20th Annual Student Symposium

Ball State University

Special Thanks to:

Robert Morris
Justin Miller
Linda Swartz
Jessie Roark
Abraham Schreier

and

the Sponsored Projects Administration Staff

at Ball State University

Tuesday, March 31, 2015
1:00 – 5:00 P.M.

2nd Floor,
L.A. Pittenger Student Center

Sponsored Projects Administration
Tel. (765) 285-1600
SPADMIN@BSU.EDU

Ball State University
2000 West University Avenue
Muncie, Indiana 47306

http://www.bsu.edu/spa/
The Student Symposium at Ball State University

Students at Ball State University are widely known for their ability to take disciplinary knowledge learned in the classroom and apply it to high-quality research project and innovation creative endeavors. For twenty years the Student Symposium at Ball State University has provided students with the opportunity to showcase creative and scholarly projects, while gaining practical experience presenting their work in a conference setting right here on Ball State’s campus.

The Student Symposium encourages interdisciplinary discourse, allowing students to learn from each other about engaging topics from many disciplines around the university. The Student Symposium is open to the public, allowing student participants the opportunity to share their work with a wider audience. Poster presentations are eligible for one of six cash prizes and all paper presentations will receive feedback from a faculty moderator.

Special Thanks to our Judges and Moderators

Colleen Balukas
Lindsey Blom
Robin Blom
Bryan Byers
Lori Byers
Anthony Cancio
Jerrell Cassady
Clare Chatot
Carla Earhart
George Elvin
Qiannong (Chan) Gu
Asher John
Carolyn Kapinus
Jagdish Khubchandani
Keith Kothman
Zhihai Li
Yuanyaun Liao
Sue McDowell
Tamara Montag-Smit
Michael O’Hara
Carrie Shue
Mahamud Subir
Kevin Wyatt
Sanglim Yoo
Congratulations to all of our 2015 Student Symposium Participants!

See you next year!

Watch for registration materials in January 2016.

Twentieth Annual Student Symposium
At Ball State University
Tuesday, March 31, 2015

L.A. Pittenger Student Center,
2nd Floor

1:00-5:00 p.m.

1:30 – 4:30 Moderated Paper Presentations
See page 4 for locations and times.

1:00 – 4:30 Student Poster Displays
Ballroom, 2nd Floor

4:30 — 5:00 Welcome and Introductory Remarks
Presentation of Student Awards
Robert Morris,
Associate Vice President for Research
and Dean of the Graduate School
Twentieth Annual Student Symposium
At Ball State University
Tuesday, March 31, 2015
2nd Floor, L.A. Pittenger Student Center
Moderated Paper Presentations
1:30-4:30 p.m.

1:30 – 2:45 Studies in Speech and Language
Music Lounge
1:30 – 2:45 Physical and Health Sciences
Cardinal Hall B
1:30 – 2:45 Spaces and Environment
Cardinal Hall C
3:00 – 4:15 Issues in Higher Education
Music Lounge
3:00 – 4:15 Issues in Business
Cardinal Hall B
3:00 – 4:30 Peace, Ethics, and Social Issues
Cardinal Hall C

Each presentation will last for approximately 15 minutes, with time for questions following.

Linda Keys, Jeffrey Litten, Sandra L. Smith
Student Symposium Awards

The Keys/Litten/Smith awards are established on behalf of Linda Keys, Jeffrey Litten, and Sandra Smith, who served in Sponsored Projects Administration for a combined total of thirty years. The awards recognize students for their outstanding research or creative endeavors presented at the Student Symposium.

Anyone wishing to contribute to the Keys/Litten/Smith Student Symposium Awards fund may do so by sending a check made payable to Ball State University Foundation, notating either Account #9652 or Keys/Litten/Smith Symposium Award in the lower left hand corner. Checks may be sent to the Ball State University Foundation or Sponsored Projects Administration.
Keisha Woodall
& Nicole Roviso
Psychological Science
Right-Hemispheric Excitation in Individuals Endorsing Unusual Perceptual Experiences
Faculty Mentor: Stephanie Simon-Dack
Psychological Science

Scott Zello
Biology
Multi-Stressor Effects on Mortality and Reproductive Activity of Daphnia Magna: Chronic Exposure Response to Pharmaceuticals and Personal Care Products
Faculty Mentor: Melody Bernot
Biology

Selena Zhen
Indiana Academy for Sciences, Mathematics, and Humanities
Investigation of the Oscillating Nature of Dry Sliding Friction
Faculty Mentor: George Devendorf
Indiana Academy for Sciences, Mathematics, and Humanities
Studies in Speech and Language

Laura Kompara
English
*Influence of Working Memory on L2 Learning: Acquisition of Relative Clause Structures in English*
Faculty Mentor: Megumi Hamada
English

Jovan Rodriguez Lopez
Modern Languages and Classics
¿Cómo estás, tú? ¿Or is it vos? Forms of Address in the Spanish of Cali Colombia
Faculty Mentor: Colleen Balukas
Modern Languages and Classics

Stephen Weigel,
Lucas Baughman
& Ethan Hardwick
Music
*New Set Theory and Equal Temperament*
Faculty Mentor: Keith Kothman
Music

Anna-Kay West
Chemistry
*Supramolecular Assemblies of Aromatic Acid Molecules on Electrodes*
Faculty Mentor: Zhihai Li
Chemistry

Owen White
Natural Resources and Environmental Management
*The Tree ID Trail Recreation of Mounds State Park*
Faculty Mentor: Joshua Gruver
Natural Resources and Environmental Management
Casiana Warfield
Psychological Science

*Role Congruity Theory versus Expectancy Violation Theory: Women in Leadership*
Faculty Mentor: Linh Littleford
Psychological Science

Jacob Watson
Psychological Science

*Indecisiveness: Measuring Individual Differences With Mouse Tracking Software*
Faculty Mentor: Thomas Holtgraves
Psychological Science

Sheldon Watts & Sarah Engle
Biology

*Hrd1 and Associate: Working Together to Unclog Membrane Channels*
Faculty Mentor: Eric Rubenstein
Biology

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**Physical and Health Sciences**

Albert DiBenedetto
Physics and Astronomy

*Electron Transport of Carbon Nanostructures*
Faculty Mentor: Mahfuza Khatun
Physics and Astronomy

Morenci Manning
Physiology and Health Science

*Potential Regulators of Sporadic ALS Development and Alternative Therapeutic Options*
Faculty Mentor: Marie Kelly-Worden
Physiology and Health Science

Matthew Stillwagon
Biology

*Effects of Nutrients and Temperature on the Release of Dissolved Organic Carbon from the Benthic Macroalga Cladophora Glomerata in an Indiana Stream.*
Faculty Mentor: Kevin Wyatt
Biology
Spaces and Environment

Sean Costello & Duke Bennett
Architectural Energy Modeling
Faculty Mentor: Robert Koester
Architecture

Stephen Lacey
History
Shifting Winds: How the Yountsville Woolen Mill Flourished
Faculty Mentor: Ronald Morris
History

Kacie Shourd
Geography
Urban Heat Islands and Suburban Tornadogenesis
Faculty Mentor: Nathan Hitchens
Geography

Keegan Waggener
Natural Resources and Environmental Management
New Life For the Former Home of the Wheeler-Thanhouser Orchid Collection
Faculty Mentor: Joshua Gruver
Natural Resources and Environmental Management

Maxine Wallace
Physiology and Health Science
Race and Research: Strategies to Overcome Prejudice in the Health Research Field
Faculty Mentor: Jagdish Khubchandani
Physiology and Health Science

Jeremy Walls
Biology
Spatial and Temporal Variability of Harmful Algal Blooms in a Eutrophic Lake
Faculty Mentor: Kevin Wyatt
Biology
Christina Valdez
Center for Peace and Conflict Studies

*Does Social Media Influence Charitability*
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Luke Vaughn
Biology

*Measuring Respiration of Aquatic Pulmonate Snails*
Faculty Mentor: Randall Bernot
Biology

Joseph Vogel
Chemistry

*Exploring the Surface Interaction of an Organic Dye on TiO2 Nanoparticles using Laser Spectroscopy*
Faculty Mentor: Mahamud Subir
Chemistry

Margaret Cude
Journalism

*Welcome to Your Graduate School Experience: Graduate Student Orientation and the Need for Evaluation*
Faculty Mentor: Adam Kuban
Journalism

Sara Nahrwold
Journalism

*College Student-Soldier: The Impact of Readjustment on an Army Veteran*
Faculty Mentor: Adam Kuban
Journalism

(Section continued on next page.)
Issues in Higher Education (Cont.)

Tobin Richardson
Educational Studies

Educational Histories of First-Year Medical Students
Faculty Mentor: Amanda Latz
Educational Studies

Dan Royer
Educational Studies

Looking Back from the Field: Student Affairs
Practitioners’ Perceptions of a Graduate-level
Community College Course
Faculty Mentor: Thalia Mulvihill and Amanda Latz
Educational Studies

Kristine Tecca
Physical Education, Sport, and Exercise Science

Arterial Stiffness in Patients Completing a
Phase II Cardiac Rehabilitation Program
Faculty Mentor: Leonard Kaminsky
Physical Education, Sport, and Exercise Science

Alex Thomas
Biology

Fine Focus: A Microbiology Journal for
Undergraduate Research
Faculty Mentor: John McKillip
Biology

Quintin Thompson
Center for Peace and Conflict Studies

Jeannette Rankin: Peace and Progress
Faculty Mentor: Kevin Wyatt
Center Peace and Conflict Studies
Nick Strange
Physics and Astronomy

Electronic Properties of Graphene Nanostructures
Faculty Mentor: Mahfuza Khatun
Physics and Astronomy

Sarah Swingley & Sam Utley
Telecommunications

Set In Stone
Faculty Mentor: Rodney Smith
Telecommunications

Gilles Tagne
Geological Sciences

Using Massbalance Geochemical Modeling To Partition The Sources Of Dissolved Ions At Mill Spring In Southeast Kentucky
Faculty Mentor: Lee Florea
Geological Sciences

Nolan Cockrell
Information Systems and Operation Management

Humanitarian Logistics in Indiana Disaster Relief Operations
Faculty Mentor: Qiannong Gu
Information Systems and Operations Management

Stephanie Ehlerding
Marketing

The Water, the Region, the Industry
Faculty Mentor: John Vann
Marketing

Sarah Stichter
Accounting

Accounting Topics in the Retail Industry
Faculty Mentor: James Schmutte
Accounting
Peace, Ethics, and Social Issues

Bibi Bahrami
Art
AWAKEN Inc
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Mark LaPaglia
Center for Peace and Conflict Studies

How is Peace One Day Organization contributing to Negative Peace and Positive Peace
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Richard McKinney
Social Work

Homelessness in America
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Rachel Spriggs & Kalee Miller
Family and Consumer Sciences
Factors Influencing GenY Job Choice: Preliminary Survey
Faculty Mentor: Chih-Lun Yen
Family and Consumer Sciences

Bridget Stancombe
Biology

A Comparative Study of Habitat Preference in Small Mammals at Cooper Farm, Muncie, Indiana
Faculty Mentor: Tim Carter
Biology

Carolyn Straiker
Biology

Effects of Dormant vs. Growing Season Burns on Small Mammal Capture Rates at Cooper Farm in Muncie, Indiana
Faculty Mentor: Tim Carter
Biology

(Section continued on next page.)
Cassidy Smith
Natural Resources and Environmental Management

My Summer at Cool Creek
Faculty Mentor: Amy Gregg
Natural Resources and Environmental Management

Neal Werle
Economics

Finding the Line: The Economics of Selling Out
Faculty Mentor: Cecil Bohanon
Economics

Alec Smith
Marketing

Understanding the Consumer Market for Cause-Related Goods: the Lindalein Project
Faculty Mentor: Susan Mantel
Marketing

Stephanie Spain
Communication Studies

The Myth of a Post Racial Society: Minority Student Experiences in Higher Education
Faculty Mentor: Glen Stamp
Communication Studies
Jacob Sciaudone
Accounting

*Detailing & Analyzing BankRate’s “10 Best States For Retirement”*

Faculty Mentor: John Ledbetter
Accounting

Anna Settineri & Jordan Evans
Biology

*Age and Growth of Channel Catfish in Indiana Reservoirs*

Faculty Mentor: Thomas Lauer
Biology

Benjamin Simons
Physics and Astronomy

*The Effects of Toroid Size on the Measured Current in a Nerve*

Faculty Mentor: Ranjith Wijesinghe
Physics and Astronomy
Keya Sartin
Family and Consumer Sciences

*Opinions and Consumption Patterns of 100% Juice Smoothies Among College Students*
Faculty Mentor: Carol Friesen
Family and Consumer Sciences

Natalie Abell
Biology

*The Influence of Saltwater Intrusion on Georgia Tidal Freshwater Forests*
Faculty Mentor: Melody Bernot
Biology

Luke Schmid
Biology

*Assessment of Protein Expression Influenced by TAL-1 in T-Cell Acute Lymphoblastic Leukemia*
Faculty Mentor: James Olesen
Biology

Jordan Ahlersmeyer
Student Affairs

*Should Colleges and Universities Take Student Mental Health Issues Seriously?*
Faculty Mentor: Thalia Mulvihill
Educational Studies

Chelsea Schultz
Technology

*Data Networking Lab Preferences Among Students*
Faculty Mentor: David Hua
Technology

Oludamilola Alalade
Natural Resources and Environmental Management

*Fracking*
Faculty Mentor: John Pichtel
Natural Resources and Environmental Management
Morshed Alam
Mathematical Sciences

Zero-Inflated Models for Non-Overdispersed and Overdispersed RNA-Seq Count Data
Faculty Mentor: Munni Begum
Mathematical Sciences

Abdullah Albalawi
Mathematical Sciences

Psychological Distress and The Leading Cancers Among American Adults: An Evidence From The 2013 National Health Interview Survey
Faculty Mentor: Munni Begum
Mathematical Sciences

EA Ruder
Biology

Environmental surveillance of Toxoplasma Gondii using Loop-Mediated Isothermal Amplification
Faculty Mentor: Randall Bernot
Biology

Jacquelyn Ryan
Journalism

Malala Yousafzai: The Young Woman Who Challenged the Old Cliché that ‘One Person Can’t Change the World’
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Jill Bange & Avery Sampson
Biology

The Influence of Nutrient and Herbicide Application on Algal Biomass and Community Composition
Faculty Mentor: Kevin Wyatt
Biology

James Sackett
Physical Education, Sport, and Exercise Science

Hemostatic Adaptations Following a High-Intensity Interval Training Intervention in Healthy Men
Faculty Mentor: Paul Nagelkirk
Physical Education, Sport, and Exercise Science
Matt Renschler

Biology

*Anaerobic Recovery and Enumeration of Clostridium Perfringens from Food using the Fung Double Tube Method*

Faculty Mentor: John McKillip
Biology

Samantha Baumgart

Communication Studies

*Heartland Alliance Against Poverty*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Colin Ritchie

Architecture

*Rosecrance Transformational Institute for Chicago, Illinois*

Faculty Mentor: Robert Koester
Architecture

McKenna Bireley

Physiology and Health Science

*Understanding Infertility in a Latino Cultural Context*

Faculty Mentor: Jean Marie Place
Physiology and Health Science

Caleb Robinson

Psychological Science

*Synesthesia and Memory: An Experimental Analysis*

Faculty Mentor: Stephanie Simon-Dack
Psychological Science

Lauren Birkey, Shelby Baker, Daniel Hodson & Joseph Coachys

English

*Representing Religion in Comics and Research*

Faculty Mentor: Jeff Bracket
Philosophy and Religious Studies
Devin Bishop  
Psychological Science  

*The Consequences of Self-Objectification: Investigating the Impact of Cognitive-Emotional Outcomes on Female Sexual Functioning*

Faculty Mentor: George Gaither  
Psychological Science

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Stephen Ratchford  
Physical Education, Sport, and Exercise Science  

*COX Inhibitor Effects on Skeletal Muscle Metabolic Enzyme and Capillary Adaptations to Resistance Exercise in Older Adults*

Faculty Mentor: Todd Trappe  
Physical Education, Sport, and Exercise Science

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Vance Blake  
Architecture  

*Designing for International Aid*

Faculty Mentor: Gerald Waite  
Center for Peace and Conflict Studies

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Haylie Rebilas  
Psychological Science  

*Attitudes towards Physical Activity in Older Adults: An Examination of Cognitive Impairment Status, Caregiver Status, and Occupational Therapy Awareness*

Faculty Mentor: David Perkins  
Psychological Science

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Koby Bluitt  
Theatre and Dance  

*Peace for the youth through the works of theater*

Faculty Mentor: Gerald Waite  
Center for Peace and Conflict Studies

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Tamra Reece  
Natural Resource and Environmental Management  

*Abandoned and Orphan Gas and Oil Wells, Conduits for Contaminates: A Research Study Showing the Potential Negative Impact of Substandard Closure Methods in Aged, Abandoned, and Orphaned Gas and Oil Wells*

Faculty Mentor: Amy Gregg  
Natural Resources and Environmental Management
Zach Prause
Biology

*Alewife Age, Growth, and Condition Trends In Lake Michigan, 1964-2014*

Faculty Mentor: Thomas Lauer
Biology

Kyle Buck
Psychological Science

*Effects of Linguistic Abstraction on Applicant Evaluation*

Faculty Mentor: Thomas Holtgraves
Psychological Science

Michael Pupillo
Physics and Astronomy

*Flippon Contribution to the SU(5) Model*

Faculty Mentor: Ranjith Wijesinghe
Department of Physics and Astronomy

My Bui
Chemistry

*Overexpression of T7 RNA Polymerase*

Faculty Mentor: Emil Khisamurdinov
Chemistry

Brandon Puszkiewicz
Center for Peace and Conflict Studies

*Hoima-Uganda Education Foundation*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Heather Bullock,
Jessica Mangano, Lisa Schwager & Nicole Mansfield
Psychological Science

*Predictors of Sexual Esteem*

Faculty Mentor: George Gaither
Psychological Science
Timothy Burnett
Physical Education, Sport, and Exercise Science

_Skeletal Muscle Size and Function in Octogenarians: A Five Year Longitudinal Investigation_

Faculty Mentor: Scott Trappe
Physical Education, Sport, and Exercise Science

Jason Pickell
Center for Peace and Conflict Studies

_The Institute for Economics and Peace: Impacts on the Peace Studies Field and Real-World Applications_

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Megan Buschor
Natural Resources and Environmental Management

_Working as a Lab Technician: The Ins and Outs of an Environmental Testing Lab_

Faculty Mentor: Amy Gregg
Natural Resources and Environmental Management

Justin Pineiro, Jaclyn Pineiro, Erica Los & Addison Ulmer
Psychological Science

_Predictors of Risky Sexual Behavior_

Faculty Mentor: George Gaither
Psychological Science

Kevin Cannon
Counseling Psychology and Guidance Services

_Help-Seeking, Illness Perceptions, and Attitude Toward Psychological Services of Patients in an Acute Psychiatry Unit: Factors that Predict Treatment Adherence and Readmission Rates_

Faculty Mentor: Stefania Aegisdottir
Counseling Psychology and Guidance Services

Michelle Poteet
Economics

_The Economics of Lindy Hop_

Faculty Mentor: Lee Spector
Economics
Brandon Patterson
Mathematical Sciences

*On TMM Normalization Factors for RNA-Seq Analysis*

Faculty Mentor: Munni Begum
Mathematical Sciences

Riley Carswell
Biology

*Mating Defense in the Long-Clawed Hermit Crab (Pagurus longicarpus)*

Faculty Mentor: Tim Carter
Biology

Luke Pentecost
Physics and Astronomy

*Sustainability of Wind Turbines for Ball State University*

Faculty Mentor: Eric Hedin
Physics and Astronomy

Kenneth Castillo
Physics and Astronomy

*Reflection and Transmission of Electrons Through Q-Clusters*

Faculty Mentor: Eric Hedin
Physics and Astronomy

Ryan Perkins
Physical Education, Sport, and Exercise Science

*COX Inhibitor Effects on Fiber-Type Specific Growth with Resistance Exercise in Older Adults*

Faculty Mentor: Todd Trappe
Physical Education, Sport, and Exercise Science

Nicole Chodkowsk
Biology

*Parasite Effects on Host Nutrient Cycling*

Faculty Mentor: Randall Bernot
Biology
Jacquelyn Christopher
Biology
*Nematomorpha - Parasite of Grasshoppers (Orthoptera)*
Faculty Mentor: Randall Bernot
Biology

Jake Omstead, Erin Moreno, Alyssa Reese & Tyrese Love
English
*Representing Religion in Comics*
Faculty Mentor: Jeffrey Brackett
Philosophy and Religious Studies

Megan Clevenger
& Samantha Wiser
Urban Planning
*Muncie Makes Lab // Charrette*
Faculty Mentor: Lohren Deeg
Urban Planning

Matthew Orvis
Physics and Astronomy
*Properties of Electron Transmission through a Chain of Nanorings*
Faculty Mentor: Eric Hedin
Physics and Astronomy

Curtis Clock
Educational Studies
*Are Division I College Athletics Undermining the True Purpose of Higher Education?*
Faculty Mentor: Thalia Mulvihill
Educational Studies

Kathryn Overn
Family and Consumer Sciences
*The Super Stem Summer: STEM in the 3-5 year old classroom*
Faculty Mentor: Jennifer Young
Family and Consumer Sciences
Michael Nelson
Physical Education, Sport, and Exercise Science
Activity-Specific Validity of Several Consumer-Based Physical Activity Monitors
Faculty Mentor: Alexander Montoye
Physical Education, Sport, and Exercise Science

Kaylin Crosby
Biology
Effects of Natural vs Non-Natural Enrichment Items on Orangutan Behavior
Faculty Mentor: Gary Dodson
Biology

Jenny Nguyen
Chemistry
Synthesis of Quinoline-5,8-dione Analogues
Faculty Mentor: Robert Sammelson
Chemistry

Elizabeth Curbey & Kayla Gurganus
Biology
The Infinite Museum
Faculty Mentor: Timothy Berg
Honors College

Taylor O'Brien, Jerilyn Adams, Ambria White & Clinton Hardesty
Psychological Science
Predictors of Sexual Satisfaction
Faculty Mentor: George Gaither
Psychological Science

Michael Curry
Biology
The Effect of Lonicera Japonica on Antigen-Stimulated B Cell Functions
Faculty Mentor: Heather Bruns
Biology
Kimi Dahl
Physical Education, Sport, and Exercise Science

Load Distribution and Postural Changes When Wearing a Traditional Backpack Versus the BackTpack

Faculty Mentor: Clark Dickin
Physical Education, Sport, and Exercise Science

Erica Dammann, Sam Dammann & Kate Morgan
Psychological Science

Predictors of Sexual Fantasy

Faculty Mentor: George Gaither
Psychological Science

Andrew Deathe
Physiology and Health Science

Ball State University Students’ Knowledge, Perceptions, and Behaviors Related to Ebola and Pandemic Disease

Faculty Mentor: Martin Wood
Physiology and Health Science

Mia Miller
Psychological Science

Predictors of Masturbation

Faculty Mentor: George Gaither
Psychological Science

Bill Mitchell, Jeremy Gunning, Zachary Dawson & Jill Figge
Information Systems and Operations Management

Turbulence in Speedway’s Industry

Faculty Mentor: Fred Kitchens
Information Systems and Operations Management

Kevin Murach
Physical Education, Sport, and Exercise Science

Number of Individual Muscle Fibers Suitable for Determining Fiber Type Distribution in Highly Trained Athletes

Faculty Mentor: Scott Trappe
Physical Education, Sport, and Exercise Science
Dara Metcalfe
Center for Peace and Conflict Studies

**Water.org**
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Natalya Mezenina, Cameron Behringer & Nathan Altheide
Physiology and Health Science

**Effect of Age on Mitochondrial Protein Levels in Rat Kidney Cortex and Medulla**
Faculty Mentor: Marianna Zamlauski-Tucker
Physiology and Health Science

Mary Michaelsen
Communication Studies

**Social Media and Business Development: A Content Analysis of the Top Construction Firms in the Chicagoland Area**
Faculty Mentor: Glen Stamp
Communication Studies

Jason Doll
Biology

**Estimating Capture Probabilities of Common Stream Fish in the Eastern Corn Belt Plain**
Faculty Mentor: Thomas Lauer
Biology

Erin Donovan
Anthropology

**Monsters in the Making: Exploring Vampires in the Bioarchaeological Record**
Faculty Mentor: Cailin Murray
Anthropology

Evan Doyle
Journalism

**The Spread of LGBT-Affirming Christianity**
Faculty Mentor: Adam Kuban
Journalism
Shamus Driver
Chemistry

*Removal of Boron and Silica From Samples of Dissolved Organic Matter Via Electrodialysis*

Faculty Mentor: E. Michael Perdue
Chemistry

Amy Medeiros
Political Science

*The Desmond Tutu Peace Foundation*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Josh Dudley, Abbie Willans, Chantelle Jones & Cecilia Hsu
Telecommunications

*Representing Comics and Religion*

Faculty Mentor: Jeff Brackett
Philosophy and Religious Studies

Ben Melbert
Natural Resources and Environmental Management

*Peace Through WaterStep*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Brandon Dykstra
Physical Education, Sport, and Exercise Science

*Maximal Fat Oxidation Rate and Fatmax in Boys and Girls at Two Different Maturity Levels*

Faculty Mentor: Anthony Mahon
Physical Education, Sport, and Exercise Science

Kirsten Mesch
Marketing

*Map Your Show Marketing Plan 2016*

Faculty Mentor: Gail Stautamoyer
Marketing
Macy McCorkel, Ryan Patterson, Alex Smedley, & Jordan Saddler
Information Systems and Operations Management

*Hopebridge Pediatric Specialists Information and Communication Project*

Faculty Mentor: Fred Kitchens
Information Systems and Operations Management

Tierney Edon
Journalism

*Ball State Child Study Center Media Strategy: Relating to Millennial Parents*

Faculty Mentor: Jennifer Young
Family and Consumer Sciences

Rebecca McKevitz
Landscape Architecture

*Alexandra Cousteau: Peacemaking Through Film*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Daniel Elias
Biology

*Effects of Atrazine, Metolachlor, Carbaryl, and Chlorothalonil on Benthic Microbial Communities and Their Nutrient Dynamics*

Faculty Mentor: Melody Bernot
Biology

Rebecca McNair
English

*Conjuring Character In The City Of Chains: An Analysis of Projective Identity And Gender Stereotyping Using Dragon Age II*

Faculty Mentor: Jennifer Grouling
English

Beth Ellcessor & Megan Harris
Family and Consumer Sciences

*MyPlate: How Do I Rate?: An Evaluation of a Nutrition Curriculum for Parents*

Faculty Mentor: Carol Friesen
Family and Consumer Sciences
Ben England
Biology
An Examination and Comparison of Two Approaches to Hybrid Teaching of Non-Majors Biology: Assessing Changes in Student Attitude and Levels of Engagement Based on Learning Styles
Faculty Mentor: William Rogers Biology

Jenny Fair
Speech Pathology and Audiology
Computer-Aided Language Sampling & Analysis: Implications for Best Practices in SLP
Faculty Mentor: Barry Wagner Speech Pathology and Audiology

Jessica Mangano
Psychological Science
Smiles Save Lives
Faculty Mentor: Gerald Waite Center for Peace and Conflict Studies

Aaron Marti
Biology
Macrophyte Associated Microbial Nitrogen and Phosphorous Cycling in an Urban Wetland
Faculty Mentor: Melody Bernot Biology

Cody McCollum
Natural Resources and Environmental Management
Local Homeowners’ Perception of Native Plants
Faculty Mentor: Joshua Gruver Natural Resources and Environmental Management

Dan Farrell
Physical Education, Sport, and Exercise Science
Vascular Adaptations Following a High Intensity Interval Training Intervention in Healthy Men
Faculty Mentor: Paul Nagelkirk Physical Education, Sport, and Exercise Science
Carisa Lovell, Kelly Blair, Cou'l Greer, Alex Knight, Cole Ludwig, Kait Mahl, Justin Prather, Zach Sexton, Kaleb Stumbaugh & Nicholas Wolfe

English
Collaboration Station: A Multidisciplinary Approach to Educational Game Design
Faculty Mentor: Paul Gestwicki
Computer Science

Jeremy Ferguson
Natural Resources and Environmental Management
An Assessment on Prairie Creek Watershed
Faculty Mentor: Jarmilla Popovicova
Natural Resources and Environmental Management

Sarah Fischer
Biology
Bird-Window Collisions on the Ball State University Campus
Faculty Mentor: Kamal Islam
Biology

Melanie Mabrey, Zachary Cole & Joshua Pierce
Psychological Science
The Effectiveness of Concept Maps and Outline Strategies in Memory Recall Tests
Faculty Mentor: Darrell Butler
Psychological Science

Titiana Flax
English
Predominately Black Students on Predominately White Institutions
Faculty Mentor: Jacqueline McKinney
English
Jonathan Foster
Physical Education, Sport, and Exercise Science

*Influence of Hip and Knee Arthroplasties on Activities of Daily Living - A Case Study*
Faculty Mentor: Henry Wang
Physical Education, Sport, and Exercise Science

Natasha Francksen
Physical Education, Sport, and Exercise Science

*Stair Descent: The Effects of Lower-Limb Strength Asymmetries in Older and Younger Women*
Faculty Mentor: Clark Dickin
Physical Education, Sport, and Exercise Science

Estan Fuller
Center for Peace and Conflict Studies

*Amman Imman*
Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Tanner Little
Computer Science

*Hold on a Second*
Faculty Mentor: David Largent
Computer Science

Emily Looney
Management

*Selection & Success: The Small Business Owner's Brief Guide to Human Resource Practices*
Faculty Mentor: Carla Flores
Management

Misael Lopez
Biology

*The Effects of Cotinine on Microbial Respiration*
Faculty Mentor: Melody Bernot
Biology
Kleen M. Lavin  
Physical Education, Sport, and Exercise Science  
*Prostaglandin E2 / Cyclooxygenase Pathway in Skeletal Muscle of Older Adults*  
Faculty Mentor: Todd Trappe  
Physical Education, Sport, and Exercise Science

Gregory Grosicki  
Physical Education, Sport, and Exercise Science  
*Single Muscle Fiber Characteristics of The Oldest-Old*  
Faculty Mentor: Scott Trappe  
Physical Education, Sport, and Exercise Science

Jee Hwan Lee  
Biology  
*The Toxicity and Effects of Carbamazepine on Invasive Dreissena Mussels (Dreissena polymorpha and Dreissena bugensis) and Yellow Perch (Perca flavescens)*  
Faculty Mentor: Melody Bernot  
Biology

Alyssa Grutsch  
Biology  
*Virulence and Regulator Gene Expression in Bacillus spp. from Ultrapasteurized Organic Milk*  
Faculty Mentor: John McKillip  
Biology

Tyler Little, Cameron Sparks, Blake Coats & Jordan Knecht  
Information Systems and Operations Management  
*Indianapolis Airport Surveillance System Project*  
Faculty Mentor: Fred Kitchens  
Information Systems and Operations Management

Lily Gu  
Biology  
*Light and temperature interact to regulate the Response of Algae and Heterotrophic Bacteria to Elevated Nutrient Levels in a Boreal Peatland*  
Faculty Mentor: Kevin Wyatt  
Biology
Justin Guilkey
Physical Education, Sport, and Exercise Science

*Pilot Study Examining Parasympathetic Modulation at Rest, During Exercise and Recovery from Maximal Exercise in Adults*

Faculty Mentor: Anthony Mahon
Physical Education, Sport, and Exercise Science

Benjamin Kreitner
Biology

*Occurrence of Sucralose Along the Ohio River (USA) and the Factors Influencing Microbial Community Degradation in Lotic Ecosystems*

Faculty Mentor: Melody Bernot
Biology

Alyssa Ham
Physiology and Health Science

*Student Attitudes toward Discussion Modalities in Undergraduate Human Sexuality Courses*

Faculty Mentor: Dana Autry
Physiology and Health Science

Leah Kundel
Family and Consumer Sciences

*Humanitarianism in Design*

Faculty Mentor: Gerald Waite
Center for Peace and Conflict Studies

Nick Harmes & Joey Klahn
Biology

*RiverPACE: Pharmaceuticals and Personal Care Products (PPCPs) in The White River Compared to National Data.*

Faculty Mentor: Jesse Becker
Biology

John Lair
Natural Resources and Environmental Management

*The Demise of Honeysuckle?*

Faculty Mentor: Joshua Gruver
Natural Resources and Environmental Management
Quentin Jones
English

National Pan-Hellenic Council at Predominantly White Institutions
Faculty Mentor: Jacqueline McKinney
English

Nicholas Haunert
Biology

Movements and Habitat Selection of Stocked Age-1 Muskellunge in Eagle Creek Reservoir
Faculty Mentor: Thomas Lauer
Biology

Jocelyn Karsk
Biology

Northern Long-eared Bat (Myotis septentrionalis) Roost Site Selection in a Managed Forest and Transmitter Retention Times
Faculty Mentor: Tim Carter
Biology

Alyssa Hauser
Natural Resources and Environmental Management

Maven Construction and Environmental Internship
Faculty Mentor: John Pichtel
Natural Resources and Environmental Management

Lyndzee Kent
Psychological Science

Evaluating the Effects of Race, Gender, and Diversity on Hiring Decisions: A Categorization and Role Theory Analysis
Faculty Mentor: Mary Kite
Psychological Science

Emily Hayes
Geological Sciences

An Examination and Analysis of Bacterial Contamination and Generalized Water Quality of Mt. Everest Base Camp Highway Drinking Water Supply
Faculty Mentor: Kirsten Nicholson
Geological Sciences
Sonina Hernandez
Educational Studies

Do Universities Have Effective Programs to Help Aid Undocumented Students Obtain a Post-Secondary Experience?
Faculty Mentor: Thalia Mulvihill
Educational Studies

Hanna Hlebasko
Psychological Science

Language use in the Interview Setting: The Effect of Powerful and Powerless Language on Gender Role Interpretation
Faculty Mentor: Thomas Holtgraves
Psychological Science

Alex Holt, Caitlin Harrison, Corbin Huffer, & Tiffany Sawochka
Landscape Architecture

A Lasting Impression: The Photographic Documentation of the Graffiti from the College of Architecture and Planning
Faculty Mentor: Cindy McHone
Landscape Architecture

Shan Huang, Aaron Huang, Travis Burns & Hopson Kitchens
Information Systems and Operations Management

CRM Project for Do it Best Corp
Faculty Mentor: Fred Kitchens
Information Systems and Operations Management

Niyynnah Jefferson
Family and Consumer Sciences

Desmond Mpilo Tutu’s Contribute to World Peace
Faculty Mentor: Gerald Waite
Center Peace and Conflict Studies

Spencer Jones
Physics and Astronomy

Electron Transport of Graphene Nanoribbons Using Extended Hückel
Faculty Mentor: Mahfuza Khatun
Physics and Astronomy