

celebration
of
**student research
and creativity**

*Spotlighting the best
of student work at*



april 15-19, 2013

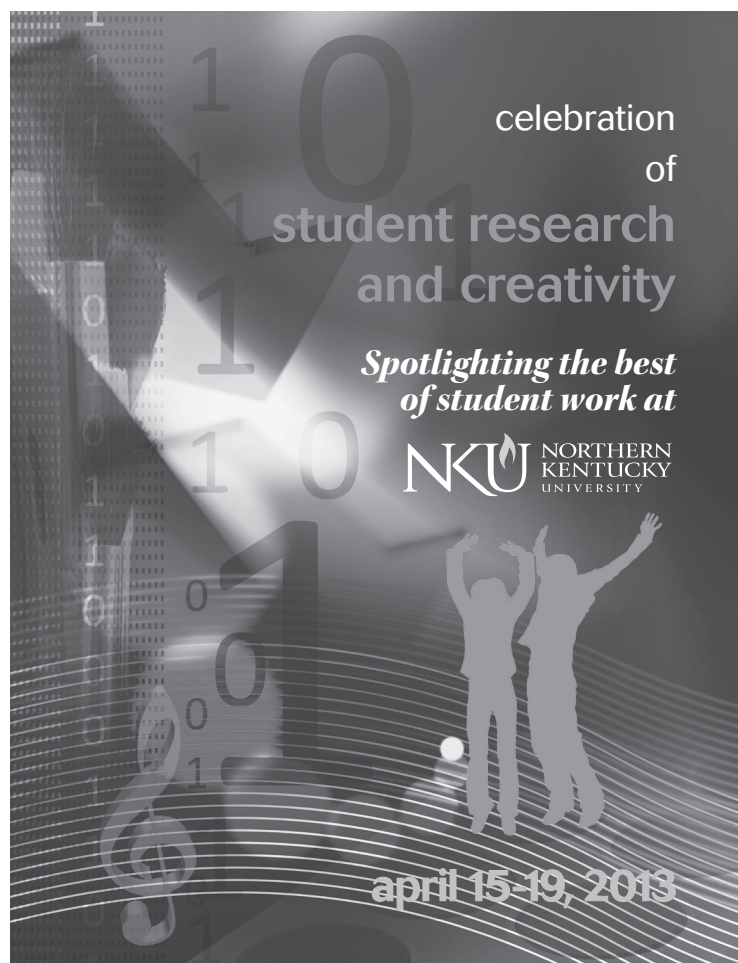


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LETTER FROM THE PRESIDENT



To Our Celebration 2013 Participants and Guests:

Welcome to Northern Kentucky University's annual Celebration of Student Research and Creativity. I offer my congratulations to the students and faculty members participating in this year's event. To our guests and visitors, thank you for joining us and supporting our students and our university.

This year is the 11th in which NKU has held the Celebration of Student Research and Creativity. This event is designed to recognize the outstanding research and creative work of our students, performed under the guidance of faculty mentors.

Student research and creative work are important because they contribute to our knowledge, and the projects enable our students to apply what they learn in the classroom. This "active learning" is becoming a defining feature of an NKU education as we develop more service-learning courses, internships, co-op experiences, and opportunities for student research.

Direct faculty-student interactions foster deeper learning and better assimilation of knowledge for undergraduates. These working relationships develop students' critical thinking and analytic skills, as well as oral and written communication skills needed to present their work. These interactions also nurture the deep intellectual bond between faculty member and student – a core value of an NKU education.

These posters and presentations exemplify the high-quality work by undergraduate researchers at NKU. These students are future leaders in the development of the intellectual infrastructure of the Commonwealth. Their talent gives me great faith in the future of our region, our state, and our country.

The outstanding presentations for this year's celebration set a high standard, serving as inspiration for future student projects and research. Again, congratulations to all whose work is showcased in this year's event, and my thanks to all who have helped make this celebration very memorable.

Sincerely,

A handwritten signature in black ink that reads "G Mearns". The signature is fluid and cursive, with the first name "G" being particularly large and stylized.

Geoffrey S. Mearns
President



LETTER FROM THE PROVOST



Dear Celebration 2013 Participants:

Congratulations to all students and faculty members participating in the 2013 Celebration of Student Research and Creativity. I join the deans, chairs and faculty members in expressing a deep sense of pride in the outstanding work accomplished by our students.

The presentations given during the Celebration provide evidence of the extraordinary opportunities provided to NKU's students as they work one-on-one in partnership with faculty members on research projects. This experience is often transformational for our students – their horizons are broadened, their learning and understanding is deepened, their interest is heightened, their possibilities are seemingly unlimited, and the sense of their own potential is strengthened. Students working directly with faculty members in research and creative activity has become a defining characteristic of the student experience at NKU and a perfect example of the education we like to call “up close and personal.”

Many of these projects will be presented and celebrated at local, state, national or even international conferences and will lead to scholarly publications that are co-authored by students and faculty. These results are a source of great pride for all of us at NKU.

We take great pleasure in applauding the success and accomplishments of the students and faculty whose work is showcased in the 2013 Celebration of Student Research and Creativity.

Sincerely,

A handwritten signature in black ink that reads "Gail W. Wells". The signature is written in a cursive, flowing style.

Gail W. Wells
Vice President for Academic Affairs and Provost

SCHEDULE OF EVENTS



POSTER PRESENTATIONS, INTERACTIVE PRESENTATIONS, AND ARTISTIC PRESENTATIONS

Tuesday, April 16

1-3 p.m.

Student Union Ballroom

MUSIC, DANCE AND THEATRE EVENTS

Tuesday, April 16

Student Union Ballroom at Poster Session

1-1:30 p.m.

Small Chamber Brass

1:30-2 p.m.

Student Strings

2-2:15 p.m.

President and Provost Welcome

2:20-2:30 p.m.

Solo Marimba: Morgan Minor

2:30-3 p.m.

Guitar Ensemble

Tuesday, April 16

Tent, Plaza in front of Founders Hall

11 a.m.

Jazz Ensemble

11:30 a.m.

Jazz Ensemble

Noon

Musical Theatre Troupe

1-2 p.m.

Steel Drum Band

2 p.m.

Jazz Combo

Tuesday, April 16

Amphitheater

1 p.m.

Dance Troupe

Wednesday, April 17

Tent, Plaza in front of Founders Hall

11 a.m.

Jazz Combo 3

11:30 a.m.

Latin Jazz Ensemble

12-1 p.m.

Student Computer Works

1 p.m.

Jazz Combo IV

1:30 p.m.

Women's Choir

2 p.m.

Concert Band

2:30 p.m.

Vocal Jazz

ORAL PRESENTATIONS

Tuesday, April 16

Political Science, Criminal Justice & Organizational Leadership Presentation

1:40-2 p.m.

Founders Hall 211

Wednesday, April 17

World Language & Literature Presentation

3:30-4 p.m.

Landrum 107

English Presentations

1:30-4 p.m.

Steely Library 102

Thursday, April 18

Counseling, Social Work, Leadership Presentation

Photography Show (10am) & Photovoice Presentation (11 am)

10 a.m.-noon

University Center Ballroom

Chemistry; History & Geography; Sociology, Anthropology, and Philosophy Presentations

3-5 p.m.

Landrum 404

ARTISTIC EVENTS

Friday, April 19

Senior Art Exhibit

9 a.m.-9 p.m.

Fine Arts – Main Gallery

NEW THIS YEAR!

Photography at NKU

Wednesday, April 17

9-11:30 a.m.

Griffin Hall Lobby

Tuesday-Thursday evenings, April 16 -18

dusk to dawn

Griffin Hall

Painting on the Plaza

Thursday, April 18

Noon-3 p.m.

Plaza, near tent in front of Founders Hall

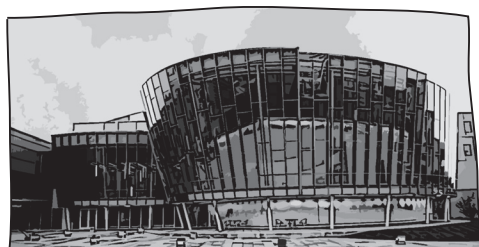
NKU Celebrates National Poetry Month:

OPEN MIC

Thursday, April 18

1-3 p.m.

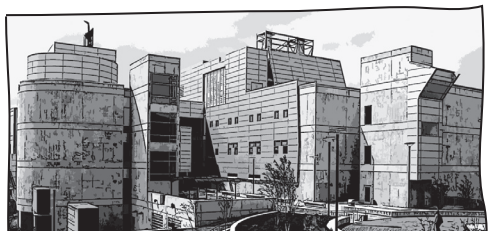
Tent, Plaza in front of Founders Hall



Griffin Hall



Fine Arts Center



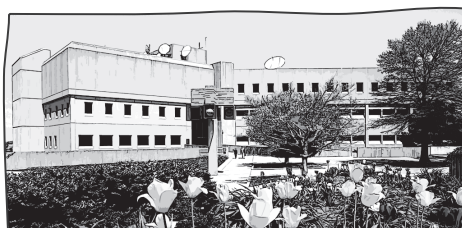
Dorothy Westerman Herrmann Natural Science Center



Albright Health Center



Founders Hall



Landrum Academic Center

“CELEBRATE NKU: ALL AROUND CAMPUS” EVENTS



Griffin Hall

Tuesday, April 16, 3:30–5:00 p.m.

Digitorium, GH 201

Matt Kish “Moby Dick: In Pictures: one drawing for every page”

Artistic Demonstration and Public Talk

Fine Arts Center

Wednesday, April 17, 11:00 a.m.–12:30 p.m.

Prop Shop, FA 115

Behind the Scenes: NKU Theatre

Dorothy Westerman Herrmann Natural Science Center

Wednesday, April 17, 1:00–4:00 p.m.

NKU Haile Planetarium, SC 409

1:00 p.m. Secret Lives of Stars

2:00 p.m. Aurora

3:00 p.m. Earth, Moon, Sun

Albright Health Center

Thursday, April 18, 11:00 a.m.–1:00 p.m.

Human Performance Lab, HC 112

OPEN HOUSE AND DEMONSTRATION

Founders Hall

Thursday, April 18, 1:00–3:00 p.m.

Tent on Plaza (near Founders Hall)

Celebrate National Poetry Month:

OPEN MIC

Fine Arts Center

Friday, April 19, 10:00 a.m.–Noon

NKU Main Art Gallery, 3rd Floor

Senior Art Exhibition

Landrum Academic Center

Friday, April 19, 11:30 a.m.–1:00 p.m.

NKU Museum of Anthropology, LA 200

OPEN HOUSE

ARTISTIC PRESENTATIONS

Multiple Locations



A-1: REBECCA WREN, JAMIE AUSTIN, KATHLEEN BELL, ELISA BOETTGER, JESSICA BORCHERS, TERESA COORS, MARYANA FEDIUK, MEG LOMBARD, KELSEA MISKELL, CHRISTINA MITTS, BREANNA MOUNCE, KATHERINE ROWE, ANNA RUNYAN, KRISTYN SINGLETON, CHELSEA SWINFORD, REX TROGDON, ANGELA TURNER, AMBER VARGO, STANLEY WARREN HUFFMAN, COURTNEY WOODARD
A Gallery of Art by Participants in the Seminar on Edgar A. Poe

FACULTY SPONSOR(S): ROBERT RHODE, ENGLISH

STUDENT UNION, APRIL 16, 1-3 PM

Abstract: After a semester of thorough reading, discussion, and research, students of the seminar on Edgar A. Poe came to better understand a man whose work is not all that it appears to be. Students were asked to create final projects that highlighted an aspect of Poe's work or life that they found interesting. Students were free to express their idea using whatever medium they preferred, and the results range from simple pencil drawings to baked goods.

A-2: CASSIE GRAVES

Bedford, Kentucky

FACULTY SPONSOR(S): BARBARA HOUGHTON, VISUAL ARTS; MATTHEW ALBRITTON, VISUAL ARTS

GRIFFIN HALL LOBBY, APRIL 17, 9-11:30 AM AND GRIFFIN HALL APRIL 16-18, LATE EVENING

Abstract: This display is a digital slide show of photographic work done for an ongoing series. This series has been in the works since the beginning of 2012 and may never be fully complete personally. Over this course of time I have been photographing and obtaining information about abandoned homes in the town where I was raised – Bedford, KY. My intention is to enable the viewer to look into the life of the families that once resided there, to look past the crumbling walls and to imagine the lives that were lived within the space exhibited in each photograph.

A-3: ANNA KLAENE

Riding with the Windows Down

FACULTY SPONSOR(S): BARBARA HOUGHTON, VISUAL ARTS; CHRIS SMITH, VISUAL ARTS

GRIFFIN HALL LOBBY, APRIL 17, 9-11:30 AM AND GRIFFIN HALL APRIL 16-18, LATE EVENING

Abstract: I will display a Digital Soundslide of my photographic work made for a Digital Daily Diary project over a 4 week period in the Summer of 2012. As a photographer, I spend a great amount of my time stepping outside of situations and becoming more than a casual observer. I strive to capture that "Decisive Moment" which many unconsciously dismiss as nonessential. Your eye must see a composition or an expression that life itself offers you, and you must know with intuition when to click the camera. Once you miss it, it is gone forever.

A-4: MIKE BALE

Portraiture

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; MARC LEONE, VISUAL ARTS

Abstract: My drawings deal with the creative processes within portraiture. Through exploring the marks and layers of the drawing, along with my interaction with the model, I was able to create unique abstracted forms giving dialog to their external and internal emotional states. Creating images that allow the viewers to perceive the drawing differently from both a distance and up close, do to a relatively crowded composition, was intended to force the audience to spend more time with the individual works.

A-5: KENDRA DOUGLAS

Excruciating Vulnerability

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; STEVEN FINKE, VISUAL ARTS

Abstract: Through a series of large-scale figurative autobiographic sculptures I am exploring how we, in our human experience, learn to embrace our struggles, imperfections, and vulnerabilities so that we can engage in our lives from a place of authenticity and cultivate courage, compassion, and connection.

A-6: ANDREJS KRUIZA

Control

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; KEVIN MUENTE, VISUAL ARTS

Abstract: The work is a reflection of self-control through the medium of paint. Large panels radiating intensity through mark making and vibrant colors construct a surface to meditate on human nature. As forms merge from dark backgrounds, they speak in a tempest of textures, allowing the fluidity of paint to be a metaphor for desire as we can sink or swim above our own additions. To be in control, is to be able to breath and float above the calamity of own lives.

A-7: ANDREA MELNYK

Space LIFE

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; ANDREA KNARR, VISUAL ARTS

Abstract: "The Baby Boom Boogie" explores the curiously revolutionary era of culture in the 1960's; focusing on its innocence and optimism of human advancement and groundbreaking space explorations. My observations of this time through music, art, film and literature have allowed me to express this cultural history through a contemporary point of view. I project myself into a world of adventurous hope for the future, and great advancements of mankind through the pages of LIFE magazine. The photographs and articles give me inspiration to create intaglio prints collaged with magazine images; developing compositional environments, and unique content with each print.

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A-8: AMANDA ROSS

Senior gallery exhibition

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; KEVIN MUENTE, VISUAL ARTS

Abstract: For my exhibition, I'm exploring themes of science through a series of small scale paintings inspired by medieval illuminated manuscripts. I find it incredible that such extraordinary and beautiful works of art came from a period commonly referred to as the dark ages. Similarly, science illuminates the unknown in our current age. By combining the two themes, I hope to emphasize how far we have come since medieval times, and also how much more we have yet to discover.

A-9: JOHN TIBBS

Reflect(ions)

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; KEVIN MUENTE, VISUAL ARTS

Abstract: This series of paintings serves as a reflection of observed scenes through my eyes, which is being thrown back onto canvas. My intentions are of an observational painter, which aims to portray the world as I see it even if it doesn't fit inside the realm of realism. This group of work is my attempt to reflect on my childhood through a means of toys that accompanied me through my early years. The scenes vary from chaotic to somber and confident to uncertain, that elude to past experiences and feelings that question the innocence of the past.

A-10: MARY WESTWOOD

Intervals

FACULTY SPONSOR(S): DAVID KNIGHT, VISUAL ARTS; ANDREA KNARR, VISUAL ARTS

Abstract: These works stem from a fascination with deserted space. Humans make corners in the void, pathways through darkness, and steps from one habitation to the next. These uninhabited places have a presence of their own. Their stillness is imbued with the potential for movement and change. Alleys, stairs, dark paths, and doorways are considered means to an end. These works invite the viewer to stop, breathe, and explore the possibility of the path.

A-11: BRIAN WOLF

Comics for Everyone: An In-Depth Look at the Sequential Arts

FACULTY SPONSOR(S): MARC LEONE, VISUAL ARTS

Abstract: I started my senior capstone with a single goal in mind: make more comics. But that seemingly simple project exploded into something much bigger. Come for an animated discussion about making comics for print and the web, the changing nature of comics communities online and offline, and the potential future of the medium as a whole.

INTERACTIVE PRESENTATIONS

Abstracts are listed by department of the first faculty sponsor.



I-1 AUBREY ABBOTT, BRANDON BARB, KENNETH BIGGS, CASEY BINDER, ANNA BURGOYNE, JAMES FARR, MATTHEW HEMPFLING, LAUREN HERDEMAN, CLAIRE HIGGINS, JORDAN MCHUGH, JOHN MINOR, KEITH PLANTHOLT, COURTNEY PUGH, SAMANTHA REILLY, JUSTIN SCHWEBLER, THERESA WIEHOFF, STEPHEN WILDER
Photojournalism from NKU

FACULTY SPONSOR(S): MATT BAKER, COMMUNICATION
GRIFFIN HALL LOBBY, APRIL 17, 9-11:30 AM AND GRIFFIN HALL APRIL 16-18, LATE EVENING

Abstract: Students from Matt Baker's Fall 2012 photojournalism course used their cameras to tell stories and document news. This presentation is a compilation of some of the students' best work—from campus events and little-league sports to backpacking trips and skeet shooting.

I-2: ALLISON LITMER
Dystopia

FACULTY SPONSOR(S): KIMBERLY WEIR, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP
STUDENT UNION, APRIL 16, 1-3 PM

Abstract: A dystopia is a society characterized by many different things. Media and technology, corporate control, medicine, and government are just a few different variables that can lead to a dystopia. The media places ideas into the minds of society, and technology is beginning to take over our lives. Corporations are growing and beginning to dominate the industries giving them control over things such as prices and products. Medical advances such as cloning can lead to inhumane cures and decisions. Lastly, government can gain so much power that they can destroy society, cast dominant control, or be just the opposite: anarchy.

I-3: EIMAN AL-ALAMI, CANDICE ALDERSON, JONATHAN BAYS, JOHN CHRISTMANN, JAMIE CRACE, SONIA DEMOSS, TONY GUTIERREZ, DONNA HAMBLIN, KRISTE HATER, RANDALL KELLY, ELISE MERKEL, RENIA MESSER, SARAH MOHR, LOURDES RIVERA, CHRISTOPHER SIEMER, ABBY SMILEY, LORI WEIDNER, ANGELA WILSON-TRAVIS
Integrating Organizational Change with Strategic Planning—Affordable Patient Care Act

FACULTY SPONSOR(S): FREDERICK BROCKMEIER, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP
STUDENT UNION, APRIL 16, 1-3 PM

Abstract: Each team, functioning as a Human Resources task force, is designated to deal with the issues associated with the changes to the organization resulting from the implementation of the Affordable Patient Care Act, Federal legislation designed to reduce the increase in cost of providing health care to all citizens of the United States. The issues are: 1. state insurance exchanges for Kentucky, Ohio, and Indiana; 2. Medicare options for Kentucky, Ohio, and Indiana; 3. the continuation, change, or elimination of health care benefits currently provided by employers; 4. repeal and, if repealed, what would be the coverage offerings.

I-4: KRISTA HUNGLER
The Contradictions of Women in Society

FACULTY SPONSOR(S): KIMBERLY WEIR, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP
STUDENT UNION, APRIL 16, 1-3 PM

Abstract: As a society we place certain sexual standards on individuals based on their gender. We tend to give males praise or encouragement (or even leniency) when it comes to sexual acts or partners, while females are criticized and subjected to harsh judgements. Why is this? Society has sculpted us into seeing males as the Alphas through movies, TV, magazines or really any type of media. Males are dominant in our society. There are more than just sexual double standards as well. There is a huge focus for females to play two different roles at the same time: the saint and the sinner, the virgin and the whore, the intelligent but not TOO intelligent, the sophisticated and the playful, the soft and the rough...the list can go on! I am going to focus on the issues that women particularly face in society. (Even though there ARE double standards against men as well!)

I-5: EMMA THOMPSON

Gender Roles and Sexuality

FACULTY SPONSOR(S): KIMBERLY WEIR, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP
STUDENT UNION, APRIL 16, 1-3 PM

Abstract: Throughout Western history, society has stereotyped how individuals should live their lives, based on gender. Traditionally, women are considered feminine, nurturing creatures; and men are considered masculine, dominating creatures. Also, heterosexuality has been the only commonly accepted sexuality, and the traditional couple consists of a man and a woman. But through media in the past century, those who know the truth to be much more broad than the narrow minds of those who previously called the shots on acceptability, have spoken out and let everyone know that the norm itself is purely arbitrary, and it is okay to be different.

I-6: LESLIE HURST, ROSA BAKER, RYAN BRETNITZ, SOLANGE DOS REIS CORREIA, CHELSIE EDWARDS, CARMEN HAMM, RICHARD SIGLER, JENNA SMITH
Documentary Photography

FACULTY SPONSOR(S): MATTHEW ALBRITTON, VISUAL ARTS
GRIFFIN HALL LOBBY, APRIL 17, 9-11:30 AM AND GRIFFIN HALL APRIL 16-18, LATE EVENING

Abstract: Documentary photography at NKU focuses on the tradition of social documentary. Students volunteer for a local nonprofit group for the semester and photograph their experience. The work showcased here are multimedia slideshows that incorporate still imagery and recorded sound.

ORAL PRESENTATIONS

Abstracts are listed by department of the first faculty sponsor.



O-1: EMMA JONES

Shortening the Fullerene Bridge with Phenanthrolines

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM. ROOM 404

Abstract: While our research group is interested in uniting fullerene and transition metal subunits in supramolecular systems, spectroscopic investigations of our first systems have suggested that their interaction is not as strong as desired. An alternative route is to redesign the linkage between these subunits to bring them closer together. This presentation displays our work synthesizing substituted phenanthrolines that can be joined both to a transition metal and a fullerene using chemical reactions developed in our group. To date we have prepared this ligand and its complexes with rhenium and ruthenium centers. Preliminary spectroscopic results have also been performed.

O-2: HANNAH HARTIG, KATIE HENDERSON, JULIA TAYLOR, JEREMY BILBY, LEAH SCHUMACHER, PATRICK BRANDES

Utilization of Mentoring and Participatory Action Research Methodology in Exploring Non-Academic Barriers to Graduation Among High School Students

FACULTY SPONSOR(S): DANA HARLEY, COUNSELING, SOCIAL WORK, LEADERSHIP; KAREN TAPP, COUNSELING, SOCIAL WORK, LEADERSHIP; JAMES CANFIELD, COUNSELING, SOCIAL WORK, LEADERSHIP; WILLIE ELLIOTT, COUNSELING, SOCIAL WORK, LEADERSHIP
THURSDAY, APRIL 18, UNIVERSITY CENTER BALLROOM

Abstract: MSW "Family Policy" students present findings from a research study that utilized mentoring and photovoice to examine barriers to high school graduation among "at risk" students (n 46) from three local high schools. Photovoice is an innovative, non-invasive methodology that gives high school students a "voice" to express their concerns and experiences through photography. This project allowed students to be the experts on their own lives and have a voice that otherwise may not have been heard. Implications are provided for high school administrators, staff, and other policy makers in regards to addressing non-academic barriers to graduation reported by the students.

O-3: THOMAS CLARK

Counting the Costs of Colonialism: The Unintended Legacies of British Imperialism in Collins's *The Moonstone*, Hardy's *Tess of the d'Urbervilles* and Dickens's *Bleak House*

FACULTY SPONSOR(S): ANDREA GAZZANIGA, ENGLISH
WEDNESDAY, APRIL 17, 3:30-3:45 PM 102 STEELY LIBRARY

Abstract: On their faces, the novels *The Moonstone*, by Wilkie Collins; *Tess of the d'Urbervilles*, by Thomas Hardy; and *Bleak House*, by Charles Dickens, are domestic novels. Read through a domestic lens, they can be studied as parochial stories of morality. But a more expansive inquiry reveals individual stories that can be read as

metaphors that dive into foreign waters—cautionary tales that reveal the intrusion of the foreign into the domestic. Written at the height of the British Empire's powers, these novels collectively presaged the decline of the Empire and the national anguish that was to accompany the Empire's decline.

O-4: CODY HEDGES

The Birth of Tragedy: Nietzsche's Duality in *Hamlet*

FACULTY SPONSOR(S): TONYA KROUSE, ENGLISH
WEDNESDAY, APRIL 17, 1:45-2 PM 102 STEELY LIBRARY

Abstract: Friedrich Nietzsche's *The Birth of Tragedy from the Spirit of Music* is in the words of Walter Kaufmann, "one of the most suggestive and influential studies in tragedy ever written." For Nietzsche, high tragedy is produced by the continuous strife and occasional reconciliation of two great forces: the internal "plastic" Apollonian, and the outer "chaotic" Dionysian. This dynamical exchange is best illustrated using Shakespeare's *Hamlet*, for in it, we see violent discordance turn to seamless harmony. This harmony or reconciliation is represented by the concurrence of Hamlet's death and sense of justice and rectitude.

O-5: PATRICK MCGEE, REX TROGDON

***Loch Norse Magazine* and *Licking River Review* present a Reading and Open Mic in Celebration of National Poetry Month**

FACULTY SPONSOR(S): STEVE LEIGH, ENGLISH; ANDY MILLER, ENGLISH; KELLY MOFFETT, ENGLISH

THURSDAY, APRIL 18, 1-3 PM, TENT ON PLAZA NEAR FOUNDERS' HALL

Abstract: In celebration of National Poetry Month, the editors of NKU's literary journals, *Licking River Review* and *Loch Norse Magazine*, will host a reading and open mic for the Celebration of Student Research and Creativity. The featured readers will include students selected for publication in this year's issues, and the open mic will encourage other writers of the NKU community to share their poetry and prose. The editors of each magazine, Patrick McGee and Rex Trogden, will emcee the event. Both journals are sponsored by student life and have faculty advisors from the English Department.

O-6: MINADORA MACHERET

The Holocaust and Survival: An Exploration through Poetry

FACULTY SPONSOR(S): KELLY MOFFETT, ENGLISH
WEDNESDAY, APRIL 17, 1:30-1:45 PM 102 STEELY LIBRARY

Abstract: I have taken my grandmother's account of surviving the Holocaust and represented it through poetry. In this collection I have incorporated her stories, recipes, and her will to survive through the use of vivid imagery and free verse poetry. This has given me the opportunity to connect and give her story to future generations to remember. I learned how to use my grandmother's stories as a poetic medium to bridge connections between our generation and hers.

O-7: CAITLIN NEELY

Selections from *Explosure*: Poetry Reading and Discussion of Lyricism

FACULTY SPONSOR(S): KELLY MOFFETT, ENGLISH
WEDNESDAY, APRIL 17, 3:15-3:30 PM 102 STEELY LIBRARY

Abstract: I will read selections from my poetry chapbook *Explosure*. The poems were written to study lyricism, landscape, and voice. I will also explore what I have learned during my Honors capstone such as the poetic line, and my understanding of nature and how it affects my poetry.

O-8: STACEY BARNES

Emily's Window

FACULTY SPONSOR(S): ROBERT WALLACE, ENGLISH
WEDNESDAY, APRIL 17, 2-2:15 PM 102 STEELY LIBRARY

Abstract: The quilt, *Emily's Window*, is an interpretation of what Emily Dickinson may have seen as she looked out of her window while caring for her ailing mother. Flowers and birds are the primary subject of over one half of Emily Dickinson's poems and give the reader a glimpse of the things Dickinson cherished during her lifetime. I chose to make a quilt because it is lasting, expressive and easily displayed for anyone's enjoyment. I used colors for each flower that I believe project a sense of joy and happiness. The yellow background in the quilt represents sunshine and gaiety and gives a clear view of the life Dickinson longed for as she closed herself off from interaction with her community.

O-9: RACHEL HARPE

My Cocoon Tightens—Colors Tease: An Artistic Representation of Emily Dickinson's Poem 1099

FACULTY SPONSOR(S): ROBERT WALLACE, ENGLISH
WEDNESDAY, APRIL 17, 2:15-2:30 PM 102 STEELY LIBRARY

Abstract: My paper-cut piece is a representation of Emily Dickinson's poem 1099, "My cocoon tightens—colors tease." I felt I could express this beautiful poem with the silhouette of Dickinson surrounded by numerous butterflies and a riot of watercolor splashes underneath. Instead of a tease of color, I wanted to portray the colors of many butterflies already flitting through the sky, a chaotic haze of watercolor brushes across the sky. The undertone of the poem for me is hope, hope that one-day people can shed their societal personas and be who they want to be.

O-10: MINADORA MACHERET

An Emily Dickinson Letter Box

FACULTY SPONSOR(S): ROBERT WALLACE, ENGLISH
WEDNESDAY, APRIL 17, 2:30-2:45 PM 102 STEELY LIBRARY

Abstract: I created a series of responses to Emily Dickinson's famous "Master" Letters from male and female voices using 1800's style speech. I did this to reply to Dickinson's unanswered "Master" Letters, which would provide insight into the types of relationships Dickinson may have had. They are represented visually through the use of an empty drawer, lined with aged letters and felt flowers. I learned how to emulate 1800's style of writing, as well as how those closest to Dickinson may have felt through their limited correspondence.

O-11: KEIANNA TROXELL

Gib Dickinson

FACULTY SPONSOR(S): ROBERT WALLACE, ENGLISH
WEDNESDAY, APRIL 17, 2:45-3:00 PM 102 STEELY LIBRARY

Abstract: For my final project in a course in Emily Dickinson and the Arts, I created an art piece about Dickinson's nephew. I drew a picture of his face and hands using black marker on white paper. To make the boy's dress, I used pictures that he had pasted to his closet door as a child and made a collage of them. I then cut out the shape of his dress and mounted the body to the dress. To create the background, I wrote out Dickinson's poem 341. I gained a better sense of her poetry through creating this art piece.

O-12: CHRISTINA MCGEE

At Any Price: BP, Oil and the Gulf of Mexico

FACULTY SPONSOR(S): JOHN METZ, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: On April 22, 2010, the drilling rig Deepwater Horizon, crippled by an explosion, collapsed and sank into the Gulf of Mexico. It touched off one of the worst oil spills in United States history. This project discusses the factors that contributed to the disaster, and highlights the impact the spill had on the fragile—and invaluable—ecosystems of the Gulf. It also poses some difficult questions. Can we really "clean up" such a spill? Who is to be held liable, and how? And, perhaps the most important of all, can we prevent this from happening in the future?

O-13: ARIN ARNOLD

Women of Southeast Asia

FACULTY SPONSOR(S): JONATHAN REYNOLDS, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: This paper seeks to identify patterns in the lives of women throughout countries in Southeast Asia. It will examine women of varying religious, cultural, economic, and geographic backgrounds. By providing different examples of cultural paradigms, this paper will argue that there is a culture unique to Southeast Asia, from its early regional religions and Chinese and Indian influences in culture, to the development of cities after Western colonization. By providing a historical perspective on Southeast Asian culture, this paper will highlight women's lives from yesterday and seek to explain how they came to live the lives they do today.

O-14: ABIGAIL QUIROA

Persuasion, Purity, and Politics: Votes for Bluegrass Women!

FACULTY SPONSOR(S): JONATHAN REYNOLDS, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: This paper examines the women's suffrage movement, in particular the unique struggle for suffrage in Kentucky. The research spans over 80 years of Kentucky history from the first mention of women's suffrage to the passing of the 19th Amendment. The paper explores the debate between the anti-suffragists and suffragists. Kentuckians wanted equal rights. This paper shows that through objections, obstacles in popular science, religious subordination, and educational difficulties, Kentucky suffragists were able to gain some equality and pass the Amendment. Family histories, public records, and writings on suffrage were used to capture the nature of the movement in Kentucky.

O-15: SHANE WINSLOW, ANDREW BOEHRINGER

The Process of the Ascent: A Cultural History of Stairways in Cincinnati

FACULTY SPONSOR(S): JONATHAN REYNOLDS, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: This will be an oral presentation on The Process of the Ascent: A Cultural History of Stairways in Cincinnati project. It will examine the step by step details on how the project developed, from the beginning idea, cross-cultural research in Quito, Ecuador, international conferences at the University of Amsterdam, and the research prepared for publication by publishing houses such as Ohio University Press. This project remains in process and will serve as an introspective examination of its development by the creators.

O-16: ROSIE SANTOS

El Campo

FACULTY SPONSOR(S): MEREDITH SMITH, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: "El Campo" is a service-learning project utilizing the theory of action

research. The purpose of research is to assess the needs of mothers in the Price Hill, Latino community in regards to the access to natural space and nature education for their children. The subjects of the case study are the student participants in Church of Our Saviour's Learning Club. The ultimate goal of the research is to create relevant environmental education programming at Imago Earth Center for the Learning Club students.

O-17: KAYLA ELLISON

Healthy Life, Healthy Mind, Healthy Students: The Well-Being of African American Students

FACULTY SPONSOR(S): MICHAEL WASHINGTON, HISTORY & GEOGRAPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: A person's well-being is defined as being happy and healthy. In the growing days of technology, money, and status, well-being can be a hard thing to come by. A person's measured well-being can be different due to race, environment, and stress intake. This oral presentation is on the well-being of African American students. My plan is to do a literature review and present on the research that has been reported. Future research may include a research project on Northern Kentucky University. I want to compare findings with all ethnic groups on campus. By presenting a literature review and presentation, it sets an outline for future research on this campus. I find this topic to be meaningful, because it displays the well-being of African American students on other campuses. A project like mine will explain why it is important to study the well-being of students and how to promote programs that can advocate healthy living.

O-18: LAUREN GABBARD

The Gold Standard: Stability and Political Feasibility

FACULTY SPONSOR(S): MICHAEL BARANOWSKI, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP
TUESDAY, APRIL 16, 1:40-2 PM, FOUNDERS HALL, ROOM 211

Abstract: This paper addresses the question: Would a return to a gold standard provide a more stable economy and is this action politically feasible? It first reviews literature from those that support and oppose a gold standard. It next analyzes data during and after the gold standard and compares it to the Federal Reserve's practice of manipulating the money supply to conclude that the gold standard would not provide a more stable economy. It then reviews the support the gold standard has among politicians, and concludes that a transition to a gold standard is unlikely.

O-19: CHRISTOPHER BURDETT

The Media and Male Androgyny in Japan

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY
THURSDAY, APRIL 18, 3-5 PM, LANDRUM, ROOM 404

Abstract: This paper examines the ethnohistorical tendency of the Japanese culture to allow cross-gender expression in entertainment and argues that the current fashion trends toward androgynous Japanese males warrants directed anthropological consideration. Japanese media is gaining popularity in world markets in the form of anime, manga, costume play, visual kei, and other fashion trends, and it influences not only the young people of Japan but also countries importing Japanese cultural media. This paper explains the popularity of cross-gender dress and the social mechanisms supporting its spread, while raising questions for future field studies.

O-20: JORDAN HENSLEY

Monologue, selected reading from Pedro Calderón de la Barca's 'La Vida Es Sueño'

FACULTY SPONSOR(S): LANDWEHR HILARY, WORLD LANGUAGE & LITERATURE
WEDNESDAY, APRIL 17, 3:30 PM, LANDRUM ROOM 107

Abstract: Pedro Calderón de la Barca is one of the most influential 17th century playwrights of the Spanish Golden Age and *La Vida Es Sueño* is arguably one of his most critical works. Protagonist Segismundo falls victim to Plato's Allegory of the Cave. Begin imprisoned by his father at birth and developing a false sense of reality triggers Segismundo into believing that life is merely a dream. This twisted sense of right and wrong is the key conflict in the play. This monologue depicts Segismundo's internal struggles with deciphering what life truly is.

O-21: SHAWN REHKAMP

Blossoms of the Brain

FACULTY SPONSOR: ROBERT WALLACE
WEDNESDAY, APRIL 17, 3-3:15 PM 102 STEELY LIBRARY

Abstract: "Blossoms of the Brain" is meant to showcase each of the final projects presented in a class on Emily Dickinson and the Arts. It categorizes each creative work by its type (visual art, performed art, or creative writing) and presents the piece alongside information submitted by each creator and comments from classmates. The design of the site is meant above all to be simple and intuitive but also to have a degree of entertainment.

POSTER PRESENTATIONS

Abstracts are listed by department of the first faculty sponsor.



P-1: AMBER HENNING, SHERILYN HOYDAL, ANNA LEICHTER

Case #7 Lung Cancer and its Complications

FACULTY SPONSOR(S): TOM BAXTER, ALLIED HEALTH

Abstract: This was a group collaborative project for Radiologic Technology and Respiratory Care students. Patient Case #7 was researched for pathophysiology, radiographic images, respiratory care interventions suggested diagnosis of lung cancer and complications. A 72 year old woman presented with increasing dyspnea, productive cough, and weight loss. Her significant smoking history and tumor, in right middle lung, are associated with lung cancer. Further testing such as a biopsy and CT scan will confirm diagnosis. Recommended treatments include, but are not limited to, surgery, bronchial hygiene, and antibiotics. Prognosis varies depending on size, location, and stage of tumor development.

P-2: TARA NORDMAN, EMILY RIESENBECK, ELIZABETH SLOCUM

Case #10 Secondary Spontaneous Pneumothorax

FACULTY SPONSOR(S): ANDREA CORNUELLE, ALLIED HEALTH

Abstract: This was a group collaborative project for Radiologic Technology and Respiratory Care students. Patient Case #10 was researched for pathophysiology, radiographic images, respiratory care interventions and suggested diagnosis of secondary spontaneous pneumothorax. Ms. P had left sided chest pain, dyspnea, chills, fatigue and respiratory distress. She had long history of asthma; non-smoker. Percussion revealed hyperresonance on the left; auscultation was diminished on the left. On chest x-ray trachea was deviated left. Suspected diagnosis of spontaneous pneumothorax. Recommendations are to continue chest x-rays to determine if pneumothorax resolves; if not chest tube insertion, oxygen, consider needle decompression.

P-3: ERICA HERALD, EILEEN ERION, ASHLEIGH GROVE

Case #5 Bronchiectasis

FACULTY SPONSOR(S): DEBORAH PATTEN, ALLIED HEALTH

Abstract: This was a group collaborative project for Radiologic Technology and Respiratory Care students. Patient Case #5 was researched for pathophysiology, radiographic images, respiratory care interventions and suggested diagnosis of bronchiectasis: 26 year old Mr. M presented to a pulmonary clinic with complaints of dyspnea, a productive cough, occasional hemoptysis and difficulty maintaining weight. On physical exam: digital clubbing, wheezes, crackles, and hyper resonance on percussion. He is a non-smoker with frequent respiratory infections. At age 11, he was diagnosed with bronchiectasis; he had a Sweat Chloride Concentration of 67 mEq/L. He was then started on regular bronchodilator therapy.

P-4: ANTHONY BANKEMPER, MOLLIE BECK, RYAN DURBIN, ELIZABETH HALL

Project FORCE (Focus on Occupations, Recruiting, Community, and Engagement) in STEM

FACULTY SPONSOR(S): BETHANY BOWLING, BIOLOGICAL SCIENCES; MAUREEN DOYLE, COMPUTER SCIENCE

Abstract: Project FORCE (Focus on Occupations, Recruiting, Community, and Engagement) spans five academic departments and seeks to increase the recruitment, graduation, and retention rate of students in STEM (Science, Technology, Engineering, and Mathematics) disciplines. This multidimensional project includes STEM living and learning communities, STEM Ambassadors, and undergraduate research opportunities for students in STEM disciplines (UR-STEM). The project, in its third year, has seen 30 students work as STEM Ambassadors, 145 students attend peer learning sessions, and 62 students participate in UR-STEM. The project is funded by the National Science Foundation (DUE STEP grant #0969280).

P-5: JOSEPHINE BROWN

Spontaneous Alternation Behavior in Offspring of Heterozygous *Cyplal1a2*(+/-) mice

FACULTY SPONSOR(S): CHRISTINE CURRAN, BIOLOGICAL SCIENCES; SMITHA INFANTE, BIOLOGICAL SCIENCES

Abstract: Previous work in our lab uncovered motor deficits in *Cyplal2*(-/-) mice lacking the metabolic enzyme CYP1A2 and in a related strain of double knockout *Cyplal1a2*(-/-) mice. We generated heterozygous *Cyplal1a2*(+/-) mice to determine if there is a gene-dose effect. We are conducting a behavioral battery of tests on the offspring of heterozygous parents which include wild type (+/+) mice, heterozygous (+/-) mice and knockout (-/-) mice. Here, we present data on spatial working memory. We used the Y-Maze test of spontaneous alternation behavior and allowed mice to freely explore a three-armed maze for 5 min., calculating the percent of actual v. possible alternations from one arm to the next.

P-6: BREANN HAYS**Assessing Anxiety in Wild Type, Heterozygous and Double knockout *Cyp1a1_1a2*(-/-) mice**

FACULTY SPONSOR(S): CHRISTINE CURRAN, BIOLOGICAL SCIENCES; SMITHA INFANTE, BIOLOGICAL SCIENCES

Abstract: Previous work in our lab uncovered motor deficits in *Cyp1a2*(-/-) mice and in a related strain of double knockout *Cyp1a1_1a2*(-/-) mice. We generated heterozygous *Cyp1a1_1a2*(+/-) mice to determine if there is a gene-dose effect, and we have expanded our behavior tests to more completely characterize the effect of gene loss on brain function. We are conducting tests on the offspring of heterozygous parents which include wild type (+/+) mice, heterozygous (+/-) mice and knockout (-/-) mice. To explore differences in behavior, we compared marble-burying behavior which is a commonly used measure of anxiety. Mice were placed into a shoebox cage for 20 min. with 3cm of bedding with 15 marbles. The number of marbles buried was compared.

P-7: MOLLY KROMME, HELEN GARBER, BREANN HAYS,**JOSEPHINE BROWN****Behavioral Characterization of Wild Type, Heterozygous and Double knockout *Cyp1a1_1a2*(-/-) mice**

FACULTY SPONSOR(S): CHRISTINE CURRAN, BIOLOGICAL SCIENCES; SMITHA INFANTE, BIOLOGICAL SCIENCES

Abstract: After prior work in our lab uncovered motor deficits in *Cyp1a2*(-/-) mice and in a related strain of double knockout *Cyp1a1_1a2*(-/-) mice, we generated heterozygous *Cyp1a1_1a2*(+/-) mice to determine if there is a gene-dose effect. We also expanded our battery of tests to determine if other behaviors were affected by the loss of the CYP1A1 and CYP1A2 enzymes. Here we report results from open field locomotor activity and acoustic startle with pre-pulse inhibition. These tests can identify animals with hyperactivity and abnormal sensory gating. Abnormal results would indicate that brain regions beyond those required for normal motor function are affected.

P-8: MINDY STEGMAN, ANNA LANG, KELSEY TAYLOR, HELEN GARBER**Analysis of Gene Dose Effects on Motor Function in *Cyp1a1_Cyp1a2*(-/-) double knockout and Heterozygous *Cyp1a1_Cyp1a2*(+/-) mice**

FACULTY SPONSOR(S): CHRISTINE CURRAN, BIOLOGICAL SCIENCES; SMITHA INFANTE, BIOLOGICAL SCIENCES

Abstract: CYP1A1 and CYP1A2, members of the cytochrome P450 superfamily, are key detoxifying enzymes normally expressed in the liver. Though they are reportedly expressed in the cortex and cerebellum of the brain, their physiological function in the brain remains unknown. Previous work in our lab uncovered motor deficits in *Cyp1a2*(-/-) knockout mice which lack CYP1A2 and in a related double knockout *Cyp1a1_1a2*(-/-) line of mice. We are comparing wild type and double knockout mice with *Cyp1a1_1a2*(+/-) heterozygous mice to see if there is a gene-dose effect. We will present results from the balance beam test. Mice were trained to walk across a 100cm beam that narrows from 25cm to 5cm in width. Mice were scored for foot slips and dips and the time required to cross the beam.

P-9: GREGORY BARTH, COURTNEY GRAVES**A Decade of Ichthyologic Demography: Meta-analysis of Ten Years of Biotic Integrity Analysis**

FACULTY SPONSOR(S): RICHARD DURTSCHKE, BIOLOGICAL SCIENCES

Abstract: A decade of NKU vertebrate zoology ichthyological (fish) data were evaluated from Grassy Creek (Pendleton County, KY) and Gunpowder Creek (Boone County, KY). Gunpowder Creek is historically polluted from airport runoff (anti-freeze) and housing development, while Grassy Creek is a natural stream free of any major industrial pollution (a control system). We performed a Kentucky Index of Biotic Integrity (KIBI) analysis on each set of data for both locations and graphed the results over time to monitor fluctuations in environmentally sensitive fish species. Three bioassessment techniques (backpack electrofishing, kick seining, and large seining) were used and evaluated for this study.

P-10: WESLEY PARSONS, MITCH MERCER**Diurnal Activities and Metabolism of the Lazarus Lizard (*Podarcis muralis*) as an Introduced Species**

FACULTY SPONSOR(S): RICHARD DURTSCHKE, BIOLOGICAL SCIENCES

Abstract: A founder population (10 individuals) of Lazarus lizard (*Podarcis muralis*), introduced from Italy in 1952, has since grown exponentially throughout the Greater Cincinnati area where they thrive in urbanized saxicolous microhabitats. Our research evaluates the niche of these introduced lizards to determine if they 1) occupy a vacant urban niche, and 2) pose a threat to the local ecosystem. We study the foraging ecology of these lizards, as well as their time-activity budgets. An ontogenetic range of individuals within the species is currently being tested for differences in metabolic rates with a respirometry gas analysis system.

P-11: JAMES BROWN, ZACH POYNTER**Effectiveness of a Wetland to Improve Water Quality of Stormwater Runoff**

FACULTY SPONSOR(S): KRISTINE HOPFENSBERGER, BIOLOGICAL SCIENCES

Abstract: Wetland construction can improve runoff water quality prior to continuing down the watershed. The purpose of this research project is to analyze stormwater runoff into and out of a wetland at Burlington Elementary in Boone County. Water quality analyses including total dissolved solids (TDS), total suspended solids,

phosphorus, ammonium, and nitrate concentrations were performed. The results of this water quality project determined improved runoff water quality from the wetland. Nitrate, ammonium, and phosphorus levels all showed a decrease in concentration at the outlet compared to the inlet during storm events.

P-12: MILLICENT FRIMPONG-MANSO**Adventure into the Microbial World that Nurtures Brittle Stars in a Bahamas Cave**

FACULTY SPONSOR(S): MIRIAM KANNAN, BIOLOGICAL SCIENCES

Abstract: We report here on the microbial community at the open entrance of Bernier Cave, San Salvador Island, Bahamas. The purpose of our study was to identify and culture the organisms that would provide food for the brittle stars. We cultured diatoms (*Surirella* and *Achnanthes*), cyanobacteria, several protozoans, and bacteria. This poster will present a photographic tour of the wonderful microbial life in our study site.

P-13: STEFANIA GUGLIELMI, ALEXUS RICE**Collection and Identification of Potentially Toxic and Allergenic Cyanobacteria from the Greater Cincinnati Area**

FACULTY SPONSOR(S): MIRIAM KANNAN, BIOLOGICAL SCIENCES

Abstract: We report the recent occurrence of cyanobacterial blooms from several ponds in Ohio and Northern Kentucky from 2012 to present. Many cyanobacteria produce liver and/or neurotoxins, and exposure to cyanotoxins can also produce dermatological and allergenic effects; therefore, monitoring their presence in ponds is important to public health. The most prevalent cyanobacteria in all our samples were several morphospecies of *Microcystis*, (potentially a liver toxin producer). We also found cyanobacteria in the genera *Anabaena*, *Oscillatoria*, *Planktothrix*, *Woronichinia*, *Pseudoanabaena*, *Aphanizomenon*, *Merismopedia*, *Anacystis*, *Synechococcus*, and *Lyngbya*. The samples are being cultured and analyzed for toxin production at the U.S. EPA.

P-14: TAYLOR TEVIS**Isolation of Bacteria from the Mouth and Feces of Venomous Snakes.**

FACULTY SPONSOR(S): MIRIAM KANNAN, BIOLOGICAL SCIENCES

Abstract: In the gut of a typical human, there exists more bacterial cells than human cells in the entire body. Although it is unknown, there is likely a similar trend among other higher vertebrates. Because of the potential hazards associated with handling venomous snakes, even less is known about their bacterial flora. Bacteria were isolated from the mouth and gut of the following venomous snakes: the eastern diamondback (*Crotalus adamanteus*), the St. Lucian viper (*Bothrops caribbeus*), the Asian cobra (*Naja kaouthia*) and the forest cobra (*Naja melanolouca*). The bacteria were then isolated for purity and identified. Knowing the bacterial flora that inhabit the bodies of venomous snakes is important because of the possibility of zoonotic bacterial infection. This is of particular importance when bacteria are inoculated into humans via snake-bite.

P-15: DIANNEA WILSON**Analysis of *Microcystis aeruginosa* and *Microcystis wessenbergii* with Dark Field and Scanning Electron Microscopy**

FACULTY SPONSOR(S): MIRIAM KANNAN, BIOLOGICAL SCIENCES

Abstract: The examination of morphological characteristics for various *Microcystis* morpho-species exposes information needed to determine why certain morpho-species are surviving predominantly in cold water. These cyanobacteria can form harmful algal blooms (HABs) in eutrophic freshwater. They can contaminate drinking water supplies and aquatic habitats. The Scanning Electron Microscope (SEM) and the Dark Field Microscope were utilized to evaluate key species characteristics. The focus is on *Microcystis aeruginosa* and *Microcystis wessenbergii*. Measurement of the gelatinous amorphous mucilage made with both microscopes reveals considerable differences between these two morpho-species.

P-16: BERIS DIZDAR**Immunoreactive Regions of the Human Metapneumovirus G Protein**

FACULTY SPONSOR(S): JOSEPH MESTER, BIOLOGICAL SCIENCES

Abstract: Human metapneumovirus (HMPV) is a highly prevalent virus that can cause severe respiratory infection. The G protein of HMPV is a potential vaccine target, but immune responses to the G protein have not been well-defined. The purpose of this study was to determine the immune cytokines elicited by HMPV G peptides when added to human macrophages. Cytokine expression was monitored by real-time polymerase chain reaction. Exposure to HMPV G peptides elicited both protective and potentially pathologic cytokines. These results demonstrate that regions of the HMPV G protein are recognized by human macrophages and may influence the outcome of HMPV infection.

P-17: BRANDY ASHCRAFT, JAMES CREAGER, TATUM DAVIS**Investigating the Mechanism of Genomic Instability Due to Haploinsufficiency in Aromatic Amino Acid Metabolism**

FACULTY SPONSOR(S): ERIN STROME, BIOLOGICAL SCIENCES

Abstract: To identify novel cancer susceptibility loci, our group previously undertook a screen in the yeast *S. cerevisiae* to assess the genome for heterozygous mutations that modify genomic instability. Gene ontology analysis of the resulting gene list showed a significant population of genes involved in amino acid and derivative metabolism. Accordingly, we have begun a more detailed examination focusing on genes involved in the biosynthesis and transport of aromatic amino acids. We have found significant

increases in instability due to gene mutations functioning at the endpoints of the phenylalanine, tryptophan, and tyrosine biosynthesis pathways. These heterozygous mutations impact both chromosome fragment loss rates and whole chromosome loss rates as measured by two instability assays. Instability is compounded on a gene specific basis in strains further starved for these amino acids through media depletion. We hypothesize that changes in available amino acids pools impact genomic instability via altering the nutrient-sensing TOR regulatory pathway. Work is underway to test impacts of TOR depletion on genomic instability and to characterize the TOR activity in these heterozygous strains.

P-18: JOHN CRUM, ARIANNA CABRALES

Dosage Sensitivity of *msh5* in Regards to Genomic Instability in Yeast

FACULTY SPONSOR(S): ERIN STROME, BIOLOGICAL SCIENCES

Abstract: Previously collected data suggests that heterozygous mutations in certain *Saccharomyces cerevisiae* genes cause an increase in genomic instability that is greater in yeast strains that are deficient in the *rad9* checkpoint gene, a homolog of the human gene *BRCA1*. Preliminary data on strains with a heterozygous mutation in *msh5* showed an increase in genomic instability, both in wild type strains and in *rad9* deficient strains. We are now in the process of creating strains in which the *S. cerevisiae* genome is missing both copies of *msh5*. One of the two newly created strains will contain a wild type *RAD9* gene, while the other is homozygously mutated for *rad9*. Data from sectoring and fluctuation analyses performed on these newly created strains will be compared to each other and to the previously collected data on heterozygous mutants. This comparison will determine if there is a statistical difference in genomic stability between the strains. Also of future interest for the project is the task of examining any possible links between *msh5* mutations and mutations in checkpoint genes other than *RAD9* in order to determine if the previously suggested link to genomic instability is specific to mutations in *msh5* and *rad9*.

P-19: GEORGE GARDNER, BALINT ZSIDAI

Searching for Haploinsufficiency Effects of Dicarboxylic Amino Acid Biosynthesis Genes on Genome Stability in *Saccharomyces cerevisiae*

FACULTY SPONSOR(S): ERIN STROME, BIOLOGICAL SCIENCES

Abstract: Previous research has shown mutations in cellular metabolism genes can lead to genome instability, a hallmark of cancer. Our studies use the yeast *Saccharomyces cerevisiae* to investigate chromosome loss, caused by heterozygous mutations in genes involved in the metabolism of amino acids. Genome instability has been shown to be significantly higher in yeast strains deficient in the checkpoint gene *rad9*. Since this gene is homologous to the human *BRCA1* gene, the results of this research are applicable to the human model. Our project has centered on the investigation of the impact of haploinsufficiency of dicarboxylic amino acid biosynthesis and transporter genes. Genes involved in dicarboxylic amino acid biosynthesis were mutated in two yeast strains, one wild type for *RAD9* and one deficient in *rad9*. Utilizing two genome stability assays, sectoring analysis and fluctuation analysis, we are able to measure chromosome fragment and whole chromosome loss. Statistical analysis of the collected data is then used to determine how specific mutations, on their own and in combination with deficiency in *rad9*, affect genome stability.

P-20: JUSTIN GIBSON, ERIN STROME

Investigation of Genome Instability Due to Mutations in the SAM1 Gene and Checkpoint Deficiencies

FACULTY SPONSOR(S): ERIN STROME, BIOLOGICAL SCIENCES

Abstract: The goal of this project is to explore the role of particular gene mutations in the formation of cells that are genomically unstable, a phenotype often seen in cancer. To study these gene mutations we utilize the budding yeast *Saccharomyces cerevisiae*, which has conservation of many proteins involved in genome maintenance, thereby making our findings applicable to human cells. Previous research by our group identified a set of genes shown to have genome instability effects when combined with a checkpoint deficiency. My research has focused on one of these genes called *SAM1*. *SAM1* encodes for an enzyme that catalyzes the formation of S-adenosyl methionine (AdoMet) from methionine and ATP. AdoMet is conserved in human cells where changes in its concentration have been implicated in genome instability. We first sought to measure the dosage effects of mutations in this gene on genome stability using two different phenotypic assays, sectoring and fluctuation analysis. These tests confirmed that heterozygous mutations of *sam1* result in a significant increase in genome instability, in both *rad9*-deficient and wild type backgrounds. We have noted an interesting phenotype of increased genomic instability due to haploinsufficiency of *SAM1* compared to complete loss of the gene. This result will be further investigated in combination with measuring the impact of *sam1* mutations in various checkpoint deficient backgrounds.

P-21: GABRIELLE SEVILLA, FATIMA MOHMOUD

Impact of Branched-Chain Amino Acid Availability on the Genome Stability of Yeast Cells

FACULTY SPONSOR(S): ERIN STROME, BIOLOGICAL SCIENCES

Abstract: Prior research has shown that mutations in genes involved in cellular metabolism can increase genome instability. However, the range of genes that have this effect as well as the mechanism of how this occurs has not been investigated. In this research project, we are focusing on genes in the branched-chain amino acid biosynthesis pathway. To begin research, heterozygous mutations were made replacing ten separate genes with a selectable marker deletion cassette. These strains were all

then tested for genomic instability via a colorimetric assay that measures loss of a chromosome fragment from the cell. The results from this assay have caused us to focus on four of these genes *LEU1*, *LEU9*, *ILV1*, and *ILV2*. Multiple trials for each of these strains have been performed in order to get consistent results and allow us to test for significance in this assay. Trials are underway for a second genome instability assay that measures whole chromosome loss rate due to mutations in these genes. Preliminary investigation into the position of action indicates a clustering of these genes in the biosynthesis super pathway of leucine, isoleucine, and valine; therefore we have also begun exploration of additional genes functioning in this region of the biosynthesis network: *ILV3*, *ILV5*, *ILV6*, *BAT1*, and *BAT2*. Future directions for the project are to investigate the dosage sensitivity and mechanism of action in the strains that show increased instability of their genomes.

P-22: KELSEY SHOTZBARGER

Vascular Flora of the St. Anne Wetlands

FACULTY SPONSOR(S): MAGGIE WHITSON, BIOLOGICAL SCIENCES

Abstract: St. Anne's Wetlands are one of the best remaining wetlands along the Ohio River. It functions as an education and research environment for students and scientists. Our research focuses on collecting and databasing the vascular plants found at St. Anne's. Plants will be pressed, dried, identified, and their label data entered into the NKU Herbarium's database. Pressed specimens will be kept for reference and future study. This will allow people interested in the flora at St. Anne's to have a list of the species located there. Species lists are a useful tool for education, research, and management of rare species.

P-23: KAITLIN CAHILL, REBECCA SUTTMILLER

Simple and Inexpensive Electrochemical Detection of Thrombin and its Inhibitors

FACULTY SPONSOR(S): KEBEDE GEMENE, CHEMISTRY

Abstract: The detection of proteolytic enzymes, like thrombin, and their inhibitors are critical for disease diagnosis because these enzymes are involved in most cellular activities. The most commonly used method, spectroscopy with fluorogenic/chromogenic substrates, is sensitive but cannot be used reliably in colored samples like blood. Here, a reversible electrochemical method called pulsed chronopotentiometry is used for the detection of thrombin activity using synthetic peptides as substrates. The response to a synthetic peptide, which is a function of concentration, is first measured. Then thrombin is added to the peptide solution and the response is monitored as the enzymatic reaction takes place.

P-24: VICHETH KONG, ABIGAIL MCBEE, AARON MURPHY

Photochemistry and Photophysics of Common Pharmaceuticals

FACULTY SPONSOR(S): PATRICK HARE, CHEMISTRY

Abstract: A wide variety of pharmaceuticals are found in surface waters where they can affect the development of wildlife. Many can be broken down by sunlight. The photophysics and photochemistry of some of the more commonly found pharmaceuticals, such as estrone, 17-beta estradiol, progesterone, and acetaminophen, will be discussed, and their photochemical products identified.

P-25: THUY DO, QUINTIN HAUSER, TAYLOR KIDD

Synthesis and Biological Evaluation of Chalcone Derivatives as Xanthine Oxidase Inhibitors

FACULTY SPONSOR(S): LILI MA, CHEMISTRY; STEFAN PAULA, CHEMISTRY

Abstract: Xanthine Oxidase is an attractive target in the treatment of gout. Current medicines have some problems such as side effects and high dose. We present here the design and development of xanthine oxidase inhibitors originating from bioactive natural products. A small library of twenty chalcone compounds was developed by utilizing the aldol reactions. Their inhibitory effects against xanthine oxidase were determined by a spectroscopic assay that followed the oxidation of xanthine to uric acid over time. So far, one of all the synthesized compound, DD-A073 was found to be active. These chalcone derivatives may provide useful information in the development of pharmaceutical candidates for gout.

P-26: QUINTIN HAUSER

Xanthine Oxidase Inhibition Explored by Alternating Functional Groups in Synthesized Chalcone Derivatives

FACULTY SPONSOR(S): LILI MA, CHEMISTRY; STEFAN PAULA, CHEMISTRY

Abstract: Xanthine oxidase inhibitors and their potential medicinal properties have been pressing topics in medical research for the past few years. XO inhibitors are currently used for the treatment of hyperuricemia and have demonstrated positive effects towards the prevention of cardiovascular disease. Chalcone derivatives have been shown to inhibit the xanthine oxidase enzyme as well as provide an array of health supporting properties, including anti-tumor, free radical scavenging, antibiosis, anti-ulcer, and antiviral. In this research, we synthesized and characterized chalcone derivatives with a primary focus on producing a molecule that has the greatest affinity for the active site of xanthine oxidase.

P-27: REBECCA KIDNEY

New Selective Nonsteroidal Aromatase Inhibitors: Synthesis and Characterization of 3-phenyl-1H-isochromen-1-one

FACULTY SPONSOR(S): LILI MA, CHEMISTRY

Abstract: In the course of this past summer, reactions conditions were tested to start

a new scaffold entitled isocoumarins. Two main reaction schemes were utilized, both having a two-step process. The first being a Sonogashira coupling and the second being a cyclization reaction. One scheme included an iodine on the parent structure and the other scheme did not. From these reactions, six isocoumarin derivatives were synthesized using both reaction schemes. These compounds were characterized by proton NMR, ^{13}C NMR, and HRMS. The purity of each compound was established by HPLC analysis.

P-28: EMILY HOFMANN

Inhibition of the Sarco/Endoplasmic Reticulum Calcium ATPase Enzyme Observed in Two Cell Lines with Fluorescence Calcium Imaging

FACULTY SPONSOR(S): STEFAN PAULA, CHEMISTRY

Abstract: The goal was to observe the effect of inhibitors of the sarco/endoplasmic reticulum calcium ATPase (SERCA) on calcium homeostasis in both healthy and cancerous human cell lines by fluorescence imaging. Human fibroblasts and prostate cancer cells were grown in culture and loaded with Fura2-AM dye, allowing the continuous monitoring of intracellular calcium concentrations as a controlled dosage of inhibitor was introduced. The experimental data showed that all inhibitors tested disrupted calcium homeostasis, which manifested by a sharp increase in intracellular calcium levels. Future directions seek to investigate selected SERCA inhibitors as novel options for prostate cancer chemotherapy.

P-29: TAYLOR KIDD

Antioxidant Properties of Coumarins as a Result of Xanthine Oxidase Inhibition and Radical Scavenging

FACULTY SPONSOR(S): STEFAN PAULA, CHEMISTRY; LILI MA, CHEMISTRY

Abstract: Coumarins are organic plant-derived substances in the benzopyrone category. They have an innate medical value due to their ability to absorb/scavenge harmful reactive oxygen species (ROS). Moreover, they suppress the production of additional ROS by inhibiting ROS production by the enzyme xanthine oxidase (XO). Here, we investigated several coumarins as XO inhibitors and as radical scavengers using DPPH radical scavenging, XO activity inhibition, and cell toxicity assays. We also performed computational docking to quantitatively assess how coumarins interact with XO at the molecular level.

P-30: JONATHAN WEBSTER, TONY BANKEMPER, DR. MANORI JAYASINGHE

Measurement of SERCA Activity by Isothermal Titration Calorimetry

FACULTY SPONSOR(S): STEFAN PAULA, CHEMISTRY

Abstract: The goal of this project was to establish a protocol for measuring the activity of SERCA – an ATPase – using isothermal titration calorimetry (ITC). ITC detects enzyme activity directly by measuring the enthalpy of the reaction and is therefore not dependent on coupled reactions and auxiliary enzymes. Here, ITC experiments were carried out by titrating adenosine triphosphate (ATP) into a solution of SERCA and measuring the heat signals caused by the hydrolysis of ATP. Kinetic analysis provided the classic parameters V_{\max} and K_m . We validated this method by comparing its results to those obtained by an established spectroscopic ATPase activity assay.

P-31: EMMA VANDER ENDE, CAMERON JOHNSON, HILLARY ANDERSON, LE DAO

Synthesis of Asymmetric Pyridoannulenes

FACULTY SPONSOR(S): K.C. RUSSELL, CHEMISTRY

Abstract: The objective of this research is to synthesize one of a series of asymmetric dehydroheteroannulenes (DHA) to continue studies that have already been done on previously synthesized symmetric DHA molecules. These studies include investigating the effects of the orientation of specific atoms within the molecule on the molecule's physical properties and spectra. Additionally, once the synthesis of the asymmetric DHAs are complete, their interaction with metal ions will be studied to determine how their spectra is changed by the presence of the ions, and whether they could be used to detect the presence of the ions.

P-32: CORINNE BASINGER

NKU Molecular Wire Research: The Combination of Molecular Wire and Fullerene Synthesis to Create a Polymer with Both Fullerenes and Transition Metals

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY

Abstract: The ultimate focus of our research group is to design new devices that utilize the movement of electrons following excitation by light. To achieve this goal, our small molecule studies must be expanded into polymeric systems. This poster presents our continuing efforts in polymerizing supramolecular monomers that involve our substituted fullerene compounds and basic p-conjugated organic systems. The inclusion of bipyridine systems allows us to also incorporate well-known transition metal chromophores. Synthetic and characterization results will be presented. Of particular interest is the use of GPC characterization to give us a good idea of the size of our synthesized polymers.

P-33: ZACHARY EWING

Synthesis of Novel Ligands to Connect Fullerene and Transition Metal Subunits for Supramolecular Applications.

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY

Abstract: The purpose of this research is to synthesize a supramolecular system with

both fullerenes and a transition metal present enabling the system to harness energy from light and transfer this energy both efficiently and properly. A bipyridine bridge is used to connect two fullerenes together and serve as a place for a metal to attach utilizing the nitrogen of each pyridine as attachment points. This system will then be duplicated into polymers that can be applied to paint for solar cell applications. Other alternative ligands potentially uniting multiple transition metals and fullerenes in a single small molecule will also be presented.

P-34: JESSICA HORN

Synthesis of Fullerene Complexes via One Pot Method for Solar Cell Applications

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY

Abstract: The goal of our research group is to create a solar cell using an organic compound known as a fullerene or C60. Because these are macromolecules, they have excess electrons, and therefore are good electron acceptors which make them potential molecules for use in our solar cells synthesis. The goal is to be able to attach a metal, possibly ruthenium or rhenium, as the electron donor which when excited by a photon of light will create the energy for the solar cell. A functionalized fullerene is necessary for this system, and this poster presents a one pot Sonogashira coupling reaction, which is different than our "traditional" three-step reaction method. The purpose of the research is to find out if this new pathway is faster and more efficient than the traditional method of preparing both functionalized fullerenes and other compounds in the future.

P-35: CHAD MASCHINOT

Functionalization of Fullerene, Coronene, and Corannulene for Organometallic Systems Utilizing Microwave Synthetic Methods.

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY

Abstract: One of our research group's main objectives has been to produce substituted fullerenes (and other polyaromatic systems with extended conjugation) that facilitate metal-catalyzed coupling to other chemical subunits to create supramolecular systems. Besides fullerene, both corannulene and coronene have been attempted as potential alternates to the fullerene handle with varying results under the current thermal reaction conditions. While our current synthetic strategies using fullerenes are successful, we have recently explored a new strategy that utilizes microwaves instead of a traditional thermal reaction. This methodology appears to increase the reaction yield while decreasing the reaction time, and also has appeared to be more successful at obtaining reactions with coronene and corannulene substitution. This poster presents our efforts utilizing this new reaction methodology.

P-36: KENDRA BAUMAN, REBEKAH THOMAS

Fútbol de Mexico

FACULTY SPONSOR(S): MATT BAKER, COMMUNICATION

Abstract: Have you ever wondered how other cultures feel about sports? That's what we have decided to examine while in Mexico City, Mexico, and other Hispanic countries for that matter, do not have the National Football League or the National Basketball Association; they have Fútbol, known as soccer in the United States. We plan to look at how the fans feel about Fútbol: What would they give to go to the games? How supportive and enthusiastic are they about their teams? These are just some of the aspects we plan to examine while in Mexico City.

P-37: RACHEL MULLINS

Housing for the Impoverished: A Comparison Between the United States and Mexico

FACULTY SPONSOR(S): MATT BAKER, COMMUNICATION

Abstract: My project takes a look at how the two countries, the United States of America and Mexico, approach the issue of poverty. Specifically, I researched what each government does to assist with housing, as well as what nonprofit organizations in each country do to assist with the problem. I found my information by reading different articles about each country. I also gained firsthand experience outside of what I had in the United States because I visited Mexico City in March. The poster is an overall comparison of the two different approaches.

P-38: TAYLOR ROMER

Seoul Meets Mexico

FACULTY SPONSOR(S): MATT BAKER, COMMUNICATION

Abstract: This project is a comparison of food from Seoul, South Korea, and Mexico City. After traveling to South Korea in November I fell in love with the food. Mexican food is another favorite of mine and I traveled to Mexico City in March. This project compares street food and national dishes. The poster will have photographs of food, ingredients, and street food from both countries.

P-39: MISUN KIM

Omotenashi: Japanese Hospitality

FACULTY SPONSOR(S): YASUE KUWAHARA, COMMUNICATION

Abstract: Many foreigners who visit Japan talk about distinguished experience of Japanese hospitality. The way they are served in Japan is completely different from that of other countries. Meanwhile, this service spirit of Japan is not limited to hotels and restaurants but also every store. This service mindset is called "Omotenashi". Omotenashi is Japan's unique hospitality. In recent years, this concept, Omotenashi, is adapted by the business world. For example, Shiseido, Japanese cosmetic company,

set up Omotenashi marketing strategies. This study will examine the concept and the use of Omotenashi in contemporary Japan.

P-40: AMBER ADAMS

Leadership in the Throes of Groupthink: Does it Matter?

FACULTY SPONSOR(S): STEPHEN YUNGBLUTH, COMMUNICATION

Abstract: The purpose of this study is to determine if having a leader promotes or dissuades the phenomenon of groupthink. Students were placed into one of two groups to complete a ranking activity. Group A was leaderless and Group B had a leader with a pre-written instruction script. In both groups, subjects were asked to rank a list of twelve items from most important to least important. To test the groupthink phenomenon, subjects in both groups were given pre and post questionnaires. It is predicted that the leaderless groups may have more groupthink than groups with leaders.

P-41: SEAN PRÓNAY

Bona Fide Virtual Team Communication Research

FACULTY SPONSOR(S): STEPHEN YUNGBLUTH, COMMUNICATION

Abstract: More and more, working with others online is a fact of life. This qualitative study seeks to identify best practices in communication for geographically distributed teamwork. Through audio and video teleconference interviews, participants discuss the dynamics of working in small groups and across distances too vast for face-to-face meetings. Their stories take us inside real world professional teamwork scenarios in which participants' livelihoods depend at least partly on successful outcomes.

P-42: YASMEEN ALUFAISAN

Social Media Mining and Privacy

FACULTY SPONSOR(S): ALINA CAMPAN, COMPUTER SCIENCE

Abstract: Social media sites contain public and confidential information about their users. In order to protect the users' privacy, social network graphs have to go through an anonymization process before being publicly published or released to a third party for data mining or statistical analysis. The goal of all the anonymization models is to preserve the privacy of the social network's users and, in the same time, preserve enough information to enable a good analysis of the social network. We study how well we can preserve the important features in a social graph while ensuring privacy with different anonymization models.

P-43: TAMAM ALAYED

The Usability of File and Email Encryption

FACULTY SPONSOR(S): CHARLES FRANK, COMPUTER SCIENCE

Abstract: Our research seeks to understand the current usability situation of files and email encryption software. Particularly we focus in GnuPG4win encryption software and Thunderbird email application and the integration of them. We did a user testing to find out whether people can easily use those software applications to encrypt files and emails. The study was to find current problems in the following areas: downloading the softwares and set them up, create a key pair, get public keys published, encrypt/decrypt files, encrypt/decrypt emails.

P-44: SEAN BUTTS

Designing Green Mobile Applications with Cloud Computing

FACULTY SPONSOR(S): WEI HAO, COMPUTER SCIENCE

Abstract: As smart phones are becoming more prevalent among cell phone users, there is a trend towards an all-encompassing platform. Smart phones are required to be able to process and execute the same or similar applications to those of a laptop or desktop. These demands cause more stress on the processing power of the phone, which can lead to a decrease in performance and a strain on the battery. Amazon's Elastic Computing Cloud (EC2) makes it possible to launch instances of the cloud and do some of the processing in these instances. Using Amazon's EC2 Mobile SDK it is possible to launch instances from the mobile phones and have the off site cloud instance perform the operations required. With the technologies Amazon provides it is possible to create green mobile applications because of the power saved on the phone from executing processes off site.

P-45: JOSH NEWKIRK

Cloud-based P2P Web Caching for Mobile Devices

FACULTY SPONSOR(S): WEI HAO, COMPUTER SCIENCE

Abstract: More and more web traffic is generated from mobile devices. User-perceived response time is an important performance metric for mobile user experience. Web caching is a widely used approach to reducing the response time. However, mobile devices often have limited storage space. The traditional web caching approaches cannot achieve very high cache hit rate. In this research, we use cloud computing and Peer-to-Peer (P2P) techniques to design a cloud-based P2P web caching approach for mobile devices. Our approach is not replacement of the existing web caching approaches. It complements the existing approaches to increase cache hit rate so that it will further reduce the response time for mobile users. We will perform experimental studies to validate our approach.

P-46: BENJAMIN BAXTER

Best Practices of Client-Side Web Application Development

FACULTY SPONSOR(S): YI HU, COMPUTER SCIENCE

Abstract: Server side development and the Model View Controller (MVC) pattern are

very mature. Until recently, there was nothing remotely close to those strategies for client side web application development. Client side development is supposed to be able to enrich user experiences and increase the performance of a web application. However, currently there are no easy patterns for directing client side dynamic application development. We examined leading client side frameworks and compared their attributes to those of the traditional server side models to seek out the best practice for client side web application development.

P-47: JOHN DWYER

Finding Anomalies in Windows Event Logs

FACULTY SPONSOR(S): TRAIAN TRUTA, COMPUTER SCIENCE

Abstract: Windows event logs are a very useful source of data for security information, but sometime can be nearly impossible to use due to the complexity of log data or the number of events generated per minute. For this reason, event log data must be processed so that an administrator is given a list of events that actually need the administrator's attention. This has been standard in intrusion detection systems for many years to find anomalies in network traffic, but has not been common in event log processing. This paper will implement these intrusion detection techniques on a Windows event log data set to find anomalies in the log data.

P-48: JASON BELLIS

GIS Mapping for Census Tract 505 - Part of the 505 Initiative at NKU

FACULTY SPONSOR(S): HONGMEI WANG, COMPUTER SCIENCE

Abstract: The 505 Initiatives goal is to concentrate a portion of NKU's public engagement in one Northern Kentucky neighborhood over time. This project's part of the 505 initiative. Its goal is to generate maps for the census tract 505, in Newport, Kentucky. GIS data describing spatial boundaries of the 58 census blocks within tract 505 and other spatial features were obtained from Northern Kentucky Area Planning Commission (NKAPC) or online GIS clearinghouses. Tabular data at block level of census properties were collected from the U.S. Census Bureau's website. The data was combined, analyzed, and mapped in the software ArcGIS.

P-49: TOBIAS DEATON

North Africa and the Arab Spring: A Geospatial Analysis of Political Violence

FACULTY SPONSOR(S): HONGMEI WANG, COMPUTER SCIENCE

Abstract: Political violence associated with the Arab Spring has received much attention since December 2010. Though media coverage abounds, there is a paucity of empirical research investigating this recent phenomenon. This study employs point pattern analysis methods in a Geographic Information System (GIS) to examine the geospatial dimensions of political violence before and after initiation of the Arab Spring in North Africa. The results show that political violence during the Arab Spring increased significantly and concentrated in densely populated areas, and the predominant type of violence shifted in each country. Furthermore, the results also indicate that battles were more likely to occur further from capital cities than riots and protests.

P-50: BRITTANY CARLISLE

Post-Discharge Evaluation of the Young Child Institute

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: The effects of early intervention were researched within a mental health treatment program for young children called the Young Child Institute (YCI). The purpose of this study was to examine the lasting effects of early intervention on children's functioning in the areas of attachment, self-control, and attention problems. Information pertaining to these areas were recorded before treatment, at the end of treatment, and at least six months after treatment. Findings from this study indicate that early intervention services at YCI have a sustained influence on a child's level of attachment, self-control, and attention span.

P-51: HANNAH CARTMILL

Girls on the Run and Ethnicity

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Childhood obesity is a significant issue in the United States, often resulting in low self-esteem and other psychological/social issues. Consequently, it is important to identify effective programs to assist children in developing healthier life habits. One such innovative program is Girls on the Run (GOTR). Evaluation studies of GOTR have revealed positive results; however, research has failed to compare the effectiveness for different ethnic groups. This is particularly disconcerting since self-esteem issues are often culturally based. This study compares the effectiveness of GOTR for different ethnicities.

P-52: SHIRLEY CONRAD

Supportive Employment's Effect on Daily Living Activities

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Approximately 26% of Americans are diagnosed with a mental illness each year. Persons with psychiatric disabilities have difficulty obtaining and maintaining employment. While employment programs target vocational outcomes, researchers

have examined whether these programs also have an impact on non-vocational activities of daily living. Supportive employment has been proven effective in attaining vocational outcomes; however, the literature remains divided concerning non-vocational implications. This study further examined the effectiveness of supportive employment in improving the activities of daily living for the severely mentally ill. This study thus adds to the literature on the benefits of supportive employment programs.

P-53: KELLY CURRY

“Using Treatment as a Punishment: Day Programming for Severely Mentally Ill Clients in a Mental Health Court Program”

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP; DAVE WILKERSON, SOCIAL WORK

Abstract: The Northern Kentucky Regional Mental Health Court provides services to severely mentally ill individuals who have become involved with the judiciary system. The Mental Health Court recently designed and implemented a Day Treatment Program to address a need for frequent in-person monitoring, severe illness management education, and mandated client participation in meaningful daily activities for clients. This four day a week program was initiated in August of 2012 and consisted of group therapy and exposure to the Illness Management Recovery SAMSHA curriculum. The need for and design and implementation of this program will be discussed.

P-54: BRITTANIE DUDLEY

Effectiveness of The Darkness to Light Program in the Northern Kentucky Area.

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Childhood Sexual Abuse (CSA) has become a great concern throughout the country. CSA can range from sexually offensive touching to intercourse. One out of every four girls and six boys will be sexually abused before the age of 18. Ninety percent of children are abused by someone that they know. The Darkness to Light Program is a CSA prevention program designed for adults and caregivers. This study examined the effectiveness of the Darkness to Light Program in the NKY area. This study seeks to find whether after completion, adults/caregivers have a better understanding of the signs/symptoms of CSA.

P-55: SCOTT HALE

Gender Differences as Related to Eating Disorders

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: This study examined gender differences as related to eating disorders in 20 adolescent male and 30 adolescent female patients seen at Cincinnati Children's Hospital Medical Center between 2010 and 2012. Variables measured include age, ethnicity, mental health diagnoses, sexual orientation and Body Mass Index at intake. It was hypothesized that there would be significant differences between male and female eating disordered clients in terms of sexual orientation and BMI, while no significant differences were expected in terms of age, ethnicity, and comorbid diagnoses. Implications for research and practice are discussed.

P-56: REBECCA IRWIN

How Does Implementation of Dialectical Behavioral Therapy Impact Appointment Utilization in an Outpatient Mental Health Treatment Facility

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Dialectical Behavior Therapy (DBT) was developed to treat a mental health population of self-harming individuals who have difficulties with emotional regulation. One of the main tenants in stage four of the DBT program includes decreasing and/or eliminating behaviors that interfere with treatment such as missed appointments and not completing therapeutic assignments. This study sought to examine differences in appointment utilization between DBT clients and non-DBT clients. It is beneficial to examine the impact of the DBT treatment program on appointment utilization for maximization of limited therapeutic resources and treatment effectiveness.

P-57: DAVE MERRISS

Needs and Perceptions of Older Homeless at Emergency Shelter of Northern Kentucky

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Homelessness remains a persistent economic, social and health problem. Relatively little is known about the growing and largely invisible “older” homeless population over the age of 50. This survey study of 20-30 older homeless individuals examined participants’ general health needs and perceptions across the spectrum of demographic and background variables. The results of this study illustrate the vulnerability of the “older” homeless and their heightened risk of mortality. Additionally, findings demonstrate “older” homeless’ inability to achieve stable housing and access to regular healthcare.

P-58: STACY SCHERDER

Impact of Spiritual Support Groups on Anxiety

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Cancer directly impacts not only the patient, but also their caregivers.

Caregivers shoulder burdens of emotional, physical, social and financial means, while contributing to their loved one's adherence and acceptance of treatments. Caregivers oftentimes exhibit higher rates of depression and anxiety; higher than reported by cancer patients themselves. Evidence based research is necessary for studying the relationship between anxiety, self-awareness, and how caregiver support groups can help. This study compared the impact of spiritual and non-spiritual support groups in relation to anxiety and cancer caregivers, by administration of a pre and post test survey.

P-59: JAMIE SCHNEIDER

Meals on Wheels Quality Improvement

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Wesley Community Services produces and distributes Meals on Wheels for the Cincinnati and Northern Kentucky area. Quality Improvement is tracked via satisfaction surveys completed by Wesley Community Services clients. Satisfaction surveys from the last six months were compiled and analyzed using SPSS computer software. This study found that most clients were satisfied with Wesley Community Services' Meals on Wheels program. The only improvement that may be needed is the taste of the side items provided in the meals.

P-60: JESSICA SORENSEN

The Efficacy of the Stewards of Children Darkness to Light Sexual Abuse Prevention Training

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: This research project is an efficacy study of the Darkness to Light program, which is a child sexual abuse prevention program for adults. Extant literature on prevention programs for children suggests that children are more assertive, have shorter cycles of abuse, and are more willing to disclose as a result of the trainings. Additionally, parents who have been exposed to prevention programs are more cognizant of sexual abuse symptoms. Findings of this project were that participants were more aware of signs and symptoms of sexual abuse and subsequently, were more prepared to prevent sexual abuse.

P-61: AMIA TAYLOR

Do You See What I See? Perception of a Child's Strengths & Problem Areas From the Parents and Counselor's Perspective

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: School counselors work with students for many reasons including low self-esteem, and behavioral/academic problems. The counselor's duty is to assess the child and identify the barriers that are hindering the student from reaching his/her full potential. The parents' perceptions regarding their child's strengths, limitations, and problem areas are a critical part of developing a treatment plan. This study examined whether parent and counselor perceptions were comparable. By comparing the parent and counselor reports of 25 youth, this study found that parents and counselors identify similar goals for treatment. Such similarity may improve outcomes for youth.

P-62: MING YING

Evaluation of Stewards of Children: Measurement of How the Training Affects Participants' Knowledge and Behavior Regarding Child Sexual Abuse.

FACULTY SPONSOR(S): CAROLINE MACKE, COUNSELING, SOCIAL WORK, LEADERSHIP

Abstract: Child sexual abuse is a pervasive social problem, with one in 6 boys and one in 4 girls experiencing it in their life time. This study measured the effectiveness of a child sexual abuse prevention program, namely Stewards of Children. Stewards of Children provides education for adults to prevent, recognize, and act responsibly regarding child sexual abuse. Pre-post test data from approximately 100 participants was used to evaluate how this training affects participants' knowledge and behavior regarding child sexual abuse. Findings indicate that participants' knowledge and behavior were positively affected by the training.

P-63: ELLA BECKMAN, CLARA SCHUTZMAN

Biofuel Production and Conversion in a Household Alternative Energy System

FACULTY SPONSOR(S): SEYED ALLAMEH, ENGINEERING TECHNOLOGY; MIRIAM KANNAN, BIOLOGICAL SCIENCE

Abstract: The efficiency and cost effectiveness of using algae to create biofuel has been much debated in recent years. A household-based biofuel system that uses sewage as a medium in which to grow mixed algae cultures is a possible solution to decreasing the production costs. Aside from the manufacturing issues involved, it is important to determine what variables most affect the growth of algae and the production of biofuel. This study presents the results of an analysis of the effects of light, temperature, silicon dioxide, calcium carbonate, and phosphorous and/or nitrogen on algae growth and lipid production.

P-64: NATHAN ROGERS, EIKE LOHRBACH, TYLER SPAETH, DANIEL WALTERS, NICK BERTKE, RYAN HILLENBRAND, JEREMY TRESTER
Norse Baja SAE Buggy

FACULTY SPONSOR(S): MORTEZA SADAT-HOSSNIENY, ENGINEERING TECHNOLOGY
 Abstract: The Society of Automotive Engineers (SAE) is a professional organization for students interested in the automotive field. Skills learned in the classroom meet real-world applications through SAE's collegiate design competitions, where students gain valuable hands-on experience prized by motorsport teams, automotive, aerospace manufacturers and suppliers. Designed and built by Norse Baja, NKU's vehicle will compete in the 2013 SAE international competition in June.

P-65: CODY SCHUMACHER, JAMES BROWN
Impact of Amur Honeysuckle on Wetland Gas Fluxes

FACULTY SPONSOR(S): KRISTINE HOPFENSPEGER, ENVIRONMENTAL STUDIES
 Abstract: *Lonicera maackii* is an invasive shrub that is not fully understood in regards to its impact on ecosystem and environmental processes. Potentially altering greenhouse gas flux cycles and available nutrients in soil, Amur honeysuckle is of wide interest in the Eastern region of the US, especially in bottomland forests where stands are most dense. Early data suggests that honeysuckle lessens the available oxygen and water in surrounding soils for native species and microbes. Continuing to do so, honeysuckle may cause high levels of greenhouse gas release from wetlands. This study focused on the seasonal change in greenhouse gas emissions via microbial metabolic processes as honeysuckle density increased.

P-66: JAMES MCMANUS
Tracking the Modern Family: A Critique of Newspaper Comics from 1980 to 2005

FACULTY SPONSOR(S): JONATHAN REYNOLDS, HISTORY & GEOGRAPHY
 Abstract: This research project will examine how family structures, gender roles, and the "nuclear family" have been portrayed from 1980 to 2005. Using popular culture mediums, we can see and evaluate the eras by how they saw themselves in their daily lives. This examination will use a survey of four newspaper comics that were in publications in newspapers across North America in this time period as primary sources. By examining the themes and recurring motifs regarding how families were structured and the gender roles family members take on within the literature, it becomes possible to see the evolution of the concept of family from the late 20th to early 21st century. This critique of recurring ideas, themes, and motifs will also allow for comparison with secondary sources regarding how families in North America were developing, compared to their idealized, pop culture counterparts. Through this contextual analysis of themes within popular newspaper comics, it becomes possible to see the historical importance of them as markers of not only popular thought but social trends within the eras they are syndicated.

P-67: JAMIE AUSTIN, SHERYN LABATE
Voter Disfranchisement: How Close Elections are Won

FACULTY SPONSOR(S): MICHAEL WASHINGTON, HISTORY & GEOGRAPHY
 Abstract: Of all the rights endowed upon the U.S. Citizen, the right to vote is the most sacred. The vote is the very agent of democracy and should be protected by Government and its Citizens with the same fervor usually reserved for the protection of the First and Second Amendments. Since 1877, disfranchisement techniques have been used in high-stakes, close elections to limit the number of economically disadvantaged and minority persons who are able to participate in the democratic process. Only through voter education and political activism can the vote be secured for future generations of American Citizens.

P-68: DONALD ALBERT HALL
African American Struggles For Equality 1950s to the Present

FACULTY SPONSOR(S): MICHAEL WASHINGTON, HISTORY & GEOGRAPHY
 Abstract: The project is an effort to depict various methods used by African Americans to achieve justice and racial equity from the 1950s to the present. The exhibit portrays five action-oriented methods including economic boycotts, picketing, mass demonstrations, effective use of the legal system and the mass voter turn-out that contributed to the successful elections of President Barack Obama in 2008 and 2012.

P-69: ANGELICA SMITH
Slave Narratives and Their Historical Significance

FACULTY SPONSOR(S): MICHAEL WASHINGTON, HISTORY & GEOGRAPHY
 Abstract: During the times of slavery, the treatment of Africans was unimaginable. A major problem was that no one in the North knew how bad blacks were being treated in the South until slaves began to write Slave narratives. These narratives described their daily experiences. The purpose of the project is to describe the historical significance of the slave narrative.

P-70: MELISSA THOMPSON
The Disfranchisement of African Americans

FACULTY SPONSOR(S): MICHAEL WASHINGTON, HISTORY & GEOGRAPHY
 Abstract: The Compromise of 1877 ended Reconstruction and resulted in the withdrawal of federal troops from the South. The "redeemers" restored white "home rule" and resorted to every legal and extra-legal maneuver to deny black people political equality. By 1910 blacks were denied the right to vote in every state

throughout the South. The purpose of the project is to describe the various techniques employed to disfranchise African Americans during Reconstruction and the post-Reconstruction eras.

P-71: KYLIE ANNUNZIATA, JESSE TOMLIN
Range, Abundance, Body Size, and Conservation Status of Rare Freshwater Fishes of the Southeastern United States

FACULTY SPONSOR(S): KENNETH OSWALD, HONORS PROGRAM
 Abstract: Multiple life history, zoogeographic, and demographic parameters have been shown to influence conservation status in rare species. We examine the effects of geographic range, abundance, and body length on conservation status of freshwater fishes endemic to the Atlantic slope of the southeastern United States (Roanoke River to Altamaha River). We test for correlations among these parameters and also utilize statistical models to assess their influence on conservation status. Results are useful to conservation biologists tasked with determining patterns of imperilment among rare species.

P-72: ZACHARY HOLTkamp, REBECCA KIDNEY
Evolution, Creationism, and Intelligent Design at Northern Kentucky University

FACULTY SPONSOR(S): KENNETH OSWALD, HONORS PROGRAM
 Abstract: We surveyed the Northern Kentucky University (NKU) population at three locations, Student Union, Baptist Student Center, and Science Center. We gauged the knowledge of the NKU community about evolution, creationism, and intelligent design and compared respondents' knowledge base to their personal religious backgrounds. We found a wide variety of knowledge levels and opinions at each on-campus location. Personal religious beliefs influenced respondents' views, and generally, the population appeared relatively uneducated on evolution and intelligent design compared to creationism. The majority of respondents indicated that creationism and evolution should be taught alongside one another in public school science classes.

P-73: KATHERINE BACHMAN
Glaciated and Nonglaciated Coalescent Modeling of Genetic Diversity in Rare Species

FACULTY SPONSOR(S): KENNETH OSWALD, HONORS PROGRAM
 Abstract: Genetic diversity data in rare species are typically subject to high levels of peer reviewed scrutiny due to inferences based on small sample sizes. The purpose of this research is to run computer simulations of small populations to determine sample sizes that accurately represent population diversity in both glacial and interglacial periods. Using a coalescent model, we investigate evolutionary genetic measures of diversity for both periods. Specifically, we simulate nucleotide diversity (π), haplotype diversity (h), total number of segregating sites (S), and population differentiation (F_{ST}). We recommend minimum sample sizes for evolutionary genetic studies of rare species.

P-74: MATTHEW WOESTE
Analysis of the Greater Cincinnati Wildlife Trade

FACULTY SPONSOR(S): KENNETH OSWALD, HONORS PROGRAM
 Abstract: Estimates for the value of the global wildlife trade range from \$8 - \$159 billion annually. Among other threats, such high volume trade places species at risk of extinction and threatens the spread of disease. This study characterized the local wildlife trade. Inventories taken from five local pet retailers mirrored national and global trends. The total value of wildlife trade within Greater Cincinnati was estimated at \$1.3 million, with the majority of species coming from Africa, Asia, and South America. Imperiled species were worth considerably more than common ones.

P-75: EMILY COOPER
The Effect of The Three Genders of Collegiate Athletics: Male, Female, and Football on Title IX Compliance

FACULTY SPONSOR(S): ALAR LIPPING, KINESIOLOGY & HEALTH
 Abstract: The purpose of this study was to gather statistical data to address a number of myths surrounding Title IX legislation with regard to college athletics. For example, a common myth pertaining to Title IX is that it has caused a reduction of men's athletic programs, particular in sports such as gymnastics, swimming, and wrestling. Data pertaining to male and female participation rates by sport in Division I, II, and III was collected from the General Accounting Office (GAO) and the National Collegiate Athletic Association (NCAA). It was hypothesized that there would be a significant relationship between the increase in men's football and decrease of men's programs in gymnastics, wrestling, and swimming.

P-76: SCOTT BROCK, JOSH VOLPENHEIN, BRIAN GISH
The Effect of Active Video Games on Heart Rate: Exercise or Not?

FACULTY SPONSOR(S): GABRIEL SANDERS, KINESIOLOGY & HEALTH
 Abstract: Background. Nintendo Wii Sports Boxing and Xbox Kinect Sports Boxing are considered active video games. However, the Wii requires upper body movements while the Kinect requires full body movements for successful game play. Purpose. To assess average and maximal heart rate during four conditions. Methods. Twenty students wore a polar heart rate monitor and participated in four, 10-minute conditions; rest, treadmill walking at 3.0 miles/hour, Wii Boxing, Kinect Boxing. Results. A single, four condition repeated measures ANOVA was utilized to examine any differences in heart rate.

P-77: KATELYN CRAVENOR**College Students Physical Activity and Social Media Use**

FACULTY SPONSOR(S): GABRIEL SANDERS, KINESIOLOGY & HEALTH

Abstract: Background. Research suggests that 96% of college students use social media and allocate 2.5 hours/day to internet activities. Currently, no research has assessed college student's physical activity and social media use. Purpose. To assess college students' physical activity and social media use. Methods. One hundred college students completed a 9-item survey that was designed to quantify their social media use; time spent being physically active, and their attitudes towards their social media use. Results. Potential relationships were analyzed using a step-wise regression to assess the effect that any independent variable may have on the dependent variable.

P-78: BRIAN GISH, JOSH VOLPENHEIN, SCOTT BROCK**The Effect of Active Video Games Ratings of Perceived Exertion and Liking.**

FACULTY SPONSOR(S): GABRIEL SANDERS, KINESIOLOGY & HEALTH

Abstract: Background. Research suggests that active video games, relative to traditional video games, can elicit a greater RPE response. Currently, no studies have assessed two different active video game systems effect on RPE and liking. Purpose. To assess the RPE of a better liked active video game. Methods. Twenty students participated in 3, 10-minute conditions; treadmill walking at 3.0 miles/hour, Wii Boxing, Kinect Boxing. Participants indicated their RPE and liking using a visual analog scale after each condition. Results. Two, three condition repeated measures ANOVAs were utilized to examine any differences in liking and RPE.

P-79: JOSHUA VOLPENHEIN, SCOTT BROCK, BRIAN GISH**The Effect of Active Video Games on Physical Activity**

FACULTY SPONSOR(S): GABRIEL SANDERS, KINESIOLOGY & HEALTH

Abstract: Background. Nintendo Wii Sports Boxing and walking on a treadmill can increase activity levels to a moderate intensity (3 METs). Currently, there are no studies that have assessed physical activity levels while playing a similar game for the Xbox Kinect. Purpose. To assess physical activity during four conditions. Methods. Twenty students wore an accelerometer and participated in four, 10-minute conditions; rest, treadmill walking at 3.0 miles/hour, Wii Boxing, Kinect Boxing. Results. A single, four condition repeated measures ANOVA was utilized to examine any main and interaction effects.

P-80: BRITTANY BLANTON, MEAGAN DUNN**SLAP Lesions: Surgical Procedure and Rehabilitation**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: SLAP lesions are a common injury amongst overhead athletes, often requiring surgery. On average, it can take an athlete twenty-two weeks to fully recover. As a clinician, it is important to understand how the surgical procedure is performed and the proper rehabilitation process to return an athlete to play. The purpose of this project was to discuss the classifications of SLAP lesions, the surgical procedure, and different phases of rehabilitation.

P-81: THOMAS BROSSART, CLINTON ROSS**PNF Stretching of the Glenohumeral Joint in Overhead Athletes**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: Proprioceptive neuromuscular facilitation (PNF) stretching is used by athletic trainers and physical therapists to increase the range of motion in athletes. This is important during rehabilitation because limitations can lead to further injury, poor posture, or disability. The purpose of this study was to review the efficacy of PNF stretching on the glenohumeral joint in overhead athletes.

P-82: EMILY FECK, KELSI WOOD, ANDI MACKE**Thoracic Outlet Syndrome: What a Pain in the Neck!**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: This comprehensive review examined the rare condition of thoracic outlet syndrome in the athletic population. The symptoms of the condition, along with evaluation and diagnostic tools will be discussed. The effectiveness of surgical transaxillary first rib resection will be observed. The goal of this review was for clinicians to recognize the symptoms of thoracic outlet syndrome and take appropriate action. This research highlights the importance of diagnostic measures and treatment of thoracic outlet syndrome.

P-83: KARILANG, ABBY POTTS**Hypertrophic Cardiomyopathy in A D1 Athlete: A Case Study**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: Hypertrophic cardiomyopathy is a genetic disease that is a concerning cause of sudden death in the younger population, including athletes. This disease can only be detected through screenings such as echocardiograms and magnetic resonance imaging (MRI) of the heart, which is why the most common symptom is sudden death. The purpose of this study was to follow an athlete who had recently been diagnosed with this disease in order to gain knowledge about prevention for other athletes.

P-84: DONTAZ SMITH, MATTHEW SCOTT**Surgery and Post-Operative Management for Rotator Cuff Pathology**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: A rotator cuff strain may lead to significant limitations in function and an

increase in pain and instability in overhead athletes. The extent of recovery from surgical intervention and rehabilitation can vary depending on the complexities of the tear, repair procedure, and post-operative patient management. Evidence states that although non-operative options should be exhausted, surgical treatment is frequently necessary for any rotator cuff tear if conservative treatment fails. Tear thickness has been used often to determine the surgical approach. Evidence suggests that the degree of tear and surgical characteristics will influence patient presentation in terms of strength and function, and thus need to be considered when healthcare professionals design rehabilitation programs.

P-85: SHANE SULLIVAN, CHRIS BAYNE**Tommy John Surgery: Can Repairing the Ulnar Collateral Ligament Make a Baseball Player's Arm Stronger?**

FACULTY SPONSOR(S): FRANK SHIPLEY, KINESIOLOGY & HEALTH

Abstract: The ulnar collateral ligament (UCL) is the primary stabilizer for valgus support in the elbow. Injury to the UCL is common among baseball players and requires surgery to return to play. Research shows that athletes who have undergone Tommy John surgery have returned to their previous play or higher. The purpose of this study was to compare and contrast the success rate of baseball players returning to play that have had Tommy John surgery.

P-86: PETER ALBRECHT**Retrospective Isokinetic Analysis of Glenohumeral Rotators Strength in Division I Baseball Pitchers**

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: The glenohumeral joint is subjected to high forces during pitching. As shown in previous research, the combination of high forces and an abnormal range of motion can leave the shoulder susceptible to injury. Pitchers on Northern Kentucky University's men's baseball team were monitored for shoulder injury and measurements of shoulder strength were collected using a dynamometer. The purpose of this study was to determine if there was a significant difference in the strength of pitchers who reported shoulder injury compared to those who did not in the hope of determining a plan to decrease the chance for injury.

P-87: THOMAS GOODING, CAITLIN COORS, RACHEL FABRE**Leg Dominance, Hamstring Flexibility, and ACL Injuries Among Collegiate Soccer Players: Is there a Relationship?**

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: Sustaining a knee injury in soccer can often be season ending, if not career ending. One of the most serious and commonly sustained injuries in athletes is the Anterior Cruciate Ligament (ACL) tear. Many factors have been attributed to a non-contact ACL tear, but no specific set of causes have been linked. The purpose of this study was to examine leg dominance and hamstring flexibility in college soccer players to determine if there was a correlation to non-contact Anterior Cruciate Ligament injuries in the knee.

P-88: ZACHERY HASEKOESTER, ROBBIE LOTZ, DONTA JOHNSON**Elastic Therapeutic Tape**

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: Elastic therapeutic tape (ETT) has recently gained popularity amongst athletes due to the possible benefits it provides. The ETT can be applied in different ways to reeducate the neuromuscular system, reduce pain and inflammation, enhance performance, prevent injury and promote good circulation and healing, and assist in returning the body homeostasis. Much of the research on elastic therapeutic tape was done on strength and range of motion, and the results are not conclusive. Therefore, the purpose of this study was to examine the effects of elastic therapeutic tape on throwing accuracy of the throwing arm in healthy Division 3 baseball players.

P-89: TYLER HOPPER, TYLER WATSON, KATE RIESELMAN,**ELEANOR STEUR****The Effect of Ankle Bracing vs. Ankle Taping on Athletic Performance**

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: Taping ankles and wearing ankle braces are common in today's athletics. Both methods are meant to increase the overall stability of the ankle joint. Research has shown that ankle taping is less effective the longer you wear it, while braces can be adjusted at any point. However, research has not shown its effect on performance. One method could possibly have a greater impact on athletic performance. The purpose of this study was to determine if there is a significant difference in athletic performance between ankle taping and ankle bracing.

P-90: JEFFREY POORE, LUKE GREENE**Comparing Eccentric and Concentric Loading Effects in Relation to DOMS**

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: In many rehabilitation programs, muscle soreness following exercise can hinder progression and lead to set backs. It is accepted in literature that the cause of this soreness is due from the eccentric phase of movement. Previous studies have compared eccentric and concentric effects, but not on the same subject. The purpose of this study was to replicate published findings while eliminating inter subject variables in order to better design rehabilitation programs.

P-91: CHELSEY SWITZER, ASHLEY JOLLY, LAUREN LUESSEN
The Effectiveness of Arch Support Insoles Assisting Individuals with Pes Planus

FACULTY SPONSOR(S): RACHELE VOGELPOHL, KINESIOLOGY & HEALTH

Abstract: Pes planus is a condition that can affect the average population and potentially cause problems with their gait and lead to overuse injury. There are several techniques commonly used to minimize the extent of pes planus, one of which is arch support insoles. The arch support insoles are designed to limit the amount of arch drop walking gait. The purpose of this research was to determine whether the addition of arch support shoe insoles affects walking in individuals with Pes Planus.

P-92: ASHLEY HARDY

Statistical Analysis to Aid Programs in Northern Kentucky Schools

FACULTY SPONSOR(S): JOSEPH NOLAN, MATHEMATICS & STATISTICS

Abstract: Using statistical methods, we investigate relationships between variables that may help Northern Kentucky schools identify at-risk students and aid schools in placing students into programs designed to increase their chances of success. This research project is part of a collaborative effort between Northern Kentucky school districts, NKU's Social Work program, and the Burkhardt Consulting Center.

P-93: MICHELLE LAUER, AMY LAUER

Providing Puberty Education to Girls in Private Schools

FACULTY SPONSOR(S): KATHY BERGMAN, NURSING

Abstract: Puberty education was an apparent need among female students at St. Joseph School. The purpose of A Mother Daughter Moment was to develop an afterschool educational meeting where mothers and daughters can learn and share knowledge about female puberty, health, and hygiene. The objectives of this meeting were to enhance lines of communication on the topic of puberty, create a secure environment where the students feel comfortable, and encourage participants to take control of their health and well-being. Puberty information, appropriate for the audience, was developed including topics on the female reproductive system, pad usage, self-esteem, and more.

P-94: KRISTEN ROBB

Increasing Breastfeeding: A Baby-Friendly Hospital Initiative

FACULTY SPONSOR(S): KATHY BERGMAN, NURSING

Abstract: The World Health Organization and United Nations Children's Fund developed Baby-Friendly Hospital Initiative to promote breastfeeding. University Hospital has begun the certification process of becoming a Baby-Friendly Hospital. This certification requires compliance with evidence-based practices of the Ten Steps to Successful Breastfeeding. The purpose of this project was to develop a staff-training program and evaluation tool that met the requirements of the Baby-Friendly Hospital Initiative. This program consisted of prepared questions to answer mothers' concerns about breastfeeding, and educational material on breastfeeding topics. A questionnaire evaluated the improvement of the knowledge and skill confidence of the nursing staff on breastfeeding.

P-95: RACHEL WILKES-MITCHELL

The Gentle Cesarean Section: Initiating Immediate Skin-to-Skin Contact and Breastfeeding at Birth

FACULTY SPONSOR(S): KATHY BERGMAN, NURSING

Abstract: The Christ Hospital Labor and Delivery Unit was seeking ways to increase their skin-to-skin contact and breast feeding initiation rates during the first hour of life for mothers who deliver via cesarean section. The unit manager decided to implement a Gentle Cesarean Section procedure to help increase low skin-to-skin contact and breast feeding rates. This Gentle Cesarean Section would be used for mothers undergoing a scheduled, term, low risk cesarean section only. It would not be available for preterm, breech, or multiple birth deliveries. The process of implementing this policy is in the early phases.

P-96: LORI MANGAN, DEBBY FULLER, STEPHANIE THEOBALD, TARYN FLEDDERMAN
300 Hours in India

FACULTY SPONSOR(S): ADELE DEAN, NURSING; KAREN TAPP, SOCIAL WORK; FRANÇOIS LEROY, STUDY ABROAD

Abstract: On December 27, 2012, fifteen female students and two female professors from Northern Kentucky University departed for a two-week study abroad class to India. The class, "Women's Health in the Societal Context," focused on the health conditions of women in India. The students were enlightened by gender activists who, already on fire about the injustices Indian women face from widowhood and other factors, were further ignited by the gang rape of a 23-year-old Delhi woman. This presentation will take you on the students' journey more than 6000 miles away... and so their story begins.

P-97: SHEILA PELLE, NOLA RESTESAN

Lighting the Way to Recovery from Addiction Disease

FACULTY SPONSOR(S): KIM DINSEY-READ, NURSING

Abstract: Casey's Law is legal court ordered treatment of individuals with substance addiction. To increase understanding of addiction as a disease, stigma by professionals, and effectiveness of involuntary treatment and Casey's Law, an educational offering,

was given to 27 healthcare and allied students, faculty and staff. A pre and post survey indicated a decrease in the belief an individual must want treatment and an increase in responses that participants had adequate knowledge of Casey's Law to utilize it in practice. Future recommendations include the incorporation of involuntary treatment and Casey's Law in healthcare and allied health studies curriculums and continuing education.

P-98: SARAH HAINES

Increasing Parental Knowledge about Shaken Baby Syndrome (SBS) and Methods of Prevention

FACULTY SPONSOR(S): TERESA HUBER, NURSING; KRIS PFENDT, NURSING

Abstract: Shaken baby syndrome (SBS) is one of the most severe forms of child abuse with very high mortality rates for children under one year of age. The purpose of this project was to improve the SBS discharge handout for the University Hospital of Cincinnati making it easier to read with a focus on education and prevention. In the development of this handout a series of questions were asked among staff members of the neonatal intensive care unit (NICU). The handout will have a positive impact by making it easier for staff to educate caregivers on SBS.

P-99: MAHMOOD ALHAKEEM

Fabrication and Characterization of Carbon-Fiber-based Composites

FACULTY SPONSOR(S): SEYED ALLAMEH, PHYSICS & GEOLOGY

Abstract: Structurally tough materials are needed to increase the resistance of structures against dynamic shear forces typical of earthquakes. Naturally tough biomaterials such as nacre use a layered pattern combining hardness of ceramics with the ductility of polymers in alternate layers. Mimicking such structures, it is possible to make composites that can be used in the fabrication of durable houses. Reinforcing these composites will give them the tensile strength required for structural materials. Preliminary results of a study on the effect of reinforcement on the toughness of structural composites will be presented.

P-100: AMR NAJJAR, ADNAN ALMUWALLAD, HANIALHARBI

Algae-Based Biofuel Instrumentation for Household Application

FACULTY SPONSOR(S): SEYED ALLAMEH, PHYSICS & GEOLOGY; MIRIAM KANNAN, BIOLOGICAL SCIENCES

Abstract: The high levels of nutrient in household sewage effluent may be used for growth of algae to produce biofuel. A compact bioreactor is designed and built to grow algae and harvest biofuel in an automated self-sustaining continuous process. The process requires light and flow of effluent both of which can be supplied automatically. Algae are then mechanically crushed and oil is separated and converted into biodiesel. The crushed algae may be used for diatomaceous earth or nanotechnological applications, and the resulting water is suitable for irrigation. The mechanics and engineering aspects of the growth bioreactor are discussed here.

P-101: SAMANTHA CALDWELL

Paleoenvironmental Interpretation Through Oxygen Isotopes in Phosphate From Barosaurus Indicate Increasing Aridity at The Aaron Scott Quarry (Morrison Formation, Jurassic Period)

FACULTY SPONSOR(S): JANET BERTO, PHYSICS & GEOLOGY

Abstract: Taphonomic research, stratigraphy, and oxygen isotopes from a Barosaurus femur were used to determine climate patterns and their effects on the animal's diet in the Late Jurassic of Utah. Data suggests there was an increase in aridity over the animal's lifetime. Oxygen isotopes of phosphate from the femur of the Barosaurus range from 13-16 per mil dO18 from the inner part of the bone to the edge. Millimeter-scale fluctuations in the dO18 of 1-2 per mil may be evidence of yearly fluctuations. The trend is increasing in dO18, showing a climate change at the end of the animal's life.

P-102: JUAN MALDONADO

Opisthias (Sphenodontia) From The Aaron Scott Quarry (Morrison Formation, Jurassic Period) of Central Utah

FACULTY SPONSOR(S): JANET BERTO, PHYSICS & GEOLOGY

Abstract: The Aaron Scott Quarry in central Utah (Jurassic Period) is unusual in that microfossils and macrofossils are found together. In the quarry several specimens of Opisthias sp. have been recovered. These specimens represent at least four individuals. Specimens include two maxilla, one pterygoid, and four dentaries. The four dentaries exhibit variations that suggest they are from different individuals and possibly different species. The dentary differences vary from the shape and length of the teeth, to the different structures of the jaws. The variability in these specimens suggest at least two different species of Opisthias from this site.

P-103: EVAN CLARK

Comparison of Seismic Methods on Local Landslides

FACULTY SPONSOR(S): THOMAS BRACKMAN, PHYSICS & GEOLOGY

Abstract: Northern Kentucky and Cincinnati are prone to landslides. Previous work using surface wave seismic techniques were used to image the potential failure plane (Brackman). We have conducted a seismic refraction survey along the previous seismic line in order to correlate the two methods and determine if they can be used in concert to locate the failure plane more accurately. The results will be presented on this poster.

P-104: DANI DAUGHERTY, BRYCE HAMILTON**Applied Geophysics: Ascending By Looking Down**

FACULTY SPONSOR(S): THOMAS BRACKMAN, PHYSICS & GEOLOGY

Abstract: Harvest Community Church in Falmouth, KY is in the process of constructing a new church. In an effort to lower cost we propose to map the subsurface on the site. Unknown cost in foundation construction can cause hardships for projects with a tight budget. It is our primary objective to discover the rock ripability and locate any anomalies that hinder the construction of the new church. To obtain this information we will be using Ground Penetrating Radar (GPR), Refraction Microtremor (ReMi) and Electrical Resistivity.

P-105: ELIZABETH MAY, CHRISTINA REBOHLZ, FREDERICK**WOLNITZEK, STEPHANIE BURKE****Topographical Mapping and Resistivity Survey of Burlington Elementary School Retention Basin.**

FACULTY SPONSOR(S): THOMAS BRACKMAN, PHYSICS & GEOLOGY

Abstract: The Laboratory for Applied Geophysics in collaboration with Dr. Hopfensperger will delineate a wetlands project/retention basin and determine if siltation rates can be measured. We will use a Total Station to conduct a topographic survey of the retention basin next to the Burlington Elementary School in Burlington, Kentucky. We will also conduct an electrical resistivity survey across the bottom of the basin to determine if we can see any siltation structures from the influx of sediments.

P-106: TREVOR ROWE**Geophysics in Archaeology: A Comparative Study**

FACULTY SPONSOR(S): THOMAS BRACKMAN, PHYSICS & GEOLOGY

Abstract: Using geophysics we can map subsurface features. This is applied in many fields from construction to the designing of mines. The field of Archaeology is utilizing geophysics to do what was once thought of as impossible. Archaeologists now use geophysical methods to excavate data from the ground without even touching a shovel. Geophysical techniques can be used to gather data on depth, a three-dimensional location, possible material composition, relative size and orientation. Using two different principles of geophysical surveying, electrical resistivity and electromagnetism, we were able to locate and map possible locations of burials belonging to the Fort Ancient culture.

P-107: VINCENT CAMPBELL**Synthesis of Carbon Nanotubes Employing Chemical Vapor Deposition Technique and Their Characterization Utilizing Scanning Electron Microscope**

FACULTY SPONSOR(S): WAYNE BRESSER, PHYSICS & GEOLOGY; CHARI RAMKUMAR, PHYSICS & GEOLOGY

Abstract: Our lab has successfully produced carbon nano-tubes (CNTs) using a thermal Chemical Vapor Deposition (CVD) method. The process starts with iron particles that act as catalyst seeds around which the carbon will begin pyrolysis. Acetylene, hydrogen, and argon gasses were delivered at varying flow rates, temperatures and pressures to grow CNTs. The various CNTs will be examined utilizing NKU's scanning electron microscope (SEM). This will allow us to establish a method of producing CNTs for future use to enhance the strength of ferrite toroids used as pressure sensors.

P-108: JUAN CORREA**Quasi-normal modes of a spin 0 particle around a charged black hole**

FACULTY SPONSOR(S): SHARMANTHIE FERNANDO, PHYSICS & GEOLOGY

Abstract: In this study, we have computed the oscillation frequencies which are called quasi-normal mode frequencies (QNM) of a spin 0 particle around a charged black hole in non-linear electrodynamics. The frequencies are computed for various values of charge q , mass M and the spherical harmonic index l . We have compared the values we have obtained with the QNM frequencies of the black hole of the Maxwell's electrodynamics.

P-109: KEVON REIS**Photons Around Charged Black Holes Surrounded by Dark Energy**

FACULTY SPONSOR(S): SHARMANTHIE FERNANDO, PHYSICS & GEOLOGY

Abstract: In this project, we study an electrically charged black hole surrounded by quintessence matter. Quintessence matter is a candidate for dark energy that exists in our universe. The project is focused on the orbits of the massless particles (photons).

P-110: JONATHAN WRIGHT**Motion of Massive Test Particles Around a Neutral Black Hole Surrounded by Dark Energy**

FACULTY SPONSOR(S): SHARMANTHIE FERNANDO, PHYSICS & GEOLOGY

Abstract: In this project, we study a neutral black hole surrounded by quintessence matter. Quintessence matter is a candidate for dark energy that exists in our universe. The project is focused on the orbits of the massive particles.

P-111: JESSICA KERBY**New Atmospheric Model for CREST**

FACULTY SPONSOR(S): SCOTT NUTTER, PHYSICS & GEOLOGY

Abstract: The Cosmic Ray Electron Synchrotron Telescope, CREST, is a balloon-borne experiment that detects high energy cosmic rays. This is a comparison between previous and proposed atmospheric models for use in the data analysis of CREST. The

models relate atmospheric density, pressure, and temperature to altitude. The goal of this comparison is to subsequently create an atmospheric model that resembles reality as closely as possible.

P-112: KIRK WALLACE**CREAM and ISS-CREAM Simulations**

FACULTY SPONSOR(S): SCOTT NUTTER, PHYSICS & GEOLOGY

Abstract: The Cosmic Ray Energy and Mass instrument, CREAM, is a multi-university collaborative balloon experiment that aims to measure both the energy and mass of high (1 TeV) energy cosmic ray nuclei. There are currently two versions of the CREAM detector; one version will fly on a traditional balloon flight (CREAM), while the other will be docked on the International Space Station (ISS-CREAM). Currently both instruments are modeled with Monte-Carlo simulations to aid with the detector's design. This work updates the simulations with geometry modifications for both the CREAM and ISS-CREAM experiments.

P-113: CHRISTOPHER WALES**The United Nations Security Council Expansion and Legitimacy**

FACULTY SPONSOR(S): MICHAEL BARANOWSKI, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: The UN Security Council has been responsible for the oversight of international peace and security since 1945 and has remained largely unchanged since its founding. In recent years, however, many have questioned the legitimacy of the Council and several scholars have called for Security Council reform. The greatest advocates for reform have been the G4, a coalition of states who have advocated for each other's permanent membership on the Council. This study attempts to understand how expanding the number of permanent seats on the UNSC to include the G4 would affect its legitimacy as a security and peace keeping organization.

P-114: PAIGE TSIUMIS**Virtual Bullies: Prevalence and Predictors**

FACULTY SPONSOR(S): CHERYL JONSON, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: The advent of the internet in the 1990's has created another platform for socialization. The ease in which people are able to contact each other has been facilitated through various avenues of social media outlets, connecting friends and people across the globe. With over one billion users worldwide, several issues of privacy and security have arisen over the decade. Insufficient legislature and security practices have left teen users vulnerable to the threats of cyberbullying and unwanted stranger encounters. A 2006 phone survey revealed that most teen users have been victimized, yet personal and legal preventative measures are maturing comparatively slowly.

P-115: JENA BRADLEY**Civic Engagement, Homelessness, and the City of Cincinnati**

FACULTY SPONSOR(S): SHAUNA REILLY, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: This research delves into the issue of homelessness in the City of Cincinnati/Northern Kentucky from two different perspectives: the general public, and the employees of organizations that aid the homeless population. Through this research, we address (1) the work of organizations in the city to curb homelessness, (2) the perceptions of the homelessness issue held by the general public, and (3) how these perceptions impact the ability of agencies to carry out their mission.

P-116: KATELYN HAYES**Investigating the Most Influential Barriers to Youth Voting**

FACULTY SPONSOR(S): SHAUNA REILLY, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: Despite its significance, the rate at which youth vote is consistently significantly lower than the rest of the voting population. While the tendency of youth to abstain from voting has been a significant area of research, the matter remains unsettled. This research attempts to establish the most significant barrier to youth participation in electoral politics.

P-117: SUMMER WALKER**The Invisible Majority Minority**

FACULTY SPONSOR(S): KIMBERLY WEIR, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: This project explores the prevalence and yet invisibility, despite the large numbers, of an entire population based on the blackness of their skin. The descendants of the many slaves brought to South America and the Caribbean were consistently discriminated against during the colonial and post colonial periods. Modernly, the discrimination exists and it coincides with the contention that racism doesn't exist in Latin America. A hurdle in gaining protection and recognition under the Law is the lack of unification among Afro Latinos and denying the existence of racism within their many cultures in Latin America.

P-118: CLIFFORD BROWN, RACHEL STEVENS, MATT GANNON**Effects of Early-life Antipsychotic Drug Administration on Play Fighting Behavior in Young Rat**

FACULTY SPONSOR(S): MARK BARDGETT, PSYCHOLOGICAL SCIENCE

Abstract: The number of children being treated with antipsychotic drugs (APDs) has

increased greatly over the last two decades. It is unknown what influence APDs have on brain maturation and social interaction. This study examined the effects of early-life antipsychotic drug treatment on social interaction behaviors in young rats. Sixty rat pups (33 females/ 27 males) were randomly assigned to receive injections of a control solution, or 1.0 or 3.0 mg/kg of the APD risperidone from postnatal day 14-42. Rats administered risperidone were dramatically sedated one hour post-injection, and interacted with cage mates less at 23 hours post-injection.

P-119: RACHEL STEVENS, MATT GANNON

The NMDA Antagonist, MK-801, Impairs Recall in an Operant, Delayed Non-matching to Sample Task

FACULTY SPONSOR(S): MARK BARDGETT, PSYCHOLOGICAL SCIENCE

Abstract: Dysfunction at NMDA-type glutamate receptors has been implicated in the pathophysiology of several psychiatric and neurological disorders and has been associated with deficits in learning and memory. Rats were used to determine the effects of the NMDA receptor antagonist, MK-801, on spatial working memory in an operant version of a delayed non-matching to sample task. MK-801 diminished the number of correct responses in a dose-dependent manner, and rats treated with high doses of MK-801 completed fewer trials. The spatial working memory deficits observed in rats after MK-801 treatment can be used as a model of NMDA dysfunction in psychiatric disorders.

P-120: CLAUDIO TORO SEREY, MATT GANNON

The Effects of Zolpidem on Regional Neuronal Activity and Behavior

FACULTY SPONSOR(S): MARK BARDGETT, PSYCHOLOGICAL SCIENCE

Abstract: Ambien (Zolpidem) is a relatively common sedative used to effectively induce sleep in humans. However, in late years it has been reported that for some patients in minimally conscious states, Ambien produces a paradoxical effect, waking them up for limited amounts of time. Because of this, the current experiment aimed to better understand the way in which Zolpidem affects brain networks commonly associated with consciousness, as well as determining its effects on memory through an animal model of impaired cognition. These results provide support for a mechanism that works as a base to further study this phenomenon.

P-121: KAREY COOPER, EMILY ENGELS, KAYLA VIRES, KATHLEEN BELL, YOUNGEUN LEE

The Joint Effect of Exercise and Environment on Emotion and Cognition

FACULTY SPONSOR(S): KIMBERLY BREITENBECHER, PSYCHOLOGICAL SCIENCE; KATHLEEN FUEGEN, PSYCHOLOGICAL SCIENCE

Abstract: This experiment examined the joint impact of exercise and environment on mood and attention. Researchers have documented that exercise improves mood and attention, and that being in nature restores vitality and improves working memory, though no one has yet examined the combined effect of exercise in nature. Undergraduate participants were mentally fatigued and then randomly assigned to exercise or rest, either indoors or outdoors. We report changes in mood and attention as a function of physical activity and environment.

P-122: GLADYS FRIMPONG-MANSO, ADAM ELSAMAH

Does Participation in As You Are Physical Activity Classes Affect Wellbeing?

FACULTY SPONSOR(S): KIMBERLY BREITENBECHER, PSYCHOLOGICAL SCIENCE

Abstract: The purpose of the present investigation is to evaluate the effect of participation in the As You Are Physical Activity Classes. These classes include two, 30-minute classes taught by Kim Baker, Employee Wellness Manager and Exercise Physiologist. These classes meet twice per week throughout the spring semester. Individuals who report for class will be invited to participate in an associated research project. Interested class members will complete anonymous, online surveys assessing psychological and physical wellbeing before and after participating in the As You Are classes each day of class. Results will be presented.

P-123: CASEY BIGGS

The Importance of Fun at Work: Predicting Retention with Supervisor Feedback, Goal Clarity, and Perceived Control Survey Items as Mediated by Job Satisfaction.

FACULTY SPONSOR(S): KATHLEEN FUEGEN, PSYCHOLOGICAL SCIENCE

Abstract: Research on work motivation and satisfaction has become more popular in recent years in order to help people feel happier and more engaged at work. The present study utilizes a large normative database from a global employee research firm to examine the influence of verbal feedback, clarity of goals, and perceived control on intentions to leave an organization as mediated by satisfaction. A multiple regression with mediation analysis reveals that the three independent variables are indeed significant predictors of retention with job satisfaction partially mediating this effect.

P-124: KAREY COOPER

Is Someone Watching You? The Impact of Audience Effects and Exercise in Nature on Attention Restoration

FACULTY SPONSOR(S): KATHLEEN FUEGEN, PSYCHOLOGICAL SCIENCE

Abstract: The objective of this study is to examine how audience effects impact mood, attention, and restoration while exercising in a natural environment, as these combined factors are not supported in any study to date. Participants were randomly assigned to either walk or sit outdoors near Loch Norse. The sitting participant either observed or faced away from the walking participant. Both participants completed

mood and attention measures prior to and following the manipulation. This study may reveal that the potential for evaluation introduces a distraction that interferes with attention restoration and thus may detract from the cognitive benefits of exercising in nature.

P-125: YOUNGEUN LEE, KATHLEEN BELL, KAYLA VIRES, EMILY ENGELS, KAREY COOPER

The Joint Effect of Exercise and Environment on Perceived Restoration, Health-related Attitudes, and Health-related Behaviors

FACULTY SPONSOR(S): KATHLEEN FUEGEN, PSYCHOLOGICAL SCIENCE; KIMBERLY BREITENBECHER, PSYCHOLOGICAL SCIENCE

Abstract: This experiment examined the joint impact of exercise and environment on perceived restoration, attitudes, and food choice. Researchers have documented that exercise reduces anxiety, and that being in nature promotes feelings of restoration, though no one has yet examined the combined effect of exercise in nature. Undergraduate participants were mentally fatigued and then randomly assigned to exercise or rest, either indoors or outdoors. We report the effects of the intervention on perceptions of restoration, attitudes toward the activity, and snack and beverage choices.

P-126: BRANDON WOOD

The Impact of Attitudes About Work and Family on Students' Aspirations

FACULTY SPONSOR(S): KATHLEEN FUEGEN, PSYCHOLOGICAL SCIENCE

Abstract: Researchers have investigated how work and family roles are negotiated by working adults. Studies show that stress at work affects one's satisfaction with family life, and stress at home affects job satisfaction. However, less is known about how young adults who do not yet have families think about work and family roles. The purpose of this study is to investigate the expectations young adults have regarding work-family conflict, family-work conflict, work-family facilitation and family-work facilitation. Undergraduate participants completed an online questionnaire designed to assess their attitudes concerning career planning and future family expectations. The results of this study will benefit future psychology majors who enroll in a career-planning course.

P-127: CHRISTINA SHRADER

Belief in Mental Continuity Between Animals and Humans Predicts Support for Animal Rights

FACULTY SPONSOR(S): DAVID HOGAN, PSYCHOLOGICAL SCIENCE

Abstract: In 1871, Darwin proposed that humans and the great apes possess similar psychological processes, such as learning, memory, and self awareness. His proposition, which is known as the mental continuity hypothesis, became a valuable scientific concept for organizing data and stimulating research in comparative psychology. The present research investigates whether students' beliefs in mental continuity influence their attitudes toward animal rights, and the quality of emotional attachment with their pets. Our results indicate that students who believe strongly in animal-human continuity are not only stronger advocates for animal rights, but they also form stronger emotional attachments with their pets.

P-128: EMILY TEEGARDEN

The Impact of Diversity Courses, Interpersonal Contact, and Disgust Sensitivity on Homophobia in College Students

FACULTY SPONSOR(S): DAVID HOGAN, PSYCHOLOGICAL SCIENCE

Abstract: The present study examined the influence of diversity courses, disgust sensitivity, and quality of interpersonal contact with homosexuals on homophobia in heterosexual male and female undergraduate students. Results indicated that relatively favorable attitudes toward homosexuals were associated with completion of one or more courses in human sexuality or race and gender; relatively low levels of disgust sensitivity; and relatively favorable experiences with a homosexual person. Disgust sensitivity partially mediated the association between course completion and homophobia in females, and disgust sensitivity partially mediated the link between interpersonal contact and homophobia in both genders.

P-129: ASHLEY WORMLEY

A Comparison of Happiness Ratings of Political Conservatives and Liberals Before and After the 2012 Presidential Election

FACULTY SPONSOR(S): DAVID HOGAN, PSYCHOLOGICAL SCIENCE

Abstract: Prior research has shown that people who identify as politically conservative are generally happier than liberals. The present study compared self-reports of happiness and life satisfaction in conservative and liberal college students before and after the 2012 presidential election. The results suggested that conservatives were significantly happier and more satisfied with life than liberals before and after the election. Contrary to our expectations, the election outcome did little to reduce or reverse the difference between the groups.

P-130: HEATHER ELSTUN, AMY STATMATES

Survey of Consequences Associated with Drinking Alcohol

FACULTY SPONSOR(S): CECILE MARCZINSKI, PSYCHOLOGICAL SCIENCE

Abstract: Research has indicated that the risks associated with the consumption of alcohol mixed with energy drinks (AmED) may be greater than a similar dose of alcohol alone. The purpose of this study was to investigate the prevalence of alcohol-induced blackouts in college students who consume alcohol alone compared to AmED.

Participants completed questionnaires about their demographics, current alcohol consumption rates with and/or without energy drinks, the rate of blackouts and other behavioral consequences associated with alcohol consumption. Results indicated that AmED drinkers had a higher rate of blackouts, as well as other negative behavioral consequences, when compared to non-AmED drinkers.

P-131: HEATHER HERTZENBERG

The Relationship between Alcohol Consumption and Facebook Postings of Intoxication

FACULTY SPONSOR(S): CECILE MARCZINSKI, PSYCHOLOGICAL SCIENCE

Abstract: Underage and binge drinking is widespread among college students. This demographic group also widely uses Facebook, a social networking website. Individuals often add pictures and/or comments about recent drinking episodes to their personal Facebook pages. Therefore, the purpose of this study was to investigate the relationship between alcohol consumption patterns and postings of alcohol use on Facebook. Participants completed a web-based survey to assess drinking problems (the AUDIT questionnaire) and recent activity on Facebook. Results indicated there was a significant positive correlation between participants' self-reported scores on the AUDIT and Facebook postings of intoxication.

P-132: SARAH MALONEY, AMY STAMATES

The Effects of Energy Drink Expectancies on Memory and Critical Thinking Tasks

FACULTY SPONSOR(S): CECILE MARCZINSKI, PSYCHOLOGICAL SCIENCE

Abstract: The purpose of this study was to investigate positive and negative expectancies of energy drink consumption on cognitive and subjective measures. Participants were randomly assigned to one of four dose/expectancy message conditions. The results indicated that participants felt more sedated after drinking the energy drink at 52 minutes than the groups that received placebo. The participants in the enhance conditions desired more energy drink than the impair expectancy groups. There were no significant results for dose or expectancy on the memory or the math test. Given recently reported health concerns associated with these beverages, limiting consumption of these products appears warranted.

P-133: RENEE MEISTER, CECILE MARCZINSKI

Effects of Age of First Use of Alcohol and Age of First Intoxication on Impulsivity and Behavioral Control in Young College Students

FACULTY SPONSOR(S): CECILE MARCZINSKI, PSYCHOLOGICAL SCIENCE

Abstract: Alcohol use at an early age is a risk factor for future heavy drinking and alcohol dependence. This study examines if age of first drink and first intoxication can be used to determine developmental and cognitive risks associated with binge drinking. Participants between the ages of 18 and 20 completed questionnaires that assess past and recent drinking habits and impulsivity and behavioral control is measured by a cued go/no-go task. It is hypothesized that participants who self-report an earlier age of first drink and first intoxication may exhibit greater cognitive impairments on the behavioral control task.

P-134: AMY STAMATES, SARAH MALONEY, CECILE MARCZINSKI

Effects of Artificial Sweeteners on Breath Alcohol Concentrations

FACULTY SPONSOR(S): CECILE MARCZINSKI, PSYCHOLOGICAL SCIENCE

Abstract: This study examined differences in breath alcohol concentrations (BrACs) in varying doses of alcohol when consumed with an artificially versus sugar sweetened mixer. Subjects attended five sessions where they received one of five doses in random order (0.30 g/kg dose of alcohol mixed with a diet or a sucrose sweetened beverage, 0.60 g/kg dose of alcohol mixed with a diet or a sucrose sweetened beverage, or placebo beverage). BrACs were significantly greater when subjects consumed alcohol + diet mixer compared to when they consumed the same amount of alcohol + regular mixer in both low and high alcohol conditions.

P-135: MELISSA ARRINGTON

The Effects of Organizational Supports and Explanations on Employee Perceptions of Fairness with Work-Family Programs

FACULTY SPONSOR(S): PHILIP MOBERG, PSYCHOLOGICAL SCIENCE

Abstract: The increasing diversity of workers in the labor force (i.e., single parents) has led organizations to provide workers with family-friendly programs to help balance work and family responsibilities. This study examines employee perceptions of fairness in work-family benefit program decisions made by a direct supervisor versus the organization's human resources office. Also this research investigates different types of explanations for denying these benefits programs (i.e., flextime, telecommuting, paid parental leave, child care assistance) and the decision's impact on perceptions of distributive, procedural, and interpersonal justice.

P-136: CASEY BIGGS, WHITNEY KESSINGER, REBECCA SHEARER

Formulation of a Scale to Assess Goal Types in Workplace Training

FACULTY SPONSOR(S): PHILIP MOBERG, PSYCHOLOGICAL SCIENCE

Abstract: Research on motivation and goals has long been conducted in the field of Industrial/Organizational psychology to maximize employees' ability to achieve high performance. Much of the previous literature and scale development in the area, though, is focused on goals for performance in general while the present study seeks to examine goal types as they apply to training programs at work. We evaluate the formation of performance goals, normative goals, and learning goals. Through

a principal axis factoring analysis with oblique rotation and reliability and validity analyses, we developed a four factor measure of goal types in workplace training programs.

P-137: JESSICA PETOR

Psychological Work Detachment: Construct Definition, Scale Development, and Preliminary Validity Evidence

FACULTY SPONSOR(S): PHILIP MOBERG, PSYCHOLOGICAL SCIENCE

Abstract: Emerging research in psychological work detachment has identified the potentially harmful effects of insufficient detachment on individual productivity and worker health. The present study explicitly conceptualizes the domain of detachment and reports preliminary validity, reliability, and factor analytic evidence to support the hypothesis of detachment as a multidimensional construct.

P-138: LAURA SOS, CAROLINE WAGNER, STEVE STAGGS

Identifying Sources of Work Anxiety: Scale Development and Validation

FACULTY SPONSOR(S): PHILIP MOBERG, PSYCHOLOGICAL SCIENCE

Abstract: This study describes the development and preliminary validation of a measure designed to assess individual and organizational sources of work-related anxiety. Exploratory factor analysis of a 58-item scale revealed three dimensions of work anxiety. Validity evidence from relations with measures of job stress, satisfaction, anxiety, and emotional stability is reported.

P-139: CHRYSALIS PAYNE

An Analysis of African American Women and Anglo Women in Full-Page Magazine Ads

FACULTY SPONSOR(S): BARBARA ARRIGHI, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: The study analyses the treatment of African American women and Anglo women in full-page magazine advertisements. It examines a sample of three issues each of Elle, Essence and Vogue that target Anglo and African American readers to determine whether the way models are posed in magazines targeting Anglo readers differs from the way models are posed in magazines targeting African American readers in terms of sexual objectification, such as models posed in submissive positions or wearing little to no clothing. The results indicate that how models are posed in ads depends on the magazine and the readers targeted.

P-140: LAURA VEETY

Leisure, Tourism and Aging Population in American Society

FACULTY SPONSOR(S): BONI LI, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: The aging population is growing rapidly in American society and will reach 20% by 2030. Currently with baby-boomers gradually entering retirement, now is the prime time to change the traditional retirement norms and encourage the elderly to experience a new outlook of life transitioning into their "golden years." Tourism could be a solution for this age group to improve their quality of living including enjoyment of life, physical and mental health as well as social interactions. This research will evaluate the options of tourism for this aging group and also the benefits for both the retirees and social economic development.

P-141: ALEXANDRIA HARGRAVE

Replicating the Past: Flintknapping in Fort Ancient Culture

FACULTY SPONSOR(S): BARBARA THIEL, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: During much of prehistory, different human cultures have been able to create amazingly effective and varied tools out of nothing more than simple stone. Through the process of flintknapping, using the natural fracturing qualities of stones like flint, chert, or obsidian, one can create almost any tool necessary to survive and thrive in the natural world. This project focuses on the replication (through flintknapping) of tools and points associated with the Fort Ancient culture—a prehistoric Native American group who inhabited local Northern Kentucky/Southern Ohio—using self-made, primitive antler and stone tools.

P-142: CORA ARNEY, JOHN WILDER

Northwest Coast Artisans: Portrayals of Culture

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: Northwest Coast cultures are known for their red and black, stylized geometric, wood carved totem poles and other ceremonial items which were often used in potlatches. In 1922, the Canadian government began arresting individuals and confiscating items of the potlatch. These items were dispersed to many museums across Canada and the United States. By 1978, some museums returned the potlatch items to individual tribes and required these tribal groups to create their own museums to preserve the objects. Our study examines exhibits and objects from both tribal museums and other collections to better understand Northwest Coast craft production and indigenous cultures, and the multiple ways museums' portray local culture.

P-143: CAITLIN HAZELIP

The Life of an Artifact and a Museum's Role in Preserving the Past

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY; ROBERT GENHEIMER, CINCINNATI MUSEUM CENTER

Abstract: This project focuses on a single artifact, from its manufacture to its (re)

discovery and eventual curation. This artifact, which is a small, portable object created for use by the people of the Fort Ancient culture, is tracked through time, from its creation, deposition, and eventual (re)discovery by Cincinnati Museum Center staff and volunteers. Following excavation at the Hahn site in Newtown, Ohio by archaeologists, the artifact was next processed and archived at the Geier Collections and Research Center. This artifact, and others from the Hahn site are being studied to better understand Native American lifeways in prehistory in our region. Following analysis the artifact may be used for educational purposes at the Cincinnati Museum Center.

P-144: LISA HOFFMANN, KENDRA HEIN, KAITLYN GERRETY, STEVEN SHELBY

Mortuary Practices of Mesoamerica

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: Prehistoric people throughout Mesoamerica buried their dead in many ways, often dependent on the social status and gender of the deceased. Understanding mortuary practices in different cultures help define the society and their views. Examining mortuary practices may inform on issues such as social organization, divisions of labor, and ceremonial/ritual behaviors of cultures and societies. This poster focuses on two distinct groups in prehistoric Mesoamerica: the Maya and the inhabitants of Teotihuacan; we examine differences in mortuary behavior of these two cultures.

P-145: ALEXANDRA IVERS

Prehistoric Production of Copper in Central Thailand: Slag as an Indicator for Differences in Metallurgical Practices and Health Concerns

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY; GRANT EDWARDS, CHEMISTRY

Abstract: The major copper production sites of Non Pa Wai and Nil Kham Haeng, located in the Khao Wong Prachan Valley of central Thailand, contain large concentrations of slag, a waste material. Monsoonal weather in Thailand may have resulted in the leaching of copper from the slag into the soil and rain water. High concentrations of ingested copper result in gastrointestinal distress, liver and kidney failure. This research determined the amount of copper present in slag using Atomic Absorption Spectroscopy and the amount of copper that could leach out of slag according to the Environmental Protection Agency's Toxicity Characteristic Leaching Procedure.

P-146: LAUREN SMITHER, ALEXANDER IVERS, MALIA STROBEL, DOROTHY ATWELL, ALEX GRIMES

Mental Illness and Health Concerns in Modern Day China and Japan

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: This poster provides perspectives on how mental illness and other health concerns are treated in non-western cultures, namely China and Japan. Mental illness, suicide, and certain diseases are still delicate topics in these cultures and this affects how afflicted people obtain treatment. In China, HIV/AIDS patients are often discriminated against. Suicides in rural Chinese women are higher than women living in urban populations; while suicide rates in Japan are among the highest in the world. In Japanese society, people with mental illness often go untreated and are shunned by society. To remedy these situations, increased government recognition, programs, and public education are required.

P-147: BOB VALLANDINGHAM, LYNSEY BATES, JESSICA PERKINS, DAVID BARBER

Examining the Use of Influence and Power by Mesoamerican Elites

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: Many civilizations in ancient Mesoamerica were led by a small number of individuals who exerted power by manipulating and often having control over the larger population. In the last forty years, scholars have redefined these early societies through examination of archaeological evidence and the decipherment of Mayan glyphs. This project focuses on the use of writing, rituals, and the construction of large temples and other central structures by elites as a mechanism to promote and strengthen their status within these cultures.

P-148: MORGAN WALKER, MARCUS HARSHAW JR.,

LINDSEY NEVILLE, CANDACE GLAHN

Cornerstones of Complex Societies: Exploring Craft Specialization in Mesoamerica

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: Craft specialization is an important component in complex societies. This poster presents archaeological evidence of craft specialization focusing on crafts produced in the ancient societies of the Olmec, Maya, and at Teotihuacan. Early inhabitants of Mesoamerica utilized resources such as obsidian, stone, and other materials to create intricate objects for daily use, ritual purposes, as well as for trade and exchange. Another aspect of this research is an examination of the interdependency between Mesoamerican societies. This interdependency is shown by their ability to work in concert through trade to gain the materials necessary to manufacture goods.

P-149: STEPHANIE ZACH, SCOTT JUMP, HELENA SIZEMORE

Faces in Stone: Elite Immortality in Ancient Mesoamerica

FACULTY SPONSOR(S): JUDY VOELKER, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: This poster discusses the significance of stone as a political medium in early Mesoamerican cultures by examining depictions on lintels, alters, stone monuments, and stelae. We discuss the relationship of stonework with the elite class and how elites used this resource to promote and maintain their power. Rulers often utilized impressive stonework to display their accomplishments in an effort to be immortalized. Alters in these early societies were sacred structures where rulers performed rituals to affirm their divine right to govern. In a society where the majority was illiterate, stone artwork was a mechanism to maintain elite power through the use of their image.

P-150: JIBRIL MCCASTER

Sportsmanship CHAMP (Creating good character, Healthy relationships. Addressing Social Issues. Making meaningful & Positive changes.) Camp

FACULTY SPONSOR(S): KAREN JENKINS-SMITH, SUPPLEMENTAL INSTRUCTION

Abstract: Sportsmanship is Fair Play and Respect. Sportsmanship CHAMP Camp is a free athletic camp that helps youth with and without disabilities learn sportsmanship/good character, teambuilding, healthy decision-making, and basketball fundamentals. Mayors and NKU's basketball teams have supported CHAMP camp since 2007. The camp concludes with a Teen Summit and an Awards ceremony where campers demonstrate what they learned and receive awards. The long-term effect is the demonstration of Sportsmanship/Good Character, fostering of Healthy Habits, and Sportsmanship among athletes/coaches/officials/parents/fans throughout the school year. At CHAMP Camp everyone's a winner. Sportsmanship CHAMP camp's free, but the benefit to all involved is priceless!

P-151: ROSEMARIE SANTOS

Use of a Green School Learning Laboratory as an Instructional Tool

FACULTY SPONSOR(S): STEVE KERLIN, TEACHER EDUCATION

Abstract: The research will ultimately show how teachers use the sustainable features of a new green school in instruction as well as changes in students' attitudes and academic performance. The research completed during summer of 2012 concentrated on the analysis of audio-recorded teacher focus groups.

P-152: JESSICA FRAZER

Using Applied Behavior Analysis to Increase Desired Behavior

FACULTY SPONSOR(S): STEPHEN WALKER, TEACHER EDUCATION

Abstract: The purpose of this behavior change program was to increase the number of positive slogans a 5th grade student would say during assigned academic tasks. This student displayed escape and avoidance behavior and had acquired "learned helplessness". The target behavior and goal was to increase positive self statements he would say when handed a task. The teacher used event recording and the student kept a record of his performance using a sticker chart. Reinforcers were selected based on the student's interests. There were many confounding variables that affected the results of this behavior change program, however, in the end the student's positive slogans increased and the intervention was successful.

P-153: APRIL RIDER

Discovering a Student's True Potential Through Positive Reinforcement

FACULTY SPONSOR(S): STEPHEN WALKER, TEACHER EDUCATION

Abstract: This presentation describes a positive and proactive behavior intervention plan that was created and implemented for a seventh grade student with a learning disability who also struggled with complying with teacher requests and instructions. Over the course of a couple weeks the student's behavior was observed and monitored. Baseline data revealed that the student exhibited a high stable rate of noncompliance. Prior to receiving a behavior contract he was only following four out of ten directions in a one-hour period. By the end of the project he had reached his goal of following seven out of ten directions.

P-154: BROOKE WHITACRE

Homework Completion Through Contingency Management

FACULTY SPONSOR(S): STEPHEN WALKER, TEACHER EDUCATION

Abstract: This behavior change project analyzed the effects of contingency management on homework completion. The study was conducted with a 14-year old male in a high school math class. The student was struggling to succeed and a great deal of his difficulty came from his failure to complete his homework. Because he was exhibiting a performance rather than a skill deficit, he was offered a tangible reinforcer for completing his homework. The recorded data indicated the contingency management plan was an effective means of encouraging this student's success.

P-155: JENNIFER WILLIAMSON

Using Applied Behavior Analysis to Successfully Change a Behavior

FACULTY SPONSOR(S): STEPHEN WALKER, TEACHER EDUCATION

Abstract: The purpose of this behavior intervention project was to decrease non-compliant behavior in a 3-year-old during bathroom time. Her behavior consisted of ignoring simple instructions and not participating in bathroom activities. After defining the target behavior and determining the function of the behavior, I used a simple AB single subject design. I took baseline data (A phase) to monitor her

behavior at the operant level and then implemented the intervention in the B phase. A contingency was developed which included stickers for compliant behavior. As those stickers added up she earned puzzle pieces. Once the puzzle was completed she earned her prize from the classroom treasure box. This project was successful in helping a little girl develop age appropriate skills!

P-156: ALEXANDRA HEDGES, CHRISTOPHER FISHER
Service Learning in the Spanish Classroom: Two Approaches

FACULTY SPONSOR(S): KAJSA LARSON, WORLD LANGUAGE & LITERATURE

Abstract: This study measured the impact that two service-learning and philanthropy projects had on student success in the Spanish classroom. First, students enrolled in Spanish Composition & Conversation completed volunteer work with Santa Maria Community Services, wrote reflection papers and presented in Spanish. Second, students in Hispanic Women Writers received grant money from NKU's Mayerson Student Philanthropy Project and decided how to award local nonprofits that serve women, including Hispanics. An anonymous student survey from both classes confirmed our hypothesis that this work enhanced students' professional growth, social awareness, problem-solving skills, and interest in career and volunteer opportunities that require Spanish.

P-157: JORDAN HENSLEY, KATHERINE FRANZEN, MICHELLE TENSING, ILIYANA KRIVCHEVA, CLAIRE BARTELS, REBECCA COLLINS, AMY FIGHTMASTER, GEORGINA ALAMILLA, VERONICA ALAMILLA, GARRETT KINDER, KAITLYN LUTES, MARC RISKU, BETH SCHMIDT, ANNA SYSUN, TAYLOR VICK
Calligrammes: Visual Poetry on the footsteps of Guillaume Apollinaire

FACULTY SPONSOR(S): GISELE LORIOT-RAYMER, WORLD LANGUAGE & LITERATURE

Abstract: A calligram is a poetic text in which the spatial arrangement of the words on the page forms a visual image that captures the theme of the poem. Students in French Composition and Conversation (FRE 304) created their own Calligramme, in the style of the French poet Guillaume Apollinaire (Calligrammes 1918). Authors carefully researched the shape, the vocabulary, the images, the syntax, and the punctuation that would best convey the theme(s) and meaning of their poem. The result is a collection of visual poetry ranging from familiar topics to myths, ideas, passions, and life struggles. *** 8 additional co-authors: Georgina Alamilla, Veronica Alamilla, Garrett Kinder, Kaitlyn Lutes, Marc Risku, Beth Schmidt, Anna Sysun, Taylor Vick ***|

P-158: SCOTT MEADOWS

Orbits of Massive Particles Around a Charged Black Hole Surrounded by Dark Energy

FACULTY SPONSOR(S): SHARMANTHIE FERNANDO, PHYSICS & GEOLOGY

Abstract: In this project, we study an electrically charged black hole surrounded by quintessence matter. Quintessence matter is a candidate for dark energy that exists in our universe. The project is focused on the orbits of the massive particles.

HONORS PRESENTATIONS

WEDNESDAY, APRIL 24 AND THURSDAY, APRIL 25

OTTO BUDIG AUDITORIUM

KEYNOTE SPEAKER: JULIA ALVAREZ

APRIL 24, 7 PM

HONORS ORAL PRESENTATIONS



H O-1: JENA BRADLEY

Fostering Community: Civic Engagement, Homelessness, and the City of Cincinnati

FACULTY SPONSOR(S): SHAUNA REILLY, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: How do the perceptions of homelessness held by the general public compare to the realities experienced by individuals that work with the population? How do these perceptions impact the ability of organizations to carry out their missions? What is meant by community, and how do we foster its growth? This research delves into these questions, exploring how agencies in the City of Cincinnati and Northern Kentucky attempt to curb the instances of homelessness, what successes are had, and what challenges are faced.

H O-2: AUSTIN BROWN

Effects of Prenatal Polychlorinated Biphenyl Exposure on Energy Metabolism in Three Genotypes of Mice

FACULTY SPONSOR(S): CHRISTINE CURRAN, BIOLOGICAL SCIENCES

Abstract: Polychlorinated biphenyls (PCBs) cause learning, memory, and behavioral deficits in the developing human brain. Our previous work showed that allelic differences at the Ahr and Cyp1a2 loci alter susceptibility to developmental PCB neurotoxicity. Using a mouse model, we discovered significant divergence in body weights that were dependent on sex, genotype, and treatment. Follow-up experiments were designed to see if gestational and lactational PCB exposure alter energy metabolism. We compared blood glucose, triglycerides and cholesterol in PCB-treated and corn oil-treated control mice with the following genotypes: AhrbCyp1a2(+/-), AhrbCyp1a2(-/-) and AhrdCyp1a2(-/-) at multiple time points from young adults to aged mice (3-13 months of age).

H O-3: HANNA DASENBROCK, ANDREW HALL, ROB SPAULDING, JOE CURCIO

Evaluation of Apoptosis-related Gene Expression to Measure Poly(butylcyanoacrylate) Nanoparticle Toxicity in a Cell Culture Model of the Blood Brain Barrier

FACULTY SPONSOR(S): KRISTI HAIK, BIOLOGICAL SCIENCES; RUTH HEMMER, BIOLOGICAL SCIENCES

Abstract: Using nanoparticles (NPs) to treat diseases shows potential. Coating NPs with surfactants can facilitate crossing the blood brain barrier (BBB). Poly(butylcyanoacrylate) (PBCA) can be loaded with anti-tumor drugs and coated with surfactants. There is evidence these can cross the BBB. A comparison of surfactant toxicity is important for the use of NPs. Here, a cell co-culture model of the BBB was used to investigate the difference in gene expression of the co-cultures following surfactant-coated PBCA-NPs exposure at three concentrations. RNA was collected 8/24h post-treatment and analyzed for expression of apoptosis-related genes using rt-PCR. The results indicate exposure to PBCA-NPs causes change in apoptosis-related genes.

H O-4: ANNA EGAN

A Sheep In Wolf's Clothing: A Survey of Pants Roles in Opera

FACULTY SPONSOR(S): GAYLE GROUT, MUSIC

Abstract: A pants role is when a female acts the part of a young male character. Often in opera these roles are written for mezzos as their vocal range is closer to that of young male. The goal of this project is to give the audience a better understanding of the complete pants role performer. To accomplish this, my mentor and I selected and studied four arias featuring pants roles from a range of time periods in the history of western music, which I will then perform in the musical and acting style true to their time period.

H O-5: KAIREE FRANZEN

Beauty, Body Image, and Breaking Barriers

FACULTY SPONSOR(S): BELLE ZEMBRODT, HONORS PROGRAM

Abstract: The development of beauty standards has interested me for some time. For my project, I focused on the formation of such standards and their effect on girls' body image. Through my studies, I created a body image wellness program aimed toward fourth and fifth grade girls, a critical, pre-adolescent stage of life, in conjunction with the Boys and Girls Club. The program's base is prevention of a negative body image by means of media literacy, knowledge of self, relations with others, nutrition, and physical education. By educating them, they educate me, and I hope to make a lifelong impact.

H O-6: DEREK GIBBS

Synthesis of Metal-Conjugated Bipyridine Derivatives for Solar Cell Applications

FACULTY SPONSOR(S): KEITH WALTERS, CHEMISTRY

Abstract: There has been an increased push recently to move to a "greener" society. At the forefront of this issue is the demand for an economic and efficient source of renewable energy. This talk will discuss current research in our research group concerning new options for solar cells. This project entailed the synthesis of systems uniting fullerenes and transition metals. These new molecules offer a largely organic-based approach to solar cells, which are likely more economic than current silicon-based cells. This presentation will highlight methodology studies used to optimize reaction conditions of these molecules in order to increase synthetic efficiency.

H O-7: JULIE GILBERT

The Effects of Drug Type and Use Pattern on Attitudes toward Substance Dependent Individuals and Harm Reduction

FACULTY SPONSOR(S): PERILOU GODDARD, PSYCHOLOGICAL SCIENCE

Abstract: Heroin addicts are among the most stigmatized Americans, and this stigma may contribute to the scarcity of drug treatment options available to them. However, research shows that, compared to those who remain addicted, stigma decreases when heroin addicts quit using drugs. My study will examine whether this stigma reduction following abstinence from heroin also applies to heavy cigarette smokers who quit, and whether stigma is reduced if individuals protect others from the harms associated with their continued addiction. Finally, I will investigate whether reduced stigma toward individual drug users translates into increased support for a wider array of treatment options.

H O-8: RACHEL HARPE**Georges-Eugene Haussmann's Paris Urban Plan and It's Use in Modern Times**

FACULTY SPONSOR(S): NICK BONNER, VISUAL ARTS

Abstract: In 1853, Georges-Eugene Haussmann, a French civic planner, was appointed to renovate the city of Paris. To accomplish Napoleon III's goal of better traffic flow, encouragement of economic growth, and making the city 'revolution-proof,' Haussmann tore up many of the ancient cramped streets, run-down apartment buildings, and replaced them with wide tree-lined avenues. Through personal observations of Paris, interviews, and scholarly research of Haussmann's urban plan, I can discover its benefits and disadvantages for today's Paris.

**H O-9: HANNAH LINSEY, CODY LINDGREN, KAILEE POSTON
Bad Film Fan**

FACULTY SPONSOR(S): BAVAND KARIM, COMMUNICATION

Abstract: Bad Film Fan is a podcast series created with the intent of reviewing each of the American Film Institute's top one-hundred films of all time. The project originated while I was having a conversation with my two collaborators, Kailee Poston and Cody Lindgren, about how many of these listed films we had each seen. Having each claimed to be avid cinephiles, our statistics were pathetically low. In order to remedy this situation we created Bad Film Fan. Every week we post a podcast episode in which we review that week's film, as well as additional companion videos that feature our reactions to the movie.

H O-10: MINADORA MACHERET**The Holocaust and Survival: An Exploration through Poetry**

FACULTY SPONSOR(S): KELLY MOFFETT, ENGLISH

Abstract: I have taken my grandmother's account of surviving the Holocaust and represented it through poetry. In this collection I have incorporated her stories, recipes, and her will to survive through the use of vivid imagery and free verse poetry. This has given me the opportunity to connect and give her story to future generations to remember. I learned how to use my grandmother's stories as a poetic medium to bridge connections between our generation and hers.

H O-11: CAITLIN NEELY**Selections from Exposure: Poetry Reading and Discussion of Lyricism**

FACULTY SPONSOR(S): KELLY MOFFETT, ENGLISH

Abstract: I will share selections from my poetry chapbook Exposure and define my current understanding of the American free verse lyric poem. I will also discuss the lyric experience, and how landscape and nature shaped the progression of my chapbook.

H O-12: ROSEMARIE SANTOS**Use of a Green School Learning Laboratory as an Instructional Tool**

FACULTY SPONSOR(S): STEVE KERLIN, TEACHER EDUCATION

Abstract: A growing trend for school systems is building environmentally conscious, high performance school buildings. The main reason for the phenomenon is economic. However, what has not been proven is the supposed positive influence on teachers and their students. The purpose of this research is to explore the impact of green high performance learning laboratories on the teaching practices of middle school teachers. Specifically, the research will examine whether the move from a conventional school building to a building that is designed and built to "green" building standards has affected the ways in which teachers teach.

H O-13: CLAUDIO TORO SEREY**The Effects of Zolpidem on Regional Neuronal Activity and Behavior**

FACULTY SPONSOR(S): MARK BARDGETT, PSYCHOLOGICAL SCIENCE

Abstract: Ambien (Zolpidem) is a relatively common sedative used to effectively induce sleep in humans. However, in late years it has been reported that for some patients in minimally conscious states, Ambien produces a paradoxical effect, waking them up for limited amounts of time. Because of this, the current experiment aimed to better understand the way in which Zolpidem affects brain networks commonly associated with consciousness, as well as determining its effects on memory through an animal model of impaired cognition. These results provide support for a mechanism that works as a base to further study this phenomenon.

H O-14: AMANDA WELCH**Combinatorial Game Theory**

FACULTY SPONSOR(S): DON KRUG, MATHEMATICS & STATISTICS

Abstract: Combinatorial games are two player games lacking chance. Players alternate turns until there is no move left to be made. The player unable to move wins. Mathematicians study these games in order to develop winning strategies. A winning strategy will tell which move a player should make given a specific set up so that they can move toward a winning position. From a winning position the player will be able to win the game by playing perfectly (i.e. following the winning strategy). I will be giving a brief introduction to combinatorial games and Greedy Cannibals, the game I studied.

H O-15: BRIAN WOLF**Comics for Everyone: An In-Depth Look at the Sequential Arts**

FACULTY SPONSOR(S): MARC LEONE, VISUAL ARTS

Abstract: Brian Wolf started his senior capstone with a single goal in mind: Make more comics. But that seemingly simple project exploded into something much bigger. Come for an animated discussion about making comics for print and the web, the changing nature of comics communities online and offline, and the potential future of the medium as a whole.

H O-16: ALEXANDER YARAWSKY**Evaluating the Implication of Siderophores in Biofilm Formation on Bone**

FACULTY SPONSOR(S): KRISTI HAIK, BIOLOGICAL SCIENCES

Abstract: Biofilm formation is problematic in a variety of environmental and medical settings, resulting in scenarios such as clogging of stainless steel pipes and human infection. Attenuated total reflectance Fourier Transform infrared spectroscopy (ATR-FTIR) was used in conjunction with dissolution and fluorescence analyses to examine the interaction between siderophores and metal(-oxide) surfaces. A hydroxyapatite sol-gel was prepared as a model for bone and characterized by Atomic Force Microscopy (AFM). The implications of siderophores in the initial stages of biofilm formation on hydroxyapatite will be discussed.

HONORS

POSTER PRESENTATIONS

**HP-1: JILLIAN ALIG****The Effects of Primed Familiarity with Drug Users on Attitudes toward Medication-Assisted Treatment**

FACULTY SPONSOR(S): PERILOU GODDARD, PSYCHOLOGICAL SCIENCE

Abstract: Recently, the abuse of opioid drugs has skyrocketed and impacts an increasingly young demographic. To determine how this shift affects individual attitudes towards drug use, I will conduct a research study. Half the participants will be randomly assigned to complete a questionnaire prompting them to consider the extent of smoking, binge drinking, and use of other drugs within their own peer groups. All participants will then indicate their attitudes toward specific drug treatment approaches. I hypothesize that those who are sensitized to drug use in their own social networks will have more favorable attitudes toward a variety of treatment approaches.

**HP-2: LANCE BARRETT, EDWARD HICKMAN, JAMISON MILLS
Consulting Project for Touritz**

FACULTY SPONSOR(S): DENISE LUETHGE, MANAGEMENT

Abstract: This project involves a team of three consulting Touritz, a local start-up business, on entering the competitive market. Touritz will be a crowd-sourcing website/smart phone application that allows the user to take independent tours of historical areas. The research looks at the overview of the company, the internal analysis, and the external analysis. Our team is looking at the European market as a potential location to start internationally. The biggest part of our project will dive into the competitive analysis. This project will assist the founder of Touritz in starting his company from an international point of view.

HP-3: KELLY BRYAN**ABC's of an IEP**

FACULTY SPONSOR(S): STEPHEN WALKER, TEACHER EDUCATION

Abstract: This study will focus on the ins and outs of an IEP (Individualized Education Plan). Part of my responsibility as a potential future school psychologist will be to construct an IEP, with the assistance of their teachers and parents, for all of the students that I diagnose and/or follow throughout their schooling. An IEP is a goal-specific plan to help individual learners achieve their potential throughout the education process. My main goal is to create my own IEP for one of the students (who will remain anonymous) that I work with through my co-op.

HP-4: ALEXANDRIA HARGRAVE**Replicating the Past: Flintknapping in Fort Ancient Culture**

FACULTY SPONSOR(S): BARBARA THIEL, SOCIOLOGY, ANTHROPOLOGY & PHILOSOPHY

Abstract: During much of prehistory, different human cultures have been able to create amazingly effective and varied tools out of nothing more than simple stone. Through the process of flintknapping, using the natural fracturing qualities of stones like flint, chert, or obsidian, one can create almost any tool necessary to survive and thrive in the natural world. This project focuses on the replication (through flintknapping)

of tools and points associated with the Fort Ancient culture—a prehistoric Native American group who inhabited local Northern Kentucky/Southern Ohio—using self-made, primitive antler and stone tools.

HP-5: EDWARD HICKMAN Consulting Project for Touritzzy

FACULTY SPONSOR(S): DENISE LUETHGE, MANAGEMENT

Abstract: I will be working with a group in my MGT 490 (Business Policy) class to provide consulting services for Touritzzy, a new company that provides a new type of tourism. In conjunction with MGT 490, IBHF, and the Honors program our group will work to develop a business strategy to help Touritzzy flourish. In order to tie this project to an international aspect, we will be researching tourism in Europe. I will be researching the Euro currency's effect on tourism. Also, we will conduct many analyses on Touritzzy to determine the most effective way for them to conduct business abroad.

HP-6: NICOLE KALLMEYER

A Sir and A Toad: Journey Through a Comic Book

FACULTY SPONSOR(S): ANDY MILLER, ENGLISH

Abstract: As authors compete with increased technology usage they have continued to seek out new means to reach their audience. Recently, there has been a rising trend for authors to adapt their stories to a graphic novel format. This project strives to determine how the change in format affects the telling of a story and to find the notable differences between the two formats. The process of taking my own story and adapting it to a comic book will provide firsthand insight into the changes that are made, and what steps in the process will result in those changes.

HP-7: DANIELLE KLEYMEYER

Resolving a Culture of Violence

FACULTY SPONSOR(S): ALEXIS MILLER, POLITICAL SCIENCE, CRIMINAL JUSTICE & ORGANIZATIONAL LEADERSHIP

Abstract: From both the perspectives, perpetrator and victim, there are many concerns to be examined in regards to violence. While the primary objective of this project is the evaluation, implementation, and effectiveness of a support network for victims of intimate partner violence on college campuses, this paper will also address the repercussions of violence and the positive effects a support network could have towards their recovery. Finally, issues of gender roles, violence, and intimate partner violence will be examined in regards to student's positions towards creating and acting as a support network.

HP-8: RACHEL MEDLOCK

Environmental Enrichment and Successful Canine Adoptions

FACULTY SPONSOR(S): LINDSEY WALTERS, BIOLOGICAL SCIENCES

Abstract: The welfare of domestic dogs can be negatively impacted by inappropriate confinement. In animal shelters, dogs may be housed in a kennel environment for long periods of time. Animate and inanimate environmental enrichment can reduce stress among kennelled dogs. This project focuses on determining the enrichment programs leading to the successful adoption of shelter dogs. I used investigation of current animal behavior research, observations of local organizations, and analysis of methods employed by shelters to determine which forms of environmental enrichment have the greatest impact on canine well-being and adoptability, with maximum practicality of implementation.

HP-9: JAMISON MILLS, EDWARD HICKMAN, LANCE BARRET

Consulting Project for Touritzzy

FACULTY SPONSOR(S): DENISE LUETHGE, MANAGEMENT

Abstract: For our Capstone, we will be acting as consulting agents for a startup tour company named Touritzzy. We will examine a wide array of issues that deal with the company's opportunities to expand internationally, with a focus on expansion into Europe. Among the topics we will discuss will be an environmental analysis for the firm, an internal analysis, company strengths and weaknesses, and an assessment of the firm's business strategies. We will also develop a marketing plan for the company, as well as examine the risks associated with "born-global" companies.

HP-10: MATTHEW MOLONY

The Effect of Harry Potter on my Millennial Generation

FACULTY SPONSOR(S): JOHN ALBERTI, ENGLISH

Abstract: The purpose of this research project is to analyze the effect that the Harry Potter series has had on my Millennial Generation. Just why is so much of my generation so obsessed with Harry Potter? This is what I hope to analyze through my research which includes conducting a survey with Dr. Alberti's Harry Potter class and potentially a focus group from the class as well.

HP-11: ABIGAIL QUIROA

The Moonshines on my Old Kentucky Home

FACULTY SPONSOR(S): ANDREA WATKINS, HISTORY & GEOGRAPHY

Abstract: This capstone examines life in rural Kentucky in the late 19th century and the early 20th century and the production of moonshine. The project looks into the lives of the families who have been impacted by moonshine and explores its influence in the community, specifically, the social, political, and economic impacts of the moonshine business. Family histories, public records, and oral traditions are used to capture the life in moonshining communities.

HP-12: MALIA STROBEL

Translating a Japanese Folktale and its Influence on Japanese Culture

FACULTY SPONSOR(S): MAKOTO NAKAMURA, WORLD LANGUAGE & LITERATURE

Abstract: For this project, I chose to translate a traditional Japanese story, The Talking Futon, and conduct research on how it may have originated and how it may influence modern Japanese culture. The translation was completed with the aid of native Japanese speaker Makoto Nakamura. A literature review of studies concerning Japanese history and culture was also conducted in relation to Tottori Prefecture, Japan, the area of the story's origin.

HP-13: JUSTIN TAYLOR

Conjectures in Number Theory

FACULTY SPONSOR(S): BETHANY NOBLITT, MATHEMATICS & STATISTICS

Abstract: There are many conjectures in Number Theory that have remained unproven for years. One of the most notable of these has been the ABC Conjecture. Recently, this conjecture was proven by Japanese Mathematician, Shinichi Mochizuki. This project will explore the consequences of this proof and consider new possibilities that are a result of this proof.

HP-14: ELLEN TEPE

Developing a Business Continuity Plan: the How's and the Why's

FACULTY SPONSOR(S): BERTIE GREER, MANAGEMENT

Abstract: A business continuity plan (BCP) is a proactive strategic agenda that enables a business to counter the many risks associated with natural disasters. However, not all businesses have taken the time to develop a BCP. Recent studies suggest that BCP's can help minimize downtime and help businesses maintain key operating objectives. In this research study, I plan to use a company interview and secondary data in order to analyze the various factors related to business continuity planning and to develop detailed steps that are required to create an inclusive BCP.

HP-15: DYLAN TUCKER

WHOOPEE! We're All Gonna' Die! Music's Effect on the Vietnam War

FACULTY SPONSOR(S): JONATHAN REYNOLDS, HISTORY & GEOGRAPHY

Abstract: American music of the 1960s and 1970s had a recurring theme: the conflict in Vietnam. As US involvement increased, so did the number and bluntness of the music. Both opinions, anti-war and pro-government, used music as a way of spreading their opinions and creating unity between their factions. But did the music actually affect US policy concerning Vietnam? This study looks at both sides of the conflict and analyzes the general development of music during the Vietnam era, the broad themes of songs, and analysis of individual songs to determine the importance of music to the Vietnam War.

HP-16: MATTHEW WOESTE

Effect of Bisphenols on Proteolytic Digestion of Sarco/Endoplasmic Reticulum Calcium ATPase

FACULTY SPONSOR(S): STEFAN PAULA, CHEMISTRY

Abstract: The calcium-transporting enzyme sarco/endoplasmic reticulum calcium ATPase (SERCA) has been shown to be inhibited by a class of small-organic compounds known as bisphenols (BPs). Six BPs possess potency in an in vitro, ATPase activity inhibition assay, as well as in an in vivo, calcium uptake assay with human skin fibroblasts. To better understand the mode of action for BP-based SERCA inhibitors, partial proteolytic digestions were conducted. SDS gel electrophoresis was then performed to determine the conformation (E1 or E2) in which SERCA gets arrested by BPs. Previously published digestion patterns obtained with the inhibitor thapsigargin (TG) were used for reference.

DANCE, MUSIC, COMPUTER WORKS AND THEATRE EVENTS



BRASS CHAMBER ENSEMBLE

Tuesday, April 16, 2013

1:00-1:30 pm

Student Union Ballroom

Joseph Ball
Kenny Barth
Justin Bullock
Ian Caldwell
Herbie Cuthbertson
Heather Hale
Dorothy Van Huss
Conrad Krieger
Mandy Manning
Trevor Manser
Barbara Phillips
Alex Robinette
Zach Strong
Sean Todd

Raquel Rodriguez, Director

STUDENT COMPUTER WORKS

Wednesday, April 17, 2013

12:00-1:00 pm

Tent, Plaza in front of Founder's Hall

Matt Averdick
Brad Bell
Ben Bratton
Beth Cabrera
Jeremy Caddell
Ian Caldwell
Justin Cordero
Anna Egan
Steven Funke
Rachael Gasser
Courtney Graves
Katie Hazelwood
Nathan Hilvert
Aaron Hoover
Doug Hyden
Karen Loveland
Monte Lykins
Brooke Miller
Marissa Miller
Jeremy Plott
Brandon Prew
Sami Jo Prewitt
Jacob Priddy
Keith Riegel
Wesley Schaffer
Avery Schmitt
Adam Seibert
Ian Stokes
Jeff Taylor
Sean Todd
Andrew Whelan
Betsy Williams

Tom Jordan, Director

CONCERT BAND

Wednesday, April 17, 2013

2:00-2:30 pm

Tent, Plaza in front of Founder's Hall

Joseph Case
Erin Chuck
Anthony Bittner
Rachel Gasser
Taylor Gross
Rachel Hitt
Matthew Hofmeister
Rebecca Hotard
Joshua Howard
Jacob Jouett
Elam Kaitlin
Taylor Konkus
Grace Lepovsky
Amanda Manning
Trevor Manser
Brittany Melvin
Christine Menchen
Walker Mettens
Jason Oberschmidt
Kirsten Rasmussen
Julie Reizner
Stacey Shay
Kevin Snyder
Colin Weeks
Ricky Williams

Raquel Rodriguez, Director

DANCE TROUPE

Tuesday, April 16, 2013

1:00-1:30 pm

Amphitheater

Chandler Baer
Abby DeWald
Courtney Duncan
Brittany Dwyer
Allison Evans
Jessica Foote
Kairee Franzen
Allie Heidrich
Cameron Imbrogno
Montez Jenkins
David Netherton
Kayla Pecchioni
Tiffany Rusch
Kyle Seegar
Joey Squeri
Abby Wagner
Molly Watson

Jane Green, Director

GUITAR ENSEMBLE

Tuesday, April 16, 2013

2:30-3:00 pm

Student Union Ballroom

Aaron Hoover
Kevin Keith
Chris Lawrence
Colin Weeks

Andrew Winner, Director

LATIN JAZZ ENSEMBLE

Wednesday, April 17, 2013

11:30-noon

Tent, Plaza in front of Founders Hall

MARIMBA SOLOIST

Tuesday, April 16, 2013

2:20-2:30 pm

Student Union Ballroom

Morgan Minor

JAZZ ENSEMBLE

Tuesday, April 16, 2013

11:00 am-12:00 pm

Tent, Plaza in front of Founder's Hall

Trevor Caddell
Ian Caldwell
Sam Fister
Sean Fitzpatrick
Sean Herzig
Monte Lykins
Matt McCoy
AJ Pearson
Brandon Prew
Usman Salahuddin
Michael Voet

William Brian Hogg, Director

JAZZ COMBO

Tuesday, April 16, 2013

2-2:30pm

Tent, Plaza in front of Founders Hall

JAZZ COMBO 3

Wednesday, April 17, 2013

11-11:30am

Tent, Plaza in front of Founders Hall

JAZZ COMBO IV

Wednesday, April 17, 2013

1:00-1:30 pm

Tent, Plaza in front of Founder's Hall

Ryan Boldery
Ryan Lietzenmayer
Griffin Ross
Usman Salahuddin

Max Gise, Director

VOCAL JAZZ ENSEMBLE

Wednesday, April 17, 2013

2:30-3:00 pm

Tent, Plaza in front of Founder's Hall

Timothy Buddell
Brian Butler
Chelsea Fries
Chelsea Gabbard
Nathan Garbig
Katherine Hahnel
Shani Hamilton
Kyle Heinrich
Doug Hyden
Katie Marx
Adam Robinson
Wesley Schaffer
Carly Weidlich
Andrew Whelan
Shelia Williamson
Amberly Winfrey

Randy Pennington, Director

STEEL DRUM BAND

Tuesday, April 16, 2013

1-2 pm

Tent, Plaza in front of Founders Hall

THE RHYTHM SECTION

VOCAL JAZZ

Wednesday, April 17, 2013

2:30-3:00 pm

Tent, Plaza in front of Founder's Hall

Trevor Caddell
Matt McCoy
Usman Salahuddin

Phillip Burkhead, Director

MUSICAL THEATRE

SHOWCASE

Tuesday, April 16, 2013

12:00-12:30 pm

Tent, Plaza in front of Founder's Hall

Jessica Adamson
Travis Black
Wesley Carman
Harli Cooper
Cody Dale
Allison Evans
Hannah Gregory
Montez Jenkins
Jeremy Long
Allysun Mellick
Kathryn Miller
Kat Moser
Kayla Pecchioni
Adam Razavi
Zak Schneider
Andrew Simpson

Jamey Strawn, Director

CHAMBER ORCHESTRA

Tuesday, April 16, 2013

1:30-2:00 pm

Student Union Ballroom

Jermaine Crutchfield
Jacob Donnermeyer
Nicole Gullion
Lauren Hancock
Nathan Hilvert
Joshua Mason
Adrienne Royal
Robell Sahle
Katelyn Tesla
Elizabeth Williams
Rosemary Wilson
Tyler Wood
Erica Zapp

Frank Restesan, Director of Orchestras

WOMEN'S CHOIR

Wednesday, April 17, 2013

1:30-2pm

Tent, Plaza in front of Founders Hall





STUDENT PARTICIPANTS

Abbott, Aubrey	I-1	Clark, Evan	P-103	Hall, Donald Albert	P-68	McBee, Abigail	P-24
Adams, Amber	P-40	Collins, Rebecca	P-157	Hamblen, Donna	I-3	McCaster, Jibril	P-150
Al-alam, Eiman	I-3	Conrad, Shirley	P-52	Hamilton, Bryce	P-104	McGee, Christina	O-12
Alamilla, Georgina	P-157	Cooper, Karey	P-121, P-124, P-125	Hamm, Carmen	I-6	McGee, Patrick	O-5
Alamilla, Veronica	P-157	Cooper, Emily	P-75	Hardy, Ashley	P-92	McHugh, Jordan	I-1
Alayed, Tamam	P-43	Coors, Teresa	A-1	Hargrave, Alexandria	P-141, H P-4	McManus, James	P-66
Albrecht, Peter	P-86	Coors, Caitlin	P-87	Harpe, Rachel	O-9, H O-8	Meadows, Scott	P-158
Alderson, Candice	I-3	Correa, Juan	P-108	Harshaw Jr., Marcus	P-148	Medlock, Rachel	H P-8
Alhakeem, Mahmood	P-99	Crace, Jamie	I-3	Hartig, Hannah	O-2	Meister, Renee	P-133
Alharbi, Hani	P-100	Cravenor, Katelyn	P-77	Hasekoester, Zachery	P-88	Melnyk, Andrea	A-7
Alig, Jillian	H P-1	Creager, James	P-17	Hater, Kriste	I-3	Mercer, Mitch	P-10
Almuwallad, Adnan	P-100	Crum, John	P-18	Hauser, Quintin	P-25, P-26	Merkel, Elise	I-3
Alufaisan, Yasmeen	P-42	Curcio, Joe	H O-3	Hayes, Katelyn	P-116	Merriss, Dave	P-57
Anderson, Hillary	P-31	Curry, Kelly	P-53	Hays, Breann	P-6, P-7	Messer, Renia	I-3
Annunziata, Kylie	P-71	Dao, Le	P-31	Hazelip, Caitlin	P-143	Mills, Jamison	H P-2, H P-9
Arney, Cora	P-142	Dasenbrock, Hanna	H O-3	Hedges, Cody	O-4	Minor, John	I-1
Arnold, Arin	O-13	Daugherty, Dani	P-104	Hedges, Alexandra	P-156	Miskel, Kelsea	A-1
Arrington, Melissa	P-135	Davis, Tatum	P-17	Hein, Kendra	P-144	Mitts, Christina	A-1
Ashcraft, Brandy	P-17	Deaton, Tobias	P-49	Hempfling, Matthew	I-1	Mohmoud, Fatima	P-21
Atwell, Dorothy	P-146	Demoss, Sonia	I-3	Henderson, Katie	O-2	Mohr, Sarah	I-3
Austin, Jamie	A-1, P-67	Dizdar, Beris	P-16	Henning, Amber	P-1	Molony, Matthew	H P-10
Bachman, Katherine	P-73	Do, Thuy	P-25	Hensley, Jordan	P-157, O-20	Mounce, Breanna	A-1
Baker, Rosa	I-6	Dos Reis Correia, Solange	I-6	Herald, Erica	P-3	Mullins, Rachel	P-37
Bale, Mike	A-4	Douglas, Kendra	A-5	Herdeman, Lauren	I-1	Murphy, Aaron	P-24
Bankemper, Anthony	P-4, P-30	Dudley, Brittanie	P-54	Hertzenberg, Heather	P-131	Najjar, Amr	P-100
Barb, Brandon	I-1	Dunn, Meagan	P-80	Hickman, Edward	H P-2, H P-5, H P-9	Neely, Caitlin	O-7, H O-11
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