, Elaine E. English, Jennifer M. Garber, Jenna L. Geissler, Daniel P. Harms, Lauren M. Hauptman, Corrin A. Higdon, Katie L. Hill, Kathryn M. Kandrach, Elizabeth A. Kohrman, Ellyn M. Miller, Stephen M. Olszewski, Amanda M. Roth, Kimberly E. Simons, Michelle P. Stawicki, Scott M. Taylor, Kevin C. Terry, James M. Westerheide, William G. Zyck

Graduating seniors earning a degree in Visual Communication Design and who are currently enrolled in the senior capstonecourse VAD 499 Portfolio and Paper will be working in a studio classroom setting. Visitors are invited to come and observeand/or ask questions regarding the final process of putting together a design portfolio. These creative portfolios are theprimary resource for students applying for positions in the professional field of design and or graduate school. The presentationis intended to be interactive and informal. Students will be in the process of working on a variety of components asthey prepare for the debut of their final portfolios at both professionally sponsored Portfolio Reviews and the VCD SeniorPortfolio Review being held at Kennedy Union on Thursday, April 22, from 5 to 8 p.m. and open to the community.

### HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes

Oral Presentation 3:00 PM-6:00 PM
Senior/Capstone Project Science Center 114
Advisor(s) - Roger J Crum
Student(s) - Kathryn A. Akin, Tracy C. Flagg, Elise K. Kelly, Elizabeth M. Koch, Stephanie N. Leveque, Julianne Charlotte Morgan, Derica N. Washington

Holly Branstner is a painter who communicates ideas of the self and relationships with the spiritual through deep engagement with place. Raised and trained as an artist in Detroit, Branstner has since the mid 1970s painted a body of work that draws the viewer into an intimate engagement with her own profound embrace of and, occasionally, mourning for Lake Louise, innercity Detroit, and the River Rouge Steel Plant in Michigan and the Maumee River industrial area around Toledo, Ohio where she now resides. This semester Branstner has served as a Visiting Artist in the College of Arts and Sciences and has worked closely in dialogue with six students majoring in art history to explore a variety of interrelated themes of place, remembrance, religion, and above all art in conjunction with a special exhibition of her work in the O'Reilly Hall conference room.

### Catholic Dissent? Orestes Brownson, John W. Nevin and the American Evangelical Establishment

Oral Presentation — 3:30 PM-4:00 PM
Graduate Research — LTC Team Space
Advisor(s) - William V Trollinger
Student(s) - Andrew D Black

Though legal establishment of particular churches ended by the early nineteenth-century, historians generally agree that Protestant "evangelicalism" became something like the functional or culturally established religion of the United States for much of the nineteenth century. One notable trait of this new establishment was its transdenominational character, since the characteristic emphases of American evangelicalism (biblicism, revivalistic/conversionist piety, etc.) could be affirmed by a diverse constituency while appropriated in different ways. Significantly, however, many of the leading denominations in this de facto religious establishment (e.g., Baptists, separatist Puritans, and--to a certain extent--Methodists) were originally movements of dissent from or renewal of established churches. Thus, another notable trait of American evangelicalism was its pervasive anti-Catholicism (as the Roman Catholic Church was taken to be the epitome of ecclesiastical tyranny and spiritual apostasy). Orestes Brownson and John W. Nevin represent variations on a perennial theme of "catholic" theological dissent and/or renewal from within distinctively American Christianity. Both believed that mainstream American Protestantism was plagued by deficient theological habits and forms of church life, yet they responded in different ways. In a controversial act of dissent, Brownson shocked his New England contemporaries by entering the Roman Catholic Church in the mid-1840s. At the same time, Nevin began urging his fellow American Calvinists to move toward a "Reformed Catholicity" that would renew their tradition by a recovery of liturgical, sacramental piety and worship and the historic Christian creeds and confessions. From an historical perspective, the lives and thought of Brownson and Nevin illustrate the ironies that attended the rise to cultural dominance of forms of Christianity rooted in dissent. From a theological perspective, the attempts of Brownson and Nevin to resolve what they called the "church question" highlight the need for a theological account of "dissent" and "renewal" and their relationship to "catholicity."

### Getting Sir'd: Conceptualizing Masculinity in Transgendered Men

Oral Presentation — 3:30 PM-4:00 PM
Senior/Capstone Project — Kennedy Union 310
Advisor(s) - Leslie H Picca
Student(s) - Joseph A. Sell

This project will explore issues pertaining to "transmen"--female-to-male transgendered individuals--and how one constructs, negotiates and explores his personal sense of transmasculinity. Online support forums will be used to observe and analyze prevalent and recurring topics, concerns, questions and triumphs in the lives of transmen, as well as how these are communicated in the space of the Internet. The topic of transmasculinity will be explored through the facets of the "public" and "private" male--the former discussing the presentation of masculinity in public spaces, the latter discussing self-image and more personal matters. The goal of this presentation is not only to discuss these topics in a sociological context, but also to bring forth a better understanding of the struggles and difficulties of transmen in a society that often does not think twice about sex and gender.

### Reflections on Paper

Oral Presentation 3:30 PM-4:00 PM
Course Project 10_WI_ASI_341_01 ArtStreet Studio D
Advisor(s) - Michael J Bashaw
Student(s) - Megan A. Boeckman, Lauren E Christie, Robert J Clancy, Ryan J. Flynn, Margaret K. Glaser, Thomas A. Gossard, Katherine K Junglen, Clayton W Kindred, Kathryn E. Sprunk, Kyle R. VanDerhorst, Gregory M. Williams, Paige E Windgassen

Reflections on Paper is a site-specific intallation created by UD's 2010 Teaching Artist in Residence Michael Bashaw and his ASI 341 class Transformational Experience. Using metal, plexiglass, lenses, paper, light, and sound, this collective work of art transforms dreams, visions, and memories into a complex and unified form. Viewers are encouraged to add their own observations, dreams, and thoughts to this collaborative effort.

### Resources and Support for Children with Learning Disabilities

Oral Presentation 3:30 PM-4:00 PM
Senior/Capstone Project St. Joseph's Hall 23
Advisor(s) - Laura M Leming, Claire M Renzetti,
Student(s) - Mary Nondorf

Children with learning disabilities require additional help in the classroom and schools should be doing everything possible in order to help students succeed to the best of his or her ability. My sociological research paper explores the amount of support and resources that are available to students with learning disabilities. This paper looks particularly at the differences between Dayton public schools and Centerville public schools. A lot of the research analyzed how more interaction with students with learning disabilities enhances their education. If a learning disabled child is given more help in school and at home then the more likely the child is going to obtain a respectable job. This paper determines that extra resources and support given to children with learning disabilities can help a child reach his or her potential.

### Social Justice Through Worship: Virgil Michel's Vision of the Mystical Body of Christ

Oral Presentation 3:30 PM-4:00 PM
Graduate Research Marianist Hall Learning Space 217
Advisor(s) - Sandra A Yocum
Student(s) - Timothy R Gabrielli

Early twentieth century American Benedictine monk Virgil Michel thought that the solution to America's socio-economic problems - those that culminated in the Great Depression - lie in the liturgy, the heart of which is the Catholic Mass. The *thud* with which this association of liturgy and social justice lands upon contemporary Catholics speaks to the need for the continued need for the exploration of Michel's work and especially of the sources of his vision. Michel was the founder of the liturgical movement in the United States which emphasized this organic connection between liturgy and the social as well as anticipated some of the liturgical reforms of the Second Vatican Council. The research here, supported by a Graduate School Summer Fellowship, concludes that the intellectual underpinnings Michel's vision can be understood in terms of three major areas. First, a Mystical Body of Christ ecclesiology, which supported his deep critique of individualism in the United States as well as nurtured the importance of a liturgy with deep participation. Second, Michel's own appropriation of the thought of St. Thomas Aquinas. Michel had been trained in the rather wooden neo-scholastic reading of St. Thomas that dominated Catholic theology during this time. These categories, then, informed his thinking, but he pushes and twists the neo-scholastic reading of St. Thomas in interesting ways, preferring a more contextualized reading of St. Thomas that emphasized Leo XIII's call for a Thomistic revival as a re-appropriation of St. Thomas's work for the present era. This is an emphasis, Michel shares with the European ressourcement theologians whose movement was in its nascence during Michel's heyday. Lastly, there are several other eclectic philosophical influences on Michel, including personalism, which he shared with fellow Catholic social reformers such as Dorothy Day and Catherine DeHueck.

### 2009-2010 UDBPC Finalists' Insights and Reflections on the competition

Panel Discussion 3:30 PM-4:30 PM

Other: UDBPC Competition Miriam Hall 214
Advisor(s) - Jay J Janney
Student(s) - Michael R. Benash, Kyle P. Berry, Bryan R. Cox, Nathan P. David, Jenna E. Hagemann, Eric D Hilton, Christopher J. Jackson, Jonathan C Rike, Thomas J. Rose, Matthew L. Veryser

The University of Dayton sponsors a Business Plan Competition, where students and members of the community create an idea for a business, research it, and present their findings. This is our fourth year of hosting the competition we had a record number of applicants (82). Our competition is open to all students, and is a two stage competition. Stage one is an elevator pitch--a 1 minute talk, with one powerpoint slide. We have ten winners of the EP round. We also use the finalist round to select five finalists who all will write a full business plan. A Business Plan is generally about 30 pages long, and explains how your business will operate, your strategy for entering the market, and provide some financial projections. This year over $50k in prize money was awarded to five teams plus ten presenters. Each finalist team is guaranteed $3,000, and can win as much as $20,000. These are their stories: finalists will discuss what it was like to enter, the struggles they faced, how they put together their plans, and how it felt to win money. After each team has had a chance to present their stories, the audience may ask questions of the finalists.

### Flyer Enterprises Information Technology: Improving Business with Technology.

Oral Presentation 3:30 PM-4:30 PM
Independent Research Miriam Hall 207
Advisor(s) - John W Shishoff
Student(s) - Michael J. Berg, Bryan J. Kristy, Jacob A. Weber

Flyer Enterprises are the student run businesses at the University of Dayton. Flyer Enterprises has seven different operating locations, sales of about $1.5 million annually and employs about 150 students. This presentation focuses on the use of technology to accumulate and process business information and provide this information in a usable format to managers for decision making purposes.

### Operations Management Capstone Consulting Projects - Part II

Oral Presentation 3:30 PM-4:30 PM
Senior/Capstone Project Miriam Hall 213
Advisor(s) - Michael F Gorman, John J Kanet
Student(s) - Nathanial L Allen, Jeremy R. Barnes, Benjamin T Berman, Jonathan D. Dombek, Matthew T. Dunham, Jennifer L. Mann, Gabriel J Miller, Mark E. Plavko, Eric S. Ranes, Bryan M. Rollo, William J. Ruffner, Monique L. Whitehead, Yi Zhao

In this sesion four teams of senior Operations Management students will present the work they have in progress for their senior capstone Operations consulting projects. The teams include Jeremy Barnes, Bryan Rollo, Monique Whitehead with project "SCM at Emerson Electric" (Advisor: Kanet); Jennifer Mann, Gabriel Miller, Mark Plavko with project "Order Flow Analysis at Hartzell Fan' (Advisor: Kanet); Benjamin Berman, Eric Ranes, William Ruffner, Yi Zhao with project "Receiving Cycle Time at GE Aviation" (Advisor: Gorman); and Nathanial Allen, Jonathan Dombek, Matthew Dunham with project "Revenue Forecasting at Standard Register" (Advisor: Gorman).

### Do three strikes laws work? Examining the states of California and Washington

Senior/Capstone Project 4:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union 331
Advisor(s) - Jefferson L Ingram
Student(s) - Alisha M. Lanham

In order to determine whether or not the nations three strikes laws work I will examine the states of California and Washington. California having a 25 to life sentence for a third strike and Washington having a life without parole sentence. I will analyze their current three strikes laws and work to come up with a better way to implement and utilize the three strikes law by combining the successful methods each states use. Using crime data and the individual states recidivism and violent

crime rates, I will determine whether or not the toughest sentencing policy is the most effective option in producing greater incapacitation effects on crime.

### High Performance Carbon Nanotube Membrane

Oral Presentation 4:00 PM-4:30 PM
Graduate Research Kennedy Union 311
Advisor(s) - Liming Dai
Student(s) - Feng Du

We have successfully grown super long Carbon nanotube (LCNT) whose length can go up to several mm. By using this kind of LCNT, we demonstrated a simple, but effective method to prepare the Long CNT membrane. Because of the low viscosity of epoxy polymer pre-mixture and the good durability of epoxy polymer, a void free LCNT membrane was got under a degassed condition and it was able to endure a lot of solvents and diluted acid. Later a smart switch membrane and separation of different solvents and particles will be worked out.

### Modern Irish History: The Nature of Tourism

Oral Presentation 4:00 PM-4:30 PM
Senior/Capstone Project Kennedy Union 211
Advisor(s) - Marybeth Carlson
Student(s) - Kathleen S. Fahrendorf

Is drinking and partying the sole driving force behind twenty-somethingsÃ¢?? tourism in Ireland? Are there other genres to be explored, such as literature, arts, and theatre? The main focus of this presentation is to serve as a platform to analyze evidence supporting the idea that Irish tourism for those in their twenties is primarily for social reasons, and compare it to any evidence refuting such a claim. An important element that will be taken into consideration is the "study abroad programs" in which many college students participate. Although the focal point of such programs is usually the educational aspect, there is more often than not a focus on culture within the area that the study abroad program is taking place. Applying this model to Irish tourism will help provide evidence for both claims. The argument that those in their twenties tour Ireland for more than just the social aspect will focus on the aforementioned topics of literature, arts, and theatre, as well as other relevant areas. Within such areas, particular attention will be paid to the work of Irish writers, such as James Joyce and Frank McCourt. The Abbey Theatre, known as the national theatre of Ireland, located in Dublin, will also help dismount the ideas surrounding Dublin as offering nothing more than numerous pubs. Additionally, the Irish Museum of Modern Art will provide information about the contemporary art scene in Ireland. The outcome of the presentation is to hopefully provide the audience with a better understanding of the cultural history that exists within Ireland and the effect it has on Irish tourism.

### Solidarity Through Diversity: LGBT Community in the City of Dayton

Oral Presentation 4:00 PM-4:30 PM
Course Project 10_WI_ANT_335_01 Kennedy Union 310
Advisor(s) - Simanti Dasgupta
Student(s) - Joseph A. Sell

In the midst of equal rights conflicts, the prevalence of HIV/AIDS, and the daily struggle to gain acceptance from other people, lesbian, gay, bisexual and transgendered individuals can often find themselves feeling lost, confused or seeking a place where they can be themselves without the fear of rejection. These places are not ones that naturally occur--they must be built from the ground up. This ethnography studies the LGBT community in the City of Dayton, to observe how LGBT individuals construct safe spaces in the urban environment. Different LGBT organizations within the City of Dayton will be observed in order to gain a better understanding of how they work to construct the larger community. It is through these organizations that LGBT individuals in Dayton are able to build solidarity through working with each other and reaching out to others in need of a supportive community.

# POSTERS

### Systematic reviews regarding therapeutic interventions for treating a pediatric PT population

Graduate Research 3:00 PM-4:30 PM
Graduate - Group Kennedy Union 222
Advisor(s) - Claudia J Brahler, Betsy K Donahoe-Fillmore
Student(s) - Kelly Renee Akers, Julie Ann Bergfeld, Laura L Bonvillian, Laura Ann Brailer, Nicole Marie Cornett, Sherrice Antoinette Dickerson, Kathleen M Duffin, Jessica Nicole Fagin, Erin Elizabeth Fening, Mandi E Fetters, Stacie M Gehron, Kristin Marie Gruenzel, Corey Michael Guttenberg, Marilyn R Heft, Heather Michelle Huesing, Justin Erik Jorgensen, Luke R. Kontras, Melinda M Kvitko, Kathryn Marie Lambert, Jenell Calland Marlow, Greg D. Neal, Megan Lyn Olberding, Robert Jeffery Partin, Hemal Patel, Shruti Patel, Andrew Douglas Prickett, Gina Kathleen Rekart, Jennifer Michelle Tarplee, Rachel Marie Vetor, Eric Thomas Wanner, Natasha Sue Whitehead, Samantha Marie Woehl, Kathleen M Woodward, Rebecca E Wright

Doctor of Physical Therapy (DPT) students investigated the efficacy of seven different therapeutic interventions for treating a pediatric PT population. Students divided into groups of 3-5 and completed systematic reviews of the current literature regarding one of seven interventions (Electrical Stimulation, Hippotherapy, Constraint Induced Therapy, Therasuit Therapy, Aquatic Therapy, Partial Weight-Bearing Treadmill Training, Serial Casting). Students exercised their knowledge of evidence based practice to select appropriate inclusion and exclusion criteria to limit the articles included in the review, and organized relevant information from highly varied studies in such a manner as to identify trends in treatment intensity, duration and frequency that appeared to be most likely to have a favorable outcome. The project represents a systematic approach to reviewing literature and shows how research can be inform clinical practice.

### The Adonis Effect: Male Body Morphic Distortion Syndrome

Course Project 09_FA_PSY_333_01 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Joseph P Tedesco
Student(s) - Katherine E. Butler, Courtney Elizabeth Castle, Caitlin E. Courson, Kathleen A. Marthaler

The mythological Greek demigod Adonis lends his name to a recently researched trend among males called the Adonis Complex (Pope, Phillips, & Olivardia, 2000). This term refers to the obsession with meeting the ideal male body image as constructed by society. The complex relates to distortions among male attitudes and perceptions about body image. These distortions and dissatisfactions with body type have increased in recent decades (Garner, 1997), and therefore have led to an increase in the obsession with achieving the perceived perfect male body type. This study sought to specifically define the criterion of symptoms and factors of the Adonis Effect, or Male Body Morphic Distortion Syndrome. Additionally, a test was developed with which to diagnose the presence of the syndrome along a gradation. Diagnosis is assessed along nine subscales: (a) comparison of self to others, (b) anxiety in social situations, (c) interference with important daily responsibilities, (d) obsession with grooming and clothing, (e) weightlifting and exercise compulsion, (f) dietary compulsion, (g) use of performance enhancing drugs/ supplements, (h) bodily area specific obsession, and (i) general bodily satisfaction. The Adonis Effect diagnostic tool was administered to forty males approximating twenty-years-old collected from the University of Dayton. The findings were mixed, with several subscales significantly correlated with the conceived Adonis Effect construct.

### Aesthetic Preference of Various Characters By Color-Grapheme Synesthetes

Independent Research 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - William D. Miller, Carly R. O'Halloran

Synesthesia is a phenomenon in which stimulation of one sensory modality also gives rise to an experience in a different sensory modality (Sagiv, 2005). One of the most common types of synesthesia is color-grapheme synesthesia, where individuals view monochromatic characters in distinct colors. Furthermore, previous research which investigated the preference of symmetrical versus non-symmetrical objects found that individuals who were not artists preferred symmetry, while

artists preferred a ratio found in nature, art, and architecture referred to as the Golden Ratio (Davis, 1991). This research will investigate the two concepts of synesthesia and aesthetic preference by examining the synesthetic experiences of an individual, as well as their preference scores for nine different characters displayed in eleven different configurations. Based on the relationship between art and synesthesia, it is expected that those characters which follow the Golden Ratio will be most preferred. In Experiment 1, participants were first asked to indicate their perceived color for each character displayed in each configuration three times. In Experiment 2, participants were asked to indicate their preference score for the same character set as Experiment 1. In Experiment 3, all possible configurations for a given character were displayed and the participant was asked to select the most pleasing character, which was repeated ten times. For all presentation orders, trials were randomly arranged such that none of the same configurations could be shown back to back, and each experiment used a different random arrangement. These preference scores will then be analyzed according to their color selection, character, and configuration in order to determine if orientation, ratio, and/or color selection significantly affect aesthetic preference.

### Amenities in Prison: Does it Help or Hurt Recidivism?

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - John M. Maddock

Amenities in prison are a highly debated topic in which many think that the fewer amenities are better. There is some research that suggests this may not be the case. Public opinion and politicians have much control over these amenities since the tax dollars go to the prison system. The question then becomes are we making the right decision to tlimit amenities in prisons as a way to reduce recidivism?

### An Analysis on the Mountain Building in regards to the New Zealand island chain

Course Project 10_WI_GEO_495_02 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Umesh K Haritashya
Student(s) - Michael C. Buckley

Today, New Zealand is worldly known as being geologically active with high mountains ranges, frequent earthquakes, geothermal active areas and areas of frequent volcanism. Most of these unique features are due to the position of New Zealand, which is on the boundaries of the Australian and Pacific plates. The actual islands that make up New Zealand are a physical result of certain earth processes that took place many millions of years ago. At that time, the islands that make up New Zealand were a part of the â??supercontinent,â?? Gondwana, which modern day Antarctic, Australian, and Zealandia continents comprised. The nearly submerged continent (or micro continent) of Zealandia sank after breaking away from Antarctica between a time span of 85 and 130 million years ago and from the Australian continent 60 to 85 million years ago. Geology to be explored: The focus of this research assignment is to explore the actual historical earth processes that led to the formation of the modern day New Zealand islands. In particular, this paper will focus on three main periods of sedimentation and three periods of mountain building (orogeny). Periods of Sedimentation: The early sedimentation depositional phase, Cambrian to Devonian period (about 545 to 370 million years), the Tuhua Orogeny phase, late Devonian to Carboniferous period (about 370 to 330 million years ago), and the New Zealand Geosyncline, Carboniferous to Jurassic period (about 330 to 142 million years ago). Periods of Mountain Building: The Rangitata Orogeny, Early Cretaceous period (about 142 to 99 million years ago, the break-up, Cretacous to Oligocene period (99 to 24 million years ago), as well as the Kaikoura Orogeny, Miocene to Quaternary period (24 million years ago to modern).

### Biodigesters in Guatemala: ETHOS Summer 2010

Course Project 10_WI_EGR_330_P1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Margaret F Pinnell
Student(s) - Laura B Ebetino

ETHOS is sending a group of three students to Comitancillo, Guatemala. They will be developing appropriate technologies for the community. In the past, they have done projects in biodigesters, stoves and composting. This poster will explore the benefits of biodigesters and the possible applications they have in Guatemala.

### The Black-White Achievement Gap: A Novice Teacher's Professional Development Plan for Closing It

Honors Thesis 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Rachel M B Collopy
Student(s) - Michelle L. Timmerman

Significant disparities persist between the school performance of African American and Caucasian students in the United States. Teachers have a tremendous impact on the academic achievement of minority students and closing the White-Black achievement gap. Beginning with a thorough literature review on potential causes of the achievement gap, I investigated the knowledge, skills and dispositions an educator needs in order to narrow the gap. Building upon this investigation, I assessed what is essential for me to know so that I may contribute to closing the achievement gap as a White, middle-class novice teacher in a school with a diverse student population. I developed a five-year professional development plan addressing what I need to learn about myself, students, pedagogy, and school structures through interaction with other people, intentional experiences, and further reading. Through my professional development plan, this thesis confronts the racial achievement gap and how teachers may help eliminate it.

### Building the Community One Step at a Time: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B2 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - David C Bell, Chelsea M Braendel, Richard L Ryan, Michael M Williams

As members of the human race, what kind of obligations do we have to help improve our society? Most individuals acknowledge that they are a part of something bigger, but few realize that there are grave problems within that larger body, and even fewer understand that we are obligated to actively engage in solving these issues. As students of the University of Dayton, we have embraced the Marianist mantra of Learn, Lead and Serve. It is through UD's strong moral standing and interest in teaching its students that we were first introduced to the idea of service. As first year students we have been directed by our Living Learning Community to gain the knowledge of certain problems in society and learn how to take steps towards fixing them. Through different service projects such as Learning Tree Farm, Kiser Elementary school, and the Westwood community, we have confronted poverty, learning disadvantages, and a lack of community help. In this process of discovery we were guided toward steps for fixing the problems and lending a helping hand.

### Capital Punishment as a Deterrent

Course Project 10_WI_SOC_208_01 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Kevin M. Parkinson

This research project is the development of a design to address whether capital punishment serves as a deterrent for capital crimes. Key variables will be identified and incorporated into the design.

### A Case Study of Connecting Community Engagement Experience with Community Engagement Curriculum

Honors Thesis 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Kathryn A Kinnucan-Welsch
Student(s) - Tracey L. Horan

As the civic health of the nation continues to decline and the U.S. is labeled a "nation of spectators" community engagement becomes more and more crucial to the vitality of cities across the United States. This is especially true in the case of Dayton, Ohio, recently labeled a "dying city" Educators, too, have come to value community engagement as a framework that provides engaging, relevant, and meaningful curriculum to students who lack motivation. This research appeals to the interests of community members, students and teachers as it tracks one pre-service teacherâ??s unique journey from learning about communities in a university classroom, to taking an active role in community outreach, to finally helping develop a curriculum to promote community engagement in middle school classrooms in the Dayton area. Research will discuss the importance of community engagement, patterns among community engagement experiences, and implications for both teacher education programs and curriculum development.

### Change of Scenerie: Environmental Factors on Child Learning

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Lucas D. Pace

This project is an abstract to show how environmental factors, such as parental involvement, living conditions, educational motivation and learning abilities, along with other factors such as income can affect a child's motivation and learning ability. By looking at such variables, a study may show that removing a chid from a low income neighborhood or poor living conditions may improve how a child performs tremendously.

### College or Busted: A Study of Higher Education After Juvenile Incarceration

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Christa S Natke

It is widely accepted in American culture that attendance at an institution of higher education is important to success later in life. However, many youth face barriers to achieving this desired goal. One of these barriers is entanglement in the juvenile correctional system. Youth confinement often disrupts a youth's educational progress. This study will focus on educational and future career paths of juvenile offenders. It will explore the factors contributing to academic success for youth who have made poor life decisions and become involved in the juvenile justice system.

### Comparing Crime: A Closer Look at the Differences Between Rural and Urban Crime

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Bryce D. Ellis

Most research on crime today today tends to examine crime rates and types in urban neighborhoods. The goal of this research is to examine crime statistics from urban neighborhoods and compare them to the rarely studied statistics from rural neighborhoods. Examining what types of crime are most frequent in these very different areas could help create a new method of policing geared toward these certain types of areas.

### A Computational Study of Adaptive Residual Subsampling Method for Radial Basis Functions Interpolation

Course Project 10_WI_MTH_556_01 — 3:00 PM-4:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Muhammad Usman

Student(s) - Elham Negahdary

In this work we revisit some relatively new techniques based on radial basis functions (RBFs) to interpolate, boundary-value and initial-boundary-value problems with high degrees of localization in space and/or time. First, we generate an initial discretization using equally spaced points and find the RBF approximation of the function. Next, we compute the interpolation error at points halfway between the nodes. Points at which the error exceeds a threshold become centers, and centers that lie between two points with error less than a smaller threshold are removed. The two end points are always left intact. We also adapt the shape parameters of RBFs based on the node spacing to prevent the growth of the conditioning of the interpolation matrix. The shape parameter of each center is chosen based on the spacing with nearest neighbors, and the RBF approximation is recomputed using the new center set. Recent work in the literature on radial basis functions method has shown some promising results in terms of accuracy and efficiency to solve higher order nonlinear partial differential equations. Since radial basis functions methods are completely meshfree, requiring only interpolation nodes and a set of points called centers defining the radial basis functions. Adaptive radial basis function approach is based on refining and coarsening nodes based on shape parameter, interpolation error and condition number of the interpolation matrix.

## A Computational Study of the Fitzhugh-Nagumo Action Potential System

Course Project 10_WI_MTH_445_01 — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Amit Singh Muhammad Usman
Student(s) - Joseph R Salomone, Anna M. Stcyr, Angela Q. Umstead

The most celebrated example of mathematical modeling is the Hodgkin-Huxley model of nerve physiology. Their experiments were carried out on a giant axon of a squid, which was large enough for the implantation of electrodes. The Hogkin-Huxley mathematical model for nerve cell action potential is a system of four coupled ordinary differential equations. The Fitzhugh-Nagumo two-variable action potential system behaves qualitatively like the Hodgkin-Huxley space-clamped system. Being simpler by two variables, action potentials and other properties of the Hodgkin-Huxley model may be visualized as phase-plane plots. We use MATLAB to study the numerical solutions as well as the qualitative properties of the model.

## Crystal Structure Analysis of Two Isomeric Trithiophene Compounds Doped with TCNQ

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Albert V Fratini
Student(s) - Joel E. Schmidt

Two isomeric trithiophene compounds benzo[1,2-c:3,4-c':5,6-c'']trithiophene (BTT) and benzo[1,2-b:3,4-b':5,6-b'']trithiophene (BTT2) were doped with 7,7,8,8-tetracyano-p-quinodimethane (TCNQ) and crystals for x-ray analysis were prepared by slow solvent evaporation. These compounds were synthesized in order to evaluate their potential as quasi-one-dimensional materials for thermoelectric applications. The crystal structures of both doped compounds were solved using the Oxford Diffraction Xcalibur3 located in the University of Dayton's NEST lab. The compound (BTT)TCNQ shows an I41/a tetragonal crystal structure. The compound (BTT2)TCNQ shows a monoclinic C crystal structure.

## The Cultural Impact of the GAA

Course Project 10_WI_HST_486_P1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - Daniel R. Conway

This presentation will examine the impact of the Gaelic Athletic Association on the cultural development of Ireland.

## Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton

Independent Research — 3:00 PM-4:30 PM

Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Richard T Ferguson, Anna K Hurley, Nancy A Miller
Student(s) - Lauren K. Etzkorn, Ryan C. Grande, Anne S. O'Connell, Grace A. Strzelczyk

For the past four years, the senior Dayton Civic Scholar Cohort has been learning about the various social justice issues that exist in the city of Dayton. Our cohort has decided to focus our efforts on the lead paint problem that exists within the community. Our poster session will include the specifics of the problem, why it is so prevalent in the city of Dayton, and our efforts to combat the issue. We will also present the work that we did with the kids at East End Community Center and how we informed them of the hazards of lead paint and safety precautions to take.

### Development of Biopolymer Based Resonant Sensors

Graduate Research 3:00 PM-4:30 PM
Graduate - Individual Kennedy Union Ballroom
Advisor(s) - Guru Subramanyam
Student(s) - Erica Nicole Jones

DEVELOPMENT OF BIOPOLYMER BASED RESONANT SENSORSThe use of biopolymers in electronics, photonics and sensor applications is becoming more widespread. Biopolymers are biologically based polymers as they are produced by living organisms and contain materials that are not usually used as thin film polymers. They are becoming more and more common due to their cost effectiveness, eco-friendliness and ease of processing. In this work, fabrication of a resonant sensor using various biopolymers as a chemical sensing layer has been accomplished. The biopolymers utilized in this work are Salmon-based DNA and Silk. The resonant sensor consists of an inductor in series with a variable capacitor composed of two electrodes separated by the chemically sensitive biopolymer. A frequency sweep is obtained using an HP 8720 Vector Network Analyzer in order to capture the scattering parameters, S11 and S21. Since the resonant frequency, amplitude and phase of the scattering parameters can be measured, the resonant sensor is considered a multi-parameter device. The parameters are important in determining the actual chemical being applied. Examples of chemical testing using the resonant sensor will be presented.

### The Development of the Athletes Dimensions of Perfection Scale (ADPS)

Independent Research 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Joseph P Tedesco
Student(s) - Michael R. Crenshaw, Michael B. Gaskell

This study assessed the construct of athletic perfectionism by the development of the Athletes Dimensions of Perfection Scale (ADPS). Little research has ever been conducted about perfectionism from the perspective of an athlete who self identifies as a perfectionist or having perfectionistic traits or tendencies. Historically, there is a bias that emphasizes the dysfunctional nature of perfectionism. For this study, a structured Interview was developed asking a broad spectrum of athletes about their athletic performance. From this group, certain athletes identified their perfectionistic traits. From these interviews and using other established sport perfectionism tests, the researchers developed and validated the questions for the Athletes Dimensions of Perfection Scale (ADPS). The ADPS was given to 60 athletes to establish norms, construct validity and test reliability. Athletes represented gradations of four types of perfectionism along two axes: Internal/External, and Instrumental/Non-Instrumental. This study argues that athletes can understand their perfectionism as adaptive rather than only maladaptive. In some athletes, perfectionism is self defining, personality trait. Among these athletes some benefit from the trait while others suffer. By using the ADPS to determine in what way perfectionism affects them, athletes will be able to be aware of any detrimental effects of their perfectionism and work to overcome them.

### Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology

Course Project 10_WI_HSS_226_01 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Marvin D Ganote

Student(s) - Annamaria M Bittoni, Kelsey M. Dworkin, Lara R. Murphy, Kelly E. Reilly

Many careers will be different in the future, even in the next 10 years. The job market, the best places of employment, and the expected salary ranges may change for many different jobs. The purpose of this poster is to project into the nature, content, and scope of the job as a Dietitian, and to relate how technology will change the job and career field in 10 years. Our poster will include one significant technology with it pros and cons 10 year impacts on certain job elements of a Dietitian.

## Does Microbial Community Structure Influence Nocturnal Oviposition In Southwestern Ohio Blow Flies?

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Mark E Benbow
Student(s) - Maureen C. Berg

In criminal cases, the post-mortem interval (PMI) is frequently used to estimate time of death, and it is sometimes based on the period of insect activity on a corpse and the assumption that blow flies do not oviposit at night; if they do, then estimates of the PMI require adjustments. Blow fly nocturnal oviposition was evaluated in relation to microbial community succession under different light conditions. The hypothesis was that nocturnal oviposition would not occur, but diurnal oviposition would be correlated with specific bacterial assemblages. In a wooded lot, within a few days of each new moon from July-October, 2009, 35.0Â±2.0g pieces of beef liver bait (N=3/treatment) were placed under three different light conditions: high (6 lux), low (3 lux), and zero light (0 lux). Oviposition was monitored for 24-hours beginning with bait exposed two hours prior to sunset. At each time point, eggs were collected, weighed, and developed larvae counted. A regression model for P. regina was used to predict egg/larvae number from egg mass ($R2= 0.97$, $df=43$, $p<0.0001$). From all treatments and replicates only 90 eggs were collected within 2h of sunset and no oviposition was found at night. A two-way ANOVA indicated significant effects of light ($F=847.7$, $df=2$, $p<0.0001$) in July with similar results in August. Swabs were used to collect microbial succession samples, and will be evaluated for metabolic profiles using BIOLOG ECOplates. These profiles will be analyzed in relation to the timing and magnitude of species-specific oviposition.

## Eating Habits: Family Connected to College

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Rachel M. Drakulich

Every year, more and more female college-aged students are becoming conscious about their eating habits. Interviews and surveys have shown that media are a leading cause of this rising concern, however, the roots of eating concerns may be rooted in a child's family life. A female student's relationship with her parents and family may have lasting effects on the student's eating habits. The family is an important factor to research when studying eating habits, especially for college students, because the family develops norms about food and eating that are learned, and is a common influence many students repeat consciously or subconsciously. A mother's perception of her daughter's eating habits and weight and the father's perception of her mother's eating habits and weight have strong effects on a college students eating patterns. This project will investigate this relationship.

## The Effect of a Cationic Porphyrin on Pseudomonas aeruginosa Biofilms

Honors Thesis — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) -
Student(s) - Elizabeth A. Markus

Current studies have indicated the utility of photodynamic therapy using porphyrins in the treatment of bacterial infections. Photoactivation of porphyrins results in the production of singlet oxygen that damages biomolecules associated with cells and biofilms, e.g., proteins, polysaccharides, and DNA. The effect of a cationic porphryin on P. aeruginosa PAO1 was assessed

by exposing static biofilms and planktonic cells to 5,10,15,20-tetrakis(1-methyl-pyridino)-21H,23H-porphine, tetra-p-tosylate salt (TMP) followed by irradiation. Biofilms were visualized using confocal scanning laser microscopy (CSLM) and cell viability determined using the LIVE/DEAD BacLight viability assay and standard plate counts. At a concentration of 100uM TMP, there was substantial killing of P. aeruginosa PAO1 wild-type and pqsA mutant biofilms with little disruption of the biofilm matrix or structure. Exposure to 225uM TMP resulted in almost complete killing as well as the detachment of wild-type PAO1 biofilms. In contrast, pqsA mutant biofilms that contain less extracellular DNA remained intact. Standard plate counts of cells recovered from attached biofilms revealed a 4.1-log10 and a 3.9-log10 reduction in viable cells of wild-type PAO1 and pqsA mutant strains, respectively. In addition, when planktonic cells were exposed to 225uM of TMP there was a 3.4-log10 and 2.9-log10 reduction in viablility of wild-type PAO1 and pqsA mutant strains, respectively. Exposure of planktonic cells to TMP concentrations as low as 1.25uM and 1 h of light resulted in significant reduction of cell viability. Subsequently, plasmid DNA was completely degraded following exposure to TMP and light. Our results suggest that the action of photoactivated TMP on P. aeruginosa biofilms is two-fold: direct killing of individual cells within biofilms and detachment of the biofilm from the substratum. There was no evidence of porphyrin toxicity in the absence of light; however, biofilms pretreated with TMP without photoactivation were substantially more sensitive to tobramycin than untreated biofilms.

### The Effect of Community Poverty on Juvenile Delinquency: Does an Access to Resources Make a Difference?

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Jacqueline K Sammon

Do different levels of a community's socioeconomic status play a role on the amount of juvenile delinquency experienced in that area? This project will develop a design to address this question, relying upon a variety of methods.

### The Effectiveness of a Personalized Physical Activity Program (PPAP) on the Health Related Physical Fitness of

Course Project 10_WI_HSS_428_01 — 3:00 PM-4:30 PM
Unknown - Individual — Kennedy Union Ballroom
Advisor(s) - George M DeMarco
Student(s) -

The purpose of this major course research project was to determine the effectiveness of a Personalized Physical Activity Program (PPAP) intended to improve the cardiovascular endurance, muscular strength/endurance, flexibility, and body composition of selected college age students (clients) (N=64). Over the course of the 2010 Spring Semester, clients met with their Student Intern (SIs/ Personal Trainer/Coach during six (6) separate weekly/ biweekly sessions: Two (2) sessions for Pre- and Post PPAP Assessment of fitness and four (4) personalized training sessions. Sessions lasted no longer than 30 minutes. In addition, clients followed their own Personalized Physical Activity Program (PPAP) independently during four (4) separate training sessions without their Student Intern/ Personal Trainer/Coach for a total of 8 separate sessions according to the protocol of their PPAP. Divided into 16 separate teams and 4 separate conferences, SIs provided their clients with an array of specialized exercises in progressive resistance training, cardiovascular endurance, and flexibility. Quantitative measures included the President's Challenge Adult Physical Fitness Test and Borg Scale of Perceived Exertion. Qualitative data included clients' fitness journals, and narrative of their personal exercise history.

### The Effectiveness of Community Mobilization in Urban Neighborhoods in the United States.

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Michael E. Plaspohl

Urban neighborhoods in the United States currently suffer from a diverse set of problems. High crime rates and low property values are two critical problems that need to be solved. One possible solution to the problem lies in the hands of the residents of a neighborhood. This article will review past case studies and research that address the effectiveness of community mobilization on crime rates and property values in urban neighborhood, the proceed to design a research study to measure the effectiveness of community activism. Past studies have found mixed results. However, the researcher expects to find that communities with higher levels of participation from residents in community organizations to have lower crime rates, higher property values, and higher satisfaction ratings from the residents.

### Effects Of Upstream Roughness Elements On Downstream Hydraulic Conditions And Benthic Communities

Independent Research 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Albert J Burky
Student(s) - Ryan M. Andrews, Ian M. Barron, Thomas P. Blum, Gustavo A. Díaz, Christine N Farmer, Kathleen R Gorbach, Elyse M. Grothouse, John C. Kurzawa, Ryan T. Lemier, Charlotte E. Perko

Flow dynamics greatly govern aquatic ecosystems and drive many processes and patterns. The objective of this manipulation experiment was to determine how upstream roughness elements (UREs) affect downstream hydraulic conditions and associated benthic community assemblage. It was hypothesized that increasing upstream roughness will decrease near bed velocities and increase turbulence, therefore decreasing benthic community density and diversity. In July-September 2009, thirty-six hydraulic units were placed in a random block design, utilizing three riffles in the Little Miami River, Greene County, Ohio. Hydraulic units were 0.4225 m2 plywood sheets, with six treatments (n=6) varying in UREs using wood pegs. Four treatments of wood pegs homogeneous in size (0cm, 3cm, 5cm, and 7cm in height) and one was a heterogeneous mix. For a control, one treatment was composed of natural benthic substrate. Downstream of the UREs, 0.00855 m2 unglazed clay tiles were adhered to the plywood with Velcro for weekly sampling. Hydraulic units were given one week for initial colonization and then sampled. Organisms were scrubbed from tiles and preserved in 70% EtOH for subsequent sorting. Prior to sampling, water depth was measured and a flow velocity profile was created using a SonTek Flowtracker TM, measuring velocity at 1, 2, 5 and 10cm from the substrate. Periphyton tiles were collected to determine food availability. Physical data obtained included water temperature, substrate size, canopy cover, and water slope. Community metrics, assembly patterns and simple and complex hydraulic characteristics will be calculated and correlations will assess relationships between the physical environment and benthic communities.

### Emerald Roots: An ExposÃ© of Irish-American Cultural Assimilation

Course Project 10_WI_HST_486_P1 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - Colin J. Gerker

This paper provides readers with a wide-lens view of the transformations of Irish-American culture on its evolutionary track during the 20th century. In addition to the perspectives on contemporary Irish-American History, the relationship between their cultural adaptations and traditional strongholds is discussed and provides a historical context of present-day mainstream to rarely observed versions of Irish-American Identity. From Irish Catholicism in pop-culture to the Ancient Orders of Hibernians, and from St. Patrick's Day Celebrations to the Kennedy Dynasty; this cultural analysis offers a deeper understanding of the trends that have led to the creation of characteristics that define the Irish-American experience.

### Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B2 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Katherine V Fennessy, Mary E Stefanski, Krista P Walker, Kelly A. Wolff, Allana D Yohai

Through the Social Justice LLC, we as University of Dayton students had a goal to serve as role models to children in our local community by participating in several service projects. At Kiser Elementary School, we wrote letters to students struggling with literacy, which improved their reading and writing skills, formed a bond with an older student, and helped the students express themselves. Big Brothers Big Sisters is an organization that establishes one-on-one relationships with younger children. The time the pair is together is spent in multiple ways including playing, tutoring, or just talking. Many of the children in the program come from difficult backgrounds and the relationship formed sometimes is one of the few they have where they are actually close to someone. REAL Dayton was a fall break out started in 2009 that provided a group of UD students the opportunity to discover Dayton, its injustices, and to help make a change. Our main focus was to learn about and change the Dayton community through service. We learned that there is always room for change and improvement in the place that we will call home for the next four years.

### Fabrication of Vibration Sensors by Glass Fiber Tapering and Cleaving

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Peter E Powers
Student(s) - Daniela R. Abreo, Brandon C Gunn, Colin L. Hisey

Sensors capable of detecting and characterizing vibrations were constructed from F-SF-50 glass fiber using a Vytran Glass Processing System (GPX-3000) to taper the fibers followed by cleaving using a Vytran Automated Fiber Cleaver (LDC-200). The tapering allows us to make a cantilevered tip, which vibrates when disturbed. Light exiting the tip then steers when the tip vibrates. A fixed fiber is placed close to the tip, and the amount of light that makes it into the fixed fiber depends on the tapered tip position, so that when the tip moves, the optical signal changes. These observed signal changes have been characterized by Fourier-transform analysis on an Agilent 8164A Lightwave Measurement System. The degree and distance of fiber tapering greatly affects the viability and functionality of the fibers once cleaved, and these parameters can be manipulated and optimized in order to suit the sensorâ??s potential application. Effective sensors were fabricated from F-SF-50 by reducing the cladding diameter from 120 Âµm to 12 Âµm over a distance of around 15 mm via tapering. Following cleaving and coupling, a maximum signal strength of 2.0 mW was achieved and progress in determining vibration signals through signal analysis characterization is currently underway.

### Family Dynamics and Childhood Depression

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Katherine M. Tesensky

Childhood depression has become an increasing problem in American society. Evidence suggests that it impacts children as young as 3 or 4. This project will look at the impact of family structure and background on the likelihood of childhood depression.

### Flooding in New Zealand

Course Project 10_WI_GEO_495_02 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Andrea M Koziol
Student(s) - Bradley T. Hanson

Flooding is one of the major issues in New Zealand because of its large mountains and active geological landscape. This problem is of major concern for villages and cities that are at the base of the mountains. There are many dams in the country because geothermal and hydrothermal is one of the primary forms of energy, but these dams have altered the original flow of water in New Zealand and changed the landscape as a result. Here in this project, Iâ??ll be reviewing various causes of flooding â?? rainfall and glacial melt; effects of flooding - landslides and other natural disasters.

### Future UD Students' Careers: Health and Science

Course Project — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Marvin D Ganote
Student(s) - Samuel Fullen, Brian M. Marcinick, Andrea N. Stumpo, Julie R Wise

Purpose: The purpose of this presentation is to educate viewers on the possible job opportunities in the different Health and Science majors. Within our group, there are three different majors represented: Dietetics, Nutrition and Fitness, and Sports Management. Each member of the group will be presenting on a possible job opportunity he is interested in for the future. To obtain this information, each group member will conduct scholarly research to discuss what the job market will consists of, where the best places of employments will be, and what the expected salary ranges will be. Presenters: Andrea Stumpo, Julie Wise, Sam Fullen, Brian Marcinick

### Growth Motivation in Guatemala: A Study of Personality

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - John J Bauer
Student(s) - Nicholas V. Pesola

Growth motivation is a motivation for personal growth and seems to have two facets, cognitive and experiential. Cognitive growth motivation involves the motivation to develop a more complex, conceptual understanding of oneself and relationships, whereas experiential growth motivation involves the motivation to develop a more deeply felt experience of ones life and relationships. Research in the U.S. shows that cognitive growth motivation maps onto identity exploration, whereas experiential growth motivation maps onto well-being (Bauer et al., 2009). Research in Japan, however, shows that cognitive growth motivation maps onto both identity exploration and well-being (Kamide & Bauer, 2009). In the present research, we replicated this study with adults in Guatemala, a collectivistic, Western culture (Gibbons et al., 1996). The sample consisted of 57 young and mid-life adults from Quetzaltenango, Guatemala and surrounding areas of which 68% were female. The participants were recruited on the street as well as through word of mouth. Our prediction that life satisfaction and cognitive growth motivation would correspond to each other in the collectivistic Guatemalan culture was statistically significant. Despite the fact that findings in the U.S. suggest that life satisfaction has little to do with the motive toward cognitive growth, the present findings from Guatemala, like those from Japan, show that life satisfaction and cognitive growth motivation closely correlate, even when parceling out the effects of identity exploration. This cultural difference in growth motivation supports the notion that life satisfaction in collectivistic cultures requires critical self-examination (Wirtz & Chiu, 2008), a primary quality of cognitive growth motivation, as a means toward fitting and contributing to society. In summary, the current findings suggest that well-being in collectivistic cultures coincides with motives for improving ones life not only via personally meaningful experiences but also via critical self-examination and thinking complexly about the self and others.

### Guiding Children to Success: A Social Justice LLC Project

Course Project — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Jaclynne D French, Emily E Fyda, Mary K Greek, Julie K Mueller

The theme of "The Individual and Society" within the University of Dayton's Humanities Base Program states "Social interaction is essential to human life and development. The network of human relations is the context of every life." The community service that we have been engaged in connects with this theme. While tutoring underprivileged children of the Dayton public school system, we spent time playing, eating dinner, and helping them with homework during our visits. Through these activities we were given the opportunity to build relationships with the children and to help them with their school work, and lead them in the right direction on their educational path. Through our interactions with these children we were able to build special bonds. Not only did we have an impact on their development of learning but we were given the opportunity to better understand the challenges these children face everyday.

### Human Trafficking: From a Social, Economic, and Humanitarian Standpoint

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Thomas J. Nickel

My research will focus on the interrelationship between the social, political and humanitarian aspects of human trafficking. In an effort to see which aspects are most influential.

### Infectious Disease in West Africa: Buruli Ulcer and its Ecological Factors

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Mark E Benbow
Student(s) - Allison R. Gansel, Elizabeth J. Gazdick

Buruli ulcer, a disease caused by the opportunistic pathogen, Mycobacterium ulcerans (MU), is prevalent in tropical environments, most often afflicting children and leaving them severely disfigured and socially stigmatized. The mode of transmission is unknown; however, it has been linked to aquatic habitats. Our goal was to understand ecological conditions associated with MU, providing novel information on transmission. A lab and field based microcosm experiment was used to investigate hydroperiod as factor influencing bacterial communities and MU. A lab microcosm experiment was initially conducted in Ohio to understand how water level fluctuations affect the formation of microbial communities, therefore providing the conditions for a hypothesized "ecological release" of a pathogen such as MU in the environment. The study was then replicated in outdoor microcosms using water from a disease endemic village in Ghana, Africa. The microcosms consisted of inundated glass slides exposed to two hydroperiod regimes: unstable (daily water drawn out and then replaced after 24 hrs.) and stable (no water removal). The slides were harvested over time, and the bacterial succession characterized using a phenotypic microarray approach and MU densities quantified by PCR. We found that bacterial communities changed over time along with MU density increases, indicating that MU may be responding to bacterial communities. However, we did not find a strong effect of hydroperiod on MU densities, which may be due to the small size of the study that limited our power to detect a strong effect. These results will help develop disease prevention plans for Buruli ulcer.

### The Joy of Sex Education: An Experience in London

Course Project 10_WI_ENG_331_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Richard A Slade
Student(s) - Leanne C. Bernardez

On a month-long study abroad trip to London in summer 2009, I explored the collection of films under the title "The Joy of Sex Education" at the British Film Institute. I compiled notes about the specific techniques and ideas within each film. Using the diversity of films, which were produced in various decades of the 20th century, I have explored the films in regards to the contexts in which they were produced, which greatly affected the approach to sex within the films. The titles of the films and the tone of them also demonstrate the approach to sexuality and sex education at the time they were produced. By exploring sex education within film in England throughout the 20th century, I gained insights about the importance of media in producing ideas that affect the public and representing the perspectives of their historical contexts.

### Kinetic Modeling of A Spherical Catalytic Particle

Course Project — 3:00 PM-4:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Muhammad Usman
Student(s) - Fadhel Zammouri

It is critical for chemical engineers to understand the kinetics behavior associated with catalytic particles. This is crucial in the design and fabrication of catalytic reactors. In this work, a mathematical model for the interplay between the rates of

molecular transport (diffusion) and the intrinsic activity (chemical kinetics) is studied. The concept of effectiveness factor in catalytic first order chemical reactions, exothermic and endothermic, is addressed in detail. Also the behavior of chemical reaction rates and the temperature gradient in the catalytic particle with respect to stability is discussed. The Numerical solution of the model has been computed for various values of the parameters. For all of our computations and numerical simulations we have used MATLAB.

### Legal Issues Confronting the News Media Today

Course Project 10_WI_CMM_432_01 — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Annette M Taylor
Student(s) - Kelsey R. Cano, Molly E. Hensien, Amanda W. Orr

Students in the Law and the News Media senior course explored various legal issues that the U.S. press faces as journalists strive to fulfill their most valued function in society: providing citizens with news and information they need to be self-governing. First Amendment rights can conflict with other rights and needs, such as the Sixth Amendment guarantee to a fair trial, a person's right to preserve his/her good name, and adults' rights of access to adult expression. Student presenters researched and analyzed legal issues concerning journalists' use of cameras in courts within the Sixth Circuit Court of Appeals, how courts are now defining negligence and press standards in libel lawsuits, and the legal limits of sexually explicit material on cable television since recent FCC amendments.

### Life Outside Our Bubble: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B2 — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Casey M Colon, Gina M Delisi, Paige E Prenger, Megan E Schwieterman

As University of Dayton students, we have been consistently exposed to the school's mission statement to learn, lead and serve. However, it wasn't until we truly applied the statement through our community service experiences that we really understood the importance of those three words. By our work in the programs Big Brothers Big Sisters, Kiser Pen Pals, and Patterson Kennedy Elementary School, we have realized the vast effects poverty has on children and adults in the surrounding Dayton area. Through our service, we learned that there are many in our community who are less fortunate than we, and that we can help. Now we feel that we have a personal obligation to assist our newfound community because we have witnessed the social injustice first hand. Through engaging in community service, we have learned that one person can make a difference.

### Literature Review Analysis on Franz Josef Glacier

Course Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Umesh K Haritashya
Student(s) - Brian J Joyce

The research article is a review analysis on Franz Josef Glacier in New Zealand .The research article presents information on Franz Josef glacier and describes common events affecting the glacier such as flooding and ice collapse. Specifically, what geological changes resulted in ice-falling and glacier-related floods is included in the research article. The article reviews the relationships between glaciers and rainfall in accordance to river stage data. A review of previous literature on the ice flow of Franz Josef Glacier is included in regards to its advance and retreat characteristics, making it one of the few glaciers in New Zealand still growing. A review analysis on the Franz Josef area will provide how significant features of the glacier affect New Zealandâ??s South Island.

### Mass Media and Eating Disorders: The effects on Men and Women

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom

Advisor(s) - H Frances Geyer Pestello
Student(s) - Mallory A. Hofherr

The effect that the media and celebrities have on young men and women is increasing at a rapid rate. The pressure to be thin and have the ideal image is leading to an increasing number of life-threatening eating disorders among many Americans. This project will develop a design to investigate the impact of these images in the media have on young adult perceptions of ideal body image.

### Mathematical modeling of H1N1 flu

Course Project 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Amit Singh Muhammad Usman
Student(s) - William E. Balbach Nathan B. Frantz Brett R. Mershman William T. Weger

Mathematical models have been used to understand the dynamics of infectious diseases and to predict the future epidemic or pandemics. In 2009, a new strain of the influenza A (H1N1) virus spread rapidly throughout the world. This "swine flu" as it is commonly known, increased to what is considered an epidemic in a matter of months. In order to understand the spread of this virus, and similar patterns in future outbreaks, we study a simplified SIR mathematical model to answer some epidemological questions. We solve the model numerically and also study the qualitative properties of the model. It is important to mention that a solution of a mathematical model is not necessarily a solution to the real problem, but a solution to a simplified idealisation of the real world problem.

### Mathematical Modelling of Infectious Diseases

Course Project 10_WI_MTH_445_01 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Muhammad Usman
Student(s) - Kevin M. George, Branden J. King

Study of infectious diseases has become more important with increased global connectivity and personal contact. The discovery of the microscope in the 17th century caused a revolution in biology by revealing otherwise invisible. Mathematics broadly interpreted is a more general non optical microscope. Mathematical model helps to understand dynamics of how they spread, how many people are infected, resist the infection, or recover. In this work we study infectious diseases models qualitatively. These mathematical models are solved numerically using MATLAB.

### Measles Epidemic: Studying the Spread Using Numerical Techniques

Course Project 10_WI_MTH_556_01 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - Muhammad Usman
Student(s) - Jaye S. Flavin

Studying past epidemics is a necessary step in understanding and preventing the spread of future contagions. The measles epidemic in New York in the mid-1960s is an ideal case study for mathematical epidemiology because of the detailed records kept on those infected and the unique properties of measles as a disease. Using a Computer Algebra System (CAS), we will revisit the qualitative properties of the measles epidemic model and compare solutions using different numerical techniques.

### Memory for Location: A Comparison of Intercollegiate Athletes and Non-athletes

Independent Research 3:00 PM-4:30 PM
Graduate - Group Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - Jonathan A Hentz, Kevin P. Jones, Brendan T. O'Reilly

Two studies examined memory for location of intercollegiate athletes and non-athletes as influenced by distracters and landmarks. The first established a base line short-term memory for the sample population; the second tested memory for location specifically. Increasing the number of distracters in a location memory task slows recall for target information (Sternberg, 1996). Landmarks facilitate memory for location by functioning as a spatial prototype for a region (Plumert & Hund, 2001). Motion integration/continuity can be assumed because of short inter-stimulus intervals (Keane & Pylyshyn, 2005). Memory for location should be better for intercollegiate athletes than for non-athletes due to the athletesâ?? years of experience with pattern recognition and spatial tracking, an indirect benefit of their sport training (e.g., Abernathy, Baker, & Cote, 2005). Normal, everyday memory should be the same for athletes and non-athletes.

## Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Kimberly E Bigelow
Student(s) - Danielle E. Bare, Alexander P. Jules, Deborah M Kinor, Kathleen M. Rusbacky, Julia M Schaeffer, Erin E. Sutton, Melissa R Taylor

Each year, approximately one-third of independent adults age 65 years and older experience a fall, the majority of which occur during daily activities. To decrease the prevalence of falls, it is imperative that the effects on stability caused by daily activities be assessed. The aim of this study was to determine how to minimize an elderly adult's postural instability while carrying grocery bags. Specifically, the study sought to recommend the most effective positioning of grocery bags in the hands, as well as to recommend the most effective weight distribution between grocery bags. A balance plate measured fluctuations in the center of pressure of the 25 older adult subjects as they held 10 pounds of groceries in two bags. Seven trials were performed, with the position of bags in the hands and the weight distribution as the independent variables. The following traditional postural sway measures were calculated: Anterior-Posterior (A/P) Sway Range, Medial-Lateral (M/L) Sway Range, Mean Sway Velocity, Root Mean Square Displacement, Area of 95% Confidence Ellipse (Sway Area), and Medial-Lateral Sway Velocity. The data suggested that the position that least disturbed the subjects' balance (in A/P and M/L Sway Ranges and Sway Area) was to hold two bags across one forearm, against the chest. Sway appeared to decrease when one bag was held traditionally in each hand compared to just one bag in one hand. Finally, the data suggests no obvious difference in sway due to weight distribution in the bags. In conclusion, both carrying bags across the forearm and carrying one bag at each side was found to decrease postural instability. However, more research is needed because the small difference in postural sway parameters between conditions may not be significant enough to explain a loss of balance.

## Modeling of the Pancreatic Endocrine System Response

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Amy R Ciric
Student(s) - Joelle Baddour

Blood glucose level needs to be regulated at all times because it is associated with potentially fatal health conditions. The endocrine portion of the pancreas plays an important role in the regulation of blood glucose levels. As blood glucose increases, glucagon level decreases, and both the insulin production by the pancreas and the glycogen storage in the cells increase. Similarly, as blood glucose decreases, insulin level decreases, and glucagon production by the pancreas and glycogen breakdown increase. The purpose of this study was to develop a model that can accurately predict the relationship between blood insulin and blood glucagon levels, glycogen storage in the cells, and blood glucose level. Literature data were collected, manipulated, and curve-fitted to solve for the constant parameters of the model. The model consists of four coupled ordinary differential equations. This model is numerically integrated using a 4th order Runga-Kutta technique to show how blood glucose, blood insulin, blood glucagon, and cellular glycogen levels change with time.

## Modern Ireland: Property Values During the Celtic Tiger

Course Project 10_WI_HST_486_P1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom

Advisor(s) - Marybeth Carlson
Student(s) - James M. Fahey

This purpose of this research project is to look at the effects on Irish property values, particularly in Dublin, during the period known as the "Celtic Tiger." The "Celtic Tiger" was a period of rapid economical expansion in Ireland during the mid 1990s, ending abruptly during the global recession in 2008. Prior to the period, Ireland was considered one of the poorest nations in Europe, economically stagnant, and facing a declining population. However, in just over a decade, Ireland became one of the most economically sound members of the European Union, while standards of living improved, the population rose, and urbanization increased. The rapid expansion was not sustainable though and the global recession would point out the flaws in the Irish economy, subsequently bursting the housing bubble. Additionally, economists speculate that property values will fall nearly 80 percent from peak to trough throughout the island. Through the use of primary sources and recent Irish economic data, research will explain what factors led to the creation of the Celtic Tiger and the flaws that brought the period to a halt. Furthermore, the research will focus on the overall effect of the housing market and property values in the Irish economy.

### Modern Ireland: Service of the Irish Immigrant in the American Civil War

Senior/Capstone Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - Ross M. Mitchell

The Irish immigrants'service in the American Civil War plays an integral part in American history. The Irish were significantly the only units comprised of soldiers according to one's country of origin. The motives of service ranged from economic necessity, hope of integration into American society, and hopes of escaping the Nativist pressures and discrimination. This work will examine the experiences, motives, accomplishments, and failures of the Irish immigrant solider in America, and will evaluate how Irish culture/identity functioned within Irish service, specifically in the Union Army and the Irish Brigades.

### Modern Ireland: The Life of Mary Aikenhead

Senior/Capstone Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - Christiaan Colston

In 19th century Ireland, women religious orders emerged and promptly began to stimulate religious and cultural change in Ireland. Mary Aikenhead is notably recognized as the Foundress of the Irish Sisters of Charity, established in 1815. Aikenhead's charitable organization and religious conquest helped reshape women's roles within the Catholic religious hierarchy. Aikenhead committed herself and her organization towards reviving urban cities by encouraging growth in education, health, and religious guidance. Her selfless religious mission established a momentous reputation that has allowed the Irish Sisters of Charity to have an immense impact on Ireland and various places around the world.

### Modern Irish History: Guinness

Course Project 10_WI_HST_486_P1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - Kevin F. Rice

The history of the Guinness brewery in Ireland from 1759 to present. I will demonstrate how Guinness has been an essential aspect of the Irish economy, especially in poor economic times such as the Irish Potato Famine.

### Modern Irish History: The Life of Eamon De Valera

Senior/Capstone Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom

Advisor(s) - Marybeth Carlson
Student(s) - Charles H. Saulter

My poster will contain important biographical information on the life of Eamon De Valera. Eamon De Valera was an important figure to the country of Ireland and his policies still have an effect on Ireland today. I will have a slide show that will show different accomplishments of his life and why they were important to the country of Ireland. ItÃ¢??s important for people to know about the life of De Valera because of the influence that he had on Ireland, and why he was so well known. Eamon De Valera was a man of many accomplishments, some that were heavily supported and some that were looked down upon. My presentation will show what his major achievements were and how he affected the people around him.

## Modern Irish History; The British Mismanagement in the Aftermath of the Easter Rising of 1916

Senior/Capstone Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Marybeth Carlson
Student(s) - William C. Fairweather

The topic that I will be presenting in my poster pertains to the reasons as to why the British were unable to regain complete control of Ireland after the Easter Rising in 1916. It was the British mismanagement of the situation and primarily its aftermath that turned many of the supporters it had in Ireland against them. Performing such acts as imposing martial law on all of Ireland, conducting illegal and unreasonable searches of people's homes, arresting vast amounts of people with little to no evidence, and executing some of those involved in the Rising without a proper or fair trial resulted in fueling the resolve of those in favor of Irish independence and turning many to their cause. I will highlight the reasons that motivated the British to take such actions when they were warned of the possible outcomes that awaited them.

## The Nine-Point Circle Theorem: A Look at Feuerbach's Circle

Course Project 10_WI_MTH_370_H1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Rebecca J Krakowski
Student(s) - Danielle M. Bott

This research examines the nine-point circle theorem from France where it was born, to Germany where it grew up. The nine-point circle theorem states, "For any triangle, the three feet of the altitudes, the three midpoints of the sides, and the three midpoints of the segments from the orthocenter to the vertex all lie on a common circle, known as the nine-point circle of the triangle." This circle is also the circumcircle of the pedal triangle, which is formed by connecting the three feet of the altitudes. The proof of this theorem is also provided in the research.

## Optimal Control Programming Using a Numeric Kinetics Solver

Course Project 09_S1_AFI_622_61 — 3:00 PM-4:30 PM
Graduate - Individual — Kennedy Union Ballroom
Advisor(s) - Raul E Ordonez
Student(s) - Alan L Jennings

Optimal control problems are challenging to solve even on simple systems. Few problems afford analytical solutions because of the boundary valued differential equations. Kinetic systems, such as robotic linkages, can also be challenging to solve because of nonlinearities and degrees of freedom. A numeric control optimization software, DIDO, is coupled to a numeric kinematic solver, SimMechanics, within MATLAB. The kinematic model is created directly from a solid model assembly. A pendulum with control saturation shows how the process can be used to obtain near optimal solutions without intense, model specific analysis. In addition, optimality is checked for first order conditions ( less than 10 percent optimality residuals, normally less than 5 percent) and compared against a linear quadratic regulator (LQR) control. This can be used as a tool to size components before committing to a specific design.

### Our Potential Career Paths

Course Project 10_WI_HSS_226_01 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Marvin D Ganote
Student(s) - Michael J. Graham, Anthony M Iannarino, Wilson S. Temple

The purpose of this poster presentation is to enlighten the readers of the exciting job opportunities awaiting graduates from the University of Dayton's Health and Sport Science Department. Whether seeking to be a personal trainer focused on strength conditioning and personal health, or empowering others to attain fitness, health and overall wellness to improve the quality of life or working in the field of sports management in either professional or collegiate sports, the exciting career prospects are endless.

### Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B1 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Crystal K Devita, Stacy C Giessler, Kimberly A. Koly, Christopher M Moorman, John W Pirages

As students of the University of Dayton we are called to engage in social responsibility throughout the surrounding community. We must embrace that in a few short years we will be the leaders in our society and must give back to those less fortunate. Service learning is one of the ways in which we can begin to do this. In the Building Communities for Social Justice Living Learning Community, it was our duty to perform service projects throughout the community and answer the call to social responsibility. The service learning projects we participated in provided us with the opportunity to witness those less fortunate and help them in any way we could. Last semester our service projects involved Service Saturdays, Kiser Pen Pals, and PAGES (Prisoner Action Group for Education Service). Service Saturdays allowed us to go into inner-city Dayton and participate in service projects like the Walk for The Poor, Poverty Simulation, and the Westwood beautifying project. The Kaiser Pen Pal program allowed us to write letters to elementary school students and experience the affects of illiteracy in Dayton's community. PAGES allowed us to go to the Montgomery County Jail and help prepare an inmate to receive the GED. All of these service projects helped us to connect the ideals we learned in the classroom, like Plato's Cave Parable, to the realities of our community. The parable tells us that it is important for people who become enlightened to go back to the cave and enlighten those still chained inside the dark depths of the cave. By going out into the community and participating in these service projects, we shared our enlightenment with those less fortunate. By answering the call to be socially responsible, we helped to carry out the University of Dayton's tradition to learn, lead and serve.

### Perfectionism in Athletes: Cognitive Attribution Shifts in Collegiate Rowers

Course Project 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Joseph P Tedesco
Student(s) - Lydia K. Caldwell, Lauren N. Flynn, Allison J. Walden

In the world of sport, perfectionism can be considered a positive or a negative trait depending on how it affects one's performance. Joseph Tedesco's Theory (2009) suggests that while being a perfectionist may be frustrating, most athletes feel as if their performance would suffer without such high goals. This theory views perfectionism as a helpful trait in sport when frustration is reduced. Perfectionist athletes can be distinguished along two axes: Internal - External and Instrumental - Non-Instrumental. Internal - Non-Instrumentalist perfectionists are associated with the highest levels of frustration when their expectations are not met (Tedesco, Gaskell, Crenshaw, Nelson, 2009). Research has suggested that 25% of all perfectionist athletes fall under this category (Tedesco, et al., 2009). By identifying these individuals and using a cognitive skills training session, it may be possible to cause a cognitive attribution shift. This study was carried out using the members of the University of Dayton Women's Rowing Team. The athletes were given a questionnaire to determine how they view perfectionism in relation to their athlete performance. The athletes completed The Athleteâ??s Dimension of Perfection Scale (ADPS) followed by 2k test on the ergometer. In order to cause a cognitive attribution shift, perfectionist athletes were informed of their results and presented with a handout explaining each type. This handout gave the athletes specific cognitive skills for each

type informing them how to use their perfectionism in a more positive manner. After the session, the athletes performed a second 2k test allowing them to apply their new cognitive skills. The athletes took both the ADPS and the questionnaire again to see if their perfectionist categorization changed along with their views of perfectionism. It was found that some cognitive attribution shifts occurred amongst the athletes.

### Poverty from the Inside Out: A Social Justice LLC Project

Social justice LLC 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Elizabeth C MacNair, Sarah J Payne, Constance A Tate

For any individual who experiences poverty, concern for the future is a luxury they cannot afford. As a society, we need to recognize this as an issue and give those in poverty a positive vision of tomorrow. During our first two semesters at the University of Dayton we have been learning what it means to be human and how we should respect others and ourselves. Our service experience had allowed us to put these values into use by bringing together a group of people to accomplish small tasks that have an impact larger than we may realize. This fall our Saturday mornings consisted of raising money for those who are experiencing poverty, pulling locals communities together, and lending a helping hand wherever needed. We also fully experienced "poverty from the inside out" during our participation in a poverty simulation that gave us a glimpse of the everyday pressures and stresses that people experience while living in poverty.

### Poverty is a Problem Close to Home: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B2 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Douglas L Abram, Shane D Brown, Matthew D Grilli, Philip C Interlichia, Liam R Steinberg

Within our society, many citizens go through their lives without an awareness of poverty as a social justice issue. Plato's "cave" metaphor dictates that we must have an enlightened experience to bring us out of the shadow of the cave, and allow us to spread the light to those still living in darkness. As students at the University of Dayton, we were given the opportunity to volunteer at many schools and organizations in the local Dayton area and to help those struck by the holds of poverty. Our service experiences were at We Care Arts, where we helped them decorate for the holidays, and at Patterson Kennedy Elementary School where we tutored children. Recently, we all participated in the poverty simulation, which was very illuminating as to the difficulties that so many people in our society experience in their everyday life.

### The Power of One Can Make A Difference: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B3 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Kimberly R Boland, Shannon M Bowers, Aidan H Curran, Winston E Imwalle

As spiritually minded students of the University of Dayton, we have an obligation to contribute to our community. By sharing our individual gifts with society, we recognize that we have the ability to empower others through seemingly simple actions. During our community service experiences, we gained an appreciation for how small actions can make a significant difference in someone else's life. Individually we served different jobs as leaders; as a group, we were able to see similarities in each service and how they relate to each other. From tutoring fourth graders to visiting with the elderly, we learned how much each individual can impact another personâ??s life. In the end, we realized how fortunate we are to have many opportunities and advantages that have not only helped us lead fulfilling lives, but also helped us understand our obligation to serve others.

### Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project

Course Project 3:00 PM-4:30 PM

Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Danielle L Detrude, Anna Erker, Tara L Katchur, Ellie K Lane

The pen pal program provided an opportunity to engage young elementary school students and provide hope for them for the future. The goal of the program was to connect with struggling students in hopes of providing them motivation to reach for higher education. By doing so, we gave students a new friend who provided a vested interest in their life. The college insight and optimism that we shared with students was a rewarding service experience. A four-month preview to college may provide them with a sense of excitement for a higher education. This project helped enlighten our young pen pals through the use of Plato's philosophical concept of "the cave." We essentially led them out of a cave of darkness and lack of knowledge into a world full of opportunities that could be theirs. By corresponding with these young students we were privileged to provide wisdom and encouragement to these children about higher education and the importance continuing their educational goals.

### Recidivism: Effectiveness of Early Release Programs

Course Project 10_WI_SOC_208_01 3:00 PM-4:30 PM
Undergraduate - Individual Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Joseph R. Lomaglio

Many prisons today are faced with issues such as overcrowding and underfunding which force them to release prisoners in advance of their set release date. Most prisoners are put through parole programs that aim to transition the offender back to the community. The goal of this study is to develop a design to consider the effectiveness of post-release programs in transitioning offenders back to the community. This research can help aid prison institutions to implement new parole methods to help keep prisoners from winding back up in jail.

### Responding To Poverty Within The Community: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B1 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Corey R. Berkeybile, Matt T Duisen, John Husk, William L Reinert

While participating in various service learning projects, our group witnessed firsthand poverty's damaging effects on the community and on human life. Through this first-hand experience of poverty, we learned that it is a real problem in our society today and affects many cities throughout the world. At Patterson Kennedy Elementary School our group encountered children in the Dayton area who had been raised in poverty, and we were given the opportunity to tutor the children. Over the course of our Service Saturdays, we were privileged to travel to neighborhoods in the local Dayton area affected by poverty. While in these neighborhoods, we teamed up with local community centers to clean up and beautify parts of Dayton that have been most affected by poverty. As a group, we have learned a great deal about ourselves as individuals through our participation in these community projects, and we feel that our service experience has made a positive impact on the city of Dayton and its neighboring communities.

### Rewriting A Better Society through Service: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B1 3:00 PM-4:30 PM
Undergraduate - Group Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Keegan M Kelly, James O. Lewis, Andrew L Rizer, Anthony R Schroeder

Through our service, we have come to realize that we all have a social responsibility to help others in our community. We found that our service had positive outcomes on the community and has improved the lives of those less fortunate. Through our service experience within the local Dayton community, we have come to better understand the need for help in poverty-stricken areas and the need for positive influences on children. From a philosophical standpoint, we have had to

look outside our own comfortable lives to understand those less fortunate than us and realize our obligation to help them. This past semester we have all been involved in various service-learning projects within the Dayton community. One service activity performed by our group was being a pen-pal and writing letters to children at Kiser Elementary School, to get them excited about reading and in turn improve their reading and writing skills. Another service activity was helping at St. Vincent DePaul where we assisted people who were working on bettering their lives after making poor decisions in the past. A final activity was visiting Westwood Elementary School and the surrounding neighborhood and helping to clean up the area and improve the landscape and aesthetics by raking leaves and mulching.

### Rocket Stoves: Increasing Health and Safety

Course Project 10_WI_EGR_330_P1 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Margaret F Pinnell
Student(s) - Elizabeth K. Hinzman

Rocket stoves are being produced in order to increase health and safety in the third world. Most people use open fires in order to cook their daily meals. This increases the risk of burns or death due to inhalation of pollutants in the from the smoke. Rocket stoves propose ways to decrease these health problems.

### The Roles of Women in Law Enforcement

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Arthur J Jipson
Student(s) - Allison E. Csik

Law enforcement and policing are typically considered to be male-dominated professions. However, many women have been involved in law enforcement for many years. Policewomen have gone through many trials and tribulations trying to be accepted in the law enforcement world. They have to suffer through getting put down by their colleagues, peers, and their superiors. It is very tough for women to advance in law enforcement in some departments around the world. It is important to understand the male-female dynamics of law enforcement to truly understand how different branches of law enforcement work.

### RSMSAC: Resiliency Scale for Middle School Age Children

Course Project 09_WI_PSY_495_01 — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Melissa J Layman-Guadalupe, Joseph P Tedesco
Student(s) - Allise L Free, Samantha A. Montgomery, Kristen M. Rock

Resiliency is a huge factor in terms of positive outcomes. Whether or not a person is resilient, or has a certain level of resiliency, greatly impacts his/her ability to deal with certain life situations. Middle School is a transitional time for children. They are going through a lot of changes in life. It is a good time to determine whether or not they will be able to handle certain challenges in life. Thanks so much! Sorry it took awhile I had to discuss certain parts with group members. Thank you so much for all your help. We really appreciate it.

### School Funding in Urban Areas: Are Children Being Left Behind?

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - April L. Velotta

School funding is an important issue in urban areas. Many critics are concerned about the inadequate for for urban schools, which has been exacerbated with the erosion of the urban tax base. Many students graduate from high schools located in urban areas not knowing basic skills such as reading or writing, which causes major disadvantages when transitioning to

college or the work force. This project will consider the impact of the No Child Left Behind Act, especially Title I funding and the effects it has had on urban schools.

### Severity and Celerity: The Impotency of Prisons

Course Project — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Jennifer C. Williams

This is a study on the effects of punishment severity in crime deterrence through the means of prison, through empirical research; seeking to establish whether or not prisons are a viable means of penalty. Since prisons are not intended to incorporate celerity in their reform design.

### Shaping A Better Tomorrow: A Social Justice LLC Project

Course Project — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Christopher J Budin, Paul J. Ogren, William M Schaid, Joseph R Shiley, Adam S Wolters

Shaping a Better Tomorrow: A Social Justice LLC ProjectIn the Chinese Proverb "Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime" philosopher Lao Tzu recognized a truth regarding service towards others. In other words, the education of the youth and poor is even more valuable than just providing services to those less fortunate. Through our forward thinking service, we learned that in volunteering, positive thinking allows people to work together to achieve their own goals. As members of the LLC for Social Justice, serving the community and helping children is one of our priorities. Service in our neighboring communities opened our eyes to poverty and drove us to aid in any way that we could. With our coalition of students and faculty, we were able to bring members of the community together for a beneficial cause, and become closer to and more understanding of people in the neighboring communities of The University of Dayton. Our dedication provided inspiration and support that will positively strengthen these communities and lead the children to value their education and to eventually apply that education to help others.

### Sick and Powerless: The Connection Between Mental Illness and Poverty

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Martin T. Duda

There is a strong correlation between poverty and mental illness. It is very difficult to deal with mental illness in poor, inner city communities because many of these people lack the capacity and money to seek help. Key components of mental illness that affect inner-city poor communities are schizophrenia and anti-social personality disorder. This project will develop research to investigate the factors that contribute to the prevalence of mental illness in poor communities.

### Sororities: Increased Risk of Sexual Violence

Course Project 10_WI_SOC_208_01 — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - H Frances Geyer Pestello
Student(s) - Ashley C. Sherman

This is a research design project to investigate the impact of sororities and their connection to sexual violence. This project looks at attitudes, situations and experiences of sorority women that increase the risk of sexual violence among sororities members.

### Sorption of Organic Salts in Kaolinite, Montmorillonite, Hectorite, Silica and Aluminum Hydroxide.

Senior/Capstone Project
Undergraduate - Individual
Advisor(s) - Garry Crosson
Student(s) - Stephanie L. Thorpe

3:00 PM-4:30 PM
Kennedy Union Ballroom

The constant temperature adsorption of organic salts, denatonium benzoate (DB), n-butylpyridinium chloride and 3-methyl-n-butylpyridinium chloride, to several clays, montmorillonite, kaolinite, and hectorite, as well as, sea sand (silica), and aluminum hydroxide were studied under varied solution conditions. Ultraviolet-Visible Spectroscopy was used to evaluate the extent salt absorption all clays. Variable pH (4 - 13) studies of DB absorption of were conducted. Generally, the results suggest that absorption increases with increasing initial concentration of DB at each pH value for the clays. Langmuir adsorption isotherms were different for each clay with kaolinite tending to have S shaped curves and montmorillonite and hectorite tending to have a C shaped curve .The silica and aluminum hydroxide showed negligible absorbance. A Freundlich analysis of DB adsorption to montmorillonite and hectorite indicated that pH influences DB absorption in both clays. Kaolinite results isotherm results were inconclusive due to indigenous clay organic matter which competed with DB sorption to the clay at low initial concentrations of DB. However, some insight was gained. Namely, a concave up Langmuir isotherm was observed which suggests that DB is not initially attracted to the surface until a large amount of surface sorption occurs effectively modifying the surface. Variable pH studies of n-butylpyridinium chloride and 3-methyl-n-butylpyridinium chloride adsorption to montmorillonite indicate that adsorption does in fact take place. Preliminary results appear to suggest that montmorillonite has a large capacity to adsorb both ionic liquid materials. In sum, our initial results indicate that organic salt sorption to kaolinite, montmorillonite and hectorite occurs with the adsorption process being complex and not dependent on a single environmental variable while negligible absorption occurs to silica or aluminum hydroxide. The implications of this work are discussed in the framework of environmental stewardship.

### Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies

Course Project 09_FA_ASI_343_H1
Undergraduate - Group
Advisor(s) - Daniel C Fouke Sukhjinder S Sidhu
Student(s) - Peter A. Arensberg, Bryan W. Bakker, Scott D. Saum, Shea M. Tolson

3:00 PM-4:30 PM
Kennedy Union Ballroom

Natural systems buffer us from environmental perturbations, provide us with fuel, food, and medicine, and offer opportunities for solitude and renewal. As a society, we need a citizenry who understand basic ecological principles, and the need for knowledge-based, rational, management of resources has never been more apparent. The management of natural resources begins with understanding how the ecological systems that provide those resources work. Ecological systems are exceedingly complex, understanding them requires theoretical background, and importantly, practical knowledge as well. In fact, the best way to understand those principles is what we call a boot-tread ecology learning about natural systems with dirt from that system in your boot-treads. Off-campus field-trips are a critically important way we provide our students at UD with opportunities for this kind of learning experience, but they are also challenging to coordinate and transportation can be difficult. Instead of taking students to the ecosystem, here we propose to bring an ecosystem to the students by turning a largely ignored corner of campus into a natural prairie system.

### Study Abroad in Japan: Expanding Boundaries through Study in Culture, Political Science, Language, and History

Independent Research
Undergraduate - Individual
Advisor(s) - Jayne B Robinson
Student(s) - Mary Claire Horwath

3:00 PM-4:30 PM
Kennedy Union Ballroom

Study abroad in Japan is a valuable opportunity for undergraduate students. Such an opportunity is available to University of Dayton students and can be facilitated by study in Japanese culture, political science, history, and language. It is important to understand other cultures in order to better cooperate and dialogue in the global academic community.

### Synesthesia: A Different Look at Our World

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Susan T Davis
Student(s) - William D. Miller

Synesthesia is a phenomenon in which stimulation of one sensory modality also gives rise to an experience in a different sensory modality (Sagiv, 2005). One of the most common types of synesthesia is color-grapheme synesthesia, where individuals experience monochromatic characters (e.g., X) in distinct colors (e.g., brown). Research in aesthetic preferences has examined color, but not the experiences of those with synesthesia. That previous research investigated the preference for symmetrical versus non-symmetrical objects and found that individuals who were not artists preferred symmetry, while artists preferred a ratio found in nature, art, and architecture referred to as the Golden Ratio (Davis, 1991). Those results were not affected by additions of color. The present research will investigate the two concepts of synesthesia and aesthetic preference by examining the synesthetic experiences of individuals, as well as their preference scores for different characters displayed in different proportional configurations. Based on the relationship between art and synesthesia, it is expected that those characters which follow the Golden Ratio will be most preferred. In Experiment 1, participants were first asked to indicate their perceived color for each character displayed in each configuration three times. In Experiment 2, participants were asked to indicate their preference score for the same character set as Experiment 1. In Experiment 3, all possible configurations for a given character were displayed and the participant was asked to select the most pleasing character. These preference scores will then be analyzed according to their color selection, character, and configuration in order to determine if orientation, ratio, and/or color selection significantly affect aesthetic preference.

### Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project

Course Project 10_WI_PHL_103_B1 — 3:00 PM-4:30 PM
Undergraduate - Group — Kennedy Union Ballroom
Advisor(s) - Monalisa McCurry Mullins
Student(s) - Stacey N Breitbarth, Kristin B Cella, Lydia R Kindelin, Abigail M Spaeth

Adequate nourishment can come in various forms. Nourishment helps improve the mind, body, and soul of a person. Through our service experience in the Dayton community we met our fellow neighborsâ?? needs by feeding their minds in classrooms, feeding their bodies at food pantries, and feeding their souls with love and appreciation. By interacting with under privileged children in low income schools, we gained a new appreciation of the importance of proper education. In addition to the harm caused by insufficient education, we also saw the poignant reality of homelessness. We learned more about the social injustice suffered by homeless individuals by conversing with them, serving at a soup kitchen, and traveling to local shelters. Once we identified the malnourished community, we set goals to change the situation, formed a plan of action, and executed our plans throughout the first semester. These experiences increased our awareness of the responsibility we have as citizens to nourish others with knowledge, food and love; in the process we also acquired motivation, encouragement, and inspiration to continue to serve.

### Vegetative Index of Biotic Integrity Methods

Independent Research — 3:00 PM-4:30 PM
Undergraduate - Individual — Kennedy Union Ballroom
Advisor(s) - Jeffrey L Kavanaugh
Student(s) - Jacklyn C. Paulik

Creekside Reserve is part of the Greene County Park District located in Greene County, Ohio and the site of a multi-year, long-term study of wetland restoration. An adaptive management approach is being used to determine management decisions for our restoration activities. An annual assessment of wetland quality is made using the Ohio EPA's Vegetation Index

of Biotic Integrity (VIBI). The VIBI is a field method for collecting information about the quality of wetland plant communities. We present here the first two years of data from three separate VIBIs at our Creekside Reserve wetland restoration site. The VIBI is a multimetric index composed of 10 metrics that sum to a maximum score of 100 and a minimum score of 0. Different VIBIs are calibrated for wetlands dominated by emergent, forest or shrub vegetation; i.e., the VIBI-Emergent, VIBI-Forest and the VIB-Shrub indices. The typical VIBI method consists of laying out ten, 10m X 10m modules arranged in a 20m x 50m plot. Four, 10m x 10m modules are intensively sampled with a series of nested quadrats including 0.1m2, 1m2, 10m2 and 100m2. Within these intensive modules we recorded all individual plant species and their cover class values. Species found outside the intensive modules also have presence and cover values recorded. Stem diameter for woody species are measured at breast height and counted separately. The VIBI results are used to indicate trends over time in wetland quality. The trends are evaluated to modify existing management plans.

## The Breaking Point: The Influence of High Levels of Co-Curricular Involvement

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Laura M Hinkebein

The importance of student involvement has been explored in a multitude of ways. This study investigates the students that participate in a high level of co-curricular activities. The first goal of this research is to expose if there is a breaking point to the amount of co-curricular activities in a student's life. A second goal is to gain information about the upper limit of involvement to help students maintain a healthy balance of activities. The research includes a second analysis of the National Survey of Student Engagement (NSSE) from a private Catholic Midwest institution to analyze the correlation between time spent on co-curricular activities and multiple indicators of student success.

## Commuter Student Involvement on a Residential Campus

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Gwyn E Fox Stump

The purpose of this study was to investigate the perception of commuter student's sense of belonging to their institution. In particular, commuter students' perceptions of how they are viewed and treated by the university and residential students. This study aimed to examine whether the sense of belonging, or lack thereof, felt by commuter undergraduate students has any relation to their membership within academic, social clubs and organizations and leadership experience related to those activities. By exposing studentsÃ¢?? answers to this question, the researcher hoped to find a significant relationship between meaningful cultural interaction and development of undergraduate commuter students. Results of the study indicate that commuter students do not feel a strong sense of belonging with their college experience. These specific results are discussed as well as suggestions for increasing instances of interaction through on-campus programs.

## Displaced Workers as Students in Community College

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Megan Elizabeth Laughter

With the unemployment rate continuing to rise, many throughout the country are looking to community colleges to help meet the growing educational need. Community colleges exist to serve in whatever capacity is necessary within their surrounding region. As thousands of unemployed individuals are looking to their futures, they are enrolling in colleges to help them obtain an education and ultimately gain a new career. This study utilizes a grounded theory approach to learn about the needs and struggles of displaced workers already attending college. The results will help higher education professionals gain a better understanding of what supports and programs should be in place to help shape and educate a successful workforce.

### Effect of supervisor's gender: Self-efficacy and hope in resident assistants

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Lisa M Schmidtgoessling

This research investigates self-efficacy, hope, and gender in the context of Resident Assistants (RAs) and their supervisors. In their position, RAs use their knowledge and skills to guide residential students in their personal and academic journey at the university. Important to the success of translating those skills into action is a belief that one is capable (self-efficacy) and can find the motivation (hope) to address change. Due to the close working relationship of RAs with their supervisors, it is also necessary to better understand their influence. Through an examination of the literature on the role of RAs, self-efficacy, hope, supervision, and gender differences three research questions emerged. The researcher investigated the difference in self-efficacy between RAs and their supervisors as well as the difference in hope. Additionally, the effect of results according to gender was also analyzed, leading to a preceding observation that regardless of previous experience women had lower levels of self efficacy. While this study important in residence hall facilities to meet the challenges, the increased performance of RAs would also be beneficial to their professors as well as other clubs and organizations within the university setting. All supervisors, not just those within the residence halls, will have the opportunity to better understand the important nature of their relationship.

### Exploring Peer Supervisors Experience Of Conflict

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Andrew J Mitchell

The purpose of this study was to examine in what ways peer supervisors experience conflict. Specifically, the research question that framed this study was "in what ways does acting as a peer supervisor impact the experience of conflict." Peer supervisors are put in a unique position on college campuses which requires a complex navigation of a dichotomous role. This role puts these supervisors in a position which necessitates successful conflict mediation skills. By better understanding how supervisors make meaning of this conflict, better support approaches can be utilized to help peer supervisors. A phenomenological approach using a focus group with follow-up interviews was used to help create an understanding of the lived experience of the students. Students were invited to share their experiences of conflict in their work and how the felt about both the conflict and support received. Grounding this research in the perspective of the students allows for greater understanding of the perceptions of conflict by the students.

### First Year Student Retention in a Two-Year Automotive Technology Program

Course Project 10_WI_EDC_569_01 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Thomas Bruce Freels

An abundance of research has been conducted on student retention in higher education. The majority of that research has focused on the first college year, however much of it has been viewed as an approach for the entire institution. This study focuses on the retention and success of first year students in an automotive technology program at a two-year public institution. This study investigates the relationship between entrance exam scores, retention of current students, graduation rates, and attrition to help determine what support and programs could be useful at retaining and graduating more students through the automotive program.

### The Impact of Congruent Values on Fraternity and Sorority Learning

Graduate Research 4:30 PM-6:30 PM
Graduate - Individual LTC Forum
Advisor(s) - Molly A Schaller

Student(s) - Kara Beth Neike

Greek letter organizations are starting to focus on a realignment of their founding values within individual chapters. Institutions that support inter/national greek letter organizations have also created standards that align with both organizational and institutional values. The University of Dayton has a set of 13 Basic Expectations that each greek letter organization must strive to meet. These expectations will be compared to the overall chapter GPAs as a way to assess students learning with regards to these expectations. A goal attainment scale will be used to analyze the data. The researcher hypothesizes that the results will show a higher overall chapter GPA for chapters that have successfully completed the basic expectations. Likewise, the chapters that do not successfully complete the basic expectations will have a lower overall chapter GPA.

## Student Services at Exchange Institutions Affiliated with the University

Graduate Research — 4:30 PM-6:30 PM
Graduate - Individual — LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Dianna J Hyde

This study, titled Student Services at Exchange Institutions Affiliated with the University, focuses on the experiences of students from a comprehensive, Catholic University who participated in an exchange program for one semester or more. The literature covers what exchange programs are, what their benefits and limitations are, what students gain developmentally from international experiences, and lastly, some perspectives on how international institutions operate. Research will be conducted utilizing a phenomenological approach and focus groups in order to seek information about student services, such as housing, counseling center, health center, and library, that are specific to the institutions abroad. With the results, the researcher seeks to improve the process for future students and to raise awareness for other institutions that have similar practices.

## The Success Measures of College Students

Senior/Capstone Project — 4:30 PM-6:30 PM
Graduate - Individual — LTC Forum
Advisor(s) - Molly A Schaller
Student(s) - Jerron M Parker

In this study, students at a Midwestern, mid-size Catholic institution were surveyed to see how they measure their own personal success in college by using their values, grade point average, and likelihood of staying in their field of study for at least five years. The results of the survey will test the notion that students from different major areas have differing measures of collegiate success. The results of the study will aide academic departments in supporting student success by understanding student values and motivations.

| Name | Title | Location/Time |
|---|---|---|
| Aaron, Philip T | Feasibility Study Framework: A guide to Aid ETHOS in Cameroon for Water Distribution Systems | LTC Team Space, 3:00PM-3:30PM |
| Aaron, Philip T | Appropriate Technologies: Rocket Stoves | KU 211, 11:30AM-12:00PM |
| Abels, Kevin J. (ENT, FIN) | S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach | KU Ballroom, 10:30AM-12:00PM |
| Abram, Douglas L (CIS) | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Abreo, Daniela R. (ELE) | Fabrication of Vibration Sensors by Glass Fiber Tapering and Cleaving | KU Ballroom, 3:00PM-4:30PM |
| Abueida, Atif A | Graph Decompositions and Equitable Edge Colorings | KU Ballroom, 1:00PM-2:30PM |
| Ackermann, Allison R (POL) | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Ahlrichs, Steven J (EYA) | Parallels Identified between the Residency Program of Physicians and Teachers | Chaminade Hall 323, 11:00AM-11:40AM |
| Ahrns, Julia Marie (EMS) | The Impact of Physician and Teacher Relationships with their Preceptor/Mentor on their Residency Experience | Chaminade Hall 315, 10:10AM-10:15AM |
| Ajdaharian, Melanie I. (BIO) | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Akers, Kelly Renee (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Akin, Karinza M (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Akin, Kathryn A. (EHA) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Albain, Anna E (EMS) | National Board Certification and How it Relates to the New Teacher Licensure Structure | Chaminade Hall 204, 10:10AM-10:50AM |
| Aldrich, Casey A. (PSY) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Alemayehu, Andargachew D (ELE) | Tunable High Voltage Interdigital Capacitor (HVIDC) | KU Ballroom, 10:30AM-12:00PM |
| Allen, Nathanial L (MIS, OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Allen, Nathanial L (MIS, OPS) | Standard Register LLC Engine | Miriam Hall 214, 1:00PM-2:00PM |
| Allen, Nathanial L (MIS, OPS) | Standard Register: Forecasting Revenue | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Althaus, Kathleen D. (HST) | Modern Irish History; "Irish Sexual Revolution and De-Catholicization" | KU 311, 11:30AM-12:00PM |
| Alverson, Sarah E (UNDEF) | Assessing the Implications of Arbuscular Mycorrhizal Colonization in the Invasive Shrub Amur Honeysuckle (Lonicera maackii) | KU Ballroom, 10:30AM-12:00PM |
| Amin, Julius A | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Anderson, Darrell F | Regional Theatres and Their Communities: A Look at Economic, Social, and Artistic Changes in Trends between Regional Theatres and Their Communities a Decade into the New Millennium | KU Ballroom, 1:00PM-2:30PM |
| Anderson, Katherine (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Andrews, Ryan M. (EVB) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Anloague, Philip A | Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir | KU Ballroom, 1:00PM-2:30PM |
| Anloague, Philip A | The Rucksack Physical Fitness Test: Does the Addition of a 15.91 kg Rucksack Eliminate the Bodyweight Bias in the Army Physical Fitness Test? | KU Ballroom, 10:30AM-12:00PM |
| Archbold, Christopher M. (UBU) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Arend, Kristine M. (FIN, MKT) | Developing an Optimal Portfolio of Dividend Paying Stocks in Turbulent Markets: The 2008 - 2009 Period | KU Ballroom, 10:30AM-12:00PM |
| Arensberg, Peter A. (MEE) | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Arensberg, Peter A. (MEE) | Bioremediation and Sustainability in Dayton's South Park Nieghborhood | KU Ballroom, 1:00PM-2:30PM |
| Arko, Megan E. (INB, MKT) | Flyer Enterprises: Entrepreneurship in Action | Miriam Hall 207, 2:15PM-3:15PM |
| Asip, Sarah A. (PHL, POL) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Auriema, Jenna E. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Aylo, Aline R (CEE) | Analyzing the Safety and Operational Impacts of Installing Roundabouts in Ohio | KU Ballroom, 10:30AM-12:00PM |
| Aylo, Rola R (EEN) | Influence of disorder on the omnidirectional bandgap in multilayered metamaterial structures | KU Ballroom, 10:30AM-12:00PM |
| Azmeh, Souha (VCD) | 3D Animated Visualization of the Proposed UD Mad River Center | Marianist Hall 218, 11:30AM-12:00PM |
| Azmeh, Souha (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Baddour, Joelle (CME) | Modeling of the Pancreatic Endocrine System Response | KU Ballroom, 3:00PM-4:30PM |
| Bakker, Bryan W. (MEE) | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Balbach, William E. (MTH) | Mathematical modeling of H1N1 flu | KU Ballroom, 3:00PM-4:30PM |
| Balio, Kimberly A. (PUB) | Issues in Communication Research | KU 310, 1:00PM-2:00PM |
| Bane, Theodra E. (ENG, PHL, FRN) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Banerjee, Partha P | Influence of disorder on the omnidirectional bandgap in multilayered metamaterial structures | KU Ballroom, 10:30AM-12:00PM |
| Baran, Josh P (EMS) | Four-Year Residency Programs: Ohio Vs. Other States | Chaminade Hall 114, 10:10AM-10:50AM |
| Bare, Danielle E. (MEE) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Barnes, Jeremy R. (OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Barnes, Jeremy R. (OPS) | OPS 495 Capstone: Emerson Climate Technologies Distribution Team | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Barnes, Matthew L. (ENT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Barron, Ian M. (MED) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Barth, Eric Hugh (DPT) | Acute Effects of Whole Body Vibration on Counter Movement Jump, Timed One-Leg Support, Timed Get Up and Go, and Sit and Reach Flexibility Test in Healthy College Students | KU Ballroom, 1:00PM-2:30PM |
| Bashaw, Michael J | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Basil, Cheryl Ann (EXS) | The Association Between Gender, BMI and Fitness in Junior and High School Aged Students | KU Ballroom, 1:00PM-2:30PM |
| Basil, Jason K. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Bauer, John J | Growth Motivation in Guatemala: A Study of Personality | KU Ballroom, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Bauer, John J | Drinking Attitudes and Behaviors | KU Ballroom, 1:00PM-2:30PM |
| Bayer, Joseph M. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Beadle, Eric M. (ESM) | Positive Rewards for Positive Behavior: Would a Rewards System Work? | KU 331, 1:00PM-1:30PM |
| Beasley, Courtney B. (PUB) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Beech, Brandon S. (POL) | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Begovich, Alice M. (CME) | Exploring the Significance of Preconditioning Blood Vessels in Ex Vivo Testing | KU Ballroom, 1:00PM-2:30PM |
| Bell, David C (ECB) | Building the Community One Step at a Time: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Benash, Michael R. (MKT, MIS) | Standard Register LLC Engine | Miriam Hall 214, 1:00PM-2:00PM |
| Benash, Michael R. (MKT, MIS) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Benbow, Mark E | Seasonal Water Fluctuation Effects on Invertebrate-Bacterial Community Associations in Vernal Pools | KU Ballroom, 10:30AM-12:00PM |
| Benbow, Mark E | DOES MICROBIAL COMMUNITY STRUCTURE INFLUENCE NOCTURNAL OVIPOSITION IN SOUTHWESTERN OHIO BLOW FLIES? | KU Ballroom, 3:00PM-4:30PM |
| Benbow, Mark E | Microbial and necrophagous insect community assembly, succession, and species richness associated with Sus scrofa carcasses across multiple seasons | KU Ballroom, 10:30AM-12:00PM |
| Benbow, Mark E | Comparative Time Series of Functional Group Stream Assemblages Relative to Habitat Degradation in the Republic of Palau | KU Ballroom, 10:30AM-12:00PM |
| Benbow, Mark E | Land Water Interfaces: Invasive Honeysuckle Effects on Stream Invertebrates | KU Ballroom, 10:30AM-12:00PM |
| Benbow, Mark E | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Benbow, Mark E | Assessing Habitat Quality Using Standing Stock Biomass in Diverted Mountain Streams | KU Ballroom, 1:00PM-2:30PM |
| Benbow, Mark E | Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams | KU Ballroom, 1:00PM-2:30PM |
| Benbow, Mark E | When there is no flow: Changes in migratory movement and benthic community structure across Hawaiian watersheds of variable size and diversion impact | KU 312, 2:30PM-3:00PM |
| Benbow, Mark E | Infectious Disease in West Africa: Buruli Ulcer and its Ecological Factors | KU Ballroom, 3:00PM-4:30PM |
| Benin, Vladimir A | Bulk-Heterojunction Photovoltaic Cells: The Effect of Interlayer Morphology on Device Performance | KU 207, 10:30AM-11:00AM |
| Benin, Vladimir A | Computational Investigations of the Interactions between Phosphate Esters and Metal Carbides | KU Ballroom, 10:30AM-12:00PM |
| Bennett, Jana M | John Paul II's Guide to Dating: Effectively Teaching Catholic Doctrines on Sexuality in a High School Classroom | Marianist Hall 206, 10:30AM-11:00AM |
| Bennett, Jana M | Amistad in Action: Uniting the Americas Through the Sister Parish Relationship | KU Ballroom, 1:00PM-2:30PM |
| Berg, Maureen C. (BIO) | DOES MICROBIAL COMMUNITY STRUCTURE INFLUENCE NOCTURNAL OVIPOSITION IN SOUTHWESTERN OHIO BLOW FLIES? | KU Ballroom, 3:00PM-4:30PM |
| Berg, Michael J. (MIS) | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 2:15PM-3:15PM |
| Berg, Michael J. (MIS) | Flyer Enterprises Information Technology: Improving Business with Technology | Miriam Hall 207, 3:30PM-4:30PM |
| Berger, Philipp (MBA) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs | Miriam Hall 109, 2:15PM-3:15PM |
| Bergfeld, Julie Ann (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Berkemeier, Francis J. (CME, GER) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Berkeybile, Corey R. (MKT) | Responding To Poverty Within The Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Berman, Benjamin T (MKT,OPS,SMT) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Berman, Benjamin T (MKT,OPS,SMT) | GE Aviation: Reducing Receiving Cycle Time | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Bernardez , Leanne C (REL, ERL) | The Joy of Sex Education: An Experience in London | KU Ballroom, 3:00PM-4:30PM |
| Berner, Matthew J (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Berry, Kyle P. (ENT) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Besser, Alessandra B. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Bethel, Wayne D. (MIS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Bethel, Wayne D. (MIS) | Miller-Valentine: Digital Dashboard Initiative | Miriam Hall 214, 1:00PM-2:00PM |
| Bidwell, Sarah L. (PSY) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Bigelow, Kimberly E | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Bilocerkowycz, Jaro M | Oil and Governance | KU Ballroom, 1:00PM-2:30PM |
| Bilocerkowycz, Sonya L. (ENG) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Birkemeier, Jodi L (MUT) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Bittoni, Annamaria M (EHA) | Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology | KU Ballroom, 3:00PM-4:30PM |
| Black, Andrew D (THL) | Catholic Dissent? Orestes Brownson, John W. Nevin and the American Evangelical Establishment | LTC Team Space, 3:30PM-4:00PM |
| Blackwell, Neiah N. (SOC) | Who's Finding Love in College? | St. Joseph's Hall 023, 1:30PM-2:00PM |
| Blair, Tiffany B. (BIO) | Land Water Interfaces: Invasive Honeysuckle Effects on Stream Invertebrates | KU Ballroom, 10:30AM-12:00PM |
| Blakeley, William B. (HRS) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Blaney, Alice L. (JRN) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Blankschaen, Kurt M. (INS, PHL) | Gay Nation: Decolonizing the Forgotten | Marianist Hall 206, 11:30AM-12:00PM |
| Blum, Thomas P. (BIO) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Boeckman, Megan A. (ACC) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Boland, Kimberly R (MED) | The Power of One Can Make A Difference: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Bolmeyer, Lauren A. (LDR, MKT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Bondy, David A (PTY) | Photography Capstone Presentation | ArtStreet Studio B, 1:00PM-3:00PM |
| Bonvillian, Laura L (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Boone, Katherine M (EPT) | Children in At Risk Communities: A Social Justice LLC Project | KU Ballroom, 1:00PM-2:30PM |
| Bordewick, Amanda L (ECE) | Mentoring Resident Educators | Chaminade Hall 102, 10:10AM-10:50AM |
| Bosse, Kay D | Abandoning Aristotle for a Raining Elevator: Ovidian Myth in Contemporary Theatre | KU 331, 2:00PM-2:30PM |
| Bott, Danielle M. (EYA, MTH) | The Nine-Point Circle Theorem: A Look at Feuerbach's Circle | KU Ballroom, 3:00PM-4:30PM |
| Boulden, D'Andre A. (FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Boulos, Paula M. (EET) | Ohio's Four-Tier License Structure | Chaminade Hall 114, 11:00AM-11:40AM |
| Bowers, Shannon M (UNS) | The Power of One Can Make A Difference: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Bowling, Elizabeth M (EMM) | What to Teach a Teacher: A Closer Look at the Teacher Residency Curriculum | Chaminade Hall 322, 10:10AM-10:50AM |
| Boylan, Peter R (ECE) | Four-Year Residency Programs: Ohio Vs. Other States | Chaminade Hall 114, 10:10AM-10:50AM |
| Boyle, Jacqueline J. (JRN, ENG) | Issues in Communication Research | KU 310, 1:00PM-2:00PM |
| Brady, Alison E. (MUT) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Brady, Maureen M. (EPT, EYA) | Psycho-Therapy Residency Applied to Teacher Residency Program | Chaminade Hall 323, 9:20AM-10:00AM |
| Braendel, Chelsea M (CMM) | Building the Community One Step at a Time: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Brahler, Claudia J | Body Mass Index: Impact on Fitness and Hemodynamic Factors in DECA students | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Fitnessgram Predicts Disease Risk in Students | KU Ballroom, 10:30AM-12:00PM |
| Brahler, Claudia J | An Outlook on Speed and Power Performance between Positions of Basketball Players | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Comparison of Anthropometric, Hemodynamic, and Presidential Fitness Measures between Male and Female Junior High and High School Students | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Fitness or Body Composition: Does physical fitness or body composition have a greater impact on Presiden's Fitness Challenge testing in adolescents? | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Comparison of anthropometric, sprint, agility, and flexibility between DECA and MHS basketball adolescents | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Validity of the Mile Run Time in Adolescents and the Impact on Estimated VO2peak: Can Shuttle Time Replace Mile Run Time in Estimating VO2peak Using the Cureton Equation? | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | The Association Between Gender, BMI and Fitness in Junior and High School Aged Students | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Brahler, Claudia J | Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Acute Effects of Whole Body Vibration on Counter Movement Jump, Timed One-Leg Support, Timed Get Up and Go, and Sit and Reach Flexibility Test in Healthy College Students | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence | KU Ballroom, 1:00PM-2:30PM |
| Brahler, Claudia J | Risk Factors for Low Back Pain in Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Brahler, Claudia J | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Brailer, Laura Ann (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Bramini, Megan M. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Brecha, Robert J | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Breitbarth, Stacey N (LDR) | Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Brewer, Megan J (MUT) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Brian, Amanda M. (BIO) | Understanding the Causes of Familial Adenomatous Polyposis in Families with No Identifiable Genetic Mutation in Kentucky and the Surrounding Areas | KU Ballroom, 1:00PM-2:30PM |
| Brockman, Michael P (MIS, OPS) | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Brown, Phillip Lee (DPT) | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Brown, Shane D (ESM) | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Bruce, Kathryn M. (INS, SPN) | Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course | KU 207, 3:00PM-4:30PM |
| Bruggeman, Joseph Z. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Bucaro, Jill C. (INS) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Bucaro, Jill C. (INS) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Buckley, Michael C. (CMT) | An Analysis on the Mountain Building in regards to the New Zealand island chain | KU Ballroom, 3:00PM-4:30PM |
| Buckman, Stacey A (EMS) | Assessing Assessments: The Impact of Student Evaluation on the Ohio Teacher Residency Program | Chaminade Hall 202, 9:20AM-10:00AM |
| Budin, Christopher J (UBU) | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Bunta, Silviu N | Marcion and His Effect on Mainstream Christianity | KU Ballroom, 1:00PM-2:30PM |
| Bunta, Silviu N | Jewish Mystical Traditions in Early Syriac Baptismal Imagery | Marianist Halll Learning Space 217, 2:30PM-3:00PM |
| Burgiss, Cynthia C. (VCA) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Burkhardt, Jonathan D. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Burkhart, Kathleen R. (PSY) | The Effects of Thin-Ideal Media on Body Image: An Examination of Hypothesized Moderator Variables | KU Ballroom, 10:30AM-12:00PM |
| Burky, Albert J | Comparative Time Series of Functional Group Stream Assemblages Relative to Habitat Degradation in the Republic of Palau | KU Ballroom, 10:30AM-12:00PM |
| Burky, Albert J | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Burky, Albert J | Assessing Habitat Quality Using Standing Stock Biomass in Diverted Mountain Streams | KU Ballroom, 1:00PM-2:30PM |
| Burky, Albert J | Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams | KU Ballroom, 1:00PM-2:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Burky, Albert J. | When there is no flow: Changes in migratory movement and benthic community structure across Hawaiian watersheds of variable size and diversion impact. | KU 312, 2:30PM-3:00PM |
| Burky, Albert J. | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Burpo, Sarah A. (FRN, INS) | Oil and Governance | KU Ballroom, 1:00PM-2:30PM |
| Busch, Arthur H. | Lovasz's Conjecture for Semidirect Products, Dihedral Groups, and Alternating Groups | KU Ballroom, 1:00PM-2:30PM |
| Bush, Rachel N. (FIN, OPS) | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Bush, Rachel N. (FIN, OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Bushmeyer, Christopher J. (CPE) | Development and Characterization of a Laser-Based Local-Oscillator Detection System for a Simple Reflecting Target | KU Ballroom, 10:30AM-12:00PM |
| Busse, Christine E (EMS) | Four-Year Residency Programs: Ohio Vs. Other States | Chaminade Hall 114, 10:10AM-10:50AM |
| Butcher, Cory M. (LDR, OPS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Butler, Katherine E. (PSY) | The Mediating Role of Silencing the Self in the Relationship Between Rejection Sensitivity and Anger | KU Ballroom, 1:00PM-2:30PM |
| Butler, Katherine E. (PSY) | The Adonis Effect: Male Body Morphic Distortion Syndrome | KU Ballroom, 3:00PM-4:30PM |
| Butsch, Laura E (UNDEF) | Nursing Residency Program | Chaminade Hall 308, 9:20AM-10:00AM |
| Byrnes, Susan | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Cable, David A. (EEP) | HSS 226 Career Goals and Our Future | KU Ballroom, 1:00PM-2:30PM |
| Cadegan, Una M | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Cahill, John J. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Calabro, Robert W. (ENT, MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Caldwell, Lydia K. (BIO) | Perfectionism in Athletes: Cognitive Attribution Shifts in Collegiate Rowers | KU Ballroom, 3:00PM-4:30PM |
| Callahan, Grace M (EYA) | Educational Policy for Teacher Residency in the State of Ohio | Chaminade Hall 208, 11:00AM-11:40AM |
| Calvo, Andres A. (CPE, CPS, MTH) | The Design, Implementation, and Evaluation of a Pointing Device for Wearable Computers | KU Ballroom, 10:30AM-12:00PM |
| Calvo, Andres A. (CPE, CPS, MTH) | MELEC: Meta-Level Evolutionary Composer | KU Ballroom, 1:00PM-2:30PM |
| Cano, Kelsey R. (JRN) | Legal Issues Confronting the News Media Today | KU Ballroom, 3:00PM-4:30PM |
| Cannon, Jenny A. (MKT, OPS) | Audit of Inventory Planning Control Procedures at Shumsky Promotional | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Cannon, Jenny A. (MKT, OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Caraboolad, Adam J. (FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Cariola, Matthew W (EYA) | State and National Educational Policy in Relation to Teacher Residency | Chaminade Hall 208, 9:20AM-10:00AM |
| Carlone, Melissa A. (BCM) | Anaerobic photocleavage of supercoiled DNA by a ruthenium(II) substituted fluorinated porphyrin | KU Ballroom, 10:30AM-12:00PM |
| Carlsen, Natasha L. (SOC, POL) | Perception of Drug Users in the Media: An Analysis of A&E's Intervention | St. Joseph's Hall 23, 3:00PM-3:30PM |
| Carlson, Marybeth | Modern Irish History: Robert Emmet's Last Speech | KU 311, 10:30AM-11:00AM |
| Carlson, Marybeth | Modern Irish History: Sinn Fein and the Politics of the IRA | KU 311, 11:00AM-11:30AM |
| Carlson, Marybeth | Modern Irish History; The British Mismanagement in the Aftermath of the Easter Rising of 1916 | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | Emerald Roots: An Expos© of Irish-American Cultural Assimilation | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | Modern Irish History: Guinness | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | The Cultural Impact of the GAA | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | Modern Irish History: The Nature of Tourism | KU 211, 4:00PM-4:30PM |
| Carlson, Marybeth | Modern Irish History: The Life of Eamon De Valera | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | Modern Ireland: The Life of Mary Aikenhead | KU Ballroom, 3:00PM-4:30PM |
| Carlson, Marybeth | Modern Irish History; "Irish Sexual Revolution and De-Catholicization" | KU 311, 11:30AM-12:00PM |
| Carlson, Marybeth | Modern Ireland: the political styles of Grattan and Flood | KU 312, 2:00PM-2:30PM |
| Carlson, Marybeth | Modern Ireland: Service of the Irish Immigrant in the American Civil War | KU Ballroom, 3:00PM-4:30PM |
| Carpenter, Ryan J. (MED) | Bacterial DNA helicases at the intersection of DNA replication, recombination, and repair | KU Ballroom, 1:00PM-2:30PM |
| Casey, Sean M. (REL) | Around the World in Dayton: Anthropology Projects at International Places of Business | KU 312, 10:30AM-11:30AM |
| Castle, Courtney Elizabeth(PSS, MTA) | The Adonis Effect: Male Body Morphic Distortion Syndrome | KU Ballroom, 3:00PM-4:30PM |
| Cella, Kristin B (UNA) | Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Chaffin, Christina M. (JRN) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Chapic, Kelsey L. (INB, SPN, MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Chapic, Kelsey L. (INB, SPN, MKT) | Flyer Consulting Organization and Projects: Past, Present & Future | Miriam Hall 207, 1:00PM-2:00PM |
| Chase, Donald V. | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Chelle, Robert F | The Sophomore Entrepreneurship Experience | Miriam Hall 109, 10:30AM-11:30AM |
| Chen, Weibin (UNDEF) | Two Photon Fluorescence Characterization of Spiral Plasmonic Lenses as Circular Polarization Analyzers | KU Ballroom, 10:30AM-12:00PM |
| Cheney, Kristen E | Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course | KU 207, 3:00PM-4:30PM |
| Cheney, Kristen E | Around the World in Dayton: Anthropology Projects at International Places of Business | KU 312, 10:30AM-11:30AM |
| Cheng, Wen (EOP) | Study of optical vortex beams in free space optical communication system | KU Ballroom, 10:30AM-12:00PM |
| Chenoweth, Taylor R. (MEE) | FIRST Robotics at DECA High School | KU Ballroom, 10:30AM-12:00PM |
| Cherlapally, Sravankumargoud (ELE) | Estimation of Center of mass and 'r' Vectors of a Robot (Biped) | KU Ballroom, 10:30AM-12:00PM |
| Chiasson, Andrew D | Simulation and Optimization of Hybrid Solar-Geothermal Systems in Heating-Dominated Climates | KU Ballroom, 10:30AM-12:00PM |
| Chiasson, Andrew D | Geothermal Ground-Source Heating: Using TYNSYS to Optimize a Solar Hybrid System | KU Ballroom, 1:00PM-2:30PM |
| Chilaka, Gandhi Babu (CPS) | An Implementation for Cycle Detection in Large Datasets | KU Ballroom, 10:30AM-12:00PM |
| Chomanics, Leeann M. (PSS) | Drinking Attitudes and Behaviors | KU Ballroom, 1:00PM-2:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Davis, Susan T | Using Feedback about Typical Performance to Reduce Overconfidence | KU Ballroom, 1:00PM-2:30PM |
| Davis, Susan T | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| Davis, Susan T | Catharsis through Art | KU Ballroom, 10:30AM-12:00PM |
| Davis, Susan T | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Davis, Susan T | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Davis, Susan T | Aesthetic Preference of Various Characters By Color-Grapheme Synesthetes | KU Ballroom, 3:00PM-4:30PM |
| Davis, Susan T | Memory for Location: A Comparison of Intercollegiate Athletes and Non-athletes | KU Ballroom, 3:00PM-4:30PM |
| Davis, Thomas A. (EVG) | An Exploration of Rotorua Geothermal Activity and its Applications for the Dayton Area | KU Ballroom, 10:30AM-12:00PM |
| Day, Samuel C (MUS) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Daykin, Daniel S. (ACC, OPS) | Emerson Electric: Inventory Record Accuracy | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Daykin, Daniel S. (ACC, OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Dean, Devon M. (SOC, SPN) | Worthy Victims: How the Media Falsifies True Victims of Crime | St. Joseph's Hall 023, 1:00PM-1:30PM |
| Dean, Robert D | Valuation Models and the Efficient Market Hypothesis: an Empirical Analysis | KU Ballroom, 1:00PM-2:30PM |
| Dean, Robert D | Performance Enhancing Strategies in Turbulent Markets: The GARP Model | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | Developing an Optimal Portfolio of Dividend Paying Stocks in Turbulent Markets: The 2008 - 2009 Period | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | Assigning Allocation Weights to Industry Groups Through Technical Analysis | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model | KU Ballroom, 10:30AM-12:00PM |
| Dean, Robert D | Technical Analysis, Sector weighting and portfolio construction: An empirical study | KU Ballroom, 10:30am-12:00pm |
| Dean, Robert D | The Davis Center for Portfolio Management Team | Miriam Hall 118, 2:15PM-3:15PM |
| Deane, Kyle C. (PSY) | Comparisons of Face Recognition Among Autistic and Typically Developing Children | KU Ballroom, 1:00PM-2:30PM |
| Degregorio, Anthony E. (MUS) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Delisi, Gina M (UBU) | Life Outside Our Bubble: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| DeMarco, George M | The History of Physical Education and Sport: Stories for the Ages and Lessons from the Legends of Famous Women and Men, Their Teams and Times (Section 1) | KU 222, 10:30AM-12:00PM |
| DeMarco, George M | The History of Physical Education and Sport: Stories for the Ages and Lessons from the Legends of Famous Women and Men, Their Teams and Times (Section 2) | KU 222, 1:00PM-2:30PM |
| DeMarco, George M | The Effectiveness of a Personalized Physical Activity Program (PPAP) on the Health Related Physical Fitness of Selected College Age Students | KU Ballroom, 3:00PM-4:30PM |
| Demars, Bethany A. (EHA) | Fitnessgram Predicts Disease Risk in Students | KU Ballroom, 10:30AM-12:00PM |
| Detrude, Danielle L (MKT) | Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Devita, Crystal K (PUB) | Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Díaz, Gustavo A. (BIO) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Dickerson, Sherrice Antoinette (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Dickey, Irene J | The Social Revolution: An Assessment of the Current and Projected Use of Social Media by Generation Y and the Implications for Marketing Practice | Miriam Hall 213, 10:30AM-11:30AM |
| Dickey, Irene J | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Diestelkamp, Wiebke S | The Coloring Game on Certain Outerplanar Graphs | KU Ballroom, 10:30AM-12:00PM |
| Dilillo, Michael A. (MKT) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Dipasquale, Catherine G. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Dixon, Lee J | The Relationship between Quest Religious Orientation, Forgiveness, and Mental Health | KU Ballroom, 10:30AM-12:00PM |
| Dixon, Lee J | The Mediating Role of Silencing the Self in the Relationship Between Rejection Sensitivity and Anger | KU Ballroom, 1:00PM-2:30PM |
| Dolan, Emily M (ECE) | Developing Standards for Pre-Service Teachers | Chaminade Hall 204, 9:20AM-10:00AM |
| Dombek, Jonathan D. (MIS, OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Dombek, Jonathan D. (MIS, OPS) | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Dombek, Jonathan D. (MIS, OPS) | Standard Register: Forecasting Revenue | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Donahoe-Fillmore, Betsy K | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Donahoe-Fillmore, Betsy K | Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence | KU Ballroom, 1:00PM-2:30PM |
| Donahoe-Fillmore, Betsy K | Risk Factors for Low Back Pain in Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Donahoe-Fillmore, Betsy K | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Donahue, Maura S | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Donaldson, Shaun P. (MIS) | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 2:15PM-3:15PM |
| Doran-Myers, Dana (ESP) | Traumatic Brain Injury: School Psychologist Training, Knowledge, and Skills | KU Ballroom, 10:30AM-12:00PM |
| Dorn, Alec J. (ACC, MIS, ABM) | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Dowdle, Erin E (ECE) | How Engineers can be a Model for Developing Teachers | Chaminade Hall 308, 10:10AM-10:50AM |
| Downing, Pamela K | Ana-tummy; Brain Food you can Eat | Frericks 50, 2:30PM-4:30PM |
| Doyle, Nicholas M (ECE) | National Board Certification and How it Relates to the New Teacher Licensure Structure | Chaminade Hall 204, 10:10AM-10:50AM |

| Name | Title | Location/Time |
|---|---|---|
| Drakulich, Rachel M. (SOC) | Eating Habits: Family Connected to College | KU Ballroom, 3:00PM-4:30PM |
| Drohan, Maeve E (ECE) | Ohio's Four-Tier License Structure | Chaminade Hall 114, 11:00AM-11:40AM |
| Du, Feng (MAE) | High Performance Carbon Nanotube Membrane | KU 311, 4:00PM-4:30PM |
| Duda, Martin T. (SOC) | Sick and Powerless: The Connection Between Mental Illness and Poverty | KU Ballroom, 3:00PM-4:30PM |
| Due, Allison R. (POL, HRS) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Duffin, Kathleen M (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Duisen, Matt T (UBU) | Responding To Poverty Within The Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Dunham, Matthew T. (FIN, OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Dunham, Matthew T. (FIN, OPS) | Standard Register: Forecasting Revenue | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Duniec, Bridget A. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Duvall, Abigail M. (ECE) | What Ohio's Teacher Residency Program can Learn from Preparation of Clergy | Chaminade Hall 323, 10:10AM-10:50AM |
| Dworkin, Kelsey M. (EHA) | Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology | KU Ballroom, 3:00PM-4:30PM |
| Eakman, Adam J. (REL, ERL) | John Paul II's Guide to Dating: Effectively Teaching Catholic Doctrines on Sexuality in a High School Classroom | Marianist Hall 206, 10:30AM-11:00AM |
| Eastman, Jamie M. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Eastman, Jamie M. (PUB) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Ebetino, Laura B (CME) | Biodigesters in Guatemala: ETHOS Summer 2010 | KU Ballroom, 3:00PM-4:30PM |
| Eckart, Margaret R. (MED, REL) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Eckberg, Karl W. (MED) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Eckberg, Karl W. (MED) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Eilbeck, Zoe Elizabeth (EMM) | The Race to the Top and Ohio's Teacher Residency | Chaminade Hall 114, 9:20AM-10:00AM |
| Ellis, Bryce D. (CJS) | Comparing Crime: A Closer Look at the Differences Between Rural and Urban Crime | KU Ballroom, 3:00PM-4:30PM |
| Emmerich, Caitlin E. (CJS) | Women in the Police Force | KU Ballroom, 10:30AM-12:00PM |
| English, Elaine E. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Enns, Harvey G. | Cox Arboretum Kiosk Project | Miriam Hall 214, 2:15PM-3:15PM |
| Enns, Harvey G. | Standard Register LLC Engine | Miriam Hall 214, 1:00PM-2:00PM |
| Enns, Harvey G. | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 2:15PM-3:15PM |
| Enns, Harvey G. | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Enns, Harvey G. | Miller-Valentine: Digital Dashboard Initiative | Miriam Hall 214, 1:00PM-2:00PM |
| Erford, Philip R. (MTH) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Erford, Philip R. (MTH) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Erker, Anna (MKT) | Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Ernst, Margaret M. (BIO) | Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams | KU Ballroom, 1:00PM-2:30PM |
| Estandia, Laura A. (ENG) | Regional Theatres and Their Communities: A Look at Economic, Social, and Artistic Changes in Trends between Regional Theatres and Their Communities a .. Decade into the New Millennium | KU Ballroom, 1:00PM-2:30PM |
| Estandia, Laura A. (ENG) | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Etzkorn, Lauren K. (HRS, POL) | The Role of Environmental NGOs in Post-Conflict Rwanda: A Case Study | KU Ballroom, 1:00PM-2:30PM |
| Etzkorn, Lauren K. (HRS, POL) | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Eustace, Deogratias | Factors related to motorcycle fatal crashes in Ohio | KU Ballroom, 1:00PM-2:30PM |
| Eustace, Deogratias | Analyzing the Safety and Operational Impacts of Installing Roundabouts in Ohio | KU Ballroom, 10:30AM-12:00PM |
| Everhart, Kensie Christine (EYA) | Preparing to Take Flight | Chaminade Hall 315, 11:00AM-11:40AM |
| Ewalt, Mark D (UEG) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs. | Miriam Hall 109, 2:15PM-3:15PM |
| Ewalt, Mark D | Feasibility Study Framework: A guide to Aid ETHOS in Cameroon for Water Distribution Systems | LTC Team Space, 3:00PM-3:30PM |
| Eyerman, Rosemary C. (EHA, HRS) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Faeth, Julia L. (CME) | Measuring Carbon Sequestration and Biomass Products of Algae Using 14C02 | KU Ballroom, 1:00PM-2:30PM |
| Fagin, Jessica Nicole (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Fahrendorf, Kathleen S. (HST) | Modern Irish History: The Nature of Tourism | KU 211, 4:00PM-4:30PM |
| Fairweather, William C. (HST) | Modern Irish History; The British Mismanagement in the Aftermath of the Easter Rising of 1916 | KU Ballroom, 3:00PM-4:30PM |
| Falter, Megan Rose (MED) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Falter, Megan Rose (MED) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Fannin, Coleman (THL) | What Sort of Community? The Catholic Vision of the Church after Toleration | LTC Team Space, 10:30AM-11:00AM |
| Farmer, Christine N (MED) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Federici, Colleen (UED) | Testing Teachers: An Exploration of Teacher Evaluations | Chaminade Hall 202, 11:00AM-11:40AM |
| Fening, Erin Elizabeth (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Fening, Erin Elizabeth (DPT) | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Fennessy, Katherine V (PUB) | Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Ferguson, Richard T. | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Ferguson, Susan M. | Students as Reflective and Purposeful Learners: Metacognition through Rubrics | KU Ballroom, 10:30AM-12:00PM |
| Ferranti, Stacey M. (ESM) | Positive Rewards for Positive Behavior: Would a Rewards System Work? | KU 331, 1:00PM-1:30PM |
| Ferris, Frederick A (EDL) | Gender Differences in Observations: Do Men and Women Work the Hyphen from Differently? | LTC Forum, 11:30AM-12:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Fetters, Mandi E (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Files, Melvin R. (CPS, MUP) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Finch, Margaret R (UNS) | The Role of the Ohio Standards for the Teaching Profession | Chaminade Hall 204, 11:00AM-11:40AM |
| Fink, Daniel H. (MEE) | Drowning In Waste: A study on water usage at the University of Dayton | KU Ballroom, 10:30AM-12:00PM |
| Finley, Lisa A. (EMS) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Fioritto, Amanda L. (INS) | Around the World in Dayton: Anthropology Projects at International Places of Business | KU 312, 10:30AM-11:30AM |
| Fischley, Duncan J (REL) | The Effects of Teacher Residencies on Private, Parochial and Charter Schools | Chaminade Hall 208, 10:10AM-10:50AM |
| Fisher, Jordan F. (ENT, MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Fisher, Kevin E (RCL) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs | Miriam Hall 109, 2:15PM-3:15PM |
| Fisher, Kevin E | Feasibility Study Framework: A guide to Aid ETHOS in Cameroon for Water Distribution Systems | LTC Team Space, 3:00PM-3:30PM |
| Fisher, Mary I | Risk Factors for Low Back Pain in Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Fisher, Mary I | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Fisher, Zachary L. (MIS) | Miller-Valentine: Digital Dashboard Initiative | Miriam Hall 214, 1:00PM-2:00PM |
| Fitzsimons, Colleen E. (REL) | Marcion and His Effect on Mainstream Christianity | KU Ballroom, 1:00PM-2:30PM |
| Flagg, Tracy C. (PTY, HOA) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Flavin, Jaye S. (MTE) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Flavin, Jaye S. (MTE) | Measles Epidemic: Studying the Spread Using Numerical Techniques | KU Ballroom, 3:00PM-4:30PM |
| Fliss, Joseph J. (ENT, FIN) | The Sophomore Entrepreneurship Experience | Miriam Hall 109, 10:30AM-11:30AM |
| Flora, Giacomo (MEN) | A Graphical User Interface for Solving the Falkner-Skan Equation | KU Ballroom, 10:30AM-12:00PM |
| Flynn, Lauren N. (PSS) | Perfectionism in Athletes: Cognitive Attribution Shifts in Collegiate Rowers | KU Ballroom, 3:00PM-4:30PM |
| Flynn, Ryan J. (MKT) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Fogarty, Dorothy A. (MIS, MKT) | Cox Arboretum Kiosk Project | Miriam Hall 214, 2:15PM-3:15PM |
| Foley, Justin J. (CPS) | Project ACM: Autonomous Music Composer | KU Ballroom, 1:00PM-2:30PM |
| Folger, Susan F (CLP) | The Effects of Thin-Ideal Media on Body Image: An Examination of Hypothesized Moderator Variables | KU Ballroom, 10:30AM-12:00PM |
| Forbis, Jeremy S | Perception of Drug Users in the Media: An Analysis of A&E's Intervention | St. Joseph's Hall 23, 3:00PM-3:30PM |
| Forquer, Joel J. (FIN, ECB) | An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model | KU Ballroom, 10:30AM-12:00PM |
| Forquer, Joel J. (FIN, ECB) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| Foster, David H (EYA) | Educational Policy for Teacher Residency in the State of Ohio | Chaminade Hall 208, 11:00AM-11:40AM |
| Fouke, Daniel C | Drowning In Waste: A study on water usage at the University of Dayton | KU Ballroom, 10:30AM-12:00PM |
| Fouke, Daniel C | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Fouke, Daniel C | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Fouke, Daniel C | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Fouke, Daniel C | Bioremediation and Sustainability in Dayton's South Park Nieghborhood | KU Ballroom, 1:00PM-2:30PM |
| Fox Stump, Gwyn E (UNDEF) | Commuter Student Involvement on a Residential Campus | LTC Forum, 4:30PM-6:30PM |
| Frantz, Nathan B. (BIO, MTH) | Mathematical modeling of H1N1 flu | KU Ballroom, 3:00PM-4:30PM |
| Fratini, Albert V | Crystal Structure Analysis of Two Isomeric Trithiophene Compounds Doped with TCNQ | KU Ballroom, 3:00PM-4:30PM |
| Free, Allise L (PSY, SOC) | Inner City Education: A Look Into Which Type of School is Most Successful in Inner City Areas | St. Joseph's Hall 023, 10:30AM-11:00AM |
| Free, Allise L (PSY, SOC) | RSMSAC: Resiliency Scale for Middle School Age Children | KU Ballroom, 3:00PM-4:30PM |
| Freels, Thomas Bruce (EAH) | First Year Student Retention in a Two-Year Automotive Technology Program | LTC Forum, 4:30PM-6:30PM |
| Freeman, Ian T. (HST) | Modern Irish History: Sinn Fein and the Politics of the IRA | KU 311, 11:00AM-11:30AM |
| French, Jaclynne D (UBU) | Guiding Children to Success: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Freson, Dean B. (OPS, MKT) | Audit of Inventory Planning Control Procedures at Shumsky Promotional | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Freson, Dean B. (OPS, MKT) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Fries, Patrick T (COM) | Issues in Communication Research | KU 310, 1:00PM-2:00PM |
| Friese, Carl F | Assessing the Implications of Arbuscular Mycorrhizal Colonization in the Invasive Shrub Amur Honeysuckle (Lonicera maackii) | KU Ballroom, 10:30AM-12:00PM |
| Friese, Carl F | Differences in soil respiration rates of the invasive shrub Lonicera maackii (Amur Honeysuckle) and the native shrub Lindera benzoin (Common Spicebush) | KU Ballroom, 10:30AM-12:00PM |
| Frobose, Kyle E (EVB) | Mentoring Resident Educators | Chaminade Hall 102, 10:10AM-10:50AM |
| Frost, Allison M. (ECE) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Fullen, Samuel (EHN) | Comparison of Anthropometric, Hemodynamic, and Presidential Fitness Measures between Male and Female Junior High and High School Students | KU Ballroom, 1:00PM-2:30PM |
| Fullen, Samuel (EHN) | Future UD Students' Careers: Health and Science | KU Ballroom, 3:00PM-4:30PM |
| Fyda, Emily E (FIN) | Guiding Children to Success: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Gabrielli, Timothy R (THL) | Social Justice Through Worship: Virgil Michel's Vision of the Mystical Body of Christ | Marianist Halll 217, 3:30PM-4:00PM |
| Galaska, Kimberly A. (BIO) | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Galaska, Kristina M. (PSY) | Predictor of Successful Adolescent Transitions (PSAT) | KU 311, 1:00PM-1:30PM |
| Galaska, Kristina M. (PSY) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Ganote, Marvin D | HSS 226 Career Goals and Our Future | KU Ballroom, 1:00PM-2:30PM |
| Ganote, Marvin D | Future UD Students' Careers: Health and Science | KU Ballroom, 3:00PM-4:30PM |
| Ganote, Marvin D | Our Potential Career Paths | KU Ballroom, 3:00PM-4:30PM |
| Ganote, Marvin D | Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology | KU Ballroom, 3:00PM-4:30PM |
| Gansel, Allison R. (BIO) | Seasonal Water Fluctuation Effects on Invertebrate-Bacterial Community Associations in Vernal Pools | KU Ballroom, 10:30AM-12:00PM |
| Gansel, Allison R. (BIO) | Infectious Disease in West Africa: Buruli Ulcer and its Ecological Factors | KU Ballroom, 3:00PM-4:30PM |
| Gao, Jian (EOP) | Fabrication & characterization of GaP thin films by physical vapor deposition | KU Ballroom, 10:30AM-12:00PM |
| Garber, Jennifer M. (ART, VCA) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Garcia, Roberto J. (MEE) | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Garrison, Amanda L. (MUS) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Gaskell, Michael B. (PSS) | The Development of the Athletes Dimensions of Perfection Scale (ADPS) | KU Ballroom, 3:00PM-4:30PM |
| Gazdick, Elizabeth J. (BIO) | Seasonal Water Fluctuation Effects on Invertebrate-Bacterial Community Associations in Vernal Pools | KU Ballroom, 10:30AM-12:00PM |
| Gazdick, Elizabeth J. (BIO) | Infectious Disease in West Africa: Buruli Ulcer and its Ecological Factors | KU Ballroom, 3:00PM-4:30PM |
| Gehron, Stacie M (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Geissler, Jenna L. (VCA) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Gentner, John E | A Comparison of Management in the Film and Television Industry to Management in the Manufacturing Industry | KU Ballroom, 1:00PM-2:30PM |
| George, Kevin M. (PHY) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| George, Kevin M. (PHY) | Optical Trapping: Tests in Microsphere Manipulation | KU Ballroom, 10:30AM-12:00PM |
| George, Kevin M. (PHY) | Mathematical Modelling of Infectious Diseases | KU Ballroom, 3:00PM-4:30PM |
| Gerbetz, Andrew J. (FIN, MKT) | Performance Enhancing Strategies in Turbulent Markets: The GARP Model | KU Ballroom, 10:30AM-12:00PM |
| Gerker, Colin J. (HST, RTV) | Emerald Roots: An ExposÃ© of Irish-American Cultural Assimilation | KU Ballroom, 3:00PM-4:30PM |
| Gettings, Peter J (MED) | What Ohio's Teacher Residency Program can Learn from Preparation of Clergy | Chaminade Hall 323, 10:10AM-10:50AM |
| Getz, Laura E. (INS, SPN) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Getz, Laura E. (INS, SPN) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Gfroerer, Susan D | Traumatic Brain Injury: School Psychologist Training, Knowledge, and Skills | KU Ballroom, 10:30AM-12:00PM |
| Gfroerer, Susan D | The Effect of Treatment Integrity on Student Achievement: A Quasi-Experimental Study | KU Ballroom, 10:30AM-12:00PM |
| Gibboney, Kathleen A (EMS) | The Impact of Physician and Teacher Relationships with their Preceptor/Mentor on their Residency Experience | Chaminade Hall 315, 10:10AM-10:15AM |
| Giessler, Stacy C (ACC) | Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Glaser, Margaret (PSY) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Glasgo, Brock P. (MEE) | Low-Cost Solar Thermal Power: A Design of Experiment | KU Ballroom, 1:00PM-2:30PM |
| Glenn, Terri M | Risk Factors for Low Back Pain in Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Glenn, Terri M | Cardiovascular Disease Risk Assessment Disaggregated by Gender and Age in Dayton Early College Academy Adolescents | KU Ballroom, 10:30AM-12:00PM |
| Glovinsky, Kelsey R. (EEP) | Ana-tummy; Brain Food you can Eat | Frericks 50, 2:30PM-4:30PM |
| Glubisz, Catherine A. (FAE) | Mentoring Resident Educators | Chaminade Hall 102, 10:10AM-10:50AM |
| Gogolin, Robert G. (OPS) | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Gogolin, Robert G. (OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Gorbach, Kathleen R (BIO) | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Gorbach, Kathleen R (BIO) | Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams | KU Ballroom, 1:00PM-2:30PM |
| Gorbach, Kathleen R (BIO) | When there is no flow: Changes in migratory movement and benthic community structure across Hawaiian watersheds of variable size and diversion impact | KU 312, 2:30PM-3:00PM |
| Gorbach, Kathleen R (BIO) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Gorey, Timothy J. (BCM) | Characterization of Metal and Metal Oxide Nanoparticles for Nanotoxicological Studies | KU Ballroom, 10:30AM-12:00PM |
| Gorman, Michael F | Consumer Call Volume Forecasting Model for GE Money | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Gorman, Michael F | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Gorman, Michael F | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Gorman, Michael F | GE Aviation: Reducing Receiving Cycle Time | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Gorman, Michael F | Standard Register: Forecasting Revenue | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Gorman, Michael F | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Gossard, Thomas A. (CME) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Graham, Andrea F. (JRN) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Graham, Erin J. (BIO) | Measuring Carbon Sequestration and Biomass Products of Algae Using 14CO2 | KU Ballroom, 1:00PM-2:30PM |
| Graham, Michael J. (EES) | Our Potential Career Paths | KU Ballroom, 3:00PM-4:30PM |
| Graham, Michael R. (GEN) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Grande, Ryan C. (POL) | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Gravunder, Brian B. (CMT) | Framing the Environment: A Look at the Cartagena Protocol on Biosafety | KU 207, 2:30PM-3:00PM |
| Greek, Mary K (UBU) | Guiding Children to Success: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Grilli, Matthew D (ESM) | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Grothouse, Elyse M. (DEN) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Gruenzel, Kristin Marie (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Gunn, Brandon C (CPE) | Fabrication of Vibration Sensors by Glass Fiber Tapering and Cleaving | KU Ballroom, 3:00PM-4:30PM |
| Guttenberg, Corey Michael (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Guttenberg, Corey Michael (DPT) | Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir | KU Ballroom, 1:00PM-2:30PM |
| Guy, Joseph R. (INB, OPS) | Flyer Enterprises: Entrepreneurship in Action | Miriam Hall 207, 2:15PM-3:15PM |
| Hagemann, Jenna E. (ENT, MKT) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Hall, Samuel R (EYA) | Mentoring Resident Educators | Chaminade Hall 102, 10:10AM-10:50AM |
| Hallinan, Kevin P | Simulation and Optimization of Hybrid Solar-Geothermal Systems in Heating-Dominated Climates | KU Ballroom, 10:30AM-12:00PM |
| Hallinan, Kevin P | FIRST Robotics at DECA High School | KU Ballroom, 10:30AM-12:00PM |
| Hallinan, Kevin P | Low-Cost Solar Thermal Power: A Design of Experiment | KU Ballroom, 1:00PM-2:30PM |
| Hallinan, Shannon C. (BIO) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Halma, Kevan W (OPS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Halma, Kevan W (OPS) | Emerson Electric: Inventory Record Accuracy | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Halma, Kevan W (OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Han, Jee-Hee | Another Day of Learning: Examining Student Perception of the Stander Symposium | KU Ballroom, 10:30AM-12:00PM |
| Han, Wei (EOP) | Beam Steering Performance of Electrowetting Microprism Arrays | KU Ballroom, 10:30AM-12:00PM |
| Handbury, Ryan M. (CMT) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Haney, Daniel R. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Hankenhof, James (ACC, FIN) | Performance Strategies for Exchange Traded Funds (ETFs) | KU Ballroom, 10:30AM-12:00PM |
| Hansen, Douglas C | Determination of a novel amino acid, L-dopa, in newly-formed shell material of the Eastern oyster Crassostrea virginica | KU Ballroom, 10:30AM-12:00PM |
| Hansen, Karolyn M | Determination of a novel amino acid, L-dopa, in newly-formed shell material of the Eastern oyster Crassostrea virginica | KU Ballroom, 10:30AM-12:00PM |
| Hanson, Bradley T. (GEO) | Flooding in New Zealand | KU Ballroom, 3:00PM-4:30PM |
| Harawa, Kondwani S (ENG) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Hardie, Russell C | Implementing Guitar Effects Using MATLAB | KU Ballroom, 1:00PM-2:30PM |
| Haritashya, Umesh K | Spatio-temporal cryospheric changes in Southern Alps, New Zealand | KU Ballroom, 10:30AM-12:00PM |
| Haritashya, Umesh K | An Exploration of Rotorua Geothermal Activity and its Applications for the Dayton Area | KU Ballroom, 10:30AM-12:00PM |
| Haritashya, Umesh K | Geothermal Activity at the Taupo Volcanic Zone in New Zealand | KU Ballroom, 10:30AM-12:00PM |
| Haritashya, Umesh K | An Analysis on the Mountain Building in regards to the New Zealand island chain | KU Ballroom, 3:00PM-4:30PM |
| Haritashya, Umesh K | Literature Review Analysis on Franz Josef Glacier | KU Ballroom, 3:00PM-4:30PM |
| Haritashya, Umesh K | An Analysis of Alpine Glacier Morphology in the Eastern, Central, and Western Himalaya using Remote Sensing Data | KU Ballroom, 1:00PM-2:30PM |
| Harms, Daniel P. (VCD) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Harms, Daniel P. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Harper, Carol Ann (ELA) | Assessing Assessments: The Impact of Student Evaluation on the Ohio Teacher Residency Program | Chaminade Hall 202, 9:20AM-10:00AM |
| Harper, Eric Scott (CME) | Bulk-Heterojunction Photovoltaic Cells: The Effect of Interlayer Morphology on Device Performance | KU 207, 10:30AM-11:00AM |
| Harris, Alexandria C. (EPT) | Body Mass Index: Impact on Fitness and Hemodynamic Factors in DECA students | KU Ballroom, 1:00PM-2:30PM |
| Harrison, Leanne C. (INB, ACC) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Hart, Patricia M | Learning from Other Professional Fields: Attorney Residency Compared to Teacher Residency | Chaminade Hall 315, 9:20AM-10:00AM |
| Hart, Patricia M | Assessing Assessments: The Impact of Student Evaluation on the Ohio Teacher Residency Program | Chaminade Hall 202, 9:20AM-10:00AM |
| Hart, Patricia M | Educational Policy for Teacher Residency in the State of Ohio | Chaminade Hall 208, 11:00AM-11:40AM |
| Hart, Patricia M | A Comparison Between Lawyer and Teacher Residencies | Chaminade Hall 322, 11:00AM-11:40AM |
| Hart, Patricia M | State and National Educational Policy in Relation to Teacher Residency | Chaminade Hall 208, 9:20AM-10:00AM |
| Hart, Patricia M | How Student Assessment Might Be Used to Evaluate Teachers In Ohio's Residency Program | Chaminade Hall 202, 10:10AM-10:50AM |
| Hart, Patricia M | Testing Teachers: An Exploration of Teacher Evaluations | Chaminade Hall 202, 11:00AM-11:40AM |
| Hart, Patricia M | The Effects of Teacher Residencies on Private, Parochial and Charter Schools | Chaminade Hall 208, 10:10AM-10:50AM |
| Hart, Patricia M | Teacher Residency Conference Luncheon (Invitation Only) | Chaminade Hall Basement, 12:00PM-1:00PM |
| Hartzell, Jonathan H. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Hatch, Derek C (THL) | Return to the Sources: The Work of Henri de Lubac as a Historical and Theological Resource for Baptists | Marianist Hall 206, 1:00PM-1:30PM |
| Hauptman, Lauren M. (MKT, VCA) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Haus, Joseph W | Beam Steering Performance of Electrowetting Microprism Arrays | KU Ballroom, 10:30AM-12:00PM |
| Haus, Joseph W | High Power Erbium-doped Fiber Laser Generating Switchable Radially and Azimuthally Polarized Beams at 1.6 um Wavelength | KU Ballroom, 10:30AM-12:00PM |
| Haus, Joseph W | Wave Phenomena in Multi-layer Metal, Negative Index materials (NIMs) and Dielectric Media | KU 311, 3:00PM-3:30PM |
| Haus, Joseph W | Development and Characterization of a Laser-Based Local-Oscillator Detection System for a Simple Reflecting Target | KU Ballroom, 10:30AM-12:00PM |
| Hayslett, Carl C. (MUE) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Heck, Amy K. (INB, ACC) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Heft, Marilyn R (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Heft, Meghann K. (PUB) | Another Day of Learning: Examining Student Perception of the Stander Symposium | KU Ballroom, 10:30AM-12:00PM |
| Heinekamp, Courtney M. (ACC, FIN) | Flyer Enterprises: Entrepreneurship in Action | Miriam Hall 207, 2:15PM-3:15PM |
| Hellman, Mary Claire G. (SOC) | Domestic Violence and the Media | St. Joseph's Hall 023, 11:30AM-12:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Hellwig, Lindsey A. (SPN, BIO) | Habitat Hydraulic Variations Affect On Community Structure and Biomass of Macroinvertebrate Communities in the Little Miami River, Ohio | KU Ballroom, 10:30AM-12:00PM |
| Hemm, Ashley R. (EPT) | An Outlook on Speed and Power Performance between Positions of Basketball Players | KU Ballroom, 1:00PM-2:30PM |
| Henderson, Alex M. (FIN, ECB) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Hendrickson, Moira E. (CJS) | Replacing the Juvenile Justice System | St. Joseph's Hall 023, 2:00PM-2:30PM |
| Hennel, Andrea L. (PSS) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Henriksen, Kathleen A (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Henry, Meghan C (EMS) | Assessing Assessments: The Impact of Student Evaluation on the Ohio Teacher Residency Program | Chaminade Hall 202, 9:20AM-10:00AM |
| Hensien, Molly E. (JRN) | Legal Issues Confronting the News Media Today | KU Ballroom, 3:00PM-4:30PM |
| Henterly, Elizabeth A. (CJS, SPN) | Treating Violent Domestic Offenders: Ohio vs. Texas | KU 211, 3:00PM-3:30PM |
| Hentz, Jonathan A (CLP) | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Hentz, Jonathan A (CLP) | Memory for Location: A Comparison of Intercollegiate Athletes and Non-athletes | KU Ballroom, 3:00PM-4:30PM |
| Hentz, Jonathan A | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| Higdon, Corrin A. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Hill, Katie L. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Hillman, Adrienne D. (INS) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Hils, John Eric (UNDEF) | Computational Investigations of the Interactions between Phosphate Esters and Metal Carbides | KU Ballroom, 10:30AM-12:00PM |
| Hilton, Eric D (UNDEF) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Himmelman, Thomas J. (BIO) | Differences in soil respiration rates of the invasive shrub Lonicera maackii (Amur Honeysuckle) and the native shrub Lindera benzoin (Common Spicebush) | KU Ballroom, 10:30AM-12:00PM |
| Hinkebein, Laura M (ECP) | The Breaking Point: The Influence of High Levels of Co-Curricular Involvement | LTC Forum, 4:30PM-6:30PM |
| Hinzman, Elizabeth K. (MEE) | Rocket Stoves: Increasing Health and Safety | KU Ballroom, 3:00PM-4:30PM |
| Hirota, Stefanie K (PLW) | National Board Certification and How it Relates to the New Teacher Licensure Structure | Chaminade Hall 204, 10:10AM-10:50AM |
| Hisey, Colin L. (CME) | Fabrication of Vibration Sensors by Glass Fiber Tapering and Cleaving | KU Ballroom, 3:00PM-4:30PM |
| Hoefert, Gregory M. (ENT,FIN,ECB) | S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach | KU Ballroom, 10:30AM-12:00PM |
| Hofherr, Mallory A. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Hofherr, Mallory A. (PUB) | Mass Media and Eating Disorders: The effects on Men and Women | KU Ballroom, 3:00PM-4:30PM |
| Holloway, Rebecca C. (MUT) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Holloway, Rebecca C. (MUT) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Holmes, Geoffrey S. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Holmes, Geoffrey S. (CEE) | Feasibility Study Framework: A guide to Aid ETHOS in Cameroon for Water Distribution Systems | LTC Team Space, 3:00PM-3:30PM |
| Hong, Yiling | Hedgehog Signaling as a Regulator of Gastric Physiology | KU Ballroom, 1:00PM-2:30PM |
| Hong, Yiling | Cytotoxicity of zinc oxide nanoparticles in human and mouse dermal fibroblast cell cultures | KU Ballroom, 1:00PM-2:30PM |
| Hong, Yiling | Reprogramming Mouse Embryonic Fibroblasts into Neuronal like Cells using a Chemically Defined Medium | KU Ballroom, 10:30AM-12:00PM |
| Hoog, Nicholas G. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Horan, Brooke K. (INB) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Horan, Tracey L. (EMS) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Horan, Tracey L. (EMS) | A Case Study of Connecting Community Engagement Experience with Community Engagement Curriculum | KU Ballroom, 3:00PM-4:30PM |
| Horras, Natalie K. (CSS) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Hortsman, Amanda E. (POL) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Horwath, Mary Claire (BIO) | Study Abroad in Japan: Expanding Boundaries through Study in Culture, Political Science, Language, and History | KU Ballroom, 3:00PM-4:30PM |
| Hoskins, Elizabeth M (EMM) | Nursing Residency Program | Chaminade Hall 308, 9:20AM-10:00AM |
| Hovey, Peter W | Factors related to motorcycle fatal crashes in Ohio | KU Ballroom, 1:00PM-2:30PM |
| Hoying, Lyndsay J. (MUT) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Hrabik, Sarah A. (PSS) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Huacuja, Judith L | The Dynamic Palette of Bing Davis: Blending Artistic Inspiration with Social Integrity | LTC Forum, 1:00PM-2:30PM |
| Huacuja, Judith L | Dayton Alive | ArtStreet Studio E, 8:30AM-5:00PM |
| Huacuja, Judith L | Under Our Lady's Mantle: The Hopes, The Fears, and The Lives of Our Local Latino Community | ArtStreet Studio B, 10:30AM-12:00PM |
| Hudson, Natalie Florea | Framing the Environment: A Look at the Cartagena Protocol on Biosafety | KU 207, 2:30PM-3:00PM |
| Hudson, Natalie Florea | The Role of Environmental NGOs in Post-Conflict Rwanda: A Case Study | KU Ballroom, 1:00PM-2:30PM |
| Hudson, Natalie Florea | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Huelsman, Kurtis R. (OPS) | Consumer Call Volume Forecasting Model for GE Money | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Huelsman, Kurtis R. (OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Huesing, Heather Michelle (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Hughes, Sheila Hassell | What You Can't Read Could Kill You: Issues in Health and Science Literacy | KU 211, 10:30AM-11:30AM |
| Hungler, Emily M. (MKT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Hunley, Sawyer A | The Effect of Treatment Integrity on Student Achievement: A Quasi-Experimental Study | KU Ballroom, 10:30AM-12:00PM |
| Hurley, Anna K | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Husk, John (CME) | Responding To Poverty Within The Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Hyde, Dianna J (ECP) | Student Services at Exchange Institutions Affiliated with the University | LTC Forum, 4:30PM-6:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Iannarino, Anthony M (EEP) | Our Potential Career Paths | KU Ballroom, 3:00PM-4:30PM |
| Iannarino, Nicholas T (COM) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Imwalle, Winston E (UBU) | The Power of One Can Make A Difference: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Indupuru, Vamsi Krishna (CEE) | Factors related to motorcycle fatal crashes in Ohio | KU Ballroom, 1:00PM-2:30PM |
| Ingley, Allison Marie (DPT) | Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence | KU Ballroom, 1:00PM-2:30PM |
| Inglis, John A | Gay Nation: Decolonizing the Forgotten | Marianist Hall 206, 11:30AM-12:00PM |
| Ingram, Jefferson L | Treating Violent Domestic Offenders: Ohio vs. Texas | KU 211, 3:00PM-3:30PM |
| Ingram, Jefferson L | A COMPARISON OF A MORAL APPROACH TO REHABILITATION AND A LIFE SKILLS APPROACH TO REHABILITATION AND IMPLICATIONS FOR A SUCCESSFUL PROGRAM | Marianist Hall 218, 3:00PM-3:30PM |
| Ingram, Jefferson L | A Psychological Perspective on Police Interrogation: A Synthesis of Current Police Practice and Psychological Research | LTC Team Space, 2:00PM-2:30PM |
| Ingram, Jefferson L | Do three strikes laws work? Examining the states of California and Washington | KU 331, 4:00PM-4:30PM |
| Ingram, Jefferson L | Community Activism and Crime: A Synthesis on the Relationship Between Community Mobilization and Crime Rates In Urban Neighborhoods | KU 211, 2:00PM-2:30PM |
| Ingram, Jefferson L | Replacing the Juvenile Justice System | St. Joseph's Hall 023, 2:00PM-2:30PM |
| Ingram, Jefferson L | Police Response to Domestic Violence | St. Joseph's Hall 023, 2:30PM-3:00PM |
| Interlichia, Philip C (UNS) | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Jackson, Christopher J. (ENT, FIN) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Jackson, Christopher J. (ENT, FIN) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Jacob, Caitlin S. (ENG, HRS) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Jaeger, Anna R (EYA) | Beginning Teacher Licensing: From Policy to Practice | Chaminade Hall 308, 11:00AM-11:40AM |
| Janek, Kevin Christopher (CME) | Determination of a novel amino acid, L-dopa, in newly-formed shell material of the Eastern oyster Crassostrea virginica | KU Ballroom, 10:30AM-12:00PM |
| Janicke, Melissa A. (ACC, FIN) | Valuation Models and the Efficient Market Hypothesis: an Empirical Analysis | KU Ballroom, 1:00PM-2:30PM |
| Janney, Jay J | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Jennings, Alan L (EEN, ELE) | Optimal Control Programming Using a Numeric Kinetics Solver | KU Ballroom, 3:00PM-4:30PM |
| Jennrich, Kathryn K. (REL) | Why Mary? An Analysis of the Foundations of Three Marian Religious Congregations Between 1600 and 1815 | KU Ballroom, 1:00PM-2:30PM |
| Jernigan, Zachary R. (LDR, MKT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Jipson, Arthur J | The Roles of Women in Law Enforcement | KU Ballroom, 3:00PM-4:30PM |
| Jipson, Kathleen E. (HRS) | Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course | KU 207, 3:00PM-4:30PM |
| John, Barbara Heroy | The Branding of Cities: A Case Study of Dayton, Ohio and Lexington, Kentucky | Miriam Hall 213, 10:30AM-11:30AM |
| John, Barbara Heroy | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| John, Barbara Heroy | The Ripple Effect?: Examining the Impact of the Global Economic Crisis on the Least Developed Countries (LDCs) | KU Ballroom, 1:00PM-2:30PM |
| John, Grace P. (BIO) | Long Term Dendrochronological Analysis and Forest History of Germantown MetroPark | KU Ballroom, 1:00PM-2:30PM |
| Johnson, David W | Computational Investigations of the Interactions between Phosphate Esters and Metal Carbides | KU Ballroom, 10:30AM-12:00PM |
| Johnson, David W | Studies on Dyanmics, Mechanism and Characterization for Thermal degradation products of Beta-Carotene by GC-MS | KU Ballroom, 10:30AM-12:00PM |
| Johnson, Lauren E. (ENT, MKT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Jones, Erica Nicole (ELE) | Development of Biopolymer Based Resonant Sensors | KU Ballroom, 3:00PM-4:30PM |
| Jones, Kevin P. (PSY) | Memory for Location: A Comparison of Intercollegiate Athletes and Non-athletes | KU Ballroom, 3:00PM-4:30PM |
| Jorgensen, Justin Erik (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Joyce, Brian J (GEO) | Literature Review Analysis on Franz Josef Glacier | KU Ballroom, 3:00PM-4:30PM |
| Jules, Alexander P. (MEE) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 1:00PM-2:30PM |
| Junglen, Katherine (CEE) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Kaczor, Zachary S (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Kaiser, Christina M. (EPT) | A Simple Solution for Body Mass Bias in a Competition of Muscle Strength and Aerobic Power | KU Ballroom, 1:00PM-2:30PM |
| Kallenberg, Brad J | "Breakthrough Toward the Beyond": Olivier Messiaen's Musical Theology | KU 331, 3:00PM-4:00PM |
| Kallenberg, Stephen J (CTR, SPN, ENG) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Kaminski, Lisa M. (CMT) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Kammer, Robyn L (MUE) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Kandrach, Kathryn M. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Kanet, John J | Consumer Call Volume Forecasting Model for GE Money | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Kanet, John J | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | OPS 480 Student Research in Supply Chain Management | Miriam Hall 207, 10:30AM-11:30AM |
| Kanet, John J | Audit of Inventory Planning Control Procedures at Shumsky Promotional | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | GE Aviation: Reducing Receiving Cycle Time | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | OPS 495 Capstone: Hartzell Fan Inc. Order Process Flow | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | Emerson Electric: Inventory Record Accuracy | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | Standard Register: Forecasting Revenue | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | OPS 495 Capstone: Emerson Climate Technologies Distribution Team | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Kanet, John J | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |

| Name | Title | Location/Time |
|---|---|---|
| Kango-Singh, Madhuri | Exploring Interactions Between Tumor Cells and Innate Immunity in-vivo in a Drosophila Tumor Model | KU Ballroom, 10:30AM-12:00PM |
| Kango-Singh, Madhuri | The complex interactions of Hippo signaling with the intrinsic cell death pathway in the regulation of Hippo-mediated cell death | KU Ballroom, 10:30AM-12:00PM |
| Kango-Singh, Madhuri | Drosophila Model to study Microphthalmia, a birth defect affecting eye growth | KU Ballroom, 10:30AM-12:00PM |
| Kango-Singh, Madhuri | Interactions between the Hippo and Scribble pathway in the regulation of growth | KU Ballroom, 10:30AM-12:00PM |
| Karns, Margaret P | The Ripple Effect?: Examining the Impact of the Global Economic Crisis on the Least Developed Countries (LDCs) | KU Ballroom, 1:00PM-2:30PM |
| Karns, Margaret P | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Katchur, Tara L (CMM) | Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Katsuyama, Ronald M | Memory and Comprehension of Short Passages: The Effects of Translation | KU Ballroom, 1:00PM-2:30PM |
| Katsuyama, Ronald M | Comparisons of Face Recognition Among Autistic and Typically Developing Children | KU Ballroom, 1:00PM-2:30PM |
| Kaufman, David S. (INB, MKT, SPN) | Behavioral Research in a Social Service Agency: A Cautionary Tale | KU Ballroom, 1:00PM-2:30PM |
| Kavanaugh, Jeffrey L | Vegetative Index of Biotic Integrity Methods | KU Ballroom, 3:00PM-4:30PM |
| Keefer, Ann C. (HRS) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Kelly, Elise K. (HOA, REL) | The Dynamic Palette of Bing Davis: Blending Artistic Inspiration with Social Integrity | LTC Forum, 1:00PM-2:30PM |
| Kelly, Elise K. (HOA, REL) | Under Our Lady's Mantle: The Hopes, The Fears, and The Lives of Our Local Latino Community | ArtStreet Studio B, 10:30AM-12:00PM |
| Kelly, Elise K. (HOA, REL) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Kelly, Kathleen C (UED) | How Student Assessment Might Be Used to Evaluate Teachers In Ohio's Residency Program | Chaminade Hall 202, 10:10AM-10:50AM |
| Kelly, Keegan M (UBU) | Rewriting A Better Society through Service: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Kelly, Michael J. (MKT, SMT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Kennedy, Caitlin C. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Kennedy, Jennifer Rae (DPT) | Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence | KU Ballroom, 1:00PM-2:30PM |
| Kenny, Kaitlin A (ENG) | Program Evaluation | Chaminade Hall 201, 9:20AM-10:00AM |
| Kiefer, Emma R (ECE) | Psycho-Therapy Residency Applied to Teacher Residency Program | Chaminade Hall 323, 9:20AM-10:00AM |
| Kimball, Elizabeth G. (INB, MKT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Kindel, Kara M (EYA, ENG) | The Effects of Teacher Residencies on Private, Parochial and Charter Schools | Chaminade Hall 208, 10:10AM-10:50AM |
| Kindelin, Lydia R (MTH) | Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Kindred, Clayton W (HOA) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| King, Branden J. (PHY) | Mathematical Modelling of Infectious Diseases | KU Ballroom, 3:00PM-4:30PM |
| King, Evan T. (MUS) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| King, Evan T. (MUS) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| King, Joshua D. (MKT) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| King, Leslie W | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| King, Wesley C | Behavioral Research in a Social Service Agency: A Cautionary Tale | KU Ballroom, 1:00PM-2:30PM |
| Kinnucan-Welsch, Kathryn A | A Case Study of Connecting Community Engagement Experience with Community Engagement Curriculum | KU Ballroom, 3:00PM-4:30PM |
| Kinor, Deborah M (MEE) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Kirschman, Keri J B | The Development, Validation, and Testing of the Psychosocial Adjustment to Burn Questionnaire (PABQ) for Children Under the Age of Five | KU Ballroom, 10:30AM-12:00PM |
| Kleist, Lauren E (ECE) | The Pre-Service Teacher Connection to the Ohio Residency Model | Chaminade Hall 201, 10:10AM-10:50AM |
| Klosterman, Donald A | Nano-Enhanced Polymeric Composites for Lightning Strike Protection | KU Ballroom, 1:00PM-2:30PM |
| Klosterman, Elyse M. (EEP) | HSS 226 Career Goals and Our Future | KU Ballroom, 1:00PM-2:30PM |
| Klug, Dave R (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Knapper, Danielle L (ECE) | Urban Residency Program | Chaminade Hall 322, 9:20AM-10:00AM |
| Kniess, Matthew D. (FIN, MIS) | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 2:15PM-3:15PM |
| Koch, Elizabeth M. (HOA) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Kohrman, Elizabeth A. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Kolesar, William J. (MIS) | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Kolick, Allison L. (PSY) | The Mediating Role of Silencing the Self in the Relationship Between Rejection Sensitivity and Anger | KU Ballroom, 1:00PM-2:30PM |
| Kolis, Peter A. (SPN, MEE) | Photovoltaic Charging of a Single-Cell Solid-State Lithium-Air Battery | KU Ballroom, 1:00PM-2:30PM |
| Koly, Kimberly A. (MEE) | Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Kontras, Luke R. (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Kopulos, Karen E. (CJS) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Kopulos, Karen E. (CJS) | Prisoner Rehabilitation Programs | KU Ballroom, 10:30AM-12:00PM |
| Kopulos, Karen E. (CJS) | A COMPARISON OF A MORAL APPROACH TO REHABILITATION AND A LIFE SKILLS APPROACH TO REHABILITATION AND IMPLICATIONS FOR A SUCCESSFUL PROGRAM | Marianist Hall 218, 3:00PM-3:30PM |
| Koziol, Andrea M | Geothermal Activity at the Taupo Volcanic Zone in New Zealand | KU Ballroom, 10:30AM-12:00PM |
| Koziol, Andrea M | Flooding in New Zealand | KU Ballroom, 3:00PM-4:30PM |
| Krakowski, Rebecca J | The Nine-Point Circle Theorem: A Look at Feuerbach's Circle | KU Ballroom, 3:00PM-4:30PM |
| Kral, Lauren K. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Krane, Carissa M | The effect of forest spatial distribution on the population genetics of Ambystoma texanum | KU Ballroom, 1:00PM-2:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Krane, Carissa M. | Role of protein modifications in regulating the expression of aquaglyceroporin HC-3 in erythrocyte cultures from Hyla chrysoscelis | KU Ballroom, 1:00PM-2:30PM |
| Kranjc, Kelly P. (CME) | Nano-Enhanced Polymeric Composites for Lightning Strike Protection | KU Ballroom, 1:00PM-2:30PM |
| Krehnovi, Emily M. (MEE) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Kreidenwei, Samuel M. (MUP) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Krissek, Eric J. (EYA, MTH) | An Ethnographical Exploration of Math and Science Pedagogy in a Kenyan Primary (K-8) School | KU Ballroom, 1:00PM-2:30PM |
| Kristy, Bryan J. (LDR, OPS) | Flyer Enterprises Information Technology: Improving Business with Technology | Miriam Hall 207, 3:30PM-4:30PM |
| Kuerbitz, Jeffrey S. (BCM, PHL) | The Role of the Protein Neuronatin in Regulating Calcium Homeostasis in Human Osteosarcoma Cells | KU Ballroom, 1:00PM-2:30PM |
| Kujawa, Anne E (EMS) | State and National Educational Policy in Relation to Teacher Residency | Chaminade Hall 208, 9:20AM-10:00AM |
| Kumar, Binod | Photovoltaic Charging of a Single-Cell Solid-State Lithium-Air Battery | KU Ballroom, 1:00PM-2:30PM |
| Kurzawa, John C. (BIO) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Kvitko, Melinda M (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Kvitko, Melinda M (DPT) | Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir | KU Ballroom, 1:00PM-2:30PM |
| Lafdi, Khalid | Novel Carbon-engineered Materials as a Tissue Scaffold | KU 211, 11:30AM-12:00PM |
| Lambert, Kathryn Marie (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Lamm, Corey J. (MIS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Lammers, Miranda D (EMS) | National Board Certification and How it Relates to the New Teacher Licensure Structure | Chaminade Hall 204, 10:10AM-10:50AM |
| Lane, Ellie K (MKT, SMT) | Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Lang, Jennifer M. (BIO) | Biological Warfare Leads to Larger Biofilms: the Effect of a Bacterial Virus Attack on the Biofilms of the Bacterium Pseudomonas aeruginosa | KU Ballroom, 1:00PM-2:30PM |
| Lanham, Alisha M. (CJS) | Do three strikes laws work? Examining the states of California and Washington | KU 331, 4:00PM-4:30PM |
| Lanham, Michael A. (MIS) | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Larock, Caitlin E (EMM) | The Race to the Top and Ohio's Teacher Residency | Chaminade Hall 114, 9:20AM-10:00AM |
| Larson, Brian P. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Latore, Jordan P. (PSY) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Latore, Jordan P. (PSY) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Lau, Terence | The Link Between Value-Added Assessment and Educational Malpractice and Its Implications for Educational Leaders | KU Ballroom, 1:00PM-2:30PM |
| Laubach, Lloyd L | The Rucksack Physical Fitness Test: Does the Addition of a 15.91 kg Rucksack Eliminate the Bodyweight Bias in the Army Physical Fitness Test? | KU Ballroom, 10:30AM-12:00PM |
| Laughter, Megan Elizabeth (EAH) | Displaced Workers as Students in Community College | LTC Forum, 4:30PM-6:30PM |
| Lawson, Abagail M. (INS, REL) | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Layman-Guadalupe, Melissa J. | RSMSAC: Resiliency Scale for Middle School Age Children | KU Ballroom, 3:00PM-4:30PM |
| Leahy, Sharon | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Lebeau, Britt (EMM) | The Race to the Top and Ohio's Teacher Residency | Chaminade Hall 114, 9:20AM-10:00AM |
| Lecklider, Kathryn L (COM) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Ledbetter, Jessica D. (JRN) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Leffelman, Jaclyn E (ECE) | Formative and Summative Assessments in Teacher Residency Programs | Chaminade Hall 102, 9:20AM-10:00AM |
| Lemelle, Kevin A. (MED) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Lemier, Ryan T. (BIO, SPN) | Assessing Habitat Quality Using Standing Stock Biomass in Diverted Mountain Streams | KU Ballroom, 1:00PM-2:30PM |
| Lemier, Ryan T. (BIO, SPN) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Leming, Laura M | Who's Finding Love in College? | St. Joseph's Hall 023, 1:30PM-2:00PM |
| Leming, Laura M | Resources and Support for Children with Learning Disabilities | St. Joseph's Hall 23, 3:30PM-4:00PM |
| Lenz, Mark G (ENG) | How Student Assessment Might Be Used to Evaluate Teachers In Ohio's Residency Program | Chaminade Hall 202, 10:10AM-10:50AM |
| Leveque, Stephanie N. (ENG, HOA) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Lewis, Andrew J (BIO) | Microbial and necrophagous insect community assembly, succession, and species richness associated with Sus scrofa carcasses across multiple seasons | KU Ballroom, 10:30AM-12:00PM |
| Lewis, James O. (INB) | Rewriting A Better Society through Service: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Lewis, William F | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Liu, Ruihua | Pricing Options in Mean-Reversion Jump-Diffusion Model by Radial Basis Functions | KU Ballroom, 10:30AM-12:00PM |
| Lomaglio, Joseph R. (RTV) | Recidivism: Effectiveness of Early Release Programs | KU Ballroom, 3:00PM-4:30PM |
| Longbottom, Todd L. (EVG) | An Analysis of Alpine Glacier Morphology in the Eastern, Central, and Western Himalaya using Remote Sensing Data | KU Ballroom, 1:00PM-2:30PM |
| Lonsway, Bradley R (MEE) | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Lopez, Christen E. (PSY) | Memory and Comprehension of Short Passages: The Effects of Translation | KU Ballroom, 1:00PM-2:30PM |
| Lopper, Matthew E | The Role of the Protein Neuronatin in Regulating Calcium Homeostasis in Human Osteosarcoma Cells | KU Ballroom, 1:00PM-2:30PM |
| Lopper, Matthew E | Bacterial DNA helicases at the intersection of DNA replication, recombination, and repair | KU Ballroom, 1:00PM-2:30PM |
| Lopresti, Anthony L. (PSY) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Lorek, Lisa (VCD) | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Lotz, Michael J. (PSY) | USAMTI: United States Army Mental Toughness Inventory | KU 310, 10:30AM-11:00AM |
| Lucius, Kimber E. (EHN) | The Effect of Excess Dead Mass on Allometrically Scaled Fitness Scores | KU Ballroom, 1:00PM-2:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Lunn, Matthew O (BIO) | The Microarchitecture of the Canine Zona Pellucida: Is it reflective of the health of the oocyte? | KU Ballroom, 1:00PM-2:30PM |
| MacLennan, Karolyn M (ESP) | The Effect of Treatment Integrity on Student Achievement: A Quasi-Experimental Study | KU Ballroom, 10:30AM-12:00PM |
| MacNair, Elizabeth C (UNA) | Poverty from the Inside Out: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Maddock, John M. (CJS) | Amenities in Prison: Does it Help or Hurt Recidivism? | KU Ballroom, 3:00PM-4:30PM |
| Magner, Matthew P. (MTH, THR) | Lovasz's Conjecture for Semidirect Products, Dihedral Groups, and Alternating Groups | KU Ballroom, 1:00PM-2:30PM |
| Magnuson, Phillip C | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Magnuson, William N. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Maier, Nathan A. (MEE) | FIRST Robotics at DECA High School | KU Ballroom, 10:30AM-12:00PM |
| Makowski, Hayley R (UED) | Learning from Other Professional Fields: Attorney Residency Compared to Teacher Residency | Chaminade Hall 315, 9:20AM-10:00AM |
| Mallon, Alysha E (EMM) | Nursing Residency Program | Chaminade Hall 308, 9:20AM-10:00AM |
| Malson, Kaitlyn E (SPN) | A Comparison Between Lawyer and Teacher Residencies | Chaminade Hall 322, 11:00AM-11:40AM |
| Mancini, Michael A. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Mann, Jennifer L. (OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Mann, Jennifer L. (OPS) | OPS 495 Capstone: Hartzell Fan Inc. Order Process Flow | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Mann, Kelsey N (EYA) | Psycho-Therapy Residency Applied to Teacher Residency Program | Chaminade Hall 323, 9:20AM-10:00AM |
| Marcinick, Brian M. (UNA) | Future UD Students' Careers: Health and Science | KU Ballroom, 3:00PM-4:30PM |
| Markus, Elizabeth A. (BIO) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Markus, Elizabeth A. (BIO) | The Effect of a Cationic Porphyrin on Pseudomonas aeruginosa Biofilms | KU Ballroom, 3:00PM-4:30PM |
| Markus, Elizabeth A. (BIO) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Marlow, Jenell Calland (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Marsh, Hilary S. (CME) | On the Mechanism of NaBH4 Hydrolysis: Raman Spectra of Solid Species | KU Ballroom, 1:00PM-2:30PM |
| Marthaler, Kathleen A. (PSS) | The Adonis Effect: Male Body Morphic Distortion Syndrome | KU Ballroom, 3:00PM-4:30PM |
| Mason, Elissa C. (EEP) | HSS 226 Career Goals and Our Future | KU Ballroom, 1:00PM-2:30PM |
| Masthay, Mark B. | Studies on Dyanmics, Mechanism and Characterization for Thermal degradation products of Beta-Carotene by GC-MS | KU Ballroom, 10:30AM-12:00PM |
| Mazzella, Megan E (ECE) | Urban Teacher Residency Programs | Chaminade Hall 201, 11:00AM-11:40AM |
| McCarty, Molly C. (MKT, OPS) | OPS 480 Student Research in Supply Chain Management | Miriam Hall 207, 10:30AM-11:30AM |
| McCarty, Molly C. (MKT, OPS) | Audit of Inventory Planning Control Procedures at Shumsky Promotional | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| McCarty, Molly C. (MKT, OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| McCauley, Emily M (UNA) | Ohio's Four-Tier License Structure | Chaminade Hall 114, 11:00AM-11:40AM |
| McCausland, Mark W. (FIN, ENT) | Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model | KU Ballroom, 10:30AM-12:00PM |
| McCausland, Mark W. (FIN, ENT) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| McCausland, Mark W. (FIN, ENT) | Technical Analysis, Sector weighting and portfolio construction: An empirical study | KU Ballroom, 10:30AM-12:00PM |
| McClanahan, Kelly M. (PSS) | Spatio-temporal cryospheric changes in Southern Alps, New Zealand | KU Ballroom, 10:30AM-12:00PM |
| McCrate, Anna M (BIO) | Anaerobic photocleavage of supercoiled DNA by a ruthenium(II) substituted fluorinated porphyrin | KU Ballroom, 10:30AM-12:00PM |
| McCutcheon, James R | Guitar Students of Jim McCutcheon:Original Songwriting Concert | KU Boll Theatre, 3:00PM-4:30PM |
| McEwan, Ryan W | A River Palimpsest - The Interdisciplinary Value of Water: My Story of Learning the Great Miami River | KU 312, 3:00PM-4:00PM |
| McEwan, Ryan W | A River Palimpsest - The Interdisciplinary Value of Water: Learning the Great Miami River Laterally through Ecology, Chemistry, Geography, Photography and History | KU Ballroom, 10:30AM-12:00PM |
| McEwan, Ryan W | Land Water Interfaces: Invasive Honeysuckle Effects on Stream Invertebrates | KU Ballroom, 10:30AM-12:00PM |
| McEwan, Ryan W | Long Term Dendrochronological Analysis and Forest History of Germantown MetroPark | KU Ballroom, 1:00PM-2:30PM |
| McGill, Kendra L. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| McGillicuddy, Kathleen S. (BIO) | Drosophila Model to study Microphthalmia, a birth defect affecting eye growth | KU Ballroom, 10:30AM-12:00PM |
| McGowan, Fiona B. (MUE, GER) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| McGregor, Natalie J. (FIN) | Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model | KU Ballroom, 10:30AM-12:00PM |
| McGregor, Natalie J. (FIN) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| McGrew, Allen J. | Geothermal Activity at the Taupo Volcanic Zone in New Zealand | KU Ballroom, 10:30AM-12:00PM |
| McKeown, Kathryn E. (PSY) | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| McKnight, Caitlin M. (UNDEF) | Validity of the Mile Run Time in Adolescents and the Impact on Estimated VO2peak: Can Shuttle Time Replace Mile Run Time in Estimating VO2peak Using the Cureton Equation? | KU Ballroom, 1:00PM-2:30PM |
| McManus, Sara L. (ELE) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| McPheron, Megan K. (SOC) | The Portrayal of Elderly Individuals in Television's Sitcom "The Golden Girls" | St. Joseph's Hall 023, 11:00AM-11:30AM |
| Menninger, Mark T (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Mercede, Christine M (ECE) | Developing Standards for Pre-Service Teachers | Chaminade Hall 204, 9:20AM-10:00AM |
| Merlo, James A. (ENT, OPS) | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Merriman, Harold L | Acute Effects of Whole Body Vibration on Counter Movement Jump, Timed One-Leg Support, Timed Get Up and Go, and Sit and Reach Flexibility Test in Healthy College Students | KU Ballroom, 1:00PM-2:30PM |
| Mershman, Brett R. (MTH) | Mathematical modeling of H1N1 flu | KU Ballroom, 3:00PM-4:30PM |
| Messay, Berhane (CLP) | The Relationship between Quest Religious Orientation, Forgiveness, and Mental Health | KU Ballroom, 10:30AM-12:00PM |
| Metzger, Anthony J. (OPS) | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Metzger, Anthony J. (OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |

| Name | Title | Location/Time |
|---|---|---|
| Meyer, Kyle A. (BCM) | Cytotoxicity of zinc oxide nanoparticles in human and mouse dermal fibroblast cell cultures | KU Ballroom, 1:00PM-2:30PM |
| Mickley, Nicholas S (EXS) | The Rucksack Physical Fitness Test: Does the Addition of a 15.91 kg Rucksack Eliminate the Bodyweight Bias in the Army Physical Fitness Test? | KU Ballroom, 10:30AM-12:00PM |
| Miller, Dan E | Problems with 'Going Green': The Paradox of Green Capitalism and an Authentic Presentation of Self | KU Ballroom, 1:00PM-2:30PM |
| Miller, Ellyn M. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Miller, Gabriel J (OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Miller, Gabriel J (OPS) | OPS 495 Capstone: Hartzell Fan Inc. Order Process Flow | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Miller, Lorin A. (EEP) | HSS 226 Career Goals and Our Future | KU Ballroom, 1:00PM-2:30PM |
| Miller, Nancy A | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Miller, Nancy A | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Miller, William D. (PSS) | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Miller, William D. (PSS) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Miller, William D. (PSS) | Synesthesia: A Different Look at Our World | KU Ballroom, 3:00PM-4:30PM |
| Miller, William D. (PSS) | Aesthetic Preference of Various Characters By Color-Grapheme Synesthetes | KU Ballroom, 3:00PM-4:30PM |
| Minarchek, Emily (CLP) | Sensation Seeking, Drinking Motives, and Perceived Norms as Mediators in the Association between College Major and Drinking Patterns | KU Ballroom, 10:30AM-12:00PM |
| Minichello, Michaela A. (BIO) | defective proventriculus (dve), a new member of DV patterning in the eye | KU Ballroom, 10:30AM-12:00PM |
| Mitchell, Andrew J (ECP) | Exploring Peer Supervisors Experience Of Conflict | LTC Forum, 4:30PM-6:30PM |
| Mitchell, Ross M. (HST) | Modern Ireland: Service of the Irish Immigrant in the American Civil War | KU Ballroom, 3:00PM-4:30PM |
| Modi, Rohan M. (MED) | Genetic Basis of Cell Death in Neurodegeneration in Alzheimer's Disease | KU Ballroom, 1:00PM-2:30PM |
| Molnar, Andrew D. (ENT, FIN) | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Monahan, Alissa D. (ENT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Monnier, Ruth A (EYA, HST) | Educational Policy for Teacher Residency in the State of Ohio | Chaminade Hall 208, 11:00AM-11:40AM |
| Montgomery, Samantha A. (PSY) | RSMSAC: Resiliency Scale for Middle School Age Children | KU Ballroom, 3:00PM-4:30PM |
| Moore, Benjamin P. (EYA) | Around the World in Dayton: Anthropology Projects at International Places of Business | KU 312, 10:30AM-11:30AM |
| Moore, Nastacia A. (INS) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Moorman, Christopher M (JRN) | Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Morante, Michael C. (MKT) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Moredock, Gregory E. (FIN, LDR) | The Link Between Value-Added Assessment and Educational Malpractice and Its Implications for Educational Leaders | KU Ballroom, 1:00PM-2:30PM |
| Morgan, Julianne Charlotte (PHL, HOA, WGS) | HOLLY BRANSTNER DETROIT FACIEBAT: A Symposium on Remembrance of Place and Hope from the Ashes | Science Center 114, 3:00PM-6:00PM |
| Morgan, Julianne Charlotte (PHL, HOA, WGS) | Geothermal Activity at the Taupo Volcanic Zone in New Zealand | KU Ballroom, 10:30AM-12:00PM |
| Morris, Willie L | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Morrison, Andrew J. (MEE) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Morrison, Andrew J. (MEE) | Simulation and Optimization of Hybrid Solar-Geothermal Systems in Heating-Dominated Climates | KU Ballroom, 10:30AM-12:00PM |
| Morrison, Patrick S. (ENT, MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Morrow, Jeffrey L | Amistad in Action: Uniting the Americas Through the Sister Parish Relationship | KU Ballroom, 1:00PM-2:30PM |
| Motz, Emily M (EYA) | The Effects of Teacher Residencies on Private, Parochial and Charter Schools | Chaminade Hall 208, 10:10AM-10:50AM |
| Motz, Mark E. (REL) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Motz, Thomas R. (ENG, THR) | Abandoning Aristotle for a Raining Elevator: Ovidian Myth in Contemporary Theatre | KU 331, 2:00PM-2:30PM |
| Moulton, Erin K. (PSY) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Mrowzinski, Sara J. (EPT) | Validity of the Mile Run Time in Adolescents and the Impact on Estimated VO2peak: Can Shuttle Time Replace Mile Run Time in Estimating VO2peak Using the Cureton Equation? | KU Ballroom, 1:00PM-2:30PM |
| Mueller, Jacquelyn L. (MKT, ENT) | The Proctor & Gamble Marketing Challenge | Miriam Hall 109, 1:00PM-2:00PM |
| Mueller, Julie K (UBU) | Guiding Children to Success: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mueller, Nicholas M (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Mulkie, Sarah K (EMS) | Testing Teachers: An Exploration of Teacher Evaluations | Chaminade Hall 202, 11:00AM-11:40AM |
| Mullins, Monalisa McCurry | Responding To Poverty Within The Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Our Social Responsibility to Learn, Lead and Serve: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Building the Community One Step at a Time: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Life Outside Our Bubble: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Poverty from the Inside Out: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Guiding Children to Success: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | The Power of One Can Make A Difference: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Rewriting A Better Society through Service: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Children in At Risk Communities: A Social Justice LLC Project | KU Ballroom, 1:00PM-2:30PM |
| Mullins, Monalisa McCurry | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Providing Wisdom and Encouragement for Young Children: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Mullins, Monalisa McCurry | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Mulvihill, Shannon L. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Murphy, Lara R. (EHN) | Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology | KU Ballroom, 3:00PM-4:30PM |
| Murray, Andrew P | Estimation of Center of mass and 'r' Vectors of a Robot (Biped) | KU Ballroom, 10:30AM-12:00PM |
| Murray, Andrew P | Design of a Shape-Changing Rigid-Body Parabolic Light Reflector | KU Ballroom, 1:00PM-2:30PM |
| Mutyam, Venkateshwar (BIO) | Role of protein modifications in regulating the expression of aquaglyceroporin HC-3 in erythrocyte cultures from Hyla chrysoscelis | KU Ballroom, 1:00PM-2:30PM |
| Myers, Kevin J | On the Mechanism of NaBH4 Hydrolysis: Raman Spectra of Solid Species | KU Ballroom, 1:00PM-2:30PM |
| Mykytka, Mary Kathleen (THR) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Myszka, David H | Design of a Shape-Changing Rigid-Body Parabolic Light Reflector | KU Ballroom, 1:00PM-2:30PM |
| Myszka, David H | Design of a Shape-Changing Rigid-Body Parabolic Light Reflector | KU Ballroom, 1:00PM-2:30PM |
| Nagel, Nicholas Alan (EYA) | The Race to the Top and Ohio's Teacher Residency | Chaminade Hall 114, 9:20AM-10:00AM |
| Nainaparampil, Jaison J. (MED) | Genetic Basis of Cell Death in Neurodegeneration in Alzheimer's Disease | KU Ballroom, 1:00PM-2:30PM |
| Najor, Brittany L. (SMT, MIS) | Cox Arboretum Kiosk Project | Miriam Hall 214, 2:15PM-3:15PM |
| Natke, Christa S (SOC, CJS) | College or Busted: A Study of Higher Education After Juvenile Incarceration | KU Ballroom, 3:00PM-4:30PM |
| Neal, Greg D. (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Neeley, Grant W | Politics of Alternative Transportation: Getting Around on Bike, Bus or Train | KU 331, 10:30AM-12:00PM |
| Negahdary, Elham (MFM) | A Computational Study of Adaptive Residual Subsampling Method for Radial Basis Functions Interpolation | KU Ballroom, 3:00PM-4:30PM |
| Negahdary, Elham (MFM) | Pricing Options in Mean-Reversion Jump-Diffusion Model by Radial Basis Functions | KU Ballroom, 10:30AM-12:00PM |
| Neike, Kara Beth (ECP) | The Impact of Congruent Values on Fraternity and Sorority Learning | LTC Forum, 4:30PM-6:30PM |
| Nenonene, Rochonda L | Program Evaluation | Chaminade Hall 201, 9:20AM-10:00AM |
| Nenonene, Rochonda L | The Pre-Service Teacher Connection to the Ohio Residency Model | Chaminade Hall 201, 10:10AM-10:50AM |
| Nenonene, Rochonda L | Nursing Residency Program | Chaminade Hall 308, 9:20AM-10:00AM |
| Nenonene, Rochonda L | What to Teach a Teacher: A Closer Look at the Teacher Residency Curriculum | Chaminade Hall 322, 10:10AM-10:50AM |
| Nenonene, Rochonda L | The Impact of Physician and Teacher Relationships with their Preceptor/Mentor on their Residency Experience | Chaminade Hall 315, 10:10AM-10:15AM |
| Nenonene, Rochonda L | Urban Teacher Residency Programs | Chaminade Hall 201, 11:00AM-11:40AM |
| Nenonene, Rochonda L | Parallels Identified between the Residency Program of Physicians and Teachers | Chaminade Hall 323, 11:00AM-11:40AM |
| Nenonene, Rochonda L | Urban Residency Program | Chaminade Hall 322, 9:20AM-10:00AM |
| Nenonene, Rochonda L | Department of Teacher Education Teacher Residency Conference Welcome and Overview | Sears Recital Hall, 8:30AM-9:30AM |
| Nenonene, Rochonda L | Teacher Residency Conference Luncheon (Invitation Only) | Chaminade Hall Basement, 12:00PM-1:00PM |
| Nichols, Christopher L. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Nickel, Thomas J. (CJS) | Human Trafficking: From a Social, Economic, and Humanitarian Standpoint | KU Ballroom, 3:00PM-4:30PM |
| Nicolello, Kathleen A (EYA) | Preparing to Take Flight | Chaminade Hall 315, 11:00AM-11:40AM |
| Niekamp, Amber M. (ACC, FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Nielsen, Mark G | Anaerobic photocleavage of supercoiled DNA by a ruthenium(II) substituted fluorinated porphyrin | KU Ballroom, 10:30AM-12:00PM |
| Nielsen, Mark G | Characterization of Metal and Metal Oxide Nanoparticles for Nanotoxicological Studies | KU Ballroom, 10:30AM-12:00PM |
| Nielsen, Mark G | Understanding the Causes of Familial Adenomatous Polyposis in Families with No Identifiable Genetic Mutation in Kentucky and the Surrounding Areas | KU Ballroom, 1:00PM-2:30PM |
| Nielsen, Mark G | The Toxic Effects of 10nm Titanium Dioxide and Silver Nanoparticles on Drosophila Melanogaster Development | KU Ballroom, 1:00PM-2:30PM |
| Niepokoj, Casey G. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Nietfeld, Eric R. (MIS) | Cox Arboretum Kiosk Project | Miriam Hall 214, 2:15PM-3:15PM |
| Noble, Kiersten M. (MUT) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Nolan, Mary K. (SOC) | The Pre-Service Teacher Connection to the Ohio Residency Model | Chaminade Hall 201, 10:10AM-10:50AM |
| Nolan, Mary K. (SOC) | Love TV? Love Handles a proposed link between tv advertisements and obesity | KU Ballroom, 1:00PM-2:30PM |
| Nolte, Hannah E. (PSY) | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Nondorf, Mary E. (SOC) | Resources and Support for Children with Learning Disabilities | St. Joseph's Hall 23, 3:30PM-4:00PM |
| Norris, Katherine G. (UNDEF) | Dayton Alive | ArtStreet Studio E, 8:30AM-5:00PM |
| Norris, Katherine G. (UNDEF) | River Steward Senior Project: An Example of Integrated, Interactive Learning and Implications for the Great Miami River | KU 207, 1:00PM-2:00PM |
| Norris, Katherine G. (ASI) | A River Palimpsest - The Interdisciplinary Value of Water: My Story of Learning the Great Miami River | KU 312, 3:00PM-4:00PM |
| Norris, Katherine G. (ASI) | A River Palimpsest - The Interdisciplinary Value of Water: Learning the Great Miami River Laterally through Ecology, Chemistry, Geography, Photography and History | KU Ballroom, 10:30AM-12:00PM |
| Northridge, Jessica M (RCL) | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Nunez, Caryl M. (POL) | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Nunez, Caryl M. (POL) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Nunn, Anastasia L. (ACC, OPS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Oberlander, Judith N | What Ohio's Teacher Residency Program can Learn from Preparation of Clergy | Chaminade Hall 323, 10:10AM-10:50AM |
| Oberlander, Judith N | Ohio's Four-Tier License Structure | Chaminade Hall 114, 11:00AM-11:40AM |
| Oberlander, Judith N | National Board Certification and How it Relates to the New Teacher Licensure Structure | Chaminade Hall 204, 10:10AM-10:50AM |
| Oberlander, Judith N | The Role of the Ohio Standards for the Teaching Profession | Chaminade Hall 204, 11:00AM-11:40AM |
| Oberlander, Judith N | The Race to the Top and Ohio's Teacher Residency | Chaminade Hall 114, 9:20AM-10:00AM |
| Oberlander, Judith N | Psycho-Therapy Residency Applied to Teacher Residency Program | Chaminade Hall 323, 9:20AM-10:00AM |

| Name | Title | Location/Time |
|---|---|---|
| Oberlander, Judith N | Developing Standards for Pre-Service Teachers | Chaminade Hall 204, 9:20AM-10:00AM |
| Oberlander, Judith N | Teacher Residency Conference Luncheon (Invitation Only) | Chaminade Hall Basement, 12:00PM-1:00PM |
| Oconnor, Meghan E (EYA) | State and National Educational Policy in Relation to Teacher Residency | Chaminade Hall 208, 9:20AM-10:00AM |
| O'Connell , Anne S. (POL) | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| O'Connor, Drew G. (ENT, FIN) | Performance Enhancing Strategies in Turbulent Markets: The GARP Model | KU Ballroom, 10:30AM-12:00PM |
| O'Connor, Drew G. (ENT, FIN) | S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach | KU Ballroom, 10:30AM-12:00PM |
| O'Connor, Elizabeth A. (REL, SPN) | Amistad in Action: Uniting the Americas Through the Sister Parish Relationship | KU Ballroom, 1:00PM-2:30PM |
| Ogle, Sally A. (CME) | Hedgehog Signaling as a Regulator of Gastric Physiology | KU Ballroom, 1:00PM-2:30PM |
| Ogren, Paul J. (CEE) | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| O'Halloran, Carly R. (SPN, PSY) | Using Feedback about Typical Performance to Reduce Overconfidence | KU Ballroom, 1:00PM-2:30PM |
| O'Halloran, Carly R. (SPN, PSY) | Aesthetic Preference of Various Characters By Color-Grapheme Synesthetes | KU Ballroom, 3:00PM-4:30PM |
| Ohlemacher, Alexander J. (FIN, ECB) | Davis Center Investment Club: Socially Responsible Investment Portfolio | KU Ballroom, 10:30AM-12:00PM |
| Olberding, Megan Lyn (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Olszewski, Stephen M. (VCD) | 3D Animated Visualization of the Proposed UD Mad River Center | Marianist Hall 218, 11:30AM-12:00PM |
| Olszewski, Stephen M. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Omori, Alix A. (SOC) | Problems with 'Going Green': The Paradox of Green Capitalism and an Authentic Presentation of Self | KU Ballroom, 1:00PM-2:30PM |
| Ordonez, Raul E | Estimation of Center of mass and 'r' Vectors of a Robot (Biped) | KU Ballroom, 10:30AM-12:00PM |
| Ordonez, Raul E | Optimal Control Programming Using a Numeric Kinetics Solver | KU Ballroom, 3:00PM-4:30PM |
| O'Loughlin, Dylan L. (MEE) | Bioremediation and Sustainability in Dayton's South Park Nieghborhood | KU Ballroom, 1:00PM-2:30PM |
| O'Reilly, Brendan T. (PSY, CJS) | A Psychological Perspective on Police Interrogation: A Synthesis of Current Police Practice and Psychological Research | LTC Team Space, 2:00PM-2:30PM |
| O'Reilly, Brendan T. (PSY, CJS) | Memory for Location: A Comparison of Intercollegiate Athletes and Non-athletes | KU Ballroom, 3:00PM-4:30PM |
| Oros, Sarah M. (MED) | Dorsal eye selector pannier (pnr) suppresses retinal differentiation in the Drosophila eye | KU Ballroom, 1:00PM-2:30PM |
| O'Rourke, Thomas K (EMS) | Program Evaluation | Chaminade Hall 201, 9:20AM-10:00AM |
| Orr, Amanda W. (JRN) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Orr, Amanda W. (JRN) | Legal Issues Confronting the News Media Today | KU Ballroom, 3:00PM-4:30PM |
| Ortman, Emily H (ECE) | The Pre-Service Teacher Connection to the Ohio Residency Model | Chaminade Hall 201, 10:10AM-10:50AM |
| Osterfeld, Valerie Ann (DPT) | Pelvic Floor Muscle Training is Beneficial in Increasing Strength and Decreasing Incontinence in Women with Stress Urinary Incontinence | KU Ballroom, 1:00PM-2:30PM |
| Pace, Lucas D. (CJS) | Change of Scenerie: Environmental Factors on Child Learning | KU Ballroom, 3:00PM-4:30PM |
| Parish, Zachary R. (HRS) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Parish, Zachary R. (HRS) | Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course | KU 207, 3:00PM-4:30PM |
| Parker, Jerron M (EAH) | The Success Measures of College Students | LTC Forum, 4:30PM-6:30PM |
| Parkinson, Kevin M. (CJS) | Capital Punishment as a Deterrent | KU Ballroom, 3:00PM-4:30PM |
| Partin, Robert Jeffery (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Patel, Hemal (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Patel, Shruti (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Paulik, Jacklyn C. (EVB) | Vegetative Index of Biotic Integrity Methods | KU Ballroom, 3:00PM-4:30PM |
| Payne, Sarah J (UBU) | Poverty from the Inside Out: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Pelley, Terri J (CLP) | The Development, Validation, and Testing of the Psychosocial Adjustment to Burn Questionnaire (PABQ) for Children Under the Age of Five | KU Ballroom, 10:30AM-12:00PM |
| Pennington, Clayton S. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Perko, Charlotte E. (EVB) | EFFECTS OF UPSTREAM ROUGHNESS ELEMENTS ON DOWNSTREAM HYDRAULIC CONDITIONS AND BENTHIC COMMUNITIES | KU Ballroom, 3:00PM-4:30PM |
| Perry, Nathanial S. (CJS) | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Perugini, Saverio | The Design, Implementation, and Evaluation of a Pointing Device for Wearable Computers | KU Ballroom, 10:30AM-12:00PM |
| Pesola, Nicholas V. (PSY, SPN) | Growth Motivation in Guatemala: A Study of Personality | KU Ballroom, 3:00PM-4:30PM |
| Pesola, Nicholas V. (PSY, SPN) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Pestello, H Frances Geyer | Sororities:Increased Risk of Sexual Violence | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Family Dynamics and Childhood Depression | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Capital Punishment as a Deterrent | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | College or Busted: A Study of Higher Education After Juvenile Incarceration | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | School Funding in Urban Areas: Are Children Being Left Behind? | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Amenities in Prison: Does it Help or Hurt Recidivism? | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Mass Media and Eating Disorders: The effects on Men and Women | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Comparing Crime: A Closer Look at the Differences Between Rural and Urban Crime | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Human Trafficking: From a Social, Economic, and Humanitarian Standpoint | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | The Effect of Community Poverty on Juvenile Delinquency: Does an Access to Resources Make a Difference? | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Recidivism: Effectiveness of Early Release Programs | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | The Effectiveness of Community Mobilization in Urban Neighborhoods in the United States | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Severity and Celerity: The Impotency of Prisons | KU Ballroom, 3:00PM-4:30PM |
| Pestello, H Frances Geyer | Change of Scenerie: Environmental Factors on Child Learning | KU Ballroom, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Raphael, Elizabeth M. (BIO) | Effectiveness of photodynamic therapy against the bacteriophage UT1 | KU Ballroom, 1:00PM-2:30PM |
| Rapp, John E | Davis Center Investment Club: Socially Responsible Investment Portfolio | KU Ballroom, 10:30AM-12:00PM |
| Raptis, John J. (SPN, MIS) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Raptis, John J. (SPN, MIS) | Standard Register LLC Engine | Miriam Hall 214, 1:00PM-2:00PM |
| Ravipati, Sindhu V. (BCM) | Rational Design of Multi-metallic Porphyrins Containing Ru/Cu/Pt Metals as DNA Binding Agents | KU Ballroom, 1:00PM-2:30PM |
| Reeb, Roger N | The Effects of Thin-Ideal Media on Body Image: An Examination of Hypothesized Moderator Variables | KU Ballroom, 10:30AM-12:00PM |
| Reilly, Kelly E. (EHA) | Dietitians: What Their Future Will Be Like in 10 Years From Now, Including the Impact of Technology | KU Ballroom, 3:00PM-4:30PM |
| Reinert, William L (CMM) | Responding To Poverty Within The Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Rekart, Gina Kathleen (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Renner, Timothy N. (OPS) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs | Miriam Hall 109, 2:15PM-3:15PM |
| Renner, Timothy N. (OPS) | OPS 495 Veteran Affairs Emergency Department Flow Improvement Project | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Renner, Timothy N. (OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Renzetti, Claire M | Who's Finding Love in College? | St. Joseph's Hall 023, 1:30PM-2:00PM |
| Renzetti, Claire M | Perception of Drug Users in the Media: An Analysis of A&E's Intervention | St. Joseph's Hall 023, 3:00PM-3:30PM |
| Renzetti, Claire M | The Portrayal of Elderly Individuals in Television's Sitcom "The Golden Girls" | St. Joseph's Hall 023, 11:00AM-11:30AM |
| Renzetti, Claire M | Domestic Violence and the Media | St. Joseph's Hall 023, 11:30AM-12:00PM |
| Renzetti, Claire M | Inner City Education: A Look Into Which Type of School is Most Successful in Inner City Areas | St. Joseph's Hall 023, 10:30AM-11:00AM |
| Renzetti, Claire M | Worthy Victims: How the Media Falsifies True Victims of Crime | St. Joseph's Hall 023, 1:00PM-1:30PM |
| Renzetti, Claire M | Resources and Support for Children with Learning Disabilities | St. Joseph's Hall 023, 3:30PM-4:00PM |
| Resparc, Natalie E (EYA) | Urban Teacher Residency Programs | Chaminade Hall 201, 11:00AM-11:40AM |
| Rey, Adam M. (ECA) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Rhein, Kirk Michael (DPT) | Acute Effects of Whole Body Vibration on Counter Movement Jump, Timed One-Leg Support, Timed Get Up and Go, and Sit and Reach Flexibility Test in Healthy College Students | KU Ballroom, 1:00PM-2:30PM |
| Rhoads, Elizabeth A (BIO) | The effect of forest spatial distribution on the population genetics of Ambystoma texanum | KU Ballroom, 1:00PM-2:30PM |
| Rice, Kevin F. (HST) | Modern Irish History: Guinness | KU Ballroom, 3:00PM-4:30PM |
| Ridenour, Carolyn S | The Rucksack Physical Fitness Test: Does the Addition of a 15.91 kg Rucksack Eliminate the Bodyweight Bias in the Army Physical Fitness Test? | KU Ballroom, 10:30AM-12:00PM |
| Ridings, Leigh E (CLP) | The Mediating Role of Silencing the Self in the Relationship Between Rejection Sensitivity and Anger | KU Ballroom, 1:00PM-2:30PM |
| Rieck, Stacey M (PSY) | Using a Mental Rotation Task to Assess Narcissism and Gender Biases | KU Ballroom, 1:00PM-2:30PM |
| Rike, Jonathan C (MPA) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Rindler, Casey J. (MIS, OPS) | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 2:15PM-3:15PM |
| Rindler, Casey J. (MIS, OPS) | Emerson Electric: Inventory Record Accuracy | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Rindler, Casey J. (MIS, OPS) | Operations Management Capstone Consulting Projects - Part I | Miriam Hall 213, 2:15PM-3:15PM |
| Rismiller, Kyle P (BCM) | What You Can't Read Could Kill You: Issues in Health and Science Literacy | KU 211, 10:30AM-11:30AM |
| Rizer, Andrew L (MKT) | Rewriting A Better Society through Service: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Roberts, Dion A. (ECB, FIN) | Assigning Allocation Weights to Industry Groups Through Technical Analysis | KU Ballroom, 10:30AM-12:00PM |
| Robertson, Sara _ (PSY) | Predictor of Successful Adolescent Transitions (PSAT) | KU 311, 1:00PM-1:30PM |
| Robinson, Jayne B | Study Abroad in Japan: Expanding Boundaries through Study in Culture, Political Science, Language, and History | KU Ballroom, 3:00PM-4:30PM |
| Robinson, Jayne B | Biological Warfare Leads to Larger Biofilms: the Effect of a Bacterial Virus Attack on the Biofilms of the Bacterium Pseudomonas aeruginosa | KU Ballroom, 1:00PM-2:30PM |
| Robinson, Jayne B | Effectiveness of photodynamic therapy against the bacteriophage UT1 | KU Ballroom, 1:00PM-2:30PM |
| Robinson, Jayne B | The Effect of a Cationic Porphyrin on Pseudomonas aeruginosa Biofilms | KU Ballroom, 1:00PM-2:30PM |
| Robinson, Jayne B | Characterization of Metal and Metal Oxide Nanoparticles for Nanotoxicological Studies | KU Ballroom, 10:30AM-12:00PM |
| Robinson, Jayne B | E,E-farnesol inhibits surface motility in P. aeruginosa through PilJ methylation and rhamnolipid production | KU Ballroom, 10:30AM-12:00PM |
| Rock, Kristen M. (PSS) | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| Rock, Kristen M. (PSS) | RSMSAC: Resiliency Scale for Middle School Age Children | KU Ballroom, 3:00PM-4:30PM |
| Rodden, Kyle G. (REL) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Rodden, Kyle G. (REL) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Rodney, Grace A. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Rodney, Grace A. (PUB) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Roettker, Jennifer M. (MKT) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Rogers, William A (BIO) | Determining the Mutational Paths and Molecular Mechanisms Generating Phenotypic Variation | KU Ballroom, 10:30AM-12:00PM |
| Rohana, Michael J. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Rollo, Bryan M. (FIN, MKT, OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Rollo, Bryan M. (FIN, MKT, OPS) | OPS 495 Capstone: Emerson Climate Technologies Distribution Team | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Rosales, Antonina G (EMM) | Parallels Identified between the Residency Program of Physicians and Teachers | Chaminade Hall 323, 11:00AM-11:40AM |
| Rose, Thomas J. (MKT, SMT) | 2009-2010 UDBPC Finalists' Insights and Reflections on the competition | Miriam Hall 214, 3:30PM-4:30PM |
| Rossier, Francois E | Why Mary? An Analysis of the Foundations of Three Marian Religious Congregations Between 1600 and 1815 | KU Ballroom, 1:00PM-2:30PM |
| Roth, Amanda M. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Roth, Michelle A (CLP) | What Women Want: Wish Lists for Friends and Romantic Partners | KU Ballroom, 10:30AM-12:00PM |
| Rowe, John J | Cytotoxicity of zinc oxide nanoparticles in human and mouse dermal fibroblast cell cultures | KU Ballroom, 1:00PM-2:30PM |
| Rowe, John J | Characterization of Metal and Metal Oxide Nanoparticles for Nanotoxicological Studies | KU Ballroom, 10:30AM-12:00PM |
| Rowley, James B | Mentoring Resident Educators | Chaminade Hall 102, 10:10AM-10:50AM |
| Rowley, James B | Beginning Teacher Licensing: From Policy to Practice | Chaminade Hall 308, 11:00AM-11:40AM |
| Rowley, James B | Four-Year Residency Programs: Ohio Vs. Other States | Chaminade Hall 114, 10:10AM-10:50AM |
| Rowley, James B | How Engineers can be a Model for Developing Teachers | Chaminade Hall 308, 10:10AM-10:50AM |
| Rowley, James B | Formative and Summative Assessments in Teacher Residency Programs | Chaminade Hall 102, 9:20AM-10:00AM |
| Rowley, James B | Beginning Teacher Licensing: Licensing and Teacher Evaluation | Chaminade Hall 102, 11:00AM-11:40AM |
| Rowley, James B | Preparing to Take Flight | Chaminade Hall 315, 11:00AM-11:40AM |
| Rowley, James B | An Ethnographical Exploration of Math and Science Pedagogy in a Kenyan Primary (K-8) School | KU Ballroom, 1:00PM-2:30PM |
| Rowley, James B | Teacher Residency Conference Luncheon (Invitation Only) | Chaminade Hall Basement, 12:00PM-1:00PM |
| Ruffner, William J. (OPS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Ruffner, William J. (OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Ruffner, William J. (OPS) | GE Aviation: Reducing Receiving Cycle Time | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Rusbacky, Kathleen M. (EPT) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Rushing, Kevin J. (ACC) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Rutschilling, Kendra L. (PSS) | The Effects of Task and Feedback on Confidence | KU Ballroom, 10:30AM-12:00PM |
| Ryan, Richard L (MED) | Building the Community One Step at a Time: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Rye, Mark S | The Development, Validation, and Testing of the Psychosocial Adjustment to Burn Questionnaire (PABQ) for Children Under the Age of Five | KU Ballroom, 10:30AM-12:00PM |
| Sahm, Michael R. (JRN, ECA) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Saliba, Lawrence J (BIO) | Measuring Carbon Sequestration and Biomass Products of Algae Using 14CO2 | KU Ballroom, 1:00PM-2:30PM |
| Salomone, Joseph R (MED) | What You Can't Read Could Kill You: Issues in Health and Science Literacy | KU 211, 10:30AM-11:30AM |
| Salomone, Joseph R (MED) | A Computational Study of the Fitzhugh-Nagumo Action Potential System | KU Ballroom, 3:00PM-4:30PM |
| Sammon, Jacqueline K (CJS) | The Effect of Community Poverty on Juvenile Delinquency: Does an Access to Resources Make a Difference? | KU Ballroom, 3:00PM-4:30PM |
| Sander, Robert R (REL) | The Effects of Teacher Residencies on Private, Parochial and Charter Schools | Chaminade Hall 208, 10:10AM-10:50AM |
| Santoianni, Arthur R | Cox Arboretum Kiosk Project | Miriam Hall 214, 2:15PM-3:15PM |
| Santoianni, Arthur R | Standard Register LLC Engine | Miriam Hall 214, 1:00PM-2:00PM |
| Santoianni, Arthur R | ThreeWitt Enterprises Sales Tracking System | Miriam Hall 214, 1:00PM-2:00PM |
| Santoianni, Arthur R | DSS Sweeping Service: Data Gathering & Integration Project | Miriam Hall 214, 1:00PM-2:00PM |
| Santoianni, Arthur R | Miller-Valentine: Digital Dashboard Initiative | Miriam Hall 214, 1:00PM-2:00PM |
| Sarangan, Andrew M | Fabrication & characterization of GaP thin films by physical vapor deposition | KU Ballroom, 10:30AM-12:00PM |
| Satterfield, Kelly M | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| Sauer, David A | Valuation Models and the Efficient Market Hypothesis: an Empirical Analysis | KU Ballroom, 1:00PM-2:30PM |
| Sauer, David A | Performance Strategies for Exchange Traded Funds (ETFs) | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Performance Enhancing Strategies in Turbulent Markets: The GARP Model | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | S&P 500 Sector Allocation Weights: A Modified Markowitz Maximum Return - Minimum Variance Approach | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Developing an Optimal Portfolio of Dividend Paying Stocks in Turbulent Markets: The 2008 - 2009 Period | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Assigning Allocation Weights to Industry Groups Through Technical Analysis | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Technical Analysis, Sector weighting and portfolio construction: An empirical study | KU Ballroom, 10:30AM-12:00PM |
| Sauer, David A | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| Sauer, David A | The Davis Center for Portfolio Management Team | Miriam Hall 118, 2:15PM-3:15PM |
| Saulter, Charles H. (HST) | Modern Irish History:The Life of Eamon De Valera | KU Ballroom, 3:00PM-4:30PM |
| Saum, Scott D. (MEE) | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Scantlin, Ronda M | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Schaeffer, Julia M (MEE) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Schaid, William M (INB) | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Schaller, Molly A | Student Services at Exchange Institutions Affiliated with the University | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | The Breaking Point: The Influence of High Levels of Co-Curricular Involvement | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | Effect of supervisor's gender: Self-efficacy and hope in resident assistants | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | Displaced Workers as Students in Community College | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | First Year Student Retention in a Two-Year Automotive Technology Program | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | The Success Measures of College Students | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | The Impact of Congruent Values on Fraternity and Sorority Learning | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | Commuter Student Involvement on a Residential Campus | LTC Forum, 4:30PM-6:30PM |
| Schaller, Molly A | Exploring Peer Supervisors Experience Of Conflict | LTC Forum, 4:30PM-6:30PM |

| Name | Title | Location/Time |
|---|---|---|
| Scharpf, James E. (FIN, ECB) | An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model | KU Ballroom, 10:30AM-12:00PM |
| Scharpf, James E. (FIN, ECB) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| Scherer, Carrie L (CAI) | Issues in Communication Research | KU 310, 1:00PM-2:00PM |
| Scherer, Colleen E. (INB) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Scheuble, Stephen C. (FIN, ECB) | Finding S&P 500 Valuations with a Two Step Discounted Cash Flow Model | KU Ballroom, 10:30AM-12:00PM |
| Scheuble, Stephen C. (FIN, ECB) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| SchilteR, Megan C (MUP) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Schlingman, Danny P. (ENG, POL) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Schmidt, Joel E. (CME) | Crystal Structure Analysis of Two Isomeric Trithiophene Compounds Doped with TCNQ | KU Ballroom, 3:00PM-4:30PM |
| Schmidtgoessling, Lisa M (ECP) | Effect of supervisor's gender: Self-efficacy and hope in resident assistants | LTC Forum, 4:30PM-6:30PM |
| Schneider, Janelle M. (CMT) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Schneider, Kyle A. (HST) | Modern Ireland: the political styles of Grattan and Flood | KU 312, 2:00PM-2:30PM |
| Schoen, Thomas J. (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Schott, Mary K. (FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Schroeder, Anthony R (ELE) | Rewriting A Better Society through Service: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Schroeder, Matthew S (MUE) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Schuermann, Emilee (ECE) | Developing Standards for Pre-Service Teachers | Chaminade Hall 204, 9:20AM-10:00AM |
| Schulte, Anne M. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Schumacher, Kristian L (EMS) | Urban Residency Program | Chaminade Hall 322, 9:20AM-10:00AM |
| Schweikart, Adam J. (RTV) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Schwieterman, Megan E (EPT) | Life Outside Our Bubble: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Scott, Lauren E (EYA) | Learning from Other Professional Fields: Attorney Residency Compared to Teacher Residency | Chaminade Hall 315, 9:20AM-10:00AM |
| Scurfield, John P. (HST) | Modern Irish History: Robert Emmet's Last Speech | KU 311, 10:30AM-11:00AM |
| Sease, Marc C. (INB, FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Sebastian, Rachel M (EYA, ENG) | Psycho-Therapy Residency Applied to Teacher Residency Program | Chaminade Hall 323, 9:20AM-10:00AM |
| Sebastian, Rachel M (EYA, ENG) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Seitzer, Jennifer | An Implementation for Cycle Detection in Large Datasets | KU Ballroom, 10:30AM-12:00PM |
| Seitzer, Jennifer | Project ACM: Autonomous Music Composer | KU Ballroom, 1:00PM-2:30PM |
| Seitzer, Jennifer | MELEC: Meta-Level Evolutionary Composer | KU Ballroom, 1:00PM-2:30PM |
| Sekely, William S | The Social Revolution: An Assessment of the Current and Projected Use of Social Media by Generation Y and the Implications for Marketing Practice | Miriam Hall 213, 10:30AM-11:30AM |
| Sell, Joseph A. (SOC) | Getting Sir'd: Conceptualizing Masculinity in Transgendered Men | KU 310, 3:30PM-4:00PM |
| Sell, Joseph A. (SOC) | Solidarity Through Diversity: LGBT Community in the City of Dayton | KU 310, 4:00PM-4:30PM |
| Serushema, Jean Bosco (EOP) | Wave Phenomena in Multi-layer Metal, Negative Index materials (NIMs) and Dielectric Media | KU 311, 3:00PM-3:30PM |
| Servaites, Jerome C | Measuring Carbon Sequestration and Biomass Products of Algae Using 14CO2 | KU Ballroom, 1:00PM-2:30PM |
| Sexton, Deborah McKay | Davis Center Investment Club: Socially Responsible Investment Portfolio | KU Ballroom, 10:30AM-12:00PM |
| Shakkour, Rania M (COM) | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Sharp, Anne E. (ECE) | What Ohio's Teacher Residency Program can Learn from Preparation of Clergy | Chaminade Hall 323, 10:10AM-10:50AM |
| Shearer, John B. (MED, CHA) | Exploring Interactions Between Tumor Cells and Innate Immunity in-vivo in a Drosophila Tumor Model | KU Ballroom, 10:30AM-12:00PM |
| Shearon, William M. (ACC, FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Sheridan, Emily C. (MKT, OPS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Sherman, Ashley C. (SOC) | Sororities:Increased Risk of Sexual Violence | KU Ballroom, 3:00PM-4:30PM |
| Shiley, Joseph R (BIO) | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Shiring, Kristen M (ECE) | Testing Teachers: An Exploration of Teacher Evaluations | Chaminade Hall 202, 11:00AM-11:40AM |
| Shishoff, John W | Flyer Consulting Organization and Projects: Past, Present & Future | Miriam Hall 207, 1:00PM-2:00PM |
| Shishoff, John W | Flyer Enterprises Information Technology: Improving Business with Technology | Miriam Hall 207, 3:30PM-4:30PM |
| Shishoff, John W | Flyer Enterprises: Entrepreneurship in Action | Miriam Hall 207, 2:15PM-3:15PM |
| Shoda, Megan E (BIO) | Effects of Water Withdrawal on Terrestrial and Aquatic Drift in Four West Maui Streams | KU Ballroom, 1:00PM-2:30PM |
| Sickinger, Kendra (EXS) | Fitness or Body Composition: Does physical fitness or body composition have a greater impact on Presiden's Fitness Challenge testing in adolescents? | KU Ballroom, 1:00PM-2:30PM |
| Sideras, Zachary Tyler (HST, INS) | The Battle for Peace: Evaluating Aspects of Post-Conflict Peacebuilding Efforts | LTC Forum, 10:30AM-12:00PM |
| Sidhu, Sukhjinder S. | Drowning In Waste: A study on water usage at the University of Dayton | KU Ballroom, 10:30AM-12:00PM |
| Sidhu, Sukhjinder S. | Historic Homes and the Potential for Green Renovation in South Park | KU Ballroom, 10:30AM-12:00PM |
| Sidhu, Sukhjinder S. | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Sidhu, Sukhjinder S. | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Sidhu, Sukhjinder S. | Measuring Carbon Sequestration and Biomass Products of Algae Using 14CO2 | KU Ballroom, 1:00PM-2:30PM |
| Sidhu, Sukhjinder S. | Bioremediation and Sustainability in Dayton's South Park Nieghborhood | KU Ballroom, 1:00PM-2:30PM |
| Sievers, Michael A. (ERL) | Marianist Social Transformation: Reflections on MST 310 | Marianist Hall 217, 10:30AM-11:30AM |
| Simcic, Lauren A. (POL, HRS) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Simons, Kimberly E. (VCD) | Bioremediation and Sustainability in Dayton's South Park Nieghborhood | KU Ballroom, 1:00PM-2:30PM |
| Simons, Kimberly E. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Singh, Amit | Study the role of cullin-4, an E3 ubiquitin ligase, during early eye development | KU Ballroom, 10:30AM-12:00PM |
| Singh, Amit | Defective proventriculus (dve), a new member of DV patterning in the eye | KU Ballroom, 10:30AM-12:00PM |
| Singh, Amit | Dorsal eye selector pannier (pnr) suppresses retinal differentiation in the Drosophila eye | KU Ballroom, 1:00PM-2:30PM |
| Singh, Amit | Genetic Basis of Cell Death in Neurodegeneration in Alzheimer's Disease | KU Ballroom, 1:00PM-2:30PM |
| Singh, Amit | A Computational Study of the Fitzhugh-Nagumo Action Potential System | KU Ballroom, 3:00PM-4:30PM |
| Singh, Amit | Mathematical modeling of H1N1 flu | KU Ballroom, 3:00PM-4:30PM |
| Sitko, Alexandra S (EYA) | State and National Educational Policy in Relation to Teacher Residency | Chaminade Hall 208, 9:20AM-10:00AM |
| Slade, Richard A | The Joy of Sex Education: An Experience in London | KU Ballroom, 3:00PM-4:30PM |
| Small, Eric N. (EPT) | Comparison of Anthropometric, Hemodynamic, and Presidential Fitness Measures between Male and Female Junior High and High School Students | KU Ballroom, 1:00PM-2:30PM |
| Smalls, Hope L. (HRS, HST) | Human Rights In The Global Economy: Papers From The Anthropology Of Human Rights Course | KU 207, 3:00PM-4:30PM |
| Smalls, Hope L. (HRS, HST) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Smith, Bartina C (CEE) | Removal of a Bittering Agent Potentially Released to Water Supplies: Implications for Drinking Water Treatment | KU Ballroom, 1:00PM-2:30PM |
| Smith, Caroline M. (MTA) | Beginning Teacher Licensing: Licensing and Teacher Evaluation | Chaminade Hall 102, 11:00AM-11:40AM |
| Smith, Nicole L (ECE) | What Ohio's Teacher Residency Program can Learn from Preparation of Clergy | Chaminade Hall 323, 10:10AM-10:50AM |
| Smith, Todd B | Helium Contribution to the Signal of Vacuum Photodiodes | KU Ballroom, 10:30AM-12:00PM |
| Smith, Todd B | Optical Trapping: Tests in Microsphere Manipulation | KU Ballroom, 10:30AM-12:00PM |
| Smith, Valerie E. (INB) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Smoot, Senia I. (MEE) | Geothermal Ground-Source Heating: Using TYNSYS to Optimize a Solar Hybrid System | KU Ballroom, 1:00PM-2:30PM |
| Smyth, Shannon E. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Somerset, Nathan M. (MED) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs | Miriam Hall 109, 2:15PM-3:15PM |
| Sommer, Dane M (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Spaeth, Abigail M (UNA) | Thirst for Knowledge, Hunger for Love: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Spencer, Victoria A. (HRS, POL) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Spittler, Anna C (UNS) | Preparing to Take Flight | Chaminade Hall 315, 11:00AM-11:40AM |
| Sprunk, Kathryn E. (ACC, FIN) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Staley, Lindsey M (CEE) | Biocontrol of Sphaerotilus natans | KU Ballroom, 10:30AM-12:00PM |
| Stawicki, Michelle P. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Stcyr, Anna M. (BIO) | A Computational Study of the Fitzhugh-Nagumo Action Potential System | KU Ballroom, 3:00PM-4:30PM |
| Stefanski, Mary E (MKT) | Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Steinberg, Liam R (MKT) | Poverty is a Problem Close to Home: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Stetter, Greggory J (EYA) | Beginning Teacher Licensing: From Policy to Practice | Chaminade Hall 308, 11:00AM-11:40AM |
| Stoetzel, Ashley E (THR) | Beginning Teacher Licensing: From Policy to Practice | Chaminade Hall 308, 11:00AM-11:40AM |
| Stoffel, Jared E. (GEO) | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |
| Strassner, Erica L. (MKT, FIN) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Stretch, Kaitlin M. (POL) | Research on the Effects of Mentor Programs | Marianist Hall 218, 10:30AM-11:00AM |
| Stricker, Alexander P (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Strzelczyk, Grace A. (POL) | Dayton Civic Scholars Deal with the Lead Paint Issue in Dayton | KU Ballroom, 3:00PM-4:30PM |
| Stuart, Todd E (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Stumpo, Andrea N. (EHA) | Future UD Students' Careers: Health and Science | KU Ballroom, 3:00PM-4:30PM |
| Subramanyam, Guru | Development of Biopolymer Based Resonant Sensors | KU Ballroom, 3:00PM-4:30PM |
| Subramanyam, Guru | Tunable High Voltage Interdigital Capacitor (HVIDC) | KU Ballroom, 10:30AM-12:00PM |
| Suer, Charles J. (MTH) | The Coloring Game on Certain Outerplanar Graphs | KU Ballroom, 10:30AM-12:00PM |
| Suer, Charles J. (MTH) | Graph Decompositions and Equitable Edge Colorings | KU Ballroom, 1:00PM-2:30PM |
| Sulier, True C. (INS) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Sullivan, Amy M (EMS) | Learning from Other Professional Fields: Attorney Residency Compared to Teacher Residency | Chaminade Hall 315, 9:20AM-10:00AM |
| Sullivan, MacKenzie M (EHA) | Interactions between the Hippo and Scribble pathway in the regulation of growth | KU Ballroom, 10:30AM-12:00PM |
| Sullivan, Meghan A (THL) | Jewish Mystical Traditions in Early Syriac Baptismal Imagery | Marianist Halll Learning Space 217, 2:30PM-3:00PM |
| Sullivan, Nicole A (ECE) | Testing Teachers: An Exploration of Teacher Evaluations | Chaminade Hall 202, 11:00AM-11:40AM |
| Sunday, Kathryn E. (MKT, INB) | Become a world citizen with the School of Business Administration: Summer Study Abroad, Semester Exchange, ETHOS (Engineers in Technical Humanitarian Opportunities of Service Learning), and other programs | Miriam Hall 109, 2:15PM-3:15PM |
| Sunday, Kathryn E. (MKT, INB) | The Social Revolution: An Assessment of the Current and Projected Use of Social Media by Generation Y and the Implications for Marketing Practice | Miriam Hall 213, 10:30AM-11:30AM |
| Sutton, Erin E. (MEE) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Swafford, Jennifer A. (CLP) | Catharsis through Art | KU Ballroom, 10:30AM-12:00PM |
| Swavey, Shawn M | Rational Design of Multi-metallic Porphyrins Containing Ru/Cu/Pt Metals as DNA Binding Agents | KU Ballroom, 1:00PM-2:30PM |
| Swavey, Shawn M | Anaerobic photocleavage of supercoiled DNA by a ruthenium(II) substituted fluorinated porphyrin | KU Ballroom, 10:30AM-12:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Sweeney, Lauren M (ECE) | Urban Residency Program | Chaminade Hall 322, 9:20AM-10:00AM |
| Sylvester, Kevin J. (MUE) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Szaller, Madie K (UED, ENG, EYA) | A Comparison Between Lawyer and Teacher Residencies | Chaminade Hall 322, 11:00AM-11:40AM |
| Tackett-Ritchey, Kristina C. (ELA, SPN) | How Engineers can be a Model for Developing Teachers | Chaminade Hall 308, 10:10AM-10:50AM |
| Takano, Kaori (EDL) | Do Corporations Advance Education in Japan? | KU Ballroom, 10:30AM-12:00PM |
| Tare, Meghana (BIO) | Study the role of cullin-4, an E3 ubiquitin ligase, during early eye development | KU Ballroom, 10:30AM-12:00PM |
| Tarplee, Jennifer Michelle (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Tate, Constance A (PUB) | Poverty from the Inside Out: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Taylor, Annette M | Legal Issues Confronting the News Media Today | KU Ballroom, 3:00PM-4:30PM |
| Taylor, Denise G | Biocontrol of Sphaerotilus natans | KU Ballroom, 10:30AM-12:00PM |
| Taylor, Melissa R (CME) | Minimizing Postural Instability when Carrying a Load: The Effects on the Elderly of Carrying Grocery Bags | KU Ballroom, 3:00PM-4:30PM |
| Taylor, Scott M. (VCA) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Tedesco, Joseph P | Predictor of Successful Adolescent Transitions (PSAT) | KU 311, 1:00PM-1:30PM |
| Tedesco, Joseph P | USAMTI: United States Army Mental Toughness Inventory | KU 310, 10:30AM-11:00AM |
| Tedesco, Joseph P | RSMSAC: Resiliency Scale for Middle School Age Children | KU Ballroom, 3:00PM-4:30PM |
| Tedesco, Joseph P | The Development of the Athletes Dimensions of Perfection Scale (ADPS) | KU Ballroom, 3:00PM-4:30PM |
| Tedesco, Joseph P | Perfectionism in Athletes: Cognitive Attribution Shifts in Collegiate Rowers | KU Ballroom, 3:00PM-4:30PM |
| Tedesco, Joseph P | The Adonis Effect: Male Body Morphic Distortion Syndrome | KU Ballroom, 3:00PM-4:30PM |
| Tejkl, Katherine M. (PUB) | Diabetes Prevention and Treatment: Using Media to Educate Children, Parents and Teachers about the Disease | KU 312, 1:00PM-2:00PM |
| Temple, Wilson S. (ESM) | Our Potential Career Paths | KU Ballroom, 3:00PM-4:30PM |
| Terry, J.W. R (ECB) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Terry, Kevin C. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |
| Tesensky, Katherine M. (SOC) | Family Dynamics and Childhood Depression | KU Ballroom, 3:00PM-4:30PM |
| Teter, Carolyn T. (EVB) | Comparative Time Series of Functional Group Stream Assemblages Relative to Habitat Degradation in the Republic of Palau | KU Ballroom, 10:30AM-12:00PM |
| Thieman, Lee M (CEE) | 2010 Civil Engineering Senior Design Presentation: The University of Dayton Mad River Center | KU Boll Theatre, 9:00AM-1:00PM |
| Thomas, Caroline M (FAE) | A Comparison Between Lawyer and Teacher Residencies | Chaminade Hall 322, 11:00AM-11:40AM |
| Thomas, David A. (ENT, FIN) | A Comparison of Management in the Film and Television Industry to Management in the Manufacturing Industry | KU Ballroom, 1:00PM-2:30PM |
| Thomas, Russell (EDL) | Education, Technology, and Scholarship: Transforming the Practice of Education through Semantics | LTC Forum, 3:00PM-4:00PM |
| Thomas, Suzanne M. (PSY) | Pleasingness of Faces: The Role of Gender and Symmetry in Facial Preferences | KU Ballroom, 1:00PM-2:30PM |
| Thompson, Teresa L | Any Progress? Portrayals of Women in Domestic Commercials | KU Ballroom, 1:00PM-2:30PM |
| Thompson, Teresa L | Issues in Communication Research | KU 310, 1:00PM-2:00PM |
| Thompson, Teresa L | Issues in Health Communication | KU 310, 2:30PM-3:30PM |
| Thornlow, Ryan J. (PLW) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Thorpe, Stephanie L. (BCM) | Sorption of Organic Salts in Kaolinite, Montmorillonite, Hectorite, Silica and Aluminum Hydroxide | KU Ballroom, 3:00PM-4:30PM |
| Tigga, Lucian (FIN) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Timmerman, Michelle L. (EYA, MTA) | The Black-White Achievement Gap: A Novice Teacher's Professional Development Plan for Closing It | KU Ballroom, 3:00PM-4:30PM |
| Titlebaum, Peter J | Positive Rewards for Positive Behavior: Would a Rewards System Work? | KU 331, 1:00PM-1:30PM |
| Titlebaum, Philip J. (MUS) | "The Water Engine", a staged performance of the radio play by David Mamet | ArtStreet Studio B, 3:00PM-4:30PM |
| Todd, Haley M. (ERL, EYA) | Students as Reflective and Purposeful Learners: Metacognition through Rubrics | KU Ballroom, 10:30AM-12:00PM |
| Tolson, Shea M. (MED) | Stuart Hill Eco-Landscape Project: Converting Conventional Green-Grass Lawns into Natural Prairies | KU Ballroom, 3:00PM-4:30PM |
| Tomczyk, Michelle R. (PHY) | Helium Contribution to the Signal of Vacuum Photodiodes | KU Ballroom, 10:30AM-12:00PM |
| Tonon, Peter B (EYA) | Beginning Teacher Licensing: Licensing and Teacher Evaluation | Chaminade Hall 102, 11:00AM-11:40AM |
| Topp, Andrew M (CME) | Isolation and Characterization of Glycoside Hydrolases from Caldicellulosiruptor saccharolyticus | KU, 1:00PM-2:30PM |
| Torchia, Danielle S. (MKT) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Travis, Stacie Lynn (EXS) | An Outlook on Speed and Power Performance between Positions of Basketball Players | KU Ballroom, 1:00PM-2:30PM |
| Trempe, Katherine J. (POL) | Around the World in Dayton: Anthropology Projects at International Places of Business | KU 312, 10:30AM-11:30AM |
| Trick, Joshua (MEE) | Drowning In Waste: A study on water usage at the University of Dayton | KU Ballroom, 10:30AM-12:00PM |
| Trinh, Albert L. (MED) | miRNAs in newt lens regeneration: Specific control of proliferation | KU Ballroom, 1:00PM-2:30PM |
| Trollinger, William V. | Catholic Dissent? Orestes Brownson, John W. Nevin and the American Evangelical Establishment | LTC Team Space, 3:30PM-4:00PM |
| Trudo, Chad (EXS) | An Outlook on Speed and Power Performance between Positions of Basketball Players | KU Ballroom, 1:00PM-2:30PM |
| Tsonis, Panagiotis A. | miRNAs in newt lens regeneration: Specific control of proliferation | KU Ballroom, 1:00PM-2:30PM |
| Tuzeneu, Marie-Claire (FRN, INS) | The Ripple Effect?: Examining the Impact of the Global Economic Crisis on the Least Developed Countries (LDCs) | KU Ballroom, 1:00PM-2:30PM |
| Ulrich, Joseph R. (EYA) | How Engineers can be a Model for Developing Teachers | Chaminade Hall 308, 10:10AM-10:50AM |
| Umstead, Angela Q. (MTA) | A Computational Study of the Fitzhugh-Nagumo Action Potential System | KU Ballroom, 3:00PM-4:30PM |
| Uriostegui, Sylvia (ESM) | Ecological History of South Park & Ecolandscape Gardens and Public Areas in the Main Boulevard | KU Ballroom, 10:30AM-12:00PM |
| Usman, Muhammad | Measles Epidemic: Studying the Spread Using Numerical Techniques | KU Ballroom, 3:00PM-4:30PM |
| Usman, Muhammad | A Computational Study of the Fitzhugh-Nagumo Action Potential System | KU Ballroom, 3:00PM-4:30PM |
| Usman, Muhammad | A Computational Study of Adaptive Residual Subsampling Method for Radial Basis Functions Interpolation | KU Ballroom, 3:00PM-4:30PM |
| Usman, Muhammad | Kinetic Modeling of A Spherical Catalytic Particle | KU Ballroom, 3:00PM-4:30PM |
| Usman, Muhammad | A Graphical User Interface for Solving the Falkner-Skan Equation | KU Ballroom, 10:30AM-12:00PM |

| Name | Title | Location/Time |
|---|---|---|
| White, Jonathan B. (BIO) | Comparative Time Series of Functional Group Stream Assemblages Relative to Habitat Degradation in the Republic of Palau | KU Ballroom, 10:30AM-12:00PM |
| White, Kyle R. (INB) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Whitehead, Alexander S. (ENG, MED) | Collection of Short Stories | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Whitehead, Monique L. (OPS) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Whitehead, Monique L. (OPS) | OPS 495 Capstone: Emerson Climate Technologies Distribution Team | KU Ballroom, 10:30AM-12:00PM |
| Whitehead, Natasha Sue (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Wilbers, Timothy A | 3D Animated Visualization of the Proposed UD Mad River Center | Marianist Hall 218, 11:30AM-12:00PM |
| Wilhoit, Stephen W | Collection of Short Stories | KU Ballroom, 1:00PM-2:30PM |
| Willenbrink, Joy M. (MUT) | The Passion of the Tango - The Music and Dance of Our South American Neighbors | Sears Recital Hall, 11:00AM-12:00PM |
| Willenbrink, Joy M. (MUT) | Study Abroad Program with a Difference: University of Dayton Immersion Program in Cameroon and Zambia, 2009 | KU 211, 1:00PM-2:00PM |
| Williams, Gregory M. (ACC) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Williams, Jennifer C. (SOC) | Severity and Celerity: The Impotency of Prisons | KU Ballroom, 3:00PM-4:30PM |
| Williams, Michael M (UBU) | Building the Community One Step at a Time: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Williams, Patrick K | The effect of forest spatial distribution on the population genetics of Ambystoma texanum | KU Ballroom, 1:00PM-2:30PM |
| Williams, Patrick K | The effect of forest spatial distribution on the population genetics of Ambystoma texanum | KU Ballroom, 1:00PM-2:30PM |
| Williams, Thomas M | Determining the Mutational Paths and Molecular Mechanisms Generating Phenotypic Variation | KU Ballroom, 10:30AM-12:00PM |
| Williamson, Ellen T. (EMM) | The Pre-Service Teacher Connection to the Ohio Residency Model | Chaminade Hall 201, 10:10AM-10:50AM |
| Willenbrink, Joy M. (MUT) | Honors Recital Auditions | Sears Recital Hall, 1:00PM-3:00PM |
| Wilson, Joshua A. (CJS) | Police Response to Domestic Violence | St. Joseph's Hall 023, 2:30PM-3:00PM |
| Wilson, Katherine A. (MKT) | Marketing Strategy Plan for Five Rivers MetroParks | Miriam Hall 214, 10:30AM-11:30AM |
| Wilson, Melissa E (ECE) | Children in At Risk Communities: A Social Justice LLC Project | KU Ballroom, 1:00PM-2:30PM |
| Wilson, Melissa E (ECE) | Parallels Identified between the Residency Program of Physicians and Teachers | Chaminade Hall 323, 11:00AM-11:40AM |
| Winchester, Nikki (PSY, WGS) | Predictor of Successful Adolescent Transitions (PSAT) | KU 311, 1:00PM-1:30PM |
| Windgassen, Paige E (HOA) | Reflections on Paper | ArtStreet Studio D, 3:30PM-4:00PM |
| Winnike, Leah N. (FAE) | Dayton Alive | ArtStreet Studio E, 8:30AM-5:00PM |
| Wise, Julie R (EHA) | Future UD Students' Careers: Health and Science | KU Ballroom, 3:00PM-4:30PM |
| Witt, Michael F. (ACC, FIN, ABM) | An Empirical Analysis of the Intrinsic Value of the Dow Jones Industrials for the Period 3-31-09 to 3-31-10: The Morningstar 3 Stage Dividend Discount Model | KU Ballroom, 10:30AM-12:00PM |
| Witt, Michael F. (ACC, FIN, ABM) | Equity Valuation Modeling | Miriam Hall 118, 1:00PM-2:00PM |
| Woehl, Samantha Marie (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Wolff, Kelly A. (FIN) | Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Wolters, Adam S (CME) | Shaping A Better Tomorrow: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Woodward, Kathleen M (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Wright, Rebecca E (DPT) | Systematic reviews regarding therapeutic interventions for treating a pediatric PT population | KU 222, 3:00PM-4:30PM |
| Wright, Rebecca E (DPT) | Influence of 3 different soccer cleat arrangements on kinematic, kinetic and electromyographic parameters acting upon the knee joint and on one measure of running performance for soccer players completing a timed 26-meter slalom course and a change-of-dir | KU Ballroom, 1:00PM-2:30PM |
| Wright, Shirley J | The Microarchitecture of the Canine Zona Pellucida: Is it reflective of the health of the oocyte? | KU Ballroom, 1:00PM-2:30PM |
| Wu, Zhi (EOP) | Two Photon Fluorescence Characterization of Spiral Plasmonic Lenses as Circular Polarization Analyzers | KU Ballroom, 10:30AM-12:00PM |
| Yaney, Perry P | Development and Characterization of a Laser-Based Local-Oscillator Detection System for a Simple Reflecting Target | KU Ballroom, 10:30AM-12:00PM |
| Yocum, Sandra A | Social Justice Through Worship: Virgil Michel's Vision of the Mystical Body of Christ | Marianist Halll 217, 3:30PM-4:00PM |
| Yohai, Allana D (UBU) | Enriching Children's Lives in our Dayton Community: A Social Justice LLC Project | KU Ballroom, 3:00PM-4:30PM |
| Young, Kyle M (UNDEF) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Zammouri, Fadhel (CME) | Kinetic Modeling of A Spherical Catalytic Particle | KU Ballroom, 3:00PM-4:30PM |
| Zaworski, Joseph M. (MEE) | Drowning In Waste: A study on water usage at the University of Dayton | KU Ballroom, 10:30AM-12:00PM |
| Zeng, Tingting (ECA) | Globalization and Its Discontents | Miriam Hall 102, 10:30AM-4:30PM |
| Zhan, Qiwen | Fabrication & characterization of GaP thin films by physical vapor deposition | KU Ballroom, 10:30AM-12:00PM |
| Zhan, Qiwen | Two Photon Fluorescence Characterization of Spiral Plasmonic Lenses as Circular Polarization Analyzers | KU Ballroom, 10:30AM-12:00PM |
| Zhan, Qiwen | High Power Erbium-doped Fiber Laser Generating Switchable Radially and Azimuthally Polarized Beams at 1.6 um Wavelength | KU Ballroom, 10:30AM-12:00PM |
| Zhao, Yi (MTH) | Operations Management Capstone Consulting Projects - Part II | Miriam Hall 213, 3:30PM-4:30PM |
| Zhao, Yi (MTH) | GE Aviation: Reducing Receiving Cycle Time | Miriam Hall 2nd Floor, 2:00PM-4:30PM |
| Zhao, Yuan (CHM) | Studies on Dyanmics, Mechanism and Characterization for Thermal degradation products of Beta-Carotene by GC-MS | KU Ballroom, 10:30AM-12:00PM |
| Zhou, Renjie (EOP) | High Power Erbium-doped Fiber Laser Generating Switchable Radially and Azimuthally Polarized Beams at 1.6 um Wavelength | KU Ballroom, 10:30AM-12:00PM |
| Zhou, Yunyun (CHM) | Solid-State NMR Studies of Selenomethionine Structure and Dynamics in Clay Minerals | KU Ballroom, 10:30:00 AM-12:00PM |
| Zibritovsky, Ingrid M. (POL) | Faces Among the Masses: Teenage Refugees in Dayton | Marianist Hall 217, 1:00PM-2:00PM |
| Ziswiler, Korrin M (EDL) | Gender Differences in Observations: Do Men and Women Work the Hyphen from Differently? | LTC Forum, 11:30:00 AM-12:00PM |
| Zois, Catherine Lutz () | Sensation Seeking, Drinking Motives, and Perceived Norms as Mediators in the Association between College Major and Drinking Patterns | KU Ballroom, 10:30:00 AM-12:00PM |
| Zukowski, Angela Ann () | A Quest in Assisi: Spirituality, Art and Culture | Alumni Hall 101, 2:00PM-3:00PM |

| Name | Title | Location/Time |
|---|---|---|
| Zyck, William G. (VCD) | Visual Communication Design: Capstone Senior Portfolio Preparation | College Park Center, Studio 238, 3:00PM-4:30PM |

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