







Celebration of Student Research Conference April 22, 2014

Schedule of Events

April 22, 2014

	CUB MPR SECTION B & C	CUB MPR SECTION A	PRESIDENT'S HALL HONORS SEMINAR ROOM	CUB ORNDORFF THEATER	CUB 103	CUB 104	CUB 105
2:30 2:45	Poster Set Up 2:30-3:00 PM						
3:00 3:15 3:30		Human Communication Studies Roundtables	Honors	Honors		English Panel	
3:45 4:00 4:15	Poster Session I 3:00–5:00 PM	Understanding Sense of Humor: An Examination of the Big Three Theories of Humor	Symposium	Symposium Natural Science and Computer Science I 3:30–4:30 PM	Exercise Science Panel Exercise and Metabolism	Creative Nonfiction: Visions of Family Life 3:30–4:30 PM	Political Science Public Administration in Action
4:30 4:45		3:00–5:00 PM			3:30–5:00 PM	English Panel Write the Ship Award Winners:	3:30–5:00 PM
5:00 5:15	Poster Removal 5:00–5:30 PM	Human Communication Studies Applied	Honors Symposium Reach Out: Service Learning in the	Honors Symposium Business and Social Science		Analysis of Crime from Different Disciplines 4:30–5:30 PM	English Panel
5:30 5:45	Poster Set Up 5:30–6:00 PM	Communication within Organizational Context 5:00–6:00 PM	Dominican Republic	4:45–6:00 PM			Research in Late Nineteenth Century American Literature 5:00–6:30 PM
6:00 6:15		Human Communication Studies			English Secondary Education Panel Contemporary	5:30–6:30 PM	
6:30 6:45	Poster	Use of Rhetorical Analysis in Understanding of Contemporary Concerns"		Student	Situated Literacies 5:30–7:00 PM	English Panel Creative Nonfiction:	English Panel
7:00 7:15	Session II 6:00-8:00 PM	6:00–7:00 PM Human Communication Studies		Documentary "Littlestown Meets Hollywood" 6:15–8:15 PM	English Secondary	Scenes from Childhood 6:30–7:30 PM	Narrative Visions 6:30–7:45 PM
7:30 7:45		Electronic and Computer Mediated Communication 7:00–8:00 PM	Honors Symposium Education 7:00–8:30 PM		Student Teachers Study the Impact of Classroom Practices		English Panel
8:00 8:15 8:30	Poster Removal 8:00–8:30 PM				7:00–8:30 PM		Poetic Research 7:45–8:45 PM
8:45 9:00							

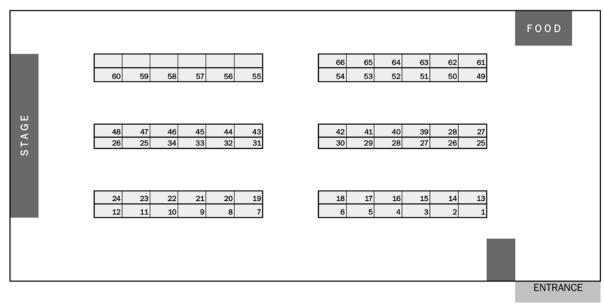
Schedule of Events

April 22, 2014

	CUB RAIDER LOUNGE 6 (AIRPORT LOUNGE)	CUB 119	CUB 226	CUB 232	CUB 239	CUB 240
2:30						
2:45						
3:00						
3:15						
3:30					Student Oral Presentations	
3:45			Social Work Panel		Student Learning	Modern Languages
4:00		Biology Panel	Social Work Group Research Projects		Outcomes and	Understanding Each
4:15		Ecology and Conservation in the	3:30–5:00 PM		3:30–4:30 PM	Other Better: Franco- American Relations
4:30		Central Appalachian Region		Chemistry Panel		3:30-5:00 PM
4:45		3:00–5:45 PM		Undergraduate Research Projects in Chemistry		
5:00				3:30–6:00 PM	Human	
5:15			Social Work Panel Disability Minor Student Research		Communication Studies Family	Modern Languages City of Love, Lights,
5:30			5:00–6:00 PM		Communication	Violence and Terror: Paris
5:45					5:00–6:00 PM	5:00–6:00 PM
6:00						
6:15				Student Oral	Human Communication	
0.13				Presentations	Studies	
6:30	0. 1 1.		Counseling and Student Personnel	Physics 6:15–6:45 PM	Critical Cultural Communication	
	Student Music Performance		Roundtables		6:00–7:00 PM	
6:45	The Creative Process		6:30–7:00 PM	Student Oral Presentations		
7:00	6:15–7:45 PM	Biology Panel Cell and Molecular	Student Oral	History, Language, and Business	Human	
7:15		Biology Oral Session 5:45–9:00 PM	Comm/Journ 7:00–7:30 PM	Management 6:45–7:45 PM	Communication Studies	
7:30		3.73-3.00 I IVI		0.43-7.40 FW	Advancing Communication	
7:45					Theory and Practice 7:00–8:00 PM	
8:00					Human	
8:15					Communication Studies	
8:30					Interpersonal	
8:45					Communication 8:00–9:00 PM	
9:00					0.00 0.00 1 101	

Poster Session I Map

3:00 - 5:00 PM CUB Multi-Purpose Room



Section 1:

Posters 1 - 8 Biology

9 - 12 and 24 Geography/Earth Science

13 - 19 Psycholog 20 - 23 Math Section 2:

Posters 25 - 46 Social Work/Gerontology

Section 3:

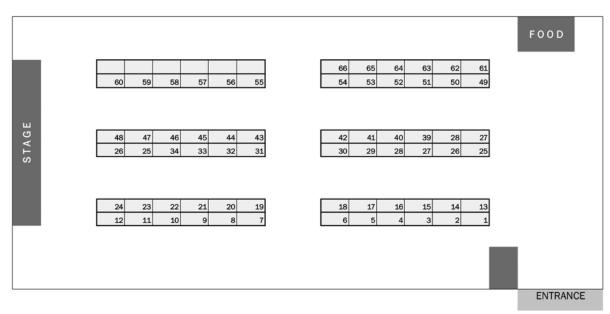
Posters 49 MIS; 50 Teacher Edu.; 51 ASP; 52 Mod. Lang.; 53 History

54 - 59 Criminal Justice

61 - 66 Communication/Journalism

Poster Session II Map

6:00 - 8:00 PM CUB Multi-Purpose Room



Section 1:

Posters 1 - 5 Geography/Earth Science

6 - 12 and 24 Biology

13 - 16 Political Science

17 - 23 Psychology

Section 2:

Posters 25 - 27 Exercise Science 28 - 47 Social Work/Gerontology Section 3:

Posters 49 - 51 Math

52 Physics

53 - 56 Management/Marketing

57 - 58 Counseling

59 English

61 - 66 Communication/Journalism

Keynote Address

Volvo CE - A Global Approach to Research and Innovation

Kent Meyers, Volvo CE

Monday, April 21, 7:00 p.m. Memorial Auditorium

Five years ago, Volvo Construction Equipment set out on a journey to take a diverse portfolio of independent business units and merge them into one global functioning company. This reorganization has allowed Volvo CE to efficiently set up not only a global industrial footprint, but it also expanded the knowledge and capability within the Engineering organization worldwide. The changes in structure over the last five years have opened communication and collaboration across all Volvo CE product lines as well as across the different technology groups, enabling cost effective design and development and industrializing new technologies that meet and exceed customer expectations.

Kent Meyers, Global Director of Advanced Engineering Project Management, will share this company transformation and provide insight into how technical research has been streamlined within Volvo CE. Kent will also share some thoughts about the future of the industry and where Volvo CE is focusing their research initiatives through a short video, and he will present some examples of both locally and globally executed advanced engineering projects.

Kent Meyers

Kent Meyers is the global director of advanced engineering project management for Volvo Construction Equipment. Based at the company's North American head-quarters in Shippensburg, Kent manages a global team of project managers and a multi-million dollar portfolio of more than fifty advanced engineering projects. He supports the development and implementation of new technology



leading to the early phases of new product development.

Kent's position is truly global. He works with engineers around the world to develop and test cutting edge technologies that will be considered for the next generation of construction equipment. The scope of his work has included projects in more than eight countries, including China, Korea, Brazil, and Germany.

Kent has been with Volvo Construction Equipment (previously Ingersoll Rand's road machinery division) since 1997. His previous roles have given him a specialization in advanced engineering, mechanical engineering, and intellectual property for compaction products. Kent has worked on many key projects such as intelligent compaction, waterless drums and multi frequency eccentrics. Kent holds several patents for his design work.

A native of south central Pennsylvania, Kent holds a Master of Business Administration from Frostburg State University and a Bachelor of Science from the University of Pittsburgh. Previous to his time at Volvo Construction Equipment, Kent was a senior design engineer at Grove Worldwide (now Manitowoc) in Shady Grove, PA.

Kent lives in Chambersburg with his wife Holly and their two daughters. He enjoys playing adult league volleyball and spending time on various outdoor and family activities. Kent is active in his community, volunteering as a basketball referee and having volunteered with Special Olympics and the American Heart Association. Previously he has served on his church Board of Directors and currently serves on the Board of Directors for a local manufacturing company.

Volvo Construction Equipment

Volvo Construction Equipment (Volvo CE) is a major international company developing, manufacturing and marketing equipment for construction and related industries. Its products, leaders in many world markets, include a comprehensive range of wheel loaders, hydraulic excavators, articulated haulers, motor graders, soil and asphalt compactors, pavers, milling machines and compact equipment.

Volvo CE gained a presence in south central Pennsylvania with the acquisition of Ingersoll Rand's road machinery division in 2007. Since then, significant investment has been made in the Shippensburg site, with the localization of new product lines and the expansion of both manufacturing and office facilities. Currently Volvo Shippensburg employs about 1,000 people representing more than 20 nationalities who work across technology, operations, and sales and marketing.

Volvo CE is part of the Volvo Group, one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Volvo Group, which employs about 110,000 people, has production facilities in 19 countries and sells its products in more than 190 markets. The Volvo Group is a publicly-held company headquartered in Göteborg, Sweden.



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From the President

Welcome to Shippensburg University's 2014 Celebration of Student Research Conference. This annual program is one of the many highlights of the year and, more importantly, showcases the important student-faculty research that has become a key component of our academic programming across all disciplines.

Students and faculty from each college will spend the day sharing the results of their research in a wide range of

interesting fields. These varied projects show that our students and faculty are cooperatively using their skills to investigate topics that reach far beyond our campus.

We live in an ever-changing world in which new discoveries are found almost daily, many of which have the potential to significantly affect our lives. Before those discoveries can be made, the researchers must have a foundation grounded in knowledge, research methodology and hands-on experience. Our student research program offers our students those skills so that, someday, one of them may make the discovery that will make our world a better place.

Since its inception, this program continues to grow consistent with the role of research in our lives. Each year, more and more students throughout our three colleges recognize the importance of research, and accept the opportunity — and the challenge — to conduct meaningful work on a project of importance. Their willingness to participate is a testament to their commitment to academics and to our collective future.

We currently have graduates in numerous fields conducting groundbreaking research, and I know that the students participating today will be proud additions to those numbers. While today's program is the culmination of these projects, I am confident that it is just the start of many more accomplishments.

G.F. "Jody" Harpster, Ph.D. *Interim President*

Jody Harpste



From the Provost and Senior Vice President for Academic Affairs

The annual Celebration of Student Research Conference puts on display the high quality of a Shippensburg University education! To attend the celebration is to be assured that there is much value added to the academic development and professional preparation of our students as a result of their participation in the joint faculty-student research program at Ship.

This conference showcases projects representing all of the academic colleges on campus and nearly all academic departments. Furthermore, the collaborative research efforts of students and their faculty mentors are not merely on static display at the annual conference but student researchers also actively discuss their work with the audience hailing from the campus community as well as from the general public. As students do so, they are not only showcasing their projects but also continuing to hone abilities that prepare them for ongoing success: asking and answering deep questions, testing and revisiting hypotheses, relying on evidence-based approaches, communicating results often through multiple representations, and collaborating with others to achieve shared intellectual and pragmatic goals.

It is for such reasons that Ship students become highly competitive for professional presentations, career opportunities, and advanced studies. Our students stand out when compared to others as a result of such high-impact practices as undergraduate research. Our students recognize the greater availability of such opportunities at Shippensburg University, as was revealed in the most recent administration of the National Survey of Student Engagement (NSSE). In this survey, 94 percent of Ship seniors compared to only 86 percent of PASSHE seniors reported that they had engaged in at least one high-impact educational experience during their university studies. I have no doubt that for many of our students, the high-impact learning experience that has mattered the most to them is their engagement in joint faculty-student research.

The outcomes described above happen not by accident but by design and through dedication and support. There are many who deserve thanks for the success of our joint faculty-student research program at Shippensburg University. First, we thank the students for their willingness, many of them, to step outside their comfort zones, engage in necessary preparation, and delve into research guided by faculty members. Certainly, we thank the faculty. Without their unwavering commitment to the intellectual growth of their students such accomplishments as represented in the Celebration of Student Research Conference would not be possible. We thank university staff and administrators who work, often well behind the scenes, to make

the conference happen. Finally, we thank the friends and supporters of Shippensburg University who have steadfastly supported and in many cases even increased their philanthropy directed at our signature program of joint faculty-student research. All deserve our sincere gratitude for the opportunities they have made possible for our students!

The extent to which the high-impact educational experience of undergraduate research is available to Ship students is not the norm. Thus the annual Celebration of Student Research Conference is a moment during which to allow ourselves to feel justifiably proud of the exceptional quality and the amazing support to be found here at Shippensburg University.

Bareare G. Lyman

Barbara G. Lyman, Ph.D. Provost and Senior Vice President for Academic Affairs



From the Dean, College of Arts and Sciences

Meaningful and deep engagement between students and faculty is one of the distinguishing strengths of the College of Arts and Sciences. One of the highest-impact types of engagement for students is working under the mentorship of a faculty member doing an undergraduate research project. Through participation in undergraduate research activities, students and faculty work together to

expand the boundaries of human knowledge. Students make their own unique contributions to their disciplines and often experience intense personal growth by their participation. Through their projects, students learn to work collaboratively and gain skills in writing, problem solving, and communication. They also develop distinct insights into the power of guided inquiry. The College of Arts and Sciences continues its exploration of the possibilities presented by an active and vital Undergraduate Research Program. The Dean of Arts and Sciences' Advisory Council for Undergraduate Research continues its task of posing questions, seeking answers, providing a forum for meaningful dialog, and proposing innovative ways for faculty members to make these activities a part of our students' learning experiences. Maintaining curricular relevance and fostering an understanding and mutual respect for the disciplinary differences in doing undergraduate research has been among their many activities. We look forward to continued engagement in undergraduate research activities, and to continually improving the educational experiences of our students in the College of Arts and Sciences at Shippensburg University.

James H. Mike, Ph.D.

Dean, College of Arts and Sciences



From the Dean, College of Education and Human Services

Every college and university hopes to offer its students a "signature experience." At Shippensburg University, one of those signature experiences is the Celebration of Student Research Conference.

Whether through poster or oral paper presentation, our students are excited at the prospect of genuine participation

in a formal, professional conference setting. Faculty members across the College Education and Human Services fully appreciate and recognize that participation in a research project, often working closely with fellow students and a faculty mentor, contributes to our students' long term growth as professionals in the fields they seek to join. The research experience channels students' intellectual development, creativity, problem solving ability and confidence in unique ways unable to be achieved in the regular classroom. Most importantly, the research experience moves our students a giant step forward in their long-term development as professionals, life-long learners and future leaders in our society.

James Johnson, Ph.D.

Dean, College of Education and Human Services



From the Dean, John L. Grove College of Business

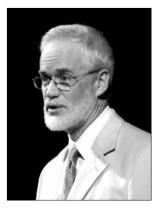
Shippensburg University is the hallmark of quality in providing academic programs at an incredible value. The John L. Grove College of Business has a long history of providing high quality and high value comprehensive business educational experience necessary in preparing students to excel as principled leaders in today's global business community. Delivering high quality

business programs require active faculty/student collaborations in all aspects of learning, in the classroom and outside of the classroom. The joint student/faculty research is a shining example of faculty/student collaborations and illustrates Shippensburg University's commitment to deliver high quality programs and developing students' critical thinking, problem-solving, analytical, and communication skills. At Ship, the faculty continue to collaborate closely with students in conducting numerous and varied joint research projects. These projects further benefit students in that; they incorporate interaction with experts in the field through presentation and panel discussion at academic conferences, and peer-reviewed journal articles. Finally, these scholarship and research experiences foster intellectual development and help to prepare students to become lifelong learners committed to serving society and their profession.

The John L. Grove College of Business is committed to excellence in teaching and high standards of intellectual contribution by providing faculty professional development and support to joint student/faculty research initiatives. As the John L. Grove College of Business continues to build programs, student experiential learning will continue to be the central focus of our strategic planning.

John G. Kooti, Ph.D.

Dean, John L. Grove College of Business



On Behalf of Faculty

Encouraging students to dream and helping them to realize their dreams is part of the Ship magic, and the undergraduate research program contributes significantly to making the magic reality. Of course, the so-called magic occurs via the innovative approach to undergraduate research which engages students in high impact learning experiences. In particular, the student-faculty research initiative has demonstrated the efficacy of academic mentoring within the context of a

shared intellectual endeavor. Many faculty, across many departments, have repeatedly shared their expertise with their students by partnering on research projects.

Clearly, these are win-win opportunities, in that both faculty and students are energized and enriched by their interactions on joint research agendas. Students deserve praise for pursuing significant academic assignments which are above and beyond their typical class-based experience. And faculty are also to be commended for their willingness to provide the necessary structure, guidance and support to ensure a meaningful research experience for students.

Such sustained and intense learning experiences have been shown to have long-term impacts by encouraging students to be yet more academically ambitious due to their enhanced intellectual self-confidence.

Brendan P. Finucane, Ph.D. Economics Department APSCUF-SU President



Dean of Arts and Sciences' Advisory Council for Undergraduate Research

A few months ago, my 10-year-old daughter Olivia did a research project on child labor in America for history day at her school. Her task was to find a topic within the theme "rights and responsibilities," research the topic, and create a poster presentation based on her research. Now, for years I have promoted student research at Shippensburg University, I've helped

plan events and administer grants, but this was a different research experience—guiding my own daughter, seeing the choices she would make, and watching how her understanding of child labor deepened. She (and I) learned a lot as we studied photos from 100 years ago showing 10-year-old girls in mills, and read about the atrocious labor practices in factories. I was a proud parent, helping as she set to the task of taking all she'd learned and fashioning it into an organized narrative on the poster.

Ship's student research website leads with a statement about the value of research: "you can play a part in deepening our comprehension of the universe, the world, and ourselves." I truly believe that this understanding of ourselves—our history, our culture, our flaws, our potential, our relationships with each other—this understanding is where research finds its value. It was the seeds of this understanding that I saw taking root in my daughter as she learned about America's child labor practices. As I see the research that Ship students conduct, I am amazed and thankful that we have the opportunity here to seek a deeper understanding of ourselves, and to share it at this conference.

Thank you to the members of the Dean of Arts and Sciences' Advisory Council for Undergraduate Research, all of whom provided significant help in making this Celebration happen. Thank you to all the wonderful folks in the Institute for Public Service and Sponsored Programs, the Dean's office, and the Provost's office for both their monetary support and for their many, many hours invested in supporting student research. And finally, a huge thanks to our keynote speaker Kent Myers for sharing his experiences with research at Volvo Construction Equipment.

Marc Renault, Ph.D.

Chair, Dean of Arts and Sciences'

Advisory Council for Undergraduate Research

Dean of Arts and Sciences' Advisory Council for Undergraduate Research Committee Members 2013-2014

Wendy Becker William (Turi) Braun Pamela Bucher Laurie Cella Neil Connelly Thomas Crochunis Allen Dieterich-Ward Cynthia Drenovsky Thomas Frielle Mark Hartman Karen Johnson Kim Klein Eveline Lang Jeonghwa Lee Shannon Lee Marcie Lehman Michael Lyman James Mike Blandine Mitaut Kirk Moll Amanda Olejarski Gregory Paulson Gretchen Pierce Virginia (Jenny) Pitts George Pomeroy Marc Renault Ashley Seibert Freddy Siahaan Carrie Sipes Nathan Thomas Christopher Wonders Curtis Zaleski

From the Institute for Public Service and Sponsored Programs

By time-honored tradition, research and public service are identified alongside teaching as essential components of a vital university. SU's Institute for Public Service and Sponsored Programs (IPSSP) serves as a facilitator for identifying external funding resources to enable research and public service to take place.

As such, we play an active role in making the University's commitment to student research a fully realized endeavor. In addition to funding and coordinating the annual Celebration of Student Research conference, IPSSP oversees the annual Undergraduate and Graduate Research Grant Programs.

For the 2013-14 Academic Year, with funding from the University and

the SU Foundation, IPSSP has awarded sixty-three undergraduate research grants. Nearly twenty additional awards have been made to graduate students for their independent research. The results of most of these research endeavors are included in today's Celebration.

Student research brings practical intellectual benefits in the form of improved learning in science, math, logic, expression and project management. None of this could be done well without the mentorship of a dedicated faculty.

To all of those involved, I say "thank you." Please enjoy the conference and appreciate the hard work of all who made it possible.

Christopher Wonders, Director

Pamela S. Bucher, Office Associate Diane Musser, Secretary

Undergraduate Research Grant Recipients 2013-2014

Olusegun Adegboyega-Edun	Allison Hill	Kelsey Martin	Kimberly Schultz
Rachel Aleardi	Matthew Hoffman	Kayla McArthur	Amanda Schwarz
Sarah Antonelli	Jonathan Horensky	Katelyn McCauley	Brent Sessions
Alyssa Arnold	Olivia Hunt	Kelsey Mengle	Emma Shank
Leah Balliet	Aryanna James	Lauren Merk	Patrick Shay
John Bankert	Davidiene Jobes	Kaitlin Merli	Elias Shissler
Sarah Bradley	Kim Jones	Chelsey Michael	Rachel Slotkin
Sarah Brill	Nathan Jones	Johnny Minguez	Dejan Stekovic
Dorissa Brivchik	Mark Juers	Alexander Moats	Ashley Stuck
Jessica Burket	Janelle Kagarise	Tara Myers	Riya Thomas
Zachary Butler	Kimberly Kakabar	Jennifer Myslowski	Leonard Tressler
Jackelyn Cheesman	Lucinda Kauffman	Chris Nelson	Jonna Trindle
Shelby Coghill	Shannon Kaufman	Brandy Nesbitt	Joshua Updike
Elizabeth Cooper	Jacqueline Keller	Nicole Nicholson	Ashley Vellucci
Edward Dema III	Jenny Keller	Casey O'Donnell	Addalena Virtus
Katherine Devito	Brandi Keppel	Caitlin Perry	Jarrett Voight
Hannah Dreibelbis	Audrey Ketterer	Bridget Pettit	Victoria Walls
Toni Eubank	Kayla Klinedinst	John Pilato	Christopher Weidner
Patrick Flanagan	Meghan Kozlowski	Brett Quinto	Heather Weiss
Rachel Flicker	Alicia Lamarche	Shelbie Rackley	Lauren Wenerd
Lindy Gemmell	Megan Lawver	Jessica Rauchut	Adria Wilt
Christine Gonzales	Shannon Lee	Ethan Rickroad	Kenneth Witmer
Hannah Greenberg	Tisheri Leonard	SaraBeth Riley	Valerie Yohn
Jazmine Hall	Rachel Little	Lindsay Rosen	Chanel Young
Rachel Haupt	Caleb Lougheed	Jamie Salmon	Kelcie Zegalia
Carley Heck	Dustin Lowry	Annie Sanchez	Irma Zejcirovic
Clayton Helm	Maria Markovich	Rikki Sargent	

^{*}Not all Undergraduate Research Grant Recipients will be presenting their research at this year's conference due to the timing of the conference and nature of their research.

Undergraduate Research Grant Advisory Committee Members 2013-2014

Allen Armstrong	Jeb Kegerreis	Britt Patterson	Joohee Sanders
Pamela Bucher	Kim Klein	Greg Paulson	Christine Senecal
Jamonn Campbell	Charlene Lane	George Pomeroy	Christopher Wonders
M. Blake Hargrove			

Graduate Research Grant Recipients 2013-2014

Brandon Balotti Molly Moore Isatu Conteh Kelsie Myers Denny Fisher Gon Park Brett Gildner Julia Russell Daniel Gillespie Katie Seymore Benjamin Hepler Kari Showers Sarah Johnston BethAnn Taylor Kathleen Kolos Addalena Virtus Rebecca Lee-Harris Minette Wilson Miranda McCeaf Natasha Wingerter Jennifer McClellan Cassidy Zeller Aaron Mills

*Not all Graduate Research Grant Recipients will be presenting at this year's conference. Several will be presenting their research at the PASSHE Graduate Research Symposium and several are still conducting their research.

Graduate Research Grant Advisory Committee 2013-2014

Sherri Bergsten Robert Setaputra
Barbara Denison Christopher Schwilk
Scott Madey Christopher Wonders

Ezra Lehman Memorial Library Research Award 2013-2014

The annual Library Research Award recognizes the best literature review submitted by students who have received grant support for their participation in the Annual Celebration of Student Research or by conducting other research with a faculty mentor. The first prize recipient receives a \$400 cash prize and the honorable mention recipient is awarded a \$100.00 prize. Commemorative posters will be made of the winners and the posters will be displayed in the library.

The Library Department Chair, Dr. Kirk Moll, will announce the 2013-2014 winners at the keynote speaker presentation on Monday, April 21 at 7:00 PM in Memorial Auditorium.

The Library Research Award was developed in 2009 by the faculty and administration of the Ezra Lehman Memorial Library, in conjunction with the Institute for Public Service and Sponsored Programs and the Council on Student Research. It is made possible by the generous support of Berkley and Carol Laite (SU Classes of 1967 and 1965).

Celebrating the Written Word

We will celebrate the publication of both *The Reflector* and *Write the Ship* on Thursday, April 24, at 7:30 PM, in the Cora I. Grove Spiritual Center.



Celebrating... DEPARTMENTAL CONFERENCE PANELS

Biology

TIME: 3:00 - 5:45 PM

LOCATION: 119

Ecology and Conservation in the Central Appalachian Region

This session of biology graduate student presentations examines the evolution, ecology, and conservation of organisms and ecosystems of our Central Appalachian region. The focal organisms include invertebrates, fish, amphibians, reptiles, owls, and a roundworm parasite of Allegheny woodrats, and ecosystems studied range from small ponds and headwater streams to upland forest. The talks highlight the range of ecological interests of our graduate students and faculty members, and shed light on the biological diversity of our surrounding natural areas as well as the challenges these ecosystems are facing at a time of rapid global change.

Efficacy of Direct Application Mitigative Liming in the Central Appalachian Region Natasha Wingerter

The Aquatic Effects of the Hemlock Woolly Adelgid (Adelges tsugae) in Headwater Streams in South-central Pennsylvania Alicia Helfrick

The Effect of Forest Composition and Caddisfly Larvae (Limnephilus indivisus) on Vernal Pond Communities

Katie Seymore

Seasonal Habitat Selection and Movements in Overlapping Populations of Spotted Turtles (Clemmys guttata) and Painted Turtles (Chrysemys picta) Daniel Gillespie

> Comparison of Aquatic Turtle Assemblages in Established and Recently-Constructed Wetlands in South-central Pennsylvania Benjamin Hepler

An Examination of the Morphological Variation in the Ringneck Snake, Diadophis punctatus (Linnaeus, 1766), in Pennsylvania Julia Russell

Examining Breeding Season Habitat Characteristics of Northern Saw-whet Owls (Aegolius acadicus) in Pennsylvania Kathleen Kolos Raccoon Roundworm (Baylisascaris procyonis) and the Decline of the Allegheny Woodrat (Neotoma magister) in South-central Pennsylvania and Maryland Kelsie Myers

Borrelia burgdorferi, the Causative Agent of Lyme Disease, Prevalence in Betula lenta (Black Birch) Pioneer Forest Stands Agron Mills

Faculty Sponsor(s): Dr. Theo Light, Dr. Tim Maret,

Discussant: Dr. Theo Light

TIME: 5:45 - 9:00 PM

LOCATION: 119

Cell and Molecular Biology Oral Session

This oral platform will include graduate and undergraduate research projects that use cell and molecular techniques to investigate a variety of topics. These topics include identification and characterization of human and plant microbial pathogens, the elucidation of the roles of genes that regulate autophagy in cancer cells and brown adipose tissue differentiation and the role of environmental conditions on genetic diversity.

Identification of Xanthomonas sp.
Using 16S Universal Primers
Kari Showers

Serotype Analysis of Shiga Toxin-Producing Escherichia coli isolates Collected from Odocoileus virginianus (White-Tailed Deer) Fecal Samples Collected from PA, MD, VA, and WV Sarah Johnston

Characterization of Rose Rosette Virus
Robbin McClure, Kyra Newmaster

Impact of Atg5 Overexpression on Transcription of Genes Important for Autophagy in Glioma Cells John Pilato, Leonard Tressler, Kim Jones, Carley Heck

The Effect of Overexpressing Two Autophagy
Regulatory Proteins, Atg5 and LC3, on Cell
Morphology and Growth Characteristics of Glioma Cells
Jonathan Schulz, Jonathan Wagner, Abigail Kraus

Engineering Expression Vectors to Produce Fluorescently Tagged p62/SQSM1

Luke Perry, Samantha Erickson

Engineering a GFP/p62 Expression Vector for the Development of a FRET Assay to Quantify Protein-Protein Interactions between LC3 and p62 in Cloned Cell Lines

Riya Thomas, Christine Gonzales, Jessica Rauchut, Abigail Andrews Regulation of Genes that Induce Brown
Adipose Tissue Differentiation
Elias Shissler, Julia Moore, Shannon Lee

"I Don't Always Mate in Foul Weather, but When I do, I Prefer More Distantly Related Males": Habitat Predictability and Mate Kinship in Spotted Salamanders Mark Juers

Faculty Sponsor(s): Dr. Lucinda Elliott, Dr. Sherri Bergsten,

Dr. William Patrie

Discussant: Dr. Lucinda Elliott

Chemistry

TIME: 3:30 - 6:00 PM LOCATION: 232

Undergraduate Research Projects in Chemistry

This symposium will focus on the research projects performed by undergraduate chemistry majors. Research projects will include topics from the disciplines of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry.

Magnesium Concentration in Horse Valley Reservoir Raw Water Supply Sarah Bradley

DNA Binding Studies of Aryl Sulfoxides

Dejan Stekovic

Determination of the Biochemical Pathway Causing Tight Junction Disassembly in Diabetic Retinopathy Kelcie Zegalia

Synthesis and Structure of Single-Molecule Magnets with Varying Alkali Metals and Bridging Carboxylate Anions Kelsey Mengle

Determination of the Relationship between Human G-Protein Coupled Receptor GP-133 Expression and Intracellular Cyclic Adenosine-3',5'-monophosphate (cAMP) Production Caleb Lougheed

The Analysis of Correlation Functions using Cyclic Invariance

Jacqueline Maguire

Faculty Sponsor(s): Dr. Allison Predecki, Dr. Thomas Frielle

Discussant: Dr. Allison Predecki

Counseling and College Student Personnel Roundtables

TIME: 6:30 - 7:00 PM LOCATION: 226

The Interface of Drug and Alcohol Addiction, Suicide, and Surrender: Implications for Treatment and Approaches

This roundtable discussion will provide participants with results of a qualitative study that explored the interface of addiction, suicide, and surrender. The information received may be of value to help students understanding how suicide interfaces in active addiction and in recovery. Building on prior research on both topics, this project hopes to add to possible therapeutic interventions.

Ashley Miller, Corinne Ruppert

Faculty Sponsor(s): Dr. Ford Brooks, Dr. Kathryn Brooks Discussant: Dr. Ford Brooks

English

TIME: 3:30 - 4:30 PM LOCATION: 104

Creative Nonfiction: Visions of Family Life

Each of these authors will read a short essay that offers a brief glimpse of the family ties that bind us all.

$\it Escape$ Cassandra Clarhaut

The Language of Coffee Holly Hutton

Rose Alexander Strickler

Faculty Sponsor(s): Dr. Laurie Cella Discussant: Dr. Laurie Cella

TIME: 4:30 - 5:30 PM LOCATION: 104

Write the Ship Award Winners: An Analysis of Crime from Different Disciplines

This panel will feature the upper level award-winning essayists from *Write the Ship* 2013-2014. The difficulty of defining and responding to criminal behavior is an issue that informs all three projects. These essays come a wide range of disciplines: English, criminal justice, and business.

Mingling with the Catholic Church: Female Witches of Colonial New Spain Kristina Kramer

Sherburn and Transcendentalism
Collin Brackin

Ethical Decision Making in Corporate Leaders

Zachary Duvall

Faculty Sponsor(s): Dr. Laurie Cella Discussant: Dr. Laurie Cella

TIME: 5:30 - 6:30 PM LOCATION: 104

Write the Ship Award Winners

This panel will feature award-winning essays from *Write The Ship*. The questions raised in this panel range across two disciplines. A psychology student asks if absence really makes our feelings grow, and two students examine dentistry and military life from a historical perspective.

About 85% Prepared for Military Life Luke Strawser

Does Absence Truly Make the Heart Grow Fonder?

Emily Albertson

Egyptian Dentistry
Kaiłlyn Frey

Faculty Sponsor(s): Dr. Laurie Cella Discussant: Dr. Laurie Cella

TIME: 5:00 - 6:30 PM LOCATION: 105

Research in Late Nineteenth Century American Literature

This panel explores key American literary texts from the 19th century, including works by Mark Twain and Charlotte Perkins Gilman.

Repressed to Released in, "The Yellow Wallpaper"

Abigail Brumback

Twain and His Garden

Josh Neil

The Adventures of Huckleberry Finn:
A Pedagogical Perspective

Kyle Brubaker

Faculty Sponsor(s): Dr. Matthew Cella

Discussant: Dr. Matthew Cella

TIME: 6:30 - 7:30 PM LOCATION: 104

Creative Nonfiction: Scenes from Childhood

Each of these young authors will read a short essay that dramatizes the challenges of leaving childhood behind.

Something Special
Kacie Marsh

Waves
Jessica Weibley

Carpool
Amanda Sanger

Faculty Sponsor(s): Dr. Laurie Cella Discussant: Dr. Laurie Cella TIME: 6:30 - 7:45 PM LOCATION: 105

Narrative Visions

Though by definition a series of lies, fiction is an art form deeply devoted to uncovering and sharing essential truths. Employing flash fiction, collaborative work, and excerpts from longer pieces, each of these young authors will express a vision of her sense of the human condition.

Claire Holahan, Olivia Gill, Christy Yi, Celeste Helman, Victoria Johnson, Emily Ciccocioppo

Faculty Sponsor(s): Prof. Neil Connelly Discussant: Prof. Neil Connelly

TIME: 7:45 - 8:45 PM LOCATION: 105

Poetic Research

Student's from Prof. Guerra's Advanced Poetry Workshop (ENG 427) will present original poetic work informed by contemporary trends in poetry, including New Formalism and FLARF.

Christy Yi, Paul Deichmann, Evan Horton, Olivia Gill, Kelsea Collins, Aaron Rhoads

Faculty Sponsor(s): Dr. Vincent Guerra, Prof. Neil Connelly,

Dr. Laurie Cella

Discussant: Dr. Vincent Guerra

English Secondary Education

TIME: 5:30 - 7:00 PM LOCATION: 103

Contemporary Situated Literacies

This panel will feature research by several students in the English secondary education program that investigates current trends in the social dimension of adolescent literacies. By looking at both the current uses of literary reading and the impact of popular culture, commercial spaces, and digital literacy, these presentations will invite the audience to consider the many ways that we read and write now. Each presenter will talk for 12-15 minutes, sharing the methods and results of their field-based research, and the session will conclude with time for discussion with the audience, inviting them to share their own experiences with the issues discussed in the session.

The Truth in Fiction Katherine Deane

Cinematic Impact on Today's Popular Literature
Olivia Straka

Starbucks and its Literary Charm: A Case Study
Jordyn Kahlbaugh

Literacy via Instagram
Stephanie Mellott

Faculty Sponsor(s): Dr. Thomas Crochunis **Discussant:** Dr. Thomas Crochunis

TIME: 7:00 - 8:30 PM LOCATION: 103

Student Teachers Study the Impact of Classroom Practices

This panel will feature classroom-based research by secondary English education student teachers about the impact of particular teaching practices on student learning. Presentations will consider of a range of different behavioral challenges, approaches to addressing them, and the effects of these approaches on student learning. Each presenter will talk for 12-15 minutes, describing her teaching context and sharing the methods and results of field-based research. The session will conclude with time for discussion with the audience, inviting them to share their own questions and experiences with the issues discussed in the session.

Off-Task Behavior Results in a Loss Christing Geitner

Classroom Management in a Diverse Classroom

Megan Tyson

Reconstructing the Classroom Using Learning Focused Schools Strategies Kathryn Gardner

Kids and the Self-Fulfilling Prophecy

Capri Morey

Faculty Sponsor(s): Dr. Thomas Crochunis Discussant: Dr. Thomas Crochunis

Exercise Science

TIME: 3:30 - 5:00 PM LOCATION: 103

Exercise and Metabolism

Exercise Science student majors will present information on topics related to: the influence of ankle bracing on anaerobic power; outcomes of an employee based walking program; the effects of fish oil supplementation on measures of health; and the acute metabolic responses to barefoot running.

The Effects of Ankle Taping and Bracing on Vertical and Horizontal Power
Tisheri Leonard, James S. Rotay

Faculty Sponsor(s): Dr. Sally Paulson, Dr. Joohee Sanders

The Effects of a Pedometer-Assessed Walking Program on Cardio-Metabolic Profile among the University's Workforce

Heather Weiss

Faculty Sponsor(s): Dr. Praveen Veerabhadrappa

The Effects of Fish Oil Supplementation on

Cardiovascular Health

Lauren Merk, Chelsey Michael, Shelbie Rackley, Josh Kramarenko, Kate O'Brien

Faculty Sponsor(s): Dr. Joohee Sanders

Acute Cardiorespiratory and Kinematic
Adaptations to Barefoot Running

Lauren Taylor, Emily Smith, Brittany Bechtold, Patrick Kregeloh, Kayla Mantush, Jennifer Madeira

Faculty Sponsor(s): Dr. William Braun, Dr. Praveen Veerabhadrappa Discussant: Dr. William Braun

Human Communication Studies Roundtables

TIME: 3:00 - 5:00 PM

Understanding Sense of Humor: An Examination of the Big Three Theories of Humor

Student presenters will discuss if their analysis of qualitative data supports the "big three" theories of humor.

Ryley Behm **Bryce Bendgen** Joshua Berstecher **Lindsay Biggans Brittany Bowman** Theodore Brennan **Justin Bunko** Clayton Dick **Danielle Dohmlo Dale Forney Christine Frezzo Emily Frye Amanda Gelber Bret Girton** Joseph Greene **Alexsis Hillard Heather Hockenberry Danielle Hornberger** Kathryn Keefer **Conner Kruis**

Christina Lohff Kellyann Mack **Kacie Marsh** Nicholas Massetti **Sheldon Mayer Antonio Morton** Christopher Paoli **Carolyn Powers Emily Reitzel** Makenna Samsel **Amanda Segner Amber Sherrock** Sarah Stavitsky **Matthew Terry Amanda Udavchak Austin Whitehead** JoAnn Whittington Yasmin Wooten **Christopher Wozniak** Lisa Zicchinolfi

LOCATION: MPR A

Faculty Sponsor(s): Dr. Matthew Ramsey

Human Communication Studies

TIME: 5:00 - 6:00 PM LOCATION: MPR A

Applied Communication Within Organizational Contexts

This panel features student research that interrogates effective communication in organizational and professional settings. With a broad scope that encompasses doctor/patient interaction, consumers and risk, and new employee integration, students are collectively engaged in analyzing variables of communication that reveal dimensions of effective organizational communication practice - or point to areas and suggestions for improvement.

Working towards Successful New Employee Integration

Brooke Clouse

Humor Communication in the Classroom: Effects on Student Skills and Performance Monae Baker

Communication Apprehension with Physicians and Its Effect on Patient Perceptions of Health Outcomes

Amber Sherrock

Social Media as a Marketing Tool

lan Couser

Consumers and Risk Communication

Andrea Fignar

Fantasy Theme Analysis and Sports Marketing
Clayton Dick

Faculty Sponsor(s): Dr. Kara Laskowski Discussant: Dr. Matthew Ramsey

TIME: 5:00 - 6:00 PM LOCATION: 239

Family Communication: Influences and Outcomes

This panel features original student research on family communication. The influence of family communication on young adults' decisions about relationships and sex, the effects of divorce and stepfamily configures on communication, and the interaction between relational pairs within families receives in-depth investigation. Collectively, presenters point to the significant effect of communication within and beyond the family structure.

Communication in Divorced Families
Sara Bontoyan

Self Disclosure in Sibling Relationships
Christine Frezzo

Fathers in Communication with their Children
Antonio Morton

Outside Influences in Young Adult
Romantic Relationships
Lindsay Harlow

Stepfamily Communication
Danielle Hornberger

Messages about Sex Emily Reitzel

Faculty Sponsor(s): Dr. Kara Laskowski Discussant: Dr. Kara Laskowski

TIME: 6:00 - 7:00 PM LOCATION: 239

Critical Cultural Communication

This student panel features independent research into the consequences of mediated messages for individual identity. From considerations of masculinity presented in Mad Men and in the gym to the consequences of messages about women's relationships, a variety of methods are employed to analyze the effect of communication on our social and individual selves.

An Ideological Themed Criticism: Mad Men and Masculinity in the Workplace Christopher Paoli

The Effects of Media Messages on Women's Relationships
Emily Frye

Feminist Criticism of Music
Kijev James

Black and Latino: Defining Color and Culture
Angelina Ruiz

Mediated Messages about the Body: Women's Responses

Kacie Marsh

The Presentation of the Masculine Body

Derek Supel

Faculty Sponsor(s): Dr. Kara Laskowski Discussant: Dr. Kara Laskowski TIME: 6:00 - 7:00 PM LOCATION: MPR A

The Use of Rhetorical Analysis in Advancing Understanding of Contemporary Concerns

This panel features student research employing methods of rhetorical analysis to interrogate contemporary social problems and topics of current interest. A broad range of issues, including charismatic leadership, legal policy, and the cultivation of audiences in traditional broadcast and new media are considered through the lenses of rhetorical criticism, with findings providing insight into the organization of our social world.

The Rhetoric of Dragon Age

Evan Glass

I'm Shmacked **Bryce Bendgen**

The Hegemony against Marijuana
Justin Banko

Mass Suicide: A Look inside a Great Cult

Cecelia Pierce

Joe Paterno: A Fantasy Theme Analysis of Paterno's

Life and Media Coverage of the Scandal

Bret Girton

The Walking Dead: Fantasy Themes Created through the Fan Base and Producers

Brittany Bowman

Faculty Sponsor(s): Dr. Kara Laskowski

Discussant: Dr. Eveline Lang

TIME: 7:00 - 8:00 PM LOCATION: MPR A

Electronic and Computer Mediated Communication

A growing percentage of human communication is occurring in electronic and computer mediated channels. In this panel, students consider the use of electronic and computer mediated communication in the establishment and maintenance of romantic relationships, and explore the consequences of technology on the messages communicated.

Social Networks and Romantic Relationships

Joseph Greene

Maintenance Strategies in Long Distance Relationships

Taajudeen Cousin

Deceptive Messages on Facebook

Makenna Samsel

Communication in Long Distance Relationships Kaila Tirado

Communication and Technology

Conner Kruis

Texting and Communication Outcomes

JoAnn Whittington

Faculty Sponsor(s): Dr. Kara Laskowski

Discussant: Dr. Xin-An Lu

TIME: 7:00 - 8:00 PM LOCATION: 239

Advancing Communication Theory and Practice

This panel features student research that extends communication theory by examining the basic tenets of interaction, and by applying established principles to new topics and audiences. A diversity of ideas, including the communication barriers in listening and in deaf/hearing interaction, and the application of communication apprehension to nonverbal interaction, and the use of nonverbal communication in sports, are considered.

Communication Barriers between the Hearing and the Deaf Kathryn Keefer

Can't Touch This: Connecting Touch and Communication Apprehension

Brian Atkinson

The Concept of Listening
Sarah Stavitsky

Taking a Closer Look at Nonverbal Communication within Collegiate Sports Danielle Dohmlo

Variables of Self Disclosure
Luke Etter

Faculty Sponsor(s): Dr. Kara Laskowski Discussant: Dr. Kara Laskowski TIME: 8:00 - 9:00 PM LOCATION: 239

Interpersonal Communication

Interpersonal relationships have the greatest bearing on our lives, and the communication within those relationships is the determining factor in their quality. Students on this panel present the results of original research that examines the nature and consequences of messages in friendships and romantic relationships, explores the challenges and outcomes of interpersonal interaction, and concludes with recommendations for improving interpersonal communication.

Roommate Conflict Matthew Terry

Marital Communication: For Better or Worse
Lisa Zicchinolfi

Jealousy and Distrust in Intimate Heterosexual Relationships Ryley Behm

Relationships and the Cross Sex Challenge
Amanda Gelber

Lack of Positive Communication in Romantic Relationships

Ashley Pope

The Communication of Closeness through
Nonverbal Communication
Casey Mican

Communication and Relationship Satisfaction:
A Study on the Effects of Flirting
Nicole Williams

Faculty Sponsor(s): Dr. Kara Laskowski Discussant: Dr. Kara Laskowski

Modern Languages - French

TIME: 3:30 - 5:00 PM LOCATION: 240

Understanding Each Other Better: Franco-American Relations

France and the United States have maintained a complicated relationship fed by mutual fascination and animosity. This panel explores the tumultuous bond between the two nations beyond stereotypes since Benjamin Franklin's arrival in Paris in 1776. Through a comparative study of French and American responses to issues of conflict, social tension, race, religion, and access to education, the presenters will unveil the deeper values and ideologies associated with each culture, and offer solutions to foster greater understanding between the two nations.

Silence, On Tourne! A Cinematic Telling of French Art Coming to America from 1990 to the Present Nicholas Ecker

Perception, a Quantum of Discovery: A
Comparative Analysis of Scientific Discovery
between the United States and France
Tyler Garrett

What is Quality Healthcare? Comparing and Contrasting the French and American Healthcare Systems Sara Long

French and American Societal Dependence on Science: A Comparative Study of the Place and Impact of Science in Each Culture Tierney Miller

Unions and Minimum Wage: A Comparative Evolution of US and French Employee Rights Kiley Petro

Did You Hear That? A Comparative Study of the Mutual Musical Influences and the Politics of the Music Industry in the United States and France

Curtis Rabe

Faculty Sponsor(s): Dr. Blandine Mitaut Discussant: Dr. Blandine Mitaut

TIME: 5:00 - 6:00 PM LOCATION: 240

City of Love, Lights, Violence and Terror: Paris, a Multifaceted City

This panel explores the unique culture and complex facets of Paris (France), a city which is often reduced to its touristic appeal and seldom appears in its more complex dimensions. Presenters will examine the city's evolution from a variety of perspectives, trying to understand how the French have experienced their capital city throughout the ages, from medieval poets to the 21st-century actors of a multi-ethnic global city. Through a study of the textual and artistic production of famous Parisians (urban Renaissance men, 19th-century revolutionaries and romantics, pleasure seekers and key figures of modernity, witnesses and victims of the two World Wars and the Algerian war, today's socially divided youth, and homo festivus, our contemporary lost in virtual reality), a more thorough and realistic image of Paris will emerge. Presentations will be in French, but questions can be asked in English at the end.

Du cirque et des jeux pour contrer la révolte: les dessous du divertissement parisien depuis le XIXe siècle (Keeping the People Content since the Nineteenth Century: What Lies Behind Parisian Entertainment) Anthony Bucher

Enfances Juives dans le Paris de Vichy: tentatives de reconstruction de l'expérience et de témoignage à travers la littérature (Jewish Childhoods in Paris under the French Vichy Regime: Attempting to Reconstruct Experience and Bear Witness through Literature)

Houda Bouhmam

Exploration littéraire du traitement des immigrés en France depuis la Seconde Guerre Mondiale (Literary Exploration of the Treatment of Immigrants in France since WWII)

Reginald Hefner

Faculty Sponsor(s): Dr. Blandine Mitaut Discussant: Dr. Blandine Mitaut

Music/Theatre Arts

TIME: 6:15 - 7:45 PM

LOCATION: RAIDER LOUNGE 6 (AIRPORT LOUNGE)

Musical Performance: The Creative Process

Those in attendance at a musical performance see and hear only the finished product--the result of countless hours of research as well as physical preparation. This session features four students, each of whom will perform on his/her instrument/voice and will discuss the composer, the unique features of the composition, and the process of preparing an effective interpretation of the music.

Music for the Timpani Zachary Lessie

Ragtime Piano: Scott Joplin
Tyler Scomak

The Piano Music of Franz Schubert
Jeong Ah Seo

The "Catalogue" Aria from Mozart's, "Don Giovanni"

James Barciz

Faculty Sponsor(s): Dr. Margaret Lucia
Discussant: Dr. Margaret Lucia

Political Science

TIME: 3:30 - 5:00 PM

LOCATION: 105

Public Administration in Action

The papers on this panel analyze public administration theories in action. Denny Fisher, BethAnn Taylor, and Minette Wilson are presenting their research at professional conferences. Brandon Danz and Tracy Raymond are finalists for the Central Pennsylvania Chapter of the American Society for Public Administration's Student Paper Award.

Government as a Leader in the Employment of Individuals with Disabilities

Brandon Danz

Enacted Environments and Eminent Domain: Inherently Governmental or Open for Business? Denny Fisher

Who Gives a Fig (Newman)?
Applying Stakeholder Theory
Tracy Raymond

Zero Waste Programs, Trends, Policies, and Case Studies

BethAnn Taylor

Seizing the Opportunity to Preserve the Integrity
Minette Wilson

Faculty Sponsor(s): Dr. Amanda Olejarski Discussant: Dr. Amanda Olejarski

Social Work

TIME: 3:30 - 5:00 PM LOCATION: 226

Social Work Group Research Projects

Students in the undergraduate Research Techniques for Social Workers course during the Spring 2014 semester completed a group-based research project based on the following parameters: they worked in groups of four to six fellow students, the sample for this project was the students themselves, students were encouraged to use their texts extensively to guide them, and the professor worked with students to provide guidance and advice.

An Analysis of the Political Views of Social Work Majors

Destiney Brown, Skyler Guest, Margaret Wishard, Carrie

Oates

The Relationship between Quality of
Sleep and Academic Performance
Rebecca Lindiner, Kendyl Marino, Ashley Tanner, Mary
Wood

An Examination of Stress in Social Work Students
Asia Dan, Michelle Jones, Megan Mellott, Javonna Wylie

The Impact of Textbook Costs on Academic Performance
Jennifer Braun, Cassie Hoffman, Erin Longfellow, Amy
Percoskie, Rebecca Zelner

A Qualitative Assessment of Social Work Career Choices
Amari Barber, Charles Blackwell, Fatima Neal, Alicia
Rivera, Tierra Stallings

The Long Term Impact of Substance Abuse on Students
Kelsey Breslin, Neriah Chisolm, Mariah Groff, Kimberly
Horchler, Alyssa Skalski

What are the Impacts of Bully Victimization on Self-Esteem and Trust

Karleena Delphey, Briana Fells, Lindsay Holleran, Amanda Stori, Katie Tucker

> How do Past Life Experiences Impact Career Choice among Social Work Majors

LaShay Hickenbottom, Sierra McCulloch, Sarah Neff, Allison Smith, Kelsey Toth, Alyssa Wettig

Faculty Sponsor(s): Dr. Michael Lyman Discussant: Dr. Michael Lyman

TIME: 5:00 - 6:00 PM LOCATION: 226

Disability Minor Student Research

Students of the Disability Minor Capstone Seminar will present the results of their seminar projects.

Examination of the Effects of Aging on Disability: A Literature Review

Kelly Trucksess

Learned Helplessness in Individuals with Intellectual Disabilities: A Literature Review Rachel Haupt

Disability Talk
Chrissy Connor, Emily Michael

Benefits of Inclusive Basketball»
Nicole Koenig, Mariah Ruffer

Inclusion of Children in the General

Education Classroom

Kaitlyn Levy, Danielle Sciotto

Experience with Disabilities at New Visions, Inc.
Rachel Newcomer

Faculty Sponsor(s): Dr. Marita Flagler Discussant: Dr. Marita Flagler



Celebrating... HONORS SYMPOSIUM

The Honors Symposium is the formal forum where Honors Program seniors present their capstone projects. The research, creative, and service-learning projects that our students are presenting today represent the culmination of their academic experience in the Honors Program. Thank you for joining us to learn about their projects and acknowledge their hard work!

Natural Science and Computer Science I

TIME: 3:30 - 4:30 PM LOCATION: ORNDORFF THEATER, CUB

Determination of the Copper Resistance Mechanism in Xanthomonas arboricola py. pruni

Previous studies conducted at Shippensburg University demonstrated the presence of copper resistant Xanthomonas sp. (a specific bacterium associated with bacterial spot on stone fruits) within active stone fruit orchards located throughout south-central PA. However, the mechanism of copper resistance utilized by these organisms is unknown. Known Cu resistant Xanthomonas isolates were tested to determine if the resistance genes they possess are located on the bacterial chromosome or plasmid encoded. Chromosomal DNA and plasmid extractions were conducted followed by PCR amplification using CopA and CopB primers to determine if these genes are present. Additionally, new Cu resistant Xanthomonas strains continued to be isolated from local stone fruit using specific culture techniques. Identification of new isolates were confirmed by PCR using Xanthomonas specific primers. Isolates were then amplified with 16S universal primers and the resulting amplicon sequenced to confirm identification.

Rachel Aleardi

Faculty Sponsor(s): Dr. Marcie Lehman

Discussant: Dr. Kim Klein **Evaluator:** Dr. Thomas Feeney



Regulation of Genes that Induce Brown Adipose Differentiation from C2C12 Myoblast

Brown adipose tissue (BAT) has been shown to have therapeutic effects on obesity as the cells have a specialized function of expending energy in the form of heat. BAT is red-brown due to iron-containing complexes found in the high levels of mitochondria in the cells. Previous studies have demonstrated origins of BAT from myoblast. The purpose of this study was to elucidate pathways through which gene expression was regulated to achieve BAT differentiation (BATd) and to control genes of interest to induce BATd from C2C12 mouse myoblast cells. Drugs that have been shown to activate gene expression pathways related to BATd were applied to the myoblast cells, and the cells were analyzed for gene expression. If BATd occurred, cell characteristics, especially the mitochondria and lipid content would be examined to confirm BATd. Myoblast gene expression was confirmed through cDNA analysis. The project detailed a comparison of myoblast and tentatively, BAT cell gene expression.

Shannon Lee

Faculty Sponsor(s): Dr. William Patrie

Discussant: Dr. Kim Klein **Evaluator:** Dr. Thomas Feeney

Investigating the Effects of Scuba Diving on Populations of Staghorn Corals (Acropora cervicornis) in Roatan, Honduras

Roatan is one of seven bay islands off the coast of Honduras, and is the most popular for tourists and diving. Honduran reefs comprise approximately 30 percent of the Mesoamerican Barrier Reef System, which is the second largest barrier reef in the world. A. cervicornis is a branching stony coral native to Caribbean waters and is one of the most ecologically important corals as well as critically endangered. This species is experiencing many devastating pressures such as increasing sea level and temperature, increases in UV radiation, predation, hurricanes, and disease. Recreational scuba diving is an understudied pressure that may attribute to the decline of this species. Tourism in Honduras has been steadily increasing since 1980. Nine diving sites were identified from frequent to rare use and were surveyed via video and photography. GIS and correlation coefficients were used to analyze the percent of broken coral to proximity and usage.

Clayton Helm

Faculty Sponsor(s): Dr. Alison Feeney

Discussant: Dr. Kim Klein **Evaluator:** Dr. Thomas Feeney

Natural Science and Computer Science II

TIME: 3:30 - 4:30 PM LOCATION: HONORS SEMINAR ROOM,
PRESIDENTS HALL

Digital Music Composition: Dual Genetic Algorithms with Objective Fitness

This research focuses on the use of genetic algorithms to generate new melodies from existing melodies. The unique property of genetic algorithms allows them to perform with little actual domain knowledge of the problem. Two genetic algorithm implementations that allow for rhythmic and tonal components to be processed separately, using entirely automated judgment techniques, were created and tested. Experiments were devised which tested thirty inputs with thirty trials each, providing a normal distribution of the results. The times were taken for each trial and conclusions were extracted from the data. A side experiment was also devised which sought to improve on the initial experimentation results.

Stephen Bussey

Faculty Sponsor(s): Dr. Alice Armstrong

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Robin McCann

The Analysis of Correlation Functions Using Cyclic Invariance

Correlation functions are of interest due to their explanation of how many-bodied systems interact, specifically how a measurable at a given time relates to its initial value. Ultimately, correlation functions can be related to physical observables such as diffusion coefficients for a given substance. Therefore, proposing a method for the evaluation of correlation functions that maintains accuracy yet is computationally efficient becomes beneficial. This work is a proof of concept which implements a Monte Carlo approach to correlation function calculations of model systems brought into favorable forms through the use of cyclic invariance. To avoid the famous "sign problem," the current formulation dampens the oscillations that are present in said functions while avoiding the insertion of multiple sets of continuous states, thereby keeping the computational cost reasonable. A statistical analysis and justification of the new method is shown for harmonic and anharmonic model systems.

Jacqueline Maguire

Faculty Sponsor(s): Dr. Jeb Kegerreis

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Robin McCann

Business and Social Sciences

TIME: 4:45 - 6:00 PM LOCATION: ORNDORFF THEATER, CUB

Family-Friendly Business: Why It Should be Embraced by Managers and How It Should Be Implemented

More business are implementing family-friendly practices and policies. Businesses create family-friendly policies and practices for pragmatic, strategic, and ethical reasons. Family-friendly policies and practices can be implemented through various programs, making the programs accessible to all employees. A study of six small organizations confirmed that family-friendly business practices can provide benefits for businesses, but they are not for everyone. A company must analyze its structure and strategy to determine if these practices are appropriate for its business, and, if so, what are the best ways to implement family-friendly practices.

Dakota Bricker

Faculty Sponsor(s): Dr. Wendy Becker Discussant: Dr. Wendy Becker

Evaluator: Dr. Alison Dagnes



Russia and the United States in the International Community: Perception Versus Reality

For decades, the relationship between the United States and Russia has been described by many in the media as being predicated on hostility. Recurring headlines espouse the notion that these two "adversarial" countries are far apart on many issues and do not share much common ground—specifically in regards to military and Eastern European affairs, which has led to both tension and derision. Moreover, it would

even appear that some narratives derived from these news sources indicate that Russia and the United States continue to move further apart in the international community. In spite of the seemingly negative circumstances that are projected by these sources, some indicators, such as aggregate national trade data and private investment, identify a strengthening of interdependence between Russia and the United States. This project seeks to evaluate different metrics of cooperation in order to paint a broader picture of the United States' relationship with Russia.

Owen Ecker

Faculty Sponsor(s): Dr. Niel Brasher Discussant: Dr. Wendy Becker Evaluator: Dr. Alison Dagnes



Strengths-Based Peer Support Goals and Recovery

Psychology is following a national paradigm shift from the deficit-based disease model to a strengths-based recovery model for mental health services. In the former model, consumers passively receive treatment, whereas in the latter they take an active role in their recovery and strive for a life outside of illness. Peer support is an important part of the strengths-based recovery model. This research involves the creation and validation of a taxonomy of peer support goals based on the recovery model. The taxonomy was used to code 284 mental health peer support goals drawn from the records of 61 consumers. Interrater reliability and the association between strength-based goals and recovery are examined.

Lindsay Rosen

Faculty Sponsor(s): Dr. Kim Weikel Discussant: Dr. Wendy Becker Evaluator: Dr. Alison Dagnes



The Daily Concerns of Individuals Diagnosed with Rheumatoid Arthritis and Osteoarthritis

Arthritis has become an increasing problem in the United States. The disease causes devastation to the joints, bones, muscles, cartilage, and other connective tissues, causing physical pain, disability, stiffness, and inflammation of joints. Fifty million adults have been diagnosed with some form of arthritis, making arthritis the leading cause of disability in the United States. Arthritis can disrupt all facets of daily life. Chronic pain associated with arthritis impacts all areas of life: physically, socially, and emotionally. Because of the growing impact of arthritis, this study provides insight not only into the emotional distresses of those patients diagnosed with arthritis, but also into the effects of the disease on social relationships, daily activities, types of coping (problem and/or emotion-focused), and outlooks on a future with arthritis.

Carissa Strohecker

Faculty Sponsor(s): Dr. Scott Madey, Dr. Corrine Bertram, Dr. Sue

Morin

Discussant: Dr. Wendy Becker **Evaluator:** Dr. Alison Dagnes

Reach Out: The Honors Program's Service-Learning Initiative in the Dominican Republic

TIME: 4:45 - 6:00 PM LOCATION: HONORS SEMINAR ROOM,
PRESIDENTS HALL

Reach Out Fundraising Plan

The goal of the project was to create a fundraising plan for Reach Out: The Shippensburg University Honors Program's Literacy and Leadership Initiative in the Dominican Republic. The fundraising plan captures the group's current financial position, describes revenue-generating activities, and provides insight into the group's progress toward its goal of building a new school. The fundraising plan will help future students set annual financial goals, and it will provide a guide to some activities that help support these goals.

Jazmine Hall

Faculty Sponsor(s): Dr. Gretchen Pierce, Dr. M. Blake Hargrove

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Gretchen Pierce



Disabling Math Anxiety: Enhancing Math Instruction in the Dominican Republic

Real-world application of mathematics is universal and can transcend cultural and language barriers. Providing effective instruction based on research-based theories and strategies leads to more confident and competent students. A comprehensive resource manual on mathematics education was developed and presented in a discussion-based teachertraining workshop in a school that serves low-income children in Santo Domingo, Dominican Republic. Based on surveys, interviews, and observations of teachers at the school, the effectiveness of the workshop was revealed.

Hannah Dreibelbis

Faculty Sponsor(s): Dr. Janice Minetola, Dr. Gretchen Pierce

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Gretchen Pierce



¿Como se dice...?: The Process of Translation

"Bilingual" is increasingly becoming a common preferred or required qualification for position openings today. Translating is a very rigorous way to learn and build on one's language skills. By combining classroom knowledge with the skills I developed while immersing myself in the culture through a semester abroad in Spain, I translated Reach Out's Arts Integration Manual to bring to the our partner school in Santo Domingo, Dominican Republic. Through methods of direct and oblique translation, I reinforced prior language understanding, but also added a plethora of words, phrases, and concepts to my Spanish vocabulary.

Lindy Gemmell

Faculty Sponsor(s): Dr. Robert Lesman

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Gretchen Pierce

The Role of Creative Expression in the Classroom

Art is a critically useful tool in students' education, and the opportunity for creative expression can enhance students' personal and academic development. By researching best practices in art integration and studies on creativity, I developed a concise, cohesive manual on the role of creative expression in the classroom. The presentation of this manual was planned to empower the teachers of the Pathways of Learning School in Santo Domingo, Dominican Republic. In Fall 2013, the students of Reach Out prepared to dialogue and work with Dominican teachers to apply art integration to meet challenges and learning goals for their classrooms during the January 2014 program. Throughout the art integration workshop, students and teachers learned from one another, and they subsequently cooperated on projects and lessons that implemented these strategies.

Jarrett Voight

Faculty Sponsor(s): Dr. Robert Lesman

Discussant: Mr. Tyler Miller **Evaluator:** Dr. Gretchen Pierce

Education

TIME: 7:00 - 8:30 PM LOCATION: HONORS SEMINAR ROOM,
PRESIDENTS HALL

Assessing Spatial Thinking Skills in Middle and High School Social Studies Content

This project aims to assess the spatial thinking skills of middle and high school students in their social studies classes. The taxonomy of spatial thinking skills developed by Jo and Bednarz was applied to create social studies lessons for seventh and tenth grade students at Susquenita Middle and High Schools, and the students' spatial thinking capabilities were measured by the author. The results of these assessments were analyzed to determine if the development of students' spatial thinking skills is influenced by age or sex.

Luke Strawser

Faculty Sponsor(s): Dr. Janet Smith

Discussant: Dr. Kim Klein **Evaluator:** Dr. Lynn Baynum



iPads in the First-Grade Classroom

In a world filled with smartphones, tablets, and computers, there is an increasing focus on technology in the classroom. Do students really want to use technology in the classroom, and how does their confidence in their abilities and access to technology at home impact their choices to use technology? Through surveys and hands-on learning, I assessed how many students prefer to use iPads in the classroom and why they make the choice to use or not to use iPads during the school day.

Megan Fick

Faculty Sponsor(s): Dr. Lynn Baynum

Discussant: Dr. Kim Klein **Evaluator:** Dr. Lynn Baynum

It's a Snap: Using Photography to Bridge Academic Skill Levels

Can photography bridge the span of knowledge? In classrooms where students are generally placed into homogeneous groups based on skill levels, can students of varying academic levels be grouped together and successfully complete a project? Students were placed into groups based on their reading levels but rather than placing students who were on similar levels together, students were placed with students who were on different levels. Each group was assigned a theme and instructed to represent the theme through a photograph.

Hannah Brant

Faculty Sponsor(s): Dr. Lynn Baynum

Discussant: Dr. Kim Klein **Evaluator:** Dr. Lynn Baynum



The Impact of Movement on Learning

When teachers incorporate movement into lessons, do students learn more? Movement may be one way to engage all students to learn at high levels. Young students are very active, especially boys. After movement is integrated, do students perform better? I taught two third-grade classrooms a math lesson on place value and ordering numbers to the thousands' place. One class was taught with no movement, and the other class was taught the same content with the addition of movement. My results suggest that movement impacts learning, especially for girls.

Tiffany Florio

Faculty Sponsor(s): Dr. Jennifer Pyles

Discussant: Dr. Kim Klein **Evaluator:** Dr. Lynn Baynum



Implementing Strategies Designed for Gifted Students in an Inclusive Classroom

This project seeks to determine if using strategies often implemented for gifted and high-level students (or enrichment classrooms) can be implemented in typical classrooms is such a way that all students can benefit while the students who are high-level or gifted are still being challenged. The project will use the three strategies of high-stimulus learning, interest-based lessons, and integrated material to test the research question. The project also seeks to answer the question of how using these strategies compares to more typical classroom teaching methods. Qualitative and quantitative data will be taken to compare traditional lessons with lessons incorporating the mentioned strategies.

Elizabeth Cooper

Faculty Sponsor(s): Dr. Laureen Nelson

Discussant: Dr. Kim Klein Evaluator: Dr. Lynn Baynum



Celebrating... INDIVIDUAL ORAL PRESENTATIONS

Communication/Journalism

TIME: 7:00 - 7:30 PM LOCATION: 226

Media Portrayal of Female Athletes

In the world of athletics, men dominate the scene in the eyes of consumers. Women rarely are given the equal opportunity to be seen in a similar light. Women have been underrepresented, overly sexualized, and scrutinized as homosexuals in athletics for decades. The purpose of this research is to discuss if female athletes are continually being misrepresented and if there have been strides made in changing this perception in the media.

Kevin Battersby

Faculty Sponsor(s): Dr. Joseph Borrell Department: Communication/Journalism

Communication/Journalism Creative Works Display

TIME: 3:00 - 5:00 PM LOCATION: OUTSIDE MPR

Documentary of the Haiti Service Learning Project

The documentary follows three Shippensburg students, one French professor, and one family's desire to help the village of Gros Mangles, Haiti. The students work on their service-learning project to help build a playground for a Catholic school in Gros Mangles. Professor Agnes Ragone's passion for the whole village extends further this year to working with the Medical Dispensary Committee. Through her help, the committee is organized and ready to make a decision on how to proceed with building a community dispensary. The connection between Haiti and Shippensburg is through Gros Mangles residents Jonas Celius, his wife, Miriam '92, and his son, Michael, who attended Shippensburg. They were the ones who inspired this group to travel 1478 miles to help others in a fourth world country. This documentary captures the every-day life of Gros Mangles and how the selflessness of this small group impacted the lives of the people in the village forever.

Allison Hill

Faculty Sponsor(s): Dr. Kim Garris, Dr. Agnes Ragone, Dr. Blandine Mitaut

Department: Communication/Journalism, Modern Languages-French

History, Language, and Business Management

TIME: 6:45 - 7:45 PM LOCATION: 232

Evaluating Independent Employees

Many positions require employees to work independently in organizations without direct daily interaction with a supervisor; this presents a challenge for evaluating employees. Multi-rater appraisals such as 360-degree evaluation include peer, subordinate, customer and self as well as supervisory ratings; these types of ratings enhance the

assessment of independent workers. An analysis of literature evaluating emergency service worker performance evaluation, a critical and growing job classification in which workers often work independently, proposes that feedback is more meaningful and job relevant when multiple sources of evaluation are utilized. Through this research, the acceptance and effectiveness of multi-source evaluations are considered.

Justin Eberly

Faculty Sponsor(s): Dr. Wendy Becker Department: Management/Marketing



35th Infantry Division Heimkehr Project

The main goal of this project is to find out what happened to the majority of soldiers from the 35th Division who never returned to Germany after WWII. This project is an analysis of records of the soldiers obtained from the German Suchdienst, which is the equivalent of the American Red Cross, to try and find out what happened to the soldiers who never returned home. We suspect that the reason why most of the soldiers did not return is due to the fact that many may have been convicted of war crimes. People believe that German soldiers ruthlessly killed Jewish people for no reason, however according to Christopher Browning, an American historian of the Holocaust, the soldiers were "ordinary men" not Nazi demons, who were simply following an order out of obedience to their commanding officers. This project allows us to see why soldiers in the 35th Division committed war crimes and to see if they were, like Browning said, just following orders.

Matthew Hoffman

Faculty Sponsor(s): Dr. David Wildermuth Department: Modern Languages-German



Pan-Islamism: Motivations for Jihad in Afghanistan and Pakistan

Ever since the events of September 11, 2001, the United States, as well as other world powers has focused on combating terrorism in the Middle East by focusing on radical organizations such as al-Qaeda and the Taliban. However, in order to combat these organizations it is important to understand what they believe and what motivates them in their jihad against foreign influence in their land. This project examines Afghanistan and Pakistan and tries to answer the complex question of what makes radicals commit acts of terror? Thomas Hegghammer examined this question and found the central theme of Pan-Islamism as a driving force for radicals in Saudi Arabia. By using testimony of terrorists, fatwas, and other primary sources, I have been able to test Hegghammer's thesis in the aforementioned areas of the Middle East and concluded that Pan-Islamism is a key underlying theme throughout terrorist ideology and personal interpretations of jihad also play a factor.

Brandon Moist

Faculty Sponsor(s): Dr. Brian Ulrich Department: History/Philosophy

Student Learning Outcomes and Success

TIME: 3:30 - 4:30 PM LOCATION: 239

Generating and Measuring Change: A Rigorous Qualitative and Quantitative Analysis of Shippensburg's Writing Fellows Program

Our Writing Fellows Program is one that has not been rigorously assessed in the field, yet Driscoll (2013) calls for rigorous empirical methods, arguing that writing center research must adopt methods that are replicable, agreeable, and data-supported in order to meet the standards of evidence-based research found in other disciplines. To determine program effectiveness of this model and measure changes in writers, a mixed-methods study employed rigorous quantitative and qualitative measurements. We have partnered our assessment with another university, which recently adopted our tutoring model. Our large sample size of nine classes will not only offer a large cohort for our study, but it will also provide control groups for comparison purposes. The fellows and tutors involved will share results of changes generated in students' writing and writers' perceptions toward composing, reading, and the fellows.

Nicole Koenig, Shelia Sidelinger, Abigail Brumback, Jessica Johnson

Faculty Sponsor(s): Dr. Karen Johnson Department: Learning Center



Reciprocal Learning Processes : An International Writer Informs and Co-Authors Tutorial Training Manual

The number of international students attending American universities is increasing and changing the face of the writing center into a vibrant array of colors that enrich the life of the center. Because international students come from diverse backgrounds, tutors should examine tutoring strategies and make ongoing adjustments to help meet writers' needs. To improve tutoring with international writers, tutors may need to develop more strategies. To address this need, I helped develop a handbook that provides instructional strategies that writing tutors should keep in mind when they work with international students. This session proposes to discuss the collaborative research and development of instructional strategies that were compiled into a handbook for tutors. This unique publication integrates an international voice into the descriptive strategies to help tutors better understand and meet the needs of international students.

Jeong Ah Seo, Janelle Kagarise, Adria Wilt

Faculty Sponsor(s): Dr. Karen Johnson Department: Learning Center



Impact of Dean's Orientation Session on Retention, Declaring STEM Majors, and GPA

The presenters will be highlighting the relationship between students who attend the Dean's Orientation Session and their first-semester and first-year retention level, their persistence to declare a STEM major, and their overall semester GPA in comparison to those students who did not attend. The study compares 900 new students entering into the

Office of Undeclared Students. Institutions are continually looking for predictors of academic success and the markers of academic difficulty. At stake may be the institution's reputation and its bottom line. If attending orientation, which generally occurs before classes begin, is a predictor of students who may be at higher risk to transfer, be placed on probation, and experience other early academic difficulties, then institutions can more effectively and efficiently focus resources on the students who display early markers of academic difficulty.

Victoria Glogg, Brittany Reichard, Michael Coles

Faculty Sponsor(s): Dr. David Henriques **Department:** Office of Undeclared Students

Physics

TIME: 6:15 - 6:45 PM

LOCATION: 232

String Theory

This presentation will detail the String Theory that the four students have researched under Dr. Abdurrahman. In this project we are working on developing a general procedure that can be applied to the general case appearing in the N-interacting comma theory. We believe that our method will be instrumental in evaluating the crucial infinite sums needed to further understand the connection between Witten's String Field Theory (WSFT) and the Comma Theory. These sums constitute the foundation for inverting the infinite dimensional change of representation matrices appearing in the comma approach to WSFT. In particular the generalization of the sums encountered would be essential when considering the problem of the interaction vertex for more than three strings and may simplify the construction of the conformal operator connecting the Comma theory and WSFT.

Justin Wright, Ryan Miller, Nicholas Lacroce, Ibrahim Abdurrahman

Faculty Sponsor(s): Dr. Majeed Abdurrahman

Department: Physics

Theatre Arts Creative Works Display

TIME: 6:15 - 8:15 PM

LOCATION: ORNDORFF THEATER

Littlestown Meets Hollywood: The Many Lives of Myrtle Louise Stonesifer-King

For the past three years, THE BITTLE BROS. have been on an incredible journey through their extensive research on Myrtle Louise Stonesifer-King (Louise Howard, Halo Meadows), an avant-garde actress, playwright, free spirit and former resident of their hometown of Littlestown, Pennsylvania. Since the very beginning, they realized the many uncanny parallels between her life and their own. Combining their love of the theatre, education, and history, these very passions have fueled their ambition and enthusiasm. It was through the generous grants provided by the SU Foundation that the brothers were given the opportunity to travel to Hollywood, California in the spring of 2012 and 2013. They are currently writing her biography, as well as a full length musical depicting her life. With the newly formed non-profit, The M.L.S. King Living Legacy Guild®, they are in the beginning stages of the Fundraising Campaign to purchase and establish her former home in Littlestown into a living history museum.

Clifton Bittle, Clinton Bittle

Faculty Sponsor(s): Mr. Paris Peet

Department: Theatre Arts



Celebrating... POSTER SESSION I

Academic Programs and Services

Summer Bridge: Triumph and Trial in the First Year

Many institutions have established summer preparation programs that allow students to learn the academic and social skills necessary for success in college. Using a phenomenological approach, this study sought to uncover the experience of students in a summer program and the first year of college in an effort to better support this population. This poster presentation will explore findings that support summer bridge programs and recommendations for additional services needed to further encourage persistence with these first-year students.

Rebecca Lee-Harris

Faculty Sponsor(s): Dr. Chad Bennett, Dr. Matthew Shupp Poster Location: 51

Accounting/Management **Information Systems**

Developing and Evaluating an Accessible, Web-based, Platform-Independent Educational Touchscreen Game

Many individuals use their mobile, touchscreen devices (such as smart phones and tablets) in all aspects of their lives, including education. With the prevalence of mobile touchscreen interfaces (both tablet and smartphones), such interfaces are increasingly used for educational activities including augmentation of the learning process. There are a variety of proprietary "apps" which have been developed as learning tools for students and employees. Most of these "apps" are designed to work on a specific platform (e.g., Android, IOS). This project involved the ongoing development and evaluation of a web-based, platformindependent, accessible, touchscreen game for educational purposes. The researchers conducted individual accessibility evaluations using assistive technology, as well as testing with five individuals who are blind. The goal of this approach was to discover any aspects of the "app" that were not accessible and obtain additional feedback to improve the project.

Andrew Thompson, Justin Null

Faculty Sponsor(s): Dr. Brian Wentz

Poster Location: 49

Biology

Identifying Genes that Regulate the Timing of Development in Spotted Salamanders in the Premetamorphic Stages

The purpose of our research is to gain a better understanding of the role of hormones and other genetic regulators in the timing of early development in the spotted salamander, Ambystoma maculatum. It is known that the timing of salamander development and metamorphosis is affected by environmental conditions, however the mechanism by which external cues impact hormone regulation and ultimately developmental timing is not well understood. We designed PCR primers to amplify cDNA sequences from Ambystoma maculatum based on regions of homology between Xenopus laevis and Xenopus tropicalis. PCR products will be cloned into vectors that will allow us to determine the sequence of the cloned fragments. The timing and pattern of expression of these hormones can then be determined by monitoring the RNA levels produced from these genes in embryos exposed to varying conditions.

Sarah Brill, Brandy Nesbitt, Emily Reesey, Marah Eimer

Faculty Sponsor(s): Dr. Sherri Bergsten Poster Location: 6



Phenology of the Anuran Community in Three Wetlands in South-central Pennsylvania Using Automated Acoustic Systems

Anurans, frogs and toads, are bioindicators, reflecting the health of particular environments. Wetlands are crucial habitats for many anurans as places for reproduction. During the breeding season, male anurans form choruses and emit species-specific calls to attract females. From 2012-13, automated recording units (Song Meters, Wildlife Acoustic Inc.) were used in three wetlands at Letterkenny Army Depot, Franklin County, Pennsylvania. Resulting sound files were analyzed with Song Scope software. Characteristic sonograms from seven species were detected: the American Toad, Spring Peeper, Upland Chorus Frog, Pickerel Frog, American Bull Frog, Green Frog, and Gray Tree Frog. Spring Peepers, American Toads, and Upland Chorus Frogs were identified at all sites. Spring Peepers were the most common species and began vocalizations the earliest in the season. These complex anuran assemblages could shed insight into the biodiversity and health of natural and restored Pennsylvania wetlands.

Casey O'Donnell

Faculty Sponsor(s): Dr. Pablo Delis, Dr. Brad Armen Poster Location: 3



Long Term Survey of Ophidians in Natural Islands in an Urban Landscape in Accomack County, Virginia

Snakes are important predators in terrestrial communities yet under threat by anthropogenic pressures such as habitat destruction. Currently, marine coastal habitats are further affected by the threat of climate change and sea level rise. In the Virginia shores, Chincoteague Bay Field Station (CBFS) offers the opportunity to study coastal snake communities under such stresses. Local anecdotal accounts reported four species of snakes: Eastern Racer, King Snake, Garter Snake, and Ringneck Snake. From 2013-14, this research project will survey the snake diversity on the CBFS campus and adjacent areas. Monthly, cover boards will be checked to hand capture snakes. Individuals will be sexed, measured, assessed for health and reproduction, and uniquely marked using electronic tags. This study will significantly better the understanding of snake communities in anthropogenically impacted coastal habitats and help develop concrete objectives for the conservation of these secretive species.

Dorissa Brivchik

Faculty Sponsor(s): Dr. Pablo Delis Poster Location: 4

Biodiversity and Demographics of a Snake Assemblage at the Shippensburg University Campus, Cumberland County, Pennsylvania

Ophidians, snakes, are important both as predator and prey in terrestrial environments. Ophidians, however, are not well studied because of their secretive nature and popular misconceptions. Additionally, little is known about snake assemblages in urban settings. This study is the continuation of a long term project, started in 2010. It focuses on the ophidian community at the Shippensburg University campus, Cumberland County, Pennsylvania. By increasing the number of cover boards, and sampling intensity, we will expand the prior research. To date, this research has revealed the presence of four snake species, the most common being the Eastern Garter Snake, and provided estimates of ophidian densities on and around the university campus. Continuing research will add information on growth and survivorship to this study. This long term study will provide insight into the status of snake assemblages in this anthropogenically impacted environment under urban and agricultural stresses.

Kimberly Kakabar

Faculty Sponsor(s): Dr. Pablo Delis

Poster Location: 5



Assessment of an Aquatic Turtle Community at Buds Lake Area, Franklin County, South-central Pennsylvania

Aquatic turtle communities are important components of freshwater ecosystems. In Pennsylvania, little is known about these communities in disturbed wetlands. Since 2003, the herpetological community has been monitored in Letterkenny Army Depot (LEAD), however, no studies have been done in and around one of the largest wetlands: Buds Lake. In April and May of 2014, the aquatic turtle community at Buds Lake and adjacent wetlands will be sampled using a total of 30 baited hoop and funnel traps. Captured turtles will be identified by species, aged, sexed, measured, and individually marked to determine population demographics including density estimates. Based on preliminary sampling at other LEAD sites, five species could be found at this location: Common Snapping Turtle, Painted Turtle, Spotted Turtle, Wood Turtle, and Stinkpot. Data collected from this research will give an insight on the nature of the aquatic turtle community in large complex wetlands in South-central Pennsylvania.

Valerie Yohn

Faculty Sponsor(s): Dr. Pablo Delis

Poster Location: 7



Habitat Utilization and Movement Patterns of the Eastern Box Turtle, Terrapene Carolina Carolina, in South-central Pennsylvania: Implications for Conservation

Biogeographical studies are critical for determining effects of habitat degradation and climate change in key species such as the Eastern Box Turtle. In Pennsylvania, no such studies have focused on natural populations of the species. To fill this void, from 2014 to 2015, eight female box turtles will be monitored by collecting GPS coordinates

from radio telemetry and bobbin tracking methods. Habitat utilization and movement patterns will be evaluated in relation to weather and habitat characteristics. This data will be analyzed in ArcGIS. Expected findings of this research include delineation of home ranges, feeding grounds, nesting grounds and behaviors, hibernacula locations, and vegetation and substrate use in relation to season. Identifying the most important factors driving the movement and habitat use of the Eastern Box Turtle will provide us with specific strategies for population management and conservation efforts.

Sarah Bartle

Faculty Sponsor(s): Dr. Pablo Delis

Poster Location: 8



Organismal Exclusionary Methods Used in Agriculture

Herbivores are a major problem to plant owners and their crops. They destroy seedlings, eat roots, and introduce diseases to plants. With the increasing popularity of buying organic produce, growers are faced with finding alternatives to synthetic pesticides as a method of pest control. We tested two different exclusionary methods commonly used in agriculture: chicken-wire fencing, which excludes larger herbivores, and micro-screening, which excludes both insect herbivores as well as large herbivores. Bush beans, broccoli, and radishes were grown in four replicate plots of each treatment and overall biomass under these two barriers was compared to control plots containing no herbivore barrier. We found that micro-screening significantly increased crop yield of all three crops, and had the highest crop yields of all treatments. Our results suggest micro-screening is more effective than chicken-wire fencing at preventing crop damage from herbivores.

Sarah Komisar, Lindsey Wayland

Faculty Sponsor(s): Dr. Heather Sahli **Poster Location:** 1



Different Methods of Crop Covering Used to Extend the Spring Growing Season in South-central Pennsylvania

Growing spring and fall crops in Pennsylvania is limited by late frosts in spring and early frosts in fall, but crop covers can be used to extend the growing season. We compared crop yield of spinach and lettuce grown under four different cover methods: a hoop house, low plastic wind tunnels, low fabric wind tunnels, and fabric row covers. Yield under each of these cover types was compared to control plots, which were not covered. Soil and air temperature in each treatment were also recorded. Plastic wind tunnels reached such great temperatures that most plants in this treatment were killed. All other cover methods had significantly greater lettuce yields than the control plots, but the plastic hoop house had significantly higher lettuce yields than all other treatments. Findings from this work will help direct growers in Southcentral Pennsylvania to choose the most cost effective cover method while maximizing crop yield.

Josh Levitsky

Faculty Sponsor(s): Dr. Heather Sahli Poster Location: 2

Communication/Journalism

How Facebook Influences the Academic Achievement in College Students

Social media is changing the way we learn, communicate and share information. The purpose of this study is to understand how college students use Facebook in a way that is educationally beneficial. This study measures how students use social media to express their opinions, thoughts and emotions in an educational context outside of the classroom and how these activities relate to academic achievement. This study also examines how Facebook is catching the attention of students as an education tool and increasing participation in class. The method used is to collect data through a survey of Shippensburg University students.

Nawal Alghonaiman

Faculty Sponsor(s): Dr. Joseph Borrell

Poster Location: 61



The Way We Communicate through Twitter

The purpose of this research is to research and analyze Twitter and its content. How news sources get their stories across in just only 140 characters, but also get across the main focus, so that followers do not have to read the story to know what it is about. The other part of my research is how people tweet the content they do. Also, researching why do people follow certain people, groups, pro athletes, celebrities and etcetera. By using surveys, of both men and females of all ages, I will be able to figure out my conundrum. I want to prove in my research why Twitter has become one of the top social media websites.

Lyndsay Barna

Faculty Sponsor(s): Dr. Joseph Borrell

Poster Location: 62



Social Media and News Consumption— Do Young Adults Prefer Consuming News through Social Media?

Since social media have become so popular, users are often receiving breaking news through these media rather than more traditional media such as television news or the newspaper. Users of all ages have news and information at their fingertips, leaving them ultimately connected at all times. However, do they prefer to receive news this way, or is it merely incidental that they are receiving news while scrolling through a news feed? Furthermore, does preference of news consumption depend on age of the consumer? This project will attempt to convey how people prefer to receive their breaking news, and whether there is a correlation between age and medium preference.

Colleen Bauer

Faculty Sponsor(s): Dr. Joseph Borrell

Poster Location: 63

Mobile Devices and Student Participation in Community College Classrooms

The use of mobile devices in the community college classroom will be examined. Carroll Community College, Westminster, Maryland campus instructors will be surveyed about the use of touchscreen mobile devices such as, smartphones and tablet computers, by their students as it relates to participation in the classroom.

Rachael Schuster

Faculty Sponsor(s): Dr. Joseph Borrell

Poster Location: 65

Criminal Justice

Identifying Inmates in Crisis: An Examination of Content, Policy, and Effectiveness of Suicide Risk Screens in Correctional Facilities

Suicide rates among jail and prison populations continue to rise above that of the general population and many victims have been found to have serious mental illnesses. Although the subject of suicide risk in jails has received attention by criminal justice and mental health practitioners, criminologists, and the media, the limited research on the topic has become geographically restricted and somewhat outdatedmaking this a highly understudied area (Slate, Buffington-Vollum, & Johnson, 2013). The instant study attempts to add to the literature by examining suicide screens employed in prisons across Mid-Atlantic states to determine the factors considered and whether these are consistent across institutions. Administration and effectiveness of the screens are also examined and discussed in the context of referrals for further evaluation, mental health treatment and suicide prevention.

Meghan Kozlowski

Faculty Sponsor(s): Dr. Michele Bratina

Poster Location: 54



An Insight into Violent White Collar Crime

Violent white collar crime is a phenomenon that occurs when an act in violation of criminal or civil law by a corporation, employer, manager, or employee during the course of business (or during the course of his or her occupation) brings physical, emotional, or psychological harm upon its victim(s). Environmental crime, medical fraud, and workplace crime are three major types of white collar crime that have the potential to cause these types of harm. The empirical literature reviewed for this project suggests that violent white collar crime, apart from causing substantial monetary loss, can have far-reaching short- and long-term physical ramifications for individuals, the public, and the environment, while oftentimes it goes undetected or unreported.

Samuel Benson

Faculty Sponsor(s): Dr. Cynthia Koller

Poster Location: 55

Offenders of Embezzlement and the Criminal Justice System's Response

Embezzlement is the "fraudulent taking of personal property by someone to whom it was entrusted," thus differentiating it from larceny (Cornell University of Law School, 2010). Similar to most white-collar crimes, legislation on embezzlement was slow to be enacted in the United States, as the actual act of the crime itself was not always deemed illegal. Despite this, research has shown that embezzlers tend to receive much lesser sentences than non-white-collar offenders. Furthermore, there is no one type of individual or one main reason for why certain individuals commit this specific type of crime. However, the empirical literature examined for this project indicates that embezzlers do possess certain personality traits, and the properties and techniques used by these criminals reveal patterns, suggesting some commonalities among them and why they resort to this type of deviant behavior.

Quentin Boyden

Faculty Sponsor(s): Dr. Cynthia Koller

Poster Location: 56



Cutting Costs and Lives Short

The United States Environmental Protection Agency defines illegal dumping as "the disposal of waste in unpermitted areas" (EPA, 1998, p.1). The empirical literature examined for this project reveals several major forms of illegal dumping, including, but not limited to: construction; automotive; appliances; furniture; yard waste; household trash; medical waste; and, barrel waste. It also indicates that illegal dumping is perpetrated by both individuals and organizations, and can be found in almost every area, urban and rural. Americans began serious efforts to clean up the pollution problem in the 1960s, passing many pieces of legislation since that time, such as the Clean Air Act of 1990, to help deter the behavior and to better enforce civil and criminal laws against the illegal disposal of waste. This review illustrates the nature and extent of the problem, and highlights some notable cases.

Joseph DeCastro

Faculty Sponsor(s): Dr. Cynthia Koller **Poster Location:** 57



Electronic Monitoring: Does it have a Place in Community Corrections?

Using electronic monitoring to supervise offenders first began in the 1970s. As technology has advanced so too has the technology of electric monitoring systems. Normally electronic monitoring is not a sole form of supervision for an offender but is used in conjunction with another form of sanction such as restrictions on curfews or community service. In addition to complementing post-conviction conditions, electronic monitoring has also been utilized successfully during the pre-trial stage as a condition of bond to reduce jail overcrowding, improve reappearances at court, and lower rearrests. The empirical literature examined for this project suggests that placing offenders on electronic monitoring promotes greater offender responsibility, while reducing recidivism and correctional facility overcrowding.

April Dixon

Faculty Sponsor(s): Dr. Cynthia Koller

Poster Location: 58

Juvenile Delinquency Prevention and Treatment

Shaping the lives of juveniles begins at birth and continues into the early stages of young adulthood; prevention and intervention programs are oftentimes essential to deter them away from a life of crime. Two popular prevention programs are Gang Resistance Education and Training and Drug Abuse Resistance Education, which are school-based initiatives used to discourage delinquency. When delinquency does occur, the best way to prevent recidivism is not simply with placement in detention centers, but rather through the use of alternatives such as home detention, electronic monitoring, intensive supervision, day and evening reporting centers, and skills training programs. The empirical literature examined for this project suggests some prevention and intervention programs showing a positive impact on deterring delinquency while others show no impact. The evidence also suggests that incarceration negatively affects recidivism rates, while the alternatives are potentially more promising.

Ashley Merton, Dominic Raguz

Faculty Sponsor(s): Dr. Cynthia Koller

Poster Location: 59

Geography/Earth Science

Comparison of Nitrate Concentrations to Assess Groundwater Watershed Complexity

Welsh Run is a stream in southern Franklin County, Pennsylvania that drains agricultural land dotted with sinkholes, sinking streams, and caves. This "karst" topography makes it difficult to define watershed boundaries and identify potential groundwater pollution sources from agriculture such as nitrate runoff. Nitrates ultimately flow into the Chesapeake Bay via Welsh Run and West Branch Conococheague Creek. This study focuses on Welsh Run, the Welsh Run cave system, and a spring in the WB Conococheague Creek which are connected by groundwater flow. Dye tracing has directly linked flow from Welsh Run through the cave system to the spring. A second dye trace has linked a sinkhole to the spring, without flow through the cave. This study will test nitrate concentrations in Welsh Run and the Conococheague spring to determine if there is more than one contributing watershed. Initial results show nitrate values for Welsh Run Stream to be 5.3 mg/L, and for the spring to be 6.4 mg/L.

Sarah Bartle

Faculty Sponsor(s): Dr. Thomas Feeney **Poster Location:** 9

Assessing the Accuracy of LiDAR Derived Data to Predict the Location of Karst Landforms

Sinkholes and closed surface depressions present a unique natural hazard that pose a potential threat to property and infrastructure. Efforts to accurately locate and identify such karst landforms could prove useful to land use planning efforts designed to minimize impact. However, different methods of locating and identifying these depressions require varying degrees of effort, and have delivered different results. This investigation will evaluate a high-resolution LiDAR derived Digital Elevation Model (DEM), coupled with GIS processing, as a new tool to identify these sometimes subtle landforms. A portion of Big Spring Creek watershed in Cumberland County, Pennsylvania will be used as a test site. Field investigation will be done to validate the true location. If found to be an accurate means of determining the location of karst features, this method could be considered for updating current databases containing geographic information about these landforms.

Molly Moore, Dana Heston

Faculty Sponsor(s): Dr. Thomas Feeney **Poster Location:** 10



The Relationship between the inside and outside Environments of the Shippensburg University Richard D. Rife Alumni House: A Comprehensive Energy Analysis

Ensuring a tight building envelope is necessary towards improving building comfort while decreasing energy costs. When initial insulation and air sealing measures fail to mitigate the stack effect, it is beneficial to analyze where the most cost-effective remediation can occur. The results of a comprehensive energy analysis of the Shippensburg University Richard D. Rife Alumni House displayed numerous deficiencies caused by air infiltration and insulation flaws. The following report indicates problem areas to be addressed and offers retrofit strategies to mitigate such issues. Possible weatherization improvements include: 1) insulating and air sealing the third floor attic space; 2) air sealing the basement rim and band; 3) insulating accessible basement rim and band; 4) fixing or replacing window and door seals and/or sills; 5) replacing single pane wooden frame windows. These alterations have the potential to reduce the current rate of air infiltration and decrease energy costs.

Michael Griesemer

Faculty Sponsor(s): Dr. Tim Hawkins

Poster Location: 24



Economic Analysis of Franklin County, Pennsylvania

Informed economic analysis concerning the local and regional community is especially important to elected officials and administrators, as well as a wide variety of other stakeholders. More recently, economic volatility, along with increased access to improved and updated information, have underscored the importance of having such economic analysis be especially current. This research will utilize two models, the

economic base analysis (EBA) and shift-share analysis (SSA), to assess the regional economy of Franklin County, Pennsylvania. Using the EBA, we will more thoroughly know and understand the structure and composition of the local market, as well determining which industries "drive" local economies. SSA model will be used to compare regional growth against national development. The shift-share technique presents a supplemental aggregate data analysis method to strengthen the conclusions of the economic base study.

Gus Frederick

Faculty Sponsor(s): Dr. George Pomeroy **Poster Location:** 11





Downstream Geomorphic Effects of Gunter Valley Dam, Pennsylvania

With increased dam removal in Pennsylvania, the concern for ecological and geomorphic impacts downstream has also increased. The presence of dams can significantly alter the structure and composition of streams below. In order to estimate how dam removal might impact streams, assessments can be done to determine the effects a dam has already had on a stream. This study attempts to determine how the Gunter Valley Dam in Lurgan, Pennsylvania, has affected the geomorphology of Trout Run based on field measurements of the stream above and below the reservoir.

Alyssa Lynd

Faculty Sponsor(s): Dr. Christopher Woltemade

Poster Location: 12

History/Philosophy

Weaving the Picture: A Timeline of the Textile and Garment Industry of Pittsburgh, Pennsylvania

This research takes an in-depth look at the textile and garment manufacturing that occurred in Pittsburgh from 1803 to the 1950's. The presented timeline shows the effect of the British on the industry, the effect of the Pittsburgh textile/garment industry on surrounding areas, and the effect on the working conditions of the people of Pittsburgh, which helps to make this topic necessary in understanding the broader economic realms in Pittsburgh at this time. The textile and garment industry of Pittsburgh helped to bring about a workers rights movement for the 10-hour working day in the city, showed Pittsburghers how to strike when necessary with the riot of 1845, gave jobs to women and children when the better known steel industry could not, and helped the local economy by providing jobs and affordable clothes from homespun fiber.

Julia Saintz

Faculty Sponsor(s): Dr. Allen Dieterich-Ward

Mathematics

A Possible Counterexample to Collatz Conjecture

The Collatz conjecture is that every natural number should reach 1, by applying a series of the Collatz function indefinitely: f(n)=n/2 if n= even; 3n+1 if n= odd. This poster concerns one way to disprove the Collatz conjecture by showing a cyclic sequence of numbers which never reaches 1, and shows a series of possible cycles involving a finite number of odd numbers that cannot exist.

Ibrahim Abdurrahman

Faculty Sponsor(s): Dr. Ji Young Choi

Poster Location: 21



Journeying Toward Becoming a Teacher-Leader Serving Students with Disabilities

Journeying Toward Becoming a Teacher-leader Serving Students with Disabilities is an examination of the role and the characteristics of teacher-leaders within the math classroom, including addressing specific student disabilities. Teacher-leader techniques, when embraced by teachers serving students with disabilities, can help those students succeed mathematically. Teacher-leaders are able to empower teachers around them, as well, so that the impact of the teacher-leadership model on students with disabilities is great. Techniques addressing specific disabilities shared as part of the teacher-leader model will have an immediate impact on learning while requiring little teacher prep, allowing teachers to focus on content. The teacher-leader characteristics have been culled from current research and best practices in recent publications. Those techniques of both formal and informal leadership were then mapped onto current research for serving students with learning disabilities.

Brenna DeShona

Faculty Sponsor(s): Dr. Debbie Gochenaur

Poster Location: 20



Around the World: How Eight Countries have Progressed in Serving Students with Disabilities

Historically, students with learning disabilities have been neglected in education with most schools practicing separate education. The first steps toward creating a system of inclusive education were taken at the World Conference on Special Needs Education in Salamanca, Spain. After the conference, governments from countries worldwide began implementing inclusive education. The movement has had varying degrees of success. Some countries have successfully integrated students with disabilities into mainstream classes. Some countries still practice exclusion. In order to conduct this study, a review of literature regarding the treatment of students with disabilities in eight countries worldwide was undertaken. The findings were compiled to show trends in each country's treatment of these students. There was also a focus on the success to which inclusionary practices have been implemented. A comparison of the difficulties these countries face in order to achieve success was compiled.

Linzy Hull

Faculty Sponsor(s): Dr. Debbie Gochenaur

Poster Location: 22

Representing Integers as the Sum of Two Squares in the Ring of Integers Modulo n

A classical theorem in number theory is that a positive integer z can be written as the sum of two squares if and only if all prime factors of z that are congruent to 3 modulo 4 have an even exponent in the prime factorization of z. One can consider a minor variation of this theorem by not allowing the use of zero as a summand in the representation of z as the sum of two squares. We investigate each of these questions in the ring of integers modulo z.

Alicia Lamarche

Faculty Sponsor(s): Dr. Lenny Jones, Dr. Joshua Harrington

Poster Location: 23

Modern Languages - Spanish

The Benefits of Teaching Languages in Elementary School

From the beginning, the United States has been a culturally diverse country filled with people speaking a plethora of languages. Even today, there are over 60 million residents who speak a language other than English at home. As the number of inhabitants from other cultures continues to increase, so too will the need for monoglots to learn other languages. Undoubtedly, the best place to start language education is in the schools. Most secondary schools have already established some type of program, but studies show that language acquisition is substantially easier at a younger age. If students were to learn another language younger, they could not only acquire a native accent, but improve their overall academic achievement. Currently only 1/4 of elementary schools offer language classes; and this number has been declining. To reap the rewards from having a multilingual population, the U.S. must take advantage of the incredible benefits of teaching languages in elementary school.

Emily Howell

Faculty Sponsor(s): Dr. Robert Lesman

Poster Location: 52

Psychology

The Relationship between Communication and Sexual and Relationship Satisfaction

The authors examined sexual disclosure (communication) and its association to sexual desire discrepancy, relationship satisfaction, and sexual satisfaction in a sample of 201 individuals who were required to be in a relationship. Using Survey Monkey, seven instruments examined sexual communication, sexual desire, dyadic adjustment, relationship satisfaction, sexual satisfaction, and desire discrepancy within the relationship. There were significant positive correlations between all measures except the Sexual Desire Inventory. Further analysis will determine whether sexual communication is moderating or mediating relationship satisfaction.

Rachel Little, Kylara Carbaugh, Davidiene Jobes

Faculty Sponsor(s): Dr. Ron Mehiel

Supervisor Trust Mediates the Relationship between Authentic Leadership and Employee Engagement

The current research serves to examine supervisor trust as a mediator of the relationship between authentic leadership and employee engagement. The study utilized archival survey data provided to Southeastern U.S. businesses three different times; a total of 43 people completed all surveys. The regression showed authentic leadership, employee engagement and supervisor trust were all significantly positively correlated. In the mediation supervisor trust mediated the relationship between authentic leadership and employee engagement which increases organizational productivity. Support for these hypotheses led to the mediation of supervisor trust on the relationship between authentic leadership and employee engagement. Therefore, if employees trust their supervisors they will perceive their leaders to be more authentic, thus engaging in more positive work activity.

Nicole Campana, Chelsea English

Faculty Sponsor(s): Dr. Jenny Pitts

Poster Location: 13



Employee Engagement as a Mediator of Abusive Supervision and Affective Commitment

Research in organizations has shown that abusive supervision, defined as supervisor-enacted behavior that attacks, insults, or harms subordinates, is related to low levels of affective commitment, which reflects an emotional attachment to the organization. The purpose of our study was to examine employee engagement, defined as the extent that employees are physically, cognitively, and emotionally present at work, as a mediator of the relationship between abusive supervision and affective commitment. Participants were 127 employees (82.1% identified themselves as female) who responded to three surveys over a period of eight weeks. The results of our study showed that abusive supervision was negatively related to engagement and negatively related to affective commitment. Engagement partially mediated the relationship between abusive supervision and affective commitment, suggesting that engagement is one mechanism through which abusive supervision drives lower affective commitment.

Edward Dema III

Faculty Sponsor(s): Dr. Jenny Pitts

Poster Location: 14



College Students' Attitudes Towards Rape Myths

The purpose of this study is to examine the beliefs that college students have in regards to rape. The participants (n=117), were 68 females and 49 males attending Shippensburg University. The questionnaire consisted of mostly closed ended questions with two open ended questions. Demographics were collected about the participant in order to determine the differences between classes, gender and participants who participate in extracurricular activities on campus. The results found that there was no significance between classes and those who participate in extracurricular activities on campus; however, there was

significance found in gender. The biggest significance was found in the questions regarding if rape can be unintentional, if a person says no is it still considered rape, and if a person dresses inappropriately are they asking to be sexually assaulted. The findings have the potential to help others recognize and better understand what exactly sexual assault is and how to prevent it.

CUB Multi-Purpose Room

Kristen Gingrich, Michelle Rodenhaver, Ashley Marks

Faculty Sponsor(s): Dr. Kathryn Potoczak

Poster Location: 19



Comparing Educational Motivation: A Cross-Cultural Study of Academic Drive in Elementary School Aged Students

Culture variations account for deviations in actions, behaviors, and motivations across societies. This interdisciplinary research study examined the characteristics of motivation in students of The Pathways of Learning School in the Dominican Republic and Valley Elementary School in Maryland. Two self-response questionnaires were administered to 75 students to gain an understanding of the impact culture plays on students' educational drive. Specifically, the areas of locus of control and orientation approach style were investigated. The results of this study will better prepare the University students traveling to the Dominican with the organization Reach Out. This group provides curricular support to The Learning Pathways School in the Dominican. Educating Reach Out members by developing a greater understanding of what motivates students to learn will assist in improving the interactions between Reach Out members and individuals at the school abroad.

Shelby Coghill

Faculty Sponsor(s): Dr. Toru Sato

Poster Location: 18



Investigation of the Relationship between Attachment, Peer Group Competence, and Friendship Quality

The current study examined the relations between parent attachment, peer group competence, and friendship quality. Adolescents securely attached to their fathers and mothers also experienced greater emotional support in their peer relationships. Adolescents who reported greater conflict management and disclosure within the peer group also reported greater companionship, intimacy, and emotional security in their friendships.

Rikki Sargent

Faculty Sponsor(s): Dr. Ashley Seibert

Classification of Mental Health Peer Support Goals

The Bern Inventory of Treatment goals (BIT-T) is a reliable and exhaustive system for classifying goals in both inpatient and outpatient mental health settings. We examined the usefulness of this taxonomy for classifying 284 mental health peer support goals. Kappa= .68 indicated substantial agreement for ratings of goal type. Only 5.6% of the goals could not be classified. The BIT-T is reliable and exhaustive for classifying peer support goals.

Rachel Flicker, Lindsay Rosen, Olivia Hunt

Faculty Sponsor(s): Dr. Kim Weikel Poster Location: 16

Social Work/Gerontology

Depression Rate of Seniors who are Receiving Home Delivered Meals Compared to those who Receive Congregate Meals in Perry County

This research study looks at the depression rates among seniors who receive Home Delivered Meals (HDM) and congregate meals. The research study will determine the effectiveness of reducing depression in Perry County by using this program. This study will help the staff of Perry County Office For Aging have a better understanding of the needs of the population that are receiving HDM and congregate by helping give seniors who are receiving HDM and congregate meals further assistance when dealing with consumers' depression. The research will be conducted by surveying seniors with the Geriatric Depression Scale. The survey will be mailed to consumers and be collected by having participants return them through mail delivery in already prepared envelopes.

Allison McMichael

Faculty Sponsor(s): Dr. Jennifer Clements **Poster Location: 36**



Compassion Fatigue and Job Satisfaction among Family Therapy Workers

Workers in the human services profession often experience burnout. "Burnout" is defined as feeling jaded from mental, emotional, and/ or physical exhaustion (Barford & Whelton, 2010). Employees in the human services profession often experience stress from working with populations at risk, including children and low-income families. Stressful cases and hours long work hours are linked to a higher rate of burnout for workers in the helping profession (Chiller and Crisp, 2011). The purpose of this study is to investigate if workers with high compassion fatigue face low job satisfaction. The research question is do worker who experience compassion fatigue have a low rate of job satisfaction. The hypothesis in this study is that compassion fatigue is linked with low job satisfaction.

Brittani Procknow

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 37

Examining Adoptions and the Age, Ethnicity, and Special Needs of Children

This research project considered the relationship between successful adoptions and the age, race, ethnicity, and special needs of children being adopted through Dauphin County Children and Youth Services. With significant amounts of children exiting the foster care system without ever being adopted, it was crucial to look at potential factors as to why this occurs. The purpose of this study was to gain a deeper understanding about which populations of children in the foster care system have been or have not been successfully adopted. The research was obtained by collecting secondary data through the records on file at Dauphin County Children and Youth Services. This data was analyzed and presented in a way to best convey the findings relevant to adoptions of children in the foster care systems in Dauphin County.

Emily McCollister

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 25



Achieving a Successful Transition into Adulthood with the Independent Living Program

This research study focused on the life skills being taught through the Independent Living Program that is provided to the youth that are in foster care and after care within the Children and Youth Agencies in Pennsylvania. The research helped determine how current Independent Living participants feel about their life skills preparation for living on their own. The importance of this research study was to help those working with Independent Living Program understand how effective their program has been. The research was conducted through a survey that was distributed through the mail to the youth. The data helped determine if there are any patterns of life skills that the youth are having difficulty learning, or succeeded in. Overall this research study allowed those that utilize the Independent Living Program to determine what needs to be changed in the Program to allow the youth to reach their full potential.

Danielle Taylor

Faculty Sponsor(s): Dr. Liz Fisher Poster Location: 26



How do Youth Transitioning from the Foster Care System Perceive their Social Supports?

The Children and Youth Services in Pennsylvania offers a program called Independent Living to youth over the age of 16. The purpose of the program is to prepare older youth to live independently and to ensure they have the necessary supports to succeed once they leave care. The research was conducted to look at the type of support system that is best for the older youth. This study will help determine if Children and Youth Services should provide mentors to ensure youth success by hopefully increasing employability, high school graduation rates, enrollment in post-secondary or vocational institutions. The research was conducted via surveys by mail. Once the surveys are completed, data helps determine the type of support skills that will best transition the youth from placement to independent living with the skills to be productive members of society.

Megan Plume

Faculty Sponsor(s): Dr. Liz Fisher

Creative Therapies and Self-Esteem

This research considers how creative therapies provided to residents in care at Hoffman Homes affects one's level of self-esteem. This study will determine the effectiveness of creative therapies by reviewing the children's previously reported levels of self-esteem before, during, and post therapy. The research was conducted through secondary data from each resident's health record on file at Hoffman Homes. Hoffman Homes offers five different types of creative activities including horsemanship, pet management, horticulture, recreation and art therapies. Participants in this study were enrolled in one or more of these creative activities. All participants attended creative therapies throughout a twelve week period during the fall of 2013. This research is beneficial to the care team at Hoffman Homes to assure they provide the most effective creative therapies to children in care.

Beth Bottone

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 32



Recidivism Rates among Sex Offenders who have Completed Intensive Therapy

"Various models of sex offender treatment have been proposed and implemented over time, including general psychotherapy, neurosurgery, physical castration, pharmacological interventions, behavioral reconditioning, cognitive-behavioral intervention, and relapse prevention" (Yates, 2013). The purpose of this study is to investigate the effectiveness of the intensive therapy that sex offenders participate in when they are incarcerated and continue through their parole. This will be done by reviewing secondary data to determine attendance rates and recidivism rates of the individuals who completed the program. The study will assess if program participants have been re-incarcerated for new charges directly relating to new sex offenses.

Kelli Bender

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 33



Levels of Secondary Traumatic Stress and Coping Mechanisms among Helping Professionals in the Domestic Violence and Sexual Assault Fields

Secondary traumatic stress is a serious reality for the helping professionals (Bride, 2007). Secondary traumatic stress is the stress that helping professionals feel as a result of having close contact with clients who have experienced traumatic events (Bride, 2007). Professionals who work with individuals who have experienced domestic violence and sexual assault help their clients work through their trauma on a day-to-day basis. The effects of working with these individuals can impact the professional's ability to successfully help the victims. By conducting research on different coping mechanisms that helping professionals use to take care of themselves, it will help to understand more about the levels of secondary traumatic stress and the coping mechanisms that may be most effective.

Jenna Barger

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 34

Resident Musical Preferences and Leisure Center Activities at Thornwald Home

CUB Multi-Purpose Room

Music has been found to ease stress levels, reduce symptoms of agitation, as well as help with pain in older adults. Providing activities of musical origin at Thornwald Home is important residents and staff. The purpose of this study is to find how effectively Thornwald Home of Carlisle, Pennsylvania, is meeting the residents' musical preferences. This study is a quantitative secondary data analysis that assessed 79 medical records.

Cora Agar

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 35



The Impact of Transportation on Retention of Employment

There are many barriers that affect clients when it comes to obtaining and retaining employment. One of the most predominant barriers for employment that the clients of the YWCA of Greater Harrisburg face is transportation. The purpose of this study was to examine if transportation impacts the retention of employment for the clients at YWCA of Greater Harrisburg. This research study will help the staff at the YWCA understand how larger of a barrier transportation is for their clients and assist the staff in finding a solution in aiding the clients with this barrier. The data used to support this study was secondary data collected from the Supported Employment department within the agency.

Adrienne Carbo

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 38



What are the Opinions of Victim Services Professionals about the Protection from Abuse (PFA) Document?

The purpose of this study was to explore victim services professionals' attitudes of the existing Protection from Abuse (PFA) document in relationship to its ability to protect victims from abuse. Short surveys and interviews were used as the instrument to gather data. Current trends show that victims are reporting domestic violence more now than in the past. However, the data that exists is not a true representation of the population due to underreporting. It is estimated that only 1 in 5 rapes are reported, and 1 in 4 physical assaults. By looking at attitudes toward PFA's in relationship to victims of abuse, it is possible to draw connections about the effectiveness of the document.

Kelly Moriarty

Faculty Sponsor(s): Dr. Liz Fisher

The Salvation Army: A Comparison of Programs in Dauphin County and Pennsylvania

The Salvation Army's main goal is to educate and lift people out of poverty. The population of Pennsylvania is 12,764,475 people with 13.7% of those people in poverty. In Dauphin County there are 269,665 people and 12.7% of these people live below the poverty level. Different programs the Salvation Army provides are: veterans affairs services, elderly services, hunger relief, and housing and homeless services to name a few. The purpose of this study is to compare the programs that are offered at the state level and Northern Dauphin County in order to identify if there are more programs needed there.

Jaclyn Smink

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 40



Legislative Advocacy: A Study Uncovering the Interests of NASW-PA Members

The research study examined the legislative interests of the Pennsylvania Chapter of National Association of Social Workers (NASW-PA) members and the similarities and differences members had to the NASW-PA 2013-2014 legislative agenda. A customized questionnaire was sent to all NASW-PA members via email and the responses to each survey were organized to clearly identify the legislative interest of members. The survey study allowed the staff at NASW-PA to better understand their members on a legislative level and ensure that they are providing information that is relevant to their interests.

Jodi Smith

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 41



The Effectiveness of Peer Support in Obtaining and Maintaining Employment for People Recovering from Substance Abuse and Mental Illness

Peer support is a mechanism used when recovering from substance abuse and mental illness. The peer support program offered through Supported Employment at the YWCA of Greater Harrisburg allows people to talk openly about their recovery and daily struggles. This support system offers ways to receive advice and encouragement from peers who have the same experiences. Due to stigma, people in recovery often feel like they cannot obtain employment. Studies have been done on the effectiveness of peer support in the recovery process, however studies do not focus on employment. This study examined whether peer support is helpful in assisting people in recovery with finding employment. Participants were chosen at random from the YWCA of Greater Harrisburg's Supported Employment Samhsa and PCCD grant data base. The employment data was collected then compared to peer support attendance. The goal of this study was to find a correlation between employment and peer support involvement.

Farrah Yarwood

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 42

The Benefits of Nutritional Programming for Parents of Children who Attend Head Start

Head Start is a program for low income families that provides childcare for children age three to five. At Shippensburg University Head Start the children are served a nutritious snack and a well-balanced nutritious lunch. Childhood nutrition is important because children are constantly growing (Earles & Moore, 2008). Proper nutrition helps them to build bones, tissue, and muscles (Earles & Moore, 2008). The current study will focus specifically on childhood obesity and food insecurity in low income families. Gaining insight on this study is important because there has been an increase in both the amount of families that suffer with food insecurity and there has been an increase in overweight and obese children.

Imani Nichols

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 28



The Impact of After School Programs on the Academic Success of Migrant Students

Migrant workers in the United States often face disadvantages such as poverty, working for low wages, low education levels and language barriers. This becomes a severe problem when migrant workers have children. Migrating to multiple places in one year can disrupt the academic success of their children which can result in them falling behind their fellow classmates. Adapting to a new culture, language and lifestyle is difficult at any age, but children in these situations often fall short on the services that are needed to ensure academic success. This study will compare two groups of migrant students whose families participate in a Migrant Education Program. One group of migrant students participates in an after school program and the other does not. The purpose of this study is to investigate the impact of after school programs on the academic success of migrant students.

Angela D'Ambrosio

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 29



Risk Factors of Low Income Families Enrolled in a Social Service Agency

In order to best serve low income families it is important to look at the risk factors that may be effecting them. By viewing what risk factors a family has it allows for services to be geared towards helping improve their standard of living. The study looks at what the risk factors are for low income families at a specific social service agency. This research benefits the agency because it provides data about what risk factors are most prevalent so they can best serve the families enrolled in their program.

Cynthia Balmer

Faculty Sponsor(s): Dr. Marita Flagler

CUB Multi-Purpose Room

Residents Satisfaction towards Assisted Living Agencies

With the elderly population tremendously increasing over the years, successful aging has grown into a demographic of its own. Along with aging, it is common to see a sense of dependency for some older adults when focusing on their Activities of Daily Living (ADLs). This ultimately requires hands-on facilities that are focused on improving the lives of these individuals, and ensuring they are receiving quality treatment. Creating adequate human services for this group relies heavily upon research informed practice and hands-on assessments for elderly dependence. Dependency amongst the elderly can have many effects on the individuals and their caretakers. If not handled properly, both parties will not have the advantage of experiencing quality care within their relationships. The aim of this study is to learn how assisted living residents view the agencies they are living in, along with the services implemented.

Lykeisha Fassett

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 31



The Effectiveness of Staff Participation in the Wellness Program at a Human Service Agency

Finding the effectiveness of staff participation in a wellness program is important for the agency because the agency wants to acknowledge employees on active participation in their health. The value of the research conducted is to encourage employees to actively participate in better wellness and health choices. The agency's main goals include improving health and wellness of the employees, encourage employees to maintain a healthier lifestyle and savings on out-of-pocket expenses and health premiums for employees. The purpose of the study is to examine the wellness program points and activity sheets that the agency provided and determine what activities the employees participated in and which activities they did not. After finding the results of the study, the agency will benefit from determining the best activities to provide so more employees will participate. How effective is staff participation in the commitment to wellness health living program for the employees at the agency?

Christine Maxwell

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 43

The Staff's Knowledge of the Medicare Readmission Policy in a Hospital Setting

Readmission rates in hospitals is an issue that continues to grow. This issue correlates with the lack of education on the Medicare readmission policy. One in five patients are readmitted within 30 days of discharge. This issue is not always apparent to the staff members who do not directly work with readmissions. This research has been done to show how much various departments in a hospital know about the readmission rates and the Medicare readmission policy. The data was collected through surveys that were distributed through survey monkey to insure that participation was high. The findings have been coded and analyzed to see the results. This study has helped inform the hospital of how much the staff knows about the readmission policy.

Meagan Rice

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 44



The Impact of Appointment Reminder Letters on Reducing the Number of No-show Appointments

At some point in many of our future careers, we will rely on our clients to attend appointments scheduled with our agency or us, individually. Maximizing mental health resources and services available to clients in a non-profit community setting is critical. Adherence to appointments is vital for clients who are in need of services, for the staff, and to the communities where these centers serve. This study seeks to evaluate the effectiveness of an intervention in the form of a reminder letter sent to the perspective client prior to the intake, in order to decrease the number of no-show appointments.

Kimberly Suddith

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 45



Effective Ways of Promoting Adoption Agency Services

This research study looks at the different types of advertising in agencies and which type of advertising is especially effective for adoption agencies. The data will be collected through a questionnaire distributed to previous clients of Common Sense Adoption Agency as well as current families that are receiving their services. The questionnaire will ask the clients how they heard of the agency and if the method was effective. Through this study, the staff at the agency will be able to have a more clear understanding of which types of advertising are beneficial to them and will ensure the maximum amount of valid clients.

Payton Vinson

Faculty Sponsor(s): Dr. Marita Flagler

Teacher Education

A Close Look at the Middle Level Education Program at Shippensburg University

The purpose of this study was to investigate the student opinion on the middle level education program here at Shippensburg University. This study took into account the opinions of students in the Middle Level program (all subject content areas) on courses that are required to take. During the research, the opinions of the professors who teach the classes were also looked at. The reason for conducting this study is to examine how necessary and beneficial a lot of the required classes are in preparing students for their teaching career.

Jared Miller

Faculty Sponsor(s): Dr. Christopher Keyes



Celebrating... POSTER SESSION II

Biology

The Effect of Compost Tea on Microbial Populations in Soil

Microbial activity in the surrounding environment of a plant can be either beneficial or detrimental to plant growth. Fertilizers and pesticides have been used to alter soils, but can have negative effects on surrounding environments. Compost tea, created from garden compost and additional nutrients, contains bacteria that may help plant growth and allow plants to avoid pathogens by increasing bacterial abundance and diversity. Soil samples were collected from various plots (control + different compost applications) in the Shippensburg University farm treated with compost tea. A single compost tea application did not significantly affect overall bacterial numbers or diversity; however a significant rain event occurred before sample collection potentially influencing the results obtained. Studies determining the identification of the most prevalent bacterial species present in the soil after compost tea treatment are underway.

Shannon Kaufman, Zachary Butler

Faculty Sponsor(s): Dr. Marcie Lehman, Dr. Heather Sahli Poster Location: 6



The Effect of Green Tea Extract on the Growth of Streptococcus mutans, the Causative Agent of Human Dental Caries

Dental caries, a common disease observed in the population, begins with the accumulation of bacterial plaque on the surface of the tooth. Bacteria metabolize carbohydrates from food debris into acids which break down the enamel. One bacterium associated with tooth decay is Streptococcus mutans and studies show sucrose may promote its binding to the tooth. Commercial dental routines claim to reduce levels of bacteria within the oral cavity. One homeopathic option, green tea, is believed to reduce tooth decay due to its natural source of polyphenols. In this study, S. mutans was exposed to varying concentrations of green tea extract to determine its effect on bacterial growth. Concentrated green tea extract inhibited the growth of S. mutans; lower concentrations demonstrated a smaller inhibitory effect. To determine the effect of sucrose on S. mutans growth, studies involving varying concentrations of sucrose with or without green tea extract are underway.

Jacqueline Keller, Jennifer Myslowski, Brett Quinto, Annie Sanchez

Faculty Sponsor(s): Dr. Marcie Lehman **Poster Location:** 7



Cloning and Sequencing of Shiga Toxin (stx) Genes in Escherichia Coli Strains Isolated from Environmental Samples

Escherichia coli (E. coli) is a gram negative, rod-shaped bacterium commonly found in human and animal intestines. Some E. coli strains produce a Shiga toxin (STEC) that causes serious enteric and systemic disease in humans. Recent studies indicate that wildlife, such as deer, can play an important role in the transmission of STEC. Fecal samples were collected from areas within Pennsylvania, Maryland, Virginia and West Virginia. Samples were suspended in water, plated on selective

media and incubated at 37°C. Colonies demonstrating the appropriate morphology were selected for DNA isolation. PCR was performed with stx specific primers to amplify the DNA of interest. PCR products of the appropriate size for stx1 and stx2 amplicons were cloned for further purification. Clones containing the gene of interest were sequenced to identify stx1 and stx2 genes. Results of this study may aid in the prevention and treatment caused by STEC within Pennsylvania as well as the surrounding states.

CUB Multi-Purpose Room

Jonna Trindle, Lucinda Kauffman

Faculty Sponsor(s): Dr. Marcie Lehman **Poster Location:** 8



Food Webs of Acidic and Limed Headwater Streams on North and South Mountains

Stream liming is a common mitigation method used to correct the water chemistry in acidified streams. We studied six headwater streams on North and South Mountains, three naturally neutral, and three acidic. Each of the acidic streams was sampled upstream of a lime treatment site, 0.5 km downstream, and > 2 km downstream. We sampled fish and invertebrates at each site and examined gut contents of brook trout and crayfish. Stable isotopes of carbon and nitrogen were analyzed from invertebrates and trout to determine trophic relationships. Trout consumed mainly terrestrial insects in the summer; we expect to see more aquatic invertebrates in winter gut contents. Invertebrate abundance and diversity was greatest in both the naturally neutral and acidic reaches, and lower in the limed sites. Fish were most abundant and diverse in naturally neutral sites, and scarce to absent in all acidic stream sites. Although liming seems to improve pH, it does not restore a functioning ecosystem.

Aryanna James, Jamie Salmon, Natasha Wingerter

Faculty Sponsor(s): Dr. Theo Light Poster Location: 12



Testing the Efficacy of Three Fly Repellents for Controlling Biting Flies in Horse Paddocks

Bite Free Stable Fly Traps™ were used to monitor biting fly populations, especially Horse Flies (Tabanus sp.), Stable Flies (Stomyx calcitrans), House Flies (Musca domesticus) and mosquitoes. The traps, designed to attract biting flies through color and light refraction, were treated with one of three repellent products; Bronco Equine Fly Spray™, Ultra Shield Green™, or Oak Hill Farm Naturals™. Bronco is an inorganic synthetic permethrin based product. Ultra Shield and Oak Hill Farm are natural, plant oil based products. Control traps were treated with water since all of the products are aqueous solutions. Treatments were applied using label recommendations. The traps were distributed near a large paddock and indoor arena in arrays of four traps, one for each treatment and the control. The traps were checked at regular intervals for three weeks. During each inspection, trapped insects were classified, counted, and removed from the traps. ANOVA was used to analyze our results.

Brandi Keppel, Dustin Lowry, Nicole Nicholson, Bridget Pettit, Alyssa Arnold

Faculty Sponsor(s): Dr. Gregory Paulson Poster Location: 24

Prevalence of Heartworm in Coyotes, Red, and Gray Foxes in Pennsylvania

With the prevalence of canine heartworm on the rise in domestic pets and humans throughout the eastern US, it is important to identify risk of acquiring this parasite associated with living in Pennsylvania. The significance of this study is to examine the prevalence of heartworm antibodies in wild canines in Pennsylvania. To do this, blood samples are being collected from gray and red fox as well as coyotes at several coordinated hunts throughout the state. Blood is then centrifuged and separated into its components. An ELISA test will be used to test the blood for antibodies to Dirofilaria immitis. A positive result will tell us that the animals have previously been exposed to this parasite.

Leah Balliet, Kayla Klinedinst

Faculty Sponsor(s): Dr. Richard Stewart **Poster Location:** 9



Prevalence of Trichinella sp. Infections in the American Black Bear, Ursus americanus, in Pennsylvania

The focus of this project is to determine the prevalence of Trichinella spiralis in Ursus americanus, commonly known as the black bear, in Pennsylvania. The significance of this project is to provide the scientific community with a better understanding of the spread and prevalence of the parasite in Ursus americanus as well as the local animal populations that comprise the black bear's diet. In addition, this project aims to educate hunters on the dangers of eating improperly prepared meat. Muscle and blood samples were collected from 173 bears during peak hours of bear season on November 22, 2013 from the following weigh stations in Pennsylvania; Mifflin, Huntingdon, Tioga, Somerset and Clearfield. Statistical data consisting of bear age, weight, sex and location will be analyzed for patterns relating to Trichinella spiralis detection. Artificial digestion will be completed on the muscle samples to enable the use of multiplex PCR to identify Trichinella subtypes through DNA analysis.

Rachel Slotkin, Hannah Greenberg

Faculty Sponsor(s): Dr. Richard Stewart, Dr. Marcie Lehman Poster Location: 11

Communication/Journalism

College Student Perceptions of Nonprofit Fundraising

This semester project explores undergraduate and graduate students' perceptions about nonprofit organization fundraising. It is clear that there is not one right way of fundraising for a nonprofit. However, the purpose of this study is to find what aspects of nonprofit organization fundraising are important to college students' awareness and advocacy towards a particular cause. In an ever-changing technological age, social media apps and online channels of mass communication are essential in reaching targeted audiences. The study will also examine popular online frameworks amongst college students that demonstrate cooperative participation.

Patrick Campbell

Faculty Sponsor(s): Dr. Joseph Borrell

Poster Location: 61

Buzzwords and, "The Halo Effect"

Dietary supplements. They grace the sides of billboards, pages of magazines and can be found on food packaging of just about every consumable item. Words like protein, calcium, omega 3's, fiber and antioxidants are quickly becoming common terms when grocery shopping. This has made consumers today more concerned about their products being all natural, organic or having energy boosting capabilities. Researchers often refer to this trend as the "health halo effect." When people see these words, they often believe that the items are healthier compared to other similar items. This study will focus on how the dietary supplement industry has changed from four years ago, until the present day. I will begin my research by examining the use of "buzzwords" on packaging inside grocery stores. I will also review supplement advertisements in magazines and monitor advertising in other forms of consumable media.

Montrell Fletcher

Faculty Sponsor(s): Dr. Joseph Borrell Poster Location: 62

Determining the Effectiveness of Distance Educational Learning Compared to Traditional Class Learning

Distanced Education has become a more modernized practice of teaching education. Several universities have already established this means of educational instruction. I will use coloration data to evaluate the overall impression of performance of students that participate in all three forms of classes: hybrid teaching; distance education/online learning; and traditional classes.

Kelsey Hess

Faculty Sponsor(s): Dr. Joseph Borrell **Poster Location:** 63



The Use of Popular Music in TV Commercials and its Impact on Viewer Attention

Television commercials have long been reliable means for message distribution and advertisement, but how do they fare in today's world of digital distraction? During the three to four minutes of the commercial break, viewers are not only heading to the restroom or sneaking to the kitchen for snacks; now, they are texting friends, tweeting about their favorite programs or watching funny videos on YouTube. How are television commercials competing for viewer attention? This study specifically examines the use of popular music in modern television commercials and its impact on gaining viewer attention. Research is conducted to evaluate the digital habits of television viewers, to determine music prevalence in today's commercials and to investigate the effect of its presence, and absence, on viewer attention and behavior.

Lindsay McCauslin

Faculty Sponsor(s): Dr. Joseph Borrell Poster Location: 64

The Impact of Cell Phones on Social Interaction and Interpersonal Communication

This study analyzes how cell phone use affects interpersonal communication and social interaction on a college campus. One focus of the research is to analyze approachability and whether individuals are more or less likely to communicate with a stranger when using their cell phone. An additional focus is to profile cell phone usage when alone as a possible substitute for face-to-face interpersonal communication.

Jonathan Turner

Faculty Sponsor(s): Dr. Joseph Borrell **Poster Location:** 65

Mobile Dating Apps in Heterosexual Relationships vs. Homosexual Relationships

Online dating has become a revolutionary way to meet and begin relationships with individuals. There are various internet dating sites that have become a common way for people to ditch the normal way of meeting people, and begin fresh with an online profile, which states the user's interests, goals, likes, dislikes, and other personal information to be seen by potential personality matches. This has revolutionized the way dating can be pursued. There are numerous sites and apps for both the homosexual and heterosexual community, with each serving its own purpose. Through this study, the various aspects of the homosexual and heterosexual dating apps will be analyzed through a focus group. Through this focus group, knowledge will be acquired to determine how mobile dating apps are effecting and will continue to affect the younger generation.

Andrew Leister

Faculty Sponsor(s): Dr. Joseph Borrell Poster Location: 66

Counseling & College Student Personnel

The Diagnosis of Alcohol and Drug Addiction: How the DSM-5 Will Affect Assessment and Referral for the College Population

This poster, presented at the American Counseling Association National Conference, provides updated DSM criteria to counselors working with college students dealing with substance disorders. The focus will be on the impact these changes make on the assessment and referral process and the appropriate levels of education and care, depending on the provisional diagnosis. There will be a general overview of the changes and possible interventions or referrals for students who have come through judicial or local law enforcement.

Cassidy Zeller, Jennifer McClellan

Faculty Sponsor(s): Dr. Ford Brooks

Poster Location: 57

College Student Co-Curricular Involvement: Does it Lead to more Perceived Feelings of Job Preparedness for College Seniors?

Many studies have been conducted that show the benefits of participating in co-curricular activities for undergraduate students. The studies' methodologies range from participant surveys, faculty interviews, employer interviews, to only secondary analysis. Researchers have often compared the benefits of students who are involved in co-curricular activities; however very little research exists on if being involved in co-curricular activities while in college provides higher perceived feelings of job preparedness for college students. The majority of the findings focus on the benefits of students who are involved in co-curricular activities, but very few exist on the benefits that being involved in co-curricular activities can have in the job market after college. With my research I hope to show if there is a correlation between student involvement and perceived feelings of job preparedness.

Heidi Freeland

Faculty Sponsor(s): Dr. Matthew Shupp **Poster Location:** 58

English

My Little Fandom: Tolerance is Progress

Fandoms are creative communities that generate fan-made art, music, events, and other creative contributions based around a particular show, book, celebrity, or other similarly based topic. Lately the fandom of the show My Little Pony: "Friendship is Magic," has received a lot of negative public attention. Most harsh reaction is specifically directed towards the adult male fans of the show, called bronies. Defenders of the fandom believe that the outcry is mainly due to homophobia and to people's fears that bronies are deviating from the social norm. What critics don't see is that this fan group actually displays many positive attributes, and they contribute positively to the community through volunteering and fundraising. It is not right for them to fall under such harsh treatment, both psychologically and physically in some cases. Rather this presentation will show how the prosecutors of the fandom should take a lesson from the group itself, whose motto is "love and tolerance."

Michelle Bradley

Faculty Sponsor(s): Dr. Sharon Harrow **Poster Location:** 59

Exercise Science

Acute Cardiorespiratory and Kinematic Adaptations to Barefoot Running

PURPOSE: Investigate if there are VO2 adaptations once initially exposed to barefoot running and whether the adaptations are seen at the onset of a second trial. METHODS: 11 subjects naïve to barefoot running conducted two separate running trials. A metabolic cart was used to collect cardiorespiratory data. Cinematography was used to evaluate stride frequency/length. RESULTS: The group mean difference between initial VO2 in T1 to final of T2 showed to be 6.8%. Initial of T1 and final of T2 for the group mean runners showed to be 5.2%. Stride length was shorter during T1 versus T2. Stride frequency increased from the initial to the final stage of both trials. The most efficient subject's initial and final ankle range of motion increased more during T1, but still increased during T2. CONCLUSION: With adaptations to barefoot running, individuals can become more economical with changes in ankle angles. Increased ankle angles and decreased knee angles results in improved running economy.

Lauren Taylor, Emily Smith, Brittany Bechtold, Patrick Kregeloh, Kayla Mantush, Jennifer Madeira

Faculty Sponsor(s): Dr. William Braun, Dr. Sally Paulson, Dr. Praveen Veerabhadrappa

Poster Location: 27



Normative Data for Overhead Back and Between-the-Legs Front Throws

Overhead back (OHB) and between-the-legs front (BLF) throws are components of athletic power training programs. The purpose of this study was to obtain normative data for OHB and BLF throws in order to enable comparisons with other power assessments. 36 males and 33 females performed 3 trials of both OHB and BLF using a 14 lb (male) or 8 lb (female) medicine ball. For each technique the best of the 3 throws was used in the analysis. SPSS was used to perform paired t-tests and to compute percentiles and Pearson product moment correlation coefficient values. Males threw farther in the BLF (8.9 \pm 1.5 m) than in the OHB (8.6 \pm 1.6 m). Females also threw farther in the BLF (6.5 \pm 1.3 m) than in the OHB (5.8 \pm 1.3 m). Individuals who threw far using one technique tended to throw far using the other technique (r = 0.847, males; r = 0.845, females). The normative data obtained in this study provide a basis for classification of throwing proficiency.

Joe Todora

Faculty Sponsor(s): Dr. Ben Meyer

Poster Location: 26

The Influence of Prophylactic Ankle Strategies on Vertical Jump Performance

The purpose was to examine the effects of prophylactic ankle taping (PAT) and bracing (PAB) on lower extremity kinematics and vertical jump (VJ) performance. After a 5-min warm-up, 18 volunteers completed three VJ under three conditions: ankles taped, braced, and no treatment (CON). Each testing session was separated by a min of 24 hrs in a randomized and counter-balanced order. Prior to testing, the prophylactic ankle condition and reflective markers were applied. Each VJ was filmed from the sagittal plane. Variables were analyzed using a one-way repeated-measure ANOVA and paired t-tests. VJ height (p = .02), ankle angle at takeoff (p = .04), ankle (AROM; p < .01) and knee range of motion (KROM; p < .01) were significantly different. VJ height was higher during the CON by 4.85% (PAT) and 4.22% (PAB). AROM was greatest in the CON and least in the PAB. KROM was significantly greater during CON. In conclusion, both PAT and PAB decreased AROM and KROM; which may have decreased VJ height.

Chris Nelson

Faculty Sponsor(s): Dr. Sally Paulson

Poster Location: 25

Geography/Earth Science

Pioneering Wetland Restoration and Coastal Monitoring: Design, Development and Deployment of the First Integrated Coastal Observation Network (ICON) Wells at Greenbackville, Virginia

Salt marshes in Greenbackville, Virginia have suffered decades of decline due to invasive species, pollution, human disturbance, and climate change. We are contributing to restoration activities through the development of water quality monitoring wells to continuously sample water levels, temperature, conductivity, and dissolved oxygen content. Our efforts have focused on the design, installation, and monitoring of the ICON system in order to quantify tidal flow, flooding from salt and rainwater sources, dissolved oxygen levels, and thermal pollution issues. This data is critical for adapting approaches to be used for restoring native plants, re-establish tidal flows, and maximize our chances to improve the overall health of the marsh ecosystem. To accomplish these goals, we are facilitating development of a citizen-monitoring program, which will allow students of all ages to learn how to monitor, record, and report research data.

Ben Eppley, Megan Kelsall

Faculty Sponsor(s): Dr. Sean Cornell

Investigating the Effects of Scuba Diving on Populations of Staghorn Corals (Acropora cervicornis) in Roatan, Honduras

Roatan is one of seven bay islands off the coast of Honduras, and is the most popular for tourists and diving. Honduran reefs comprise approximately 30 percent of the Mesoamerican Barrier Reef System, which is the second largest barrier reef in the world. A. cervicornis is a branching stony coral native to Caribbean waters and is one of the most ecologically important corals as well as critically endangered. This species is experiencing many devastating pressures such as increasing sea level and temperature, increases in UV radiation, predation, hurricanes, and disease. Recreational scuba diving is an understudied pressure that may attribute to the decline of this species. Tourism in Honduras has been steadily increasing since 1980. Nine diving sites were identified from frequent to rare use and were surveyed via video and photography. GIS and correlation coefficients were used to analyze the percent of broken coral to proximity and usage.

Clayton Helm

Faculty Sponsor(s): Dr. Alison Feeney

Poster Location: 5



Using Infrared Thermography to Quantify and Compare Heat Loss from Residence Halls on Shippensburg University Campus

During the winter season the residence halls of Shippensburg University of Pennsylvania turn on their heating units in order to keep the buildings warm. Much of this heat is lost through the building to the outside. In my study I have looked at both an older and newer residence hall on campus in order to quantify and compare their average thermal transmittance and the estimated cost of heat loss for each building during the winter. An infrared imaging camera will be used to determine the thermal loss of the residence halls.

Samuel Gau

Faculty Sponsor(s): Dr. Tim Hawkins

Poster Location: 3



The Geography of Food Cooperatives in the United States

For our society to become sustainably viable in the future, the ways in which we obtain our food and the methods used to create that food will be very important. One of the most environmentally friendly methods of food obtainment is membership in a food cooperative. This research delves into the basics of food cooperatives, highlights similar studies of other sustainability indicators, and examines the geographic distribution of food co-ops across the United States.

Seth Young

Faculty Sponsor(s): Dr. George Pomeroy

Poster Location: 4

Analyzing Ionic Toxicity of Streams and Springs in the Cumberland Valley Using a Geographical Information System

This research, funded by the College of Arts and Sciences' Faculty-led research grant, assessed water chemistry of springs and streams in the Cumberland Valley, due to the karst geology found in the area, which eases entry of pollutants to water sources. The goal was to investigate how agricultural and urban land uses impact water quality within the Valley. To investigate, water samples were collected from eight sites and analyzed for ionic toxicity, including the following specific compounds: Na, K, Ca, Mg, PO4, Cl, NO3, and SO4. Results indicate that the valley's springs and stream water were below the limits set by the EPA for safe drinking water. Springs and stream segments within the Pine Grove forest area had the lowest concentrations of all of the tested compounds. Although generally below EPA limits, sampled sites located in agricultural areas were higher in nitrates concentration. Overall, the study found the water quality in the Cumberland Valley to be free of ionic toxicity.

Megan Kelsall

Faculty Sponsor(s): Dr. Joseph Zume

Poster Location: 2

Management/Marketing

Advantages and Disadvantages of Different Training and Development Models

The goal of this presentation is to create a successful training and development model for companies to utilize. I analyze successful and unsuccessful training and development programs and provide specific examples. Training models can be either informational or experiential in nature. Informational training methods use one-way communication transmitted to the learners. Examples of informational methods explored are lectures and e-learning. Experiential methods allow trainees to practice, such as on-the-job training, simulators, and roleplaying. The project reviews state-of-the-art research literature and provides case study examples. To conclude, I evaluate successful and unsuccessful training and development programs and create a model of "best practices" for companies to follow.

Emily Hadley

Faculty Sponsor(s): Dr. Wendy Becker

Applicant Perceptions of Psychological Testing: A Review of the Entry-Level Hiring Process

The purpose of this research is to investigate the effectiveness of using psychological tests during the hiring process for entry-level jobs. In addition, applicant perceptions of psychological tests are examined. Included in the paper is a short review of the research literature, as well as personal reflection from an applicant's perspective of taking psychological tests as part of the hiring process. The research also uses data from a pilot survey with 40 undergraduate students to gain an idea of the collective student body perspective. The research focuses on the usefulness of utilizing psychological testing for entry-level jobs. Also, unintended consequences of the use psychological testing are included.

Clay Henninger

Faculty Sponsor(s): Dr. Wendy Becker

Poster Location: 54



Best Practices for Keeping Top Performers

As human capital becomes scarce within organizations, a need to acquire and maintain top performers becomes an essential tool for survival and success. Whether it is a sports organization or Fortune 500 company, the loss of the highest performers poses several negative effects that can hinder an organization socially and financially. Often the most effective performance management practices and techniques that help preserve essential personnel are unknown, unrecognized, or unnoticed. While there is an abundant amount of research available suggesting solutions to this issue, most organizations are unfamiliar such a talent war even exists. Through case studies and personal interviews with business leaders, this research aims to (1) demonstrate the consequences that can arise when firms ignore the talent war as well as (2) recommend the best practices to effectively retain top employees and obtain a competitive advantage.

Christine Weaver

Faculty Sponsor(s): Dr. Wendy Becker

Poster Location: 55



Creating a Competitive Edge: Best Human Resource Practices in Sales Organizations

With increasing globalization and online information, businesses are now more than ever in constant competition to gain as much of the market share as possible. Sales departments differ greatly from the rest of the firm not just in job description, but also in terms of culture and motivation. A firm's financial success lies within this department since it has the main responsibility of generating revenue. Proper implementation of research-backed Human Resource Management (HRM) strategies give sales teams a competitive edge. While extensive research has been done on the implementation and success of HRM strategies within entire firms, not much has been done specifically in its practices within the sales department. Through case studies, prior research and personal interviews with business leaders, this research aims to (1) demonstrate competitive strategies, (2) describe unique strategies for sales organizations, as well as (3) recommend "best practices."

Ryan White

Faculty Sponsor(s): Dr. Wendy Becker

Poster Location: 56

Mathematics

Incorporating Experiential Learning in the Introductory Statistics Curriculum

Money, tourism, and regional visibility are just a few reasons street fairs are extremely important to the towns that host them. Many festivals tout attendance numbers to attract vendors and, in turn more attendees, but are these numbers accurate? This project requires students to collect data and then analyze it using standard statistical tools with the goal of developing a mathematical model for approximating the number of people attending non-ticketed, open-air events. In this poster, we will discuss how this experiential learning activity fits into the introductory statistics curriculum and how using real-world (occasionally "messy") data provides students with additional insight into the use of statistics outside the classroom.

Grant Innerst

Faculty Sponsor(s): Dr. Ben Galluzzo

Poster Location: 49



Modeling the Cellular Dynamics of Multiple Sclerosis

Multiple Sclerosis is an autoimmune disease that targets the central nervous system, specifically the myelin sheath. Symptoms of this disease include loss of muscle control, dizziness, and visual impairment. Because of the autoimmune nature of Multiple Sclerosis, all of the cells involved are self-cells. We develop a simple system of ordinary differential equations describing the interactions of leukocytes, oligodendroglia, and myelin. Our model can yield insight into the deterioration of the myelin sheath. This degradation may eventually result in Multiple Sclerosis.

Maria Markovich

Faculty Sponsor(s): Dr. Luis Melara

Poster Location: 50



Symmetries of Fibonacci Points, Mod m

The Fibonacci sequence is a sequence of numbers that has fascinated mathematicians for centuries. The sequence begins $0, 1, 1, 2, 3, 5, 8, 13, \dots$ It begins with 0 and 1, and each subsequent number is the sum of the previous two. We use "modulo n" arithmetic, which means that numbers are replaced by their remainder upon division by n. In modulo 4, for example, 4 is replaced by 0, 5 is replaced by 1, etc. The Fibonacci sequence modulo 4 becomes $0, 1, 1, 2, 3, 1, 0, 1, \dots$ We can pair consecutive terms (0, 1) (1, 1) (1, 2) (2, 3) (3, 1), etc. and these ordered pairs can be graphed. We call these graphs "Fibonacci Grids mod n" and as n varies, many graphs show striking symmetry. Some show reflection across the diagonal line y = x, some show symmetry by rotation, some show symmetry by translation, and some graphs show no symmetry at all. Our goal is to explain why symmetry occurs when it does.

Patrick Flanagan, Joshua Updike

Faculty Sponsor(s): Dr. Marc Renault

Physics

Particle Capture and Measurement in a TIR Sensor

An optical detector has been fabricated with the purpose of detecting particles of sizes under two microns. A Cr/Au electrode grid was fabricated on a glass microscope slide using colloidal lithography and characterized using microscopy techniques. Particle detection occurs when a particle couples with the evanescent field and a photon, of specific wavelength, is emitted. Further modifications to the sensor will include a scaling of pore size and an introduction of an electromagnetic field to increase sensitivity.

John Robert Salasin, Patrick Krotz

Faculty Sponsor(s): Dr. Allen Armstrong

Poster Location: 52

Political Science

Does a Political Knowledge Gap Exist among Students at Shippensburg University?

Scholars have confirmed the existence of a political knowledge gap, not only on foreign affairs issues, but also domestic issues. This research will examine whether a political knowledge gap exists among undergraduate students at Shippensburg University.

Natalie Benner

Faculty Sponsor(s): Dr. Sara Grove

Poster Location: 13



Increasing Women's Representation in Lower Houses of National Legislatures: Which Models Prove Best?

There is a disagreement among scholars on the best political models for increasing the representation of women in elected and appointed office. Using a sample of 100 countries (25 each from Europe, the Americas, Africa, and Asia), this research will evaluate how the type of government directly affects the percentage of women in the lower house of national legislatures. The research will test the earlier assertion that proportional representation is the most effective electoral system to ensure improved representation of women.

Larissa Kyler

Faculty Sponsor(s): Dr. Sara Grove

Poster Location: 14



A Test of the CSI Effect

Attorneys, judges, and journalists have claimed that watching television programs such as CSI affect the behavior of jurors, particularly when viewing scientific evidence. This study tests this idea through an experiment with Shippensburg University undergraduate students. It also provides insight into patterns of viewership for crime dramas.

Cameron Shertzer

Faculty Sponsor(s): Dr. Sara Grove

Poster Location: 15

The Failed Case of Nation-Building in Yugoslavia: the Psychological Impacts of Group Tensions

Based on previous literature the researchers developed a model to question local immigrants who originally resided in the former Yugoslavia. The main purpose of the model is to better understand cultural identity and the attitudes toward the former Yugoslavia. This model was developed based on past research that was done on the political and cultural environment, ethnic tensions and psychological studies of in-groups and out-groups. This paper will present the preliminary findings from the interviews of the former Yugoslavian diaspora currently living in Central Pennsylvania.

Addalena Virtus, Irma Zejćirovic

Faculty Sponsor(s): Dr. Sara Grove

Poster Location: 16

Psychology

Identifying National Football League Teams in Newspaper Obituaries

We analyzed the frequency with which deceased individuals' obituaries mentioned their identification with a regional NFL team. It was hypothesized that obituaries would be more likely to mention fans' team allegiance following a successful season compared to a losing campaign. Consistent with the hypotheses, obituaries were significantly more likely to mention team allegiance following a successful season (57%) compared to a losing season (41%). Gender differences also emerged in the pattern of fan-identification.

Chanel Young, Brent Sessions, John Bankert, Kayla McArthur

Faculty Sponsor(s): Dr. Jamonn Campbell

Poster Location: 19



Military and Civilian Views on US Military Sustainability and General Attitudes

As the world experiences changing climate, all organizations, including the military, revamp their impact on the environment. The military has discovered different ways overseas and stateside to decrease their impact on the environment. These efforts are crucial as the Department of Defense is known as the leading user of energy and oil consumption in the world. This is extremely important as the US Military is the largest user of energy and oil in the entire world. Many US civilians and military personnel may be unaware of these efforts done by the military and this study showed that. Several of the results showed there is limited knowledge about the efforts that the US Military in the sense of sustainability. For further research there hopes to be some interest in how to teach US Military and Civilians about the seaside and oversea attempts to decrease the Military's environmental influence.

Sarah Antonelli

Faculty Sponsor(s): Dr. Steven Haase

The Relationships among Dispositional Optimism, Support Systems, Cortisol, and Academic Stress on College Students and Athletes

This study investigated the relationship between dispositional optimism (LOT-R), support systems (MSPSS), and stress (SCL-90) on college students and college varsity athletes by comparing cortisol levels before and after an academic test was simulated (Montreal Imaging Stress Test (MIST)). The MIST, usually used in fMRI studies, is being used as a social stressor. Cortisol levels were shown to vary considerably across the study in all participants. However, there was no significant difference between athletes and non-athletes in their cortisol levels, optimism, social support, and level of distress.

Ashley Vellucci, Rachel Haupt

Faculty Sponsor(s): Dr. Robert Hale, Dr. Scott Madey Poster Location: 22





The Study of Stress Responses in People with Symptoms of Antisocial Personality Disorder

Antisocial personality disorder is generally characterized by a failure to respond to the normative distress cure of other individuals. This study investigated the connections between antisocial personality disorder and social stressors. Antisocial personality disorder in this research experience was measured through the Subtypes of Antisocial behavior (STAB) evaluation. STAB is a thirty-two question survey used to assess the three different subtypes of antisocial behavior which include rule breaking, physically aggressive, and socially aggressive forms of behavior. Social stressors were created by administration of the Montreal Imaging Stress Test (MIST). Data was collected through cortisol samples from the participants. It was proposed that students who self-reported more antisocial personality symptoms would be more likely to feel less stress from social evaluations as measured by salivary cortisol levels than those individuals who showed less symptoms of the disorder.

Nicole Nicholson

Faculty Sponsor(s): Dr. Robert Hale

Poster Location: 23



The Keys to Stress Management: Optimism, Motivation, and Social Support

This study investigated the relationship between dispositional optimism (LOT-R), social support (Multidimensional Scale of Perceived Social Support), motivation (BIS/BAS), coping, and stress (SCL-90) in college students (N = 62). Higher LOT-R scores correlated with greater drive and reward seeking, predicted more family support, more problem focused coping, less avoidance coping, and correlated with less stress. Higher drive and reward motivation correlated with lower stress. The use of avoidance coping was associated with greater stress.

Rachel Haupt

Faculty Sponsor(s): Dr. Scott Madey

Poster Location: 21

The Relationship between Psychological Detachment and Employee Engagement: A Multi-Foci Study

In modern jobs of the 21st century, many employees face excessive workloads which lead to heightened levels of stress, and the subsequent need for higher levels of psychological detachment. Psychological detachment is considered to be the period of recovery needed during off-job time, and is more formally defined as an individual's sense of being away from the work situation. The purpose of our study was to explore the relationships between psychological detachment and three foci of engagement. Participants were 60 employees of a medical rehabilitation firm operating across multiple facilities in the southeastern US. We hypothesized that psychological detachments would be positively correlated with organizational, job, and work-unit engagement. Although our findings were inconsistent with previous research, it is possible that employees in our sample are happy in their jobs, and thus derive psychological benefits from thinking about their work during off the-job time.

Jonathan Horensky

Faculty Sponsor(s): Dr. Jenny Pitts

Poster Location: 20



Meaningfulness of Death and Worldview Defense

In this study we manipulate mortality salience using vignettes that describe a meaningful or a meaningless death. Both conditions are contrasted with a control. The defense hypothesis based on terror management theory predicts an increased tendency to dislike targets involved in a transgression following the meaningless condition. The targets are identified as either Christian or Muslim. The hypothesis was that the tendency to dislike the target in the meaningless condition should increase for the Muslim target. The sample included 123 students randomly assigned to one of six conditions defined by the mortality salience dimension (meaningful, meaningless, control) and target (Christian, Muslim). A significant interaction between meaning and target, F(1,75)=6.75, p<.05, was found in an ANOVA analysis indicating that under the meaningful condition the Christian target was disliked more than the Muslim.

Kaitlin Merli, Sarah Antonelli

Faculty Sponsor(s): Dr. Adrian Tomer

Social Work/Gerontology

The Impact of Parent Involvement on School Behaviors and Academic Achievement

There has been plenty of research done on the importance on parental involvement and school achievement. Information for this study will be gathered from case files of students currently enrolled in River Rock Academy: Spring Grove Campus. This research study looks at the level of parent involvement and how it impacts school behavior and academic achievement. The information gathered will help the staff at River Rock Academy see the correlation between parent involvement and school behavior and academic achievement.

Heather Allison

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 28



The Importance of Family Involvement after Discharge

This research project will address the importance of family involvement in the discharge planning of former residents at the South Mountain Restoration Center (SMRC) into the community. The research will determine if the amount of readmissions to a nursing home facility is decreased based on the level of family involvement in the resident's planning for discharge. The research presented will display information collected from medical charts and phone interviews with residents who have been discharged from SMRC since 2011. This research will provide evidence to support the notion that the more involved a resident's family is, the less likely that resident is to be readmitted to a nursing home facility.

Sabrina Baarda

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 29



Family Involvement with Juvenile Delinquents

This research study looks at if family involvement impacts youths ability to successfully complete the program (Vision Quest South Mountain). The research will focus on males ages 13 to 21. It will show if age, where a youth is from, and if the reason they are placed at the program impact family involvement and their education success.

Nicole Fairman

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 30

Parental Death and the Effects on the Youth Level of Service Scores of Residents at South Mountain Secure Treatment Unit

Many children and adolescents who have experienced the death of a parent before the age of 15 have had trouble adjusting to their life after parental death and will develop social issues such as depression, anxiety, social withdrawal and other social issues. The following research will look into how the death of a parent will affect the risk behaviors of adolescents that have been adjudicated. The behavior risks of adjudicated youth are measured in a youth level of service survey (YLS) when they are placed in a residential treatment center such as the agency being used, South Mountain Secure Treatment Unit (SMSTU). The purpose of this study is to investigate if experiencing parental death will effect an adolescents risk behaviors and the YLS scores when in placement. It will help the agency to be better prepared with resources and ways to help youth cope with the death of a parent, which they may have never had the chance to do. The data that will be collected will be from the preexisting data that the agency has from residents who were in placement at SMSTU in the past.

Kathryn Hannah

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 31



The Correlation between Community Involvement and Referral to Alternative Education among High School Students

The purpose of this study is to examine the students' primary and secondary reasons for referral to River Rock Academy and compare the variations between referral reasons according to the students' school district and community. The researcher will protect the participants by keeping their names confidential through using numbers instead of names. The instrument the researcher will use will be pre-existing data from student records, intake forms, referral forms, demographic information, academic information and behavior referrals. The researcher will use a correlation test to compare the quantitative data.

Lauren Herrmann

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 32



The Impact of Parental Incarceration on a Juvenile's Charges

With 2.3 million adults incarcerated every year, countless children are left behind. These children often become involved with the legal system themselves. By researching further into the relationship between incarcerated parents and the severity of juvenile charges, there would be more possibilities for providing services to the children whose parents are in correctional facilities. The research used pre-existing data, provided by Loysville Youth Development Center that categorizes offenses by summary, misdemeanor or felony. After creating categories, the research identifies associations between parental incarceration history and the severity of the juvenile's charges.

Laura Hoffstetter

Faculty Sponsor(s): Dr. Jennifer Clements

Juvenile Charges Committed by Males and Females that Lead to Placement at Abraxas LDP

This research study looks at the most common juvenile charges that lead to placement at Abraxas Youth & Family Services, Leadership Development Program, and if they differ by gender. The research will be conducted by collecting secondary data through the records on file of current and discharged clients at the facility. The secondary data will be charted to clearly identify any commonalities found in the charges of the males and females.

Brandy Lautsbaugh

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 34



Caseworkers Sense of Safety at Franklin County Children and Youth

In the child welfare field social workers are continuously putting their safety at risk based off of that their job requires that they are legally mandated to protect children who are often in families that are affected by unfortunate circumstances. These families are affected by substance abuse, mental illness, mental retardation, violence, adolescent parenthood, incarceration, homelessness, and poverty. Child Protective Services (CPS) caseworkers are the most at risk for cases that have the potential for unanticipated conflict. Cases involving domestic violence add further concerns for their safety because a caseworker is never certain of what the case may entail. This research study will entail a questionnaire that will be handed out to the caseworkers at Franklin County Children and Youth Services to evaluate how caseworkers sense of safety varies based on their gender and their experience in the field.

Briana White

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 35



Examining Behavior and Duration of Students at Alternative Education Schools amongst Adolescents

There has been plenty of Research that acknowledges Alternative Education Schools and the programs and regulations that go along with it. The purpose of this research project is to look deeper into the behaviors of the students at River Rock Academy and how that impacts their length of stay in the facility. The research study will examine pre-existing data from closed files relevant to the agency on previous students who were discharged from River Rock Academy. The participants are both male and female and range from sixth to twelfth grade. The pre-existing data will be analyzed to clearly identify the severity of the students' behavior and the impact it has on their length of stay at River Rock Academy.

Bennett Widlake

Faculty Sponsor(s): Dr. Jennifer Clements

Poster Location: 36

How does Adams County Children & Youth Services Staff Feel about Absent Father Engagement?

There are many absent fathers who are not engaging in their children's lives. This research paper will explore the critical importance of a father's involvement with his children and how it can be beneficial. In order for child welfare professionals to search for more involvement of fathers in their children's lives, they must know what resources are available to locate the father and be able to assist the father's engagement in the permanency process. The purpose of this study is to explore Adams County Children & Youth staff's feelings about absent father engagement.

Robyn Ross

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 45



Managing Aggressive/Disruptive Behavior in Young Children: An Evaluation of the Incredible Years Dinosaur School at a YWCA

Research indicates strong ties between childhood antisocial behaviors and adolescence and adulthood violence. Myriad studies show the importance of early intervention with these children, beginning around the age of 4. The present study seeks to explore these related topics, children with conduct disorders and the impact of very early intervention. The Incredible Years Dinosaur School Program (IYDS) is one method of intervention; it targets children's behavior that is associated with conduct disorders, thereby preventing later antisocial behavior. The purpose of this study is to evaluate the effectiveness of the IYDS at decreasing aggressive/disruptive behaviors in a group of 4-8 year-olds at a YWCA. The researcher hypothesizes that after 20 weeks of curriculum delivery to the children's group, these behaviors will decrease.

Shannon Pavlovcic

Faculty Sponsor(s): Dr. Liz Fisher

Poster Location: 46



Evaluation of a Cyber-Safety Class for Parents

In an age when technology grows as fast as our children, parents are overwhelmed by how to keep their children safe from online predators. It is currently estimated that 55% of adolescents have or are currently using social networking (Michaud, Berg & Irwin, 2010). Unfortunately, the growing number of sales of smart phones, iPods, and other internet accessible devices increases the number of children on the internet. It is alarming that 45% of parents do not know or use the internet safety applications that are part of these devices (Curtis, S.2014). The focus of this study is to evaluate, through a pre/post-test design whether a parental education course is effective in increasing parents' knowledge of cyber safety.

Kelly Goodwin

Faculty Sponsor(s): Dr. Liz Fisher

Collaborative Goal Setting: Impact of Parent Involvement on Children's Academic Skills

Families are a powerful educational resource for children ages three to five to develop their academic skills. The home-based program by Head Start mandates professionals to set collaborative goals with families to strengthen parent-child reciprocal relationships. However, home-based intervention to young children has been marginalized in the empirical attention. Using pre-existing data regarding home-based children's academic skills and observation-based involvement survey from home visitors, this study seeks to evaluate parental involvement in accomplishing the child's academic outcomes at a home-based setting. The study hypothesizes that parents who are actively involved in their child's education process promote higher outcomes in children's academic competency. The data is collected from children and their families registered in the home-based program at Head Start, serving at Cumberland County, Pennsylvania.

Jeong Ah Seo

Faculty Sponsor(s): Dr. Marita Flagler **Poster Location:** 37



Support Group Attendance by Post-Permanency Families

Adoption affects both the adopted individual(s) and family in various ways. After adoption, individuals and families may encounter difficulties and seek post-permanency support services. Post-permanency services provide an abundance of support, guidance and education to families. Support groups are one of the many programs included in post-permanency services. Support groups are used to build support and community for a specific population. Although support groups have many benefits, there is a significant lack of participation and interest among adoptive families. This research study looks at the need and interest level of families participating in support groups. It will also identify the factors that increase attendance. The participants of the study are parents who have received services from the agency. The data will be collected through a questionnaire and will be used to determine the interest of forming a support group.

Lindsay Doughty

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 38

Trauma Exposure and Recidivism Rates in Inpatient Psychiatric Treatment

A person experiencing mental health problems may be referred to inpatient psychiatric treatment for different reasons including depression, suicide attempt or suicidal thoughts, or psychosis. It was reported in 2002 that ninety percent of patients receiving inpatient psychiatric care have experienced trauma, which is defined as a potential result from events or circumstances that have impacted one physically or emotionally and has had lasting negative effects on that person's ability to function (SAMHSA, 2012). Not only are patients who are exposed to trauma more likely to receive inpatient psychiatric care, but are more likely to have higher inpatient recidivism rates because the trauma is not addressed or recognized while one is receiving inpatient treatment. By gaining a better understanding of trauma-exposure and its correlation to recidivism rates, this could allow for different techniques to be implemented in mental health facilities, which could decrease recidivism rates (Tucker, 2002).

Courtney Kensinger

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 40



Prevalence of Drug Use among Men and Women Prior to Incarceration

This research study looks at the patterns of drug use among men and women prior to incarceration at a local county jail. In the state of Pennsylvania, drug use has hit an all-time high and is continuing to increase with the use of illicit drugs. County jails are also experiencing an exponential increase in drug related charges. The study will look at age and gender of the individuals as well. By doing this study the jail along with various treatment centers will be able to utilize the information and see what programs need to be implemented and what age and gender is most effected by drug use.

Arnela Zejcirovic

Faculty Sponsor(s): Dr. Marita Flagler

Risk Factors of Mental Illness and Inpatient Admissions to Psychiatric Facilities among Adolescents

Mental disorders are extremely common in the United States due to a genetic predisposition as well as environmental risk factors, affecting around 20% of the youth population. One in every four or five adolescents has diagnosable mental health disorders, which are most likely to emerge during adolescents. This study is extremely valuable for all people, because mental health issues are not exempt from any gender, race, or socioeconomic status. Mental health disorders left untreated cause negative outcomes, such as dropping out of school, involvement in the juvenile justice system, increase of thrill-seeking behaviors, and substance abuse, which can all be dangerous to the individual and others. The information that is gained through this study will help the staff to better recognize environmental risk factors that could lead to mental illnesses, and the staff will be able to educate schools, parents, and communities.

Brooke Herrmann

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 42



Effective Outreach Practices in Assessing Diverse Populations in the Community

This research study will be focused on community outreach. The importance of community outreach is to educate individuals, families and organizations within the community on resources and services that assist with challenges or hardships that community members may face. With an increasing number of low-income families of diverse backgrounds within our communities, it is important for the staff of local organizations to become more involved with and knowledgeable on approaches to accommodate the continual growth and changes of community populations. This research study will help promote awareness of communities with diverse cultures and techniques on creating community relationships that can attract all populations.

Shalonda George

Faculty Sponsor(s): Dr. Marita Flagler

Poster Location: 43

Factors that Lead to Patients Leaving an Inpatient Substance Abuse Program Prematurely

Large patient dropout rates have been a huge issue at inpatient substance abuse facilities across the country for many years now. Non-completion rates at these facilities are currently at about 39%, which indicates a problem. If more than a third of patients are dropping out of various facilities prematurely, that shows that something needs to be changed on a larger scale. This is an important issue to address because when people drop out of treatment they are much more likely to have a relapse, especially a lethal relapse. This research study will explore possible factors that lead a patient to leave a substance abuse treatment facility before completing treatment. The data will be collected through charts of patients who left prematurely. This research will benefit the agency in which I am collecting data because this is an issue that they are focusing on as well. This research should give them some more insight into how to recognize and prevent people from leaving treatment early.

Kelsea Chavis

Faculty Sponsor(s): Dr. Marita Flagler Poster Location: 44



An International Comparison of Social Work Undergraduates' Understanding of Social Work Theory

The purpose of this study is to compare social work students' understanding of three different models of social welfare practice in social work: institutional, residual, and social development. Students were sampled from three universities: SoonChunHyang University in the Republic of Korea, the University of Pretoria in South Africa, and Shippensburg University in the United States. In conducting this study, we assume that social work education that is focused specifically on one or two types of social welfare models and approaches influences the practice of future social workers. In order to prove our hypothesis, our study targeted undergraduate social work students (second year or more) and analyzed their knowledge, understanding, and application of differing social welfare models. A thorough review of the literature revealed there are currently no comparable studies that analyze social work students' understanding in regard to residual, institutional, and social-development models.

Kathleen Prest, Paul Gilmore, Jeong Ah Seo, Courtney Kensinger, Lindsay Doughty, Kira Beard, Kayla Fyfe, Jerome Williams

Faculty Sponsor(s): Dr. Michael Lyman, Dr. Jayleen Galarza

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