

SIGMA XI RESEARCH FORUM

SIGMA XI ORAL PRESENTATIONS

Presenters	Title	Abstract	Advisor	Poster Location
Nikolai Kolba, Thomas Rounsville, and Jane Huffman	Population genetics of the North American river otter (<i>Lontra canadensis</i>)	The population of North American river otter was been greatly reduced by European colonization, anthropogenic modifications of habitat and unregulated trapping. To counter diminished numbers the river otter has been reintroduced into a number of states. To evaluate the genetic structure of river otters in NJ, NY, PA, RI, VT, WV, NC and IL, 584 tissue samples were collected. DNA was extracted and amplified using 10 polymorphic DNA microsatellite loci. These loci were used to determine localized allelic frequencies (FST) and gene flow at both the population and landscape scale.	Jane E Huffman	Sci Tech Auditorium
Kacie Chern, Meaghan Bird, Jane E. Huffman	Comparison of Urinary Bladder, Spleen, Heart and Ear Biopsy Tissues for Determining Prevalence of <i>Borrelia burgdorferi</i> in <i>Peromyscus leucopus</i>	<i>Borrelia burgdorferi</i> , the etiologic agent of Lyme Disease, is vectored by the black legged tick. The Polymerase Chain Reaction (PCR) was used to compare urinary bladder, spleen, heart and ear biopsy samples from white footed mice the reservoir host. Four different primer sets were also evaluated on the tissue types. The primers used were Rec A, IGS I/II, OspA and FL6/FL7. The urinary bladder using Rec A had the highest positivity rate (60%), followed by splenic tissue (55%) and the lowest rate was heart tissue. Urinary bladder samples led to a significantly higher estimate of infection than the other samples.	Jane E. Huffman	Sci Tech Auditorium
Kimberly A. Arendt and Jennifer L. White	Histological Analysis of the Effects of Exercise on Development of Bone in Mice	The mammalian postcranial skeleton forms via endochondral ossification, as bone replaces fetal cartilage. Since mechanical stress stimulates bone deposition, we hypothesized that exercise would accelerate ossification in developing limbs. We examined preserved <i>Mus musculus</i> aged 8 to 58 days, raised with and without exercise equipment. Femora were sectioned longitudinally, stained with H&E, and examined for ossification and metaphyseal width. Young mice exhibit ossification in the diaphysis. In older specimens, epiphyseal bone appears, ossification zones fade, and metaphyses thin. Exercised mice exhibit accelerated ossification, reduced hypertrophy zones, and increased metaphyseal compaction. Our data suggest that mechanical stress promotes bone deposition.	Jennifer L. White	Sci Tech Auditorium
Scott O'Donnell	Application of plant DNA Markers in Forensic Botany	Highly polymorphic DNA markers have become available for a wide range of plant species, which has increased opportunities for applications to forensic investigations. The illegal taking of hardwood tree species is of concern. Most deciduous hardwood species native to the northeast can bring large sums of money when sold illegally. The purpose of this research was to develop and optimize multiplex PCR protocols for samples of oak. Also to determine if <i>Quercus</i> -specific DNA microsatellites can be used to genotypically match samples of woody tissue collected from trees that are suspected of poaching to evidence collected from the crime scene.	Jane E. Huffman	Sci Tech Auditorium
Kyle Hoffman and Nelvia Ruano	The Effect of Alternative Sugars on the Intestinal Flora of Mouse model	In this study, we are conducting an in vitro study measuring the effect of "sucralose", "saccharin" in Sweet 'N Low®, and "aspartame" on the natural intestinal gut flora. Four anaerobic isolated species have been taken from mouse fecal material and are currently being grown on TSA plates supplemented with one of these three alternative sugars in succession for a period of two months. The CFU's/ml of bacterial growth is being measured bi-weekly in comparison to that of the normal control TSA plates. Identification of bacterial species will be done via various biochemical tests including.	Abdalla Aldras	Sci Tech Auditorium
Xiang Mao, Yuan Ma, Taihao Zheng	Analysis of the geographical environment about Knowlton Township	Knowlton Township has a long history and a number of tourist attractions, In order to let more people know about Knowlton, Environment Committee of Knowlton decided to conduct a comprehensive inspection for Knowlton, and produced a series of maps to summarize and publicity. With Environment Committee of Knowlton guidance, we conducted field visits and collected related data with specialized equipment. Then we set up a database about Knowlton. In order to distinguish these data, finally we got four maps after several weeks of effort, this Abstract is mainly about two maps that show the Park area and Zoning area.	Shixiong Hu	Sci Tech Auditorium

EAST STROUDSBURG UNIVERSITY OF PENNSYLVANIA

Student Research & Creative Activity SYMPOSIUM

April 23, 2015



A Member of the Pennsylvania State System of Higher Education

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SPECIAL THANKS

ESU Council of Undergraduate Research
Darlene Farris-LaBar
Luis A. Vidal
Stephanie French
Cem Zeytinoglu

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WELCOME TO EAST STROUDSBURG UNIVERSITY'S STUDENT RESEARCH AND CREATIVE ACTIVITY SYMPOSIUM

The purpose of ESU's Student Research and Creative Activity Symposium is to provide undergraduates and graduate students a space to showcase their work! In doing so we come together as a campus community to celebrate our collective efforts at achieving what Jean Piaget has deemed education's principle goal: to create "men and women who are capable of doing new things, not simply repeating what other generations have done."

— Kevin Quintero and Bonnie Green, Committee Co-chairs

COMMITTEE MEMBERS

Bonnie A. Green (Committee Co-Chair)
Kevin Quintero (Committee Co-Chair)
Sarah Goodrich
Robert Marmelstein
Tracy Whitford
Jaedeock Lee
Yoshi Tanokura
Maryellen Mross
Darlene Farris-LaBar
Cem Zeytinoglu
Terry R. Barry
Patricia Kashner
Caryn Fogel
Anthony Caprario (Graduate Assistant)

SCHEDULE OF EVENTS

9 a.m. – 11 a.m.
POSTER PRESENTATIONS.....PAGE 2
1st Floor Lobby
2nd Floor Lobby

9 a.m. – 2 p.m.
CREATIVE ARTS INSTALLATIONS AND PRESENTATIONSPAGE 10
(by Theatre and Art + Design Departments)
Various locations

- 9 a.m. – 2 p.m. A Midsummer Night’s Dream Art Installation (Art + Design 3-D Design class)
- 10 a.m. – 11 a.m. Shakespearean Sonnets (Theatre Department)
- 11 a.m. – 12 p.m. Dreaming Up Midsummer Madness (Theatre Department)

11 a.m. – 12 p.m.
SPECIAL PRESENTATIONS.....PAGE 11
(by Computer Science and Biology Departments)
Niedbala Auditorium

- Anthology of a robotics team: Soldering, Coding, and Caffeinated Beverages (Computer Science)
Rudolf Geosits and Rick Ramgattie, computer science and computer security majors
- Changes in the Community Composition and Distribution of Bats in the Delaware Water Gap National Recreation Area Following the Emergence of White-Nose Syndrome (Biology)
Christopher L. Hauer M’14, biology, recipient of Thesis of the Year Award

11 a.m. – 2 p.m.
ORAL PRESENTATIONS.....PAGE 11
Classrooms 135, 136, 146

12 noon – 2 p.m.
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Niedbala Auditorium

2 p.m.
KEYNOTE SPEAKERPAGE 1
Niedbala Auditorium
The Search for Habitable Worlds: Dr. Debra Ann Fischer, professor of astronomy at Yale University

KEYNOTE SPEAKER

Dr. Deborah Fischer
Professor of Astronomy
at Yale University



The Search for Habitable Worlds

One of the great successes of modern astronomy was the discovery of a Jupiter-mass planet orbiting the sunlike star, 51 Pegasi in 1995. Since then, hundreds of planets and planetary systems have been detected; however, most would not be habitable for carbon-based life as we know it. The next frontier for exoplanet science is the discovery of analogs of Earth, laden with oceans of water. The discoveries that we have already made hint that these worlds should be common and new instruments are now being designed with the required sensitivity to find them. These are discoveries that will jolt the perspective of humanity and awaken a new view of the Universe.



POSTER PRESENTATIONS

ART + DESIGN

Student(s)	Title	Abstract	Sponsor	Poster Location
Abbey Ovadia	Mr. Smore	Mr. Smore is a convenient, attractive smore kit you can display on your kitchen counter, or bring along on a camping trip. The main piece will look like a smore, with four compartments/storage containers stacked on top of each other. One will look like and hold the bottom graham crackers, One will look like and hold the marshmallows, one for chocolate, and the other one for the top graham crackers. He will look like a cartoon smore character, with feet to stand up, a face, and arms that will be optional, detachable roasting sticks, and will make great smores.	Darlene Farris-LaBar	1.01
Cedric Mann	Lighthouse Contact Filler	A lighthouse that has a contact case at the bottom of the base of the lighthouse with a slide climbing up the sides leading to the top of the lighthouse. The purpose is to squirt the solution to the contacts in the top of the lighthouse, and the solution works its way down the slide and will fill up the case.	Darlene Farris-LaBar	1.02
Christy Flynn	Work vs Play	This is to show you that no matter how old you are even while working you can still have fun. My objective is to show the world that no matter how old you are you can still be creative and play. I am creating a magnetic sculpture that everyone of all ages can use to de-stress and decompose through-out the workday or average day. It helps to create imagination and to all the person to be more productive if given the time to re think things in life.	Darlene Farris-LaBar	1.03
Jeff Reitz & Ed Nufrio	The Art of 3D printing	Where are entering this student research and creative activity symposium to show case the advancements in 3D printing? The 3D objects that we are show casing are toys that we have designed in the 3D software program Rhino 5. The toys where printed out with Dimensions SST 1200 3D printer.	Darlene Farris-LaBar	1.04
Kevina DiNicola	Dumbsticks	Dumbsticks are drumsticks with built in microphone and memory card that retains and stores the notes that you play while drumming. The memory card can then be removed from the carbon fiber composite stick and placed into your computer. With downloadable software, the notes stored on the memory card will be transcribed into sheet music. Teachers and musicians will now be able to spend less time jotting down what they just played and more time creating.	Darlene Farris-LaBar	1.05
	Put a Ring on It	Put a Ring on It is a personalized globe that encases your special day. From the nail polish you wore, to the bouquet of flowers you cradled down the aisle, the rings that tied your love together and the music that you danced to. The tempered glass globe will perfectly showcase your fondest memory.	Darlene Farris-LaBar	2.28
Morgan Weissbach	Ink	This is a collection of ink works.	Darlene Farris-LaBar	2.29
Patrick McPartland	Strandbeest	I'm creating a mechanical sculpture that uses windowpower to move itself. It's going to be designed being based off of the Strandbeest projects. It'll use a windmill to power a shaft that turns all of the legs enabling it to move along	Darlene Farris-LaBar	2.30
Paul Burke	SandLabyrinth	My product is a combination of food and play. It has become popular for children (and adults alike) to carry their sandwiches in hard, plastic containers, opposed to the outdated sandwich bag, so to not squish their lunch. I am creating a fun twist to the sandwich container. On top of the lid will be a labyrinth with a simple ball/marble enclosed with a transparent plastic cover. This creates a fun distraction while getting to school or traveling home.	Darlene Farris-LaBar & Stephanie Daventry French	2.31
Evelyn Barone	Paper Clay	This project will be a presentation of my work with paper clay. It will detail the process of making, and working with it for the first time. It will include a poster presentation describing my work with paper clay and contrasting it with traditional ceramic clay as well as small examples of my work.	Joni Oye-Benintende	2.32

ATHLETIC TRAINING

Student(s)	Title	Abstract	Sponsor	Poster Location
Steven Malvasi	Removal Time and Efficacy of Total Facemask Removal Throughout One Division II Football Season	To examine the time it takes to remove an entire football face mask throughout one season.	Brian Gloyeske	1.06
	Simultaneous Rupture of the Anterior Cruciate Ligament and Patellar Tendon in a Professional Arena Football Player: A Case Report	To present the rare case of a concurrent anterior cruciate ligament rupture and patellar tendon tear	Brian Gloyeske	1.07

BIOLOGICAL SCIENCES

Student(s)	Title	Abstract	Sponsor	Poster Location
Danae Pugh & David Waiters	Shawnee Inn Floods	In the past, the Shawnee Inn & Golf Resort has had great issues with flooding. The first calamity would be the Great Flood of 1996. This flood not only left a perpetual impact on the outside property of the resort and the inn itself, but also caused numerous financial burdens. Unfortunately, the floods of 2004, 2005, and 2006 were no different. These tragedies caused Shawnee Inn & Golf Resort to become more aware of the destructive power of a flood. With the information they've gained, they can now better protect the resort from future flood damage.	Paul Wilson	1.08
Raymond A. Macik	Estimating Sources of Fecal Coliform in the Lower Brodhead Watershed	Coliform studies from past years showed high amounts of fecal bacteria in the lower Brodhead Watershed. In the summer 2014, high levels appeared to be originating from Big Meadow Run near the Arlington diner and a tributary entering the Brodhead at Dansbury Park. Further analysis revealed the most likely source of coliform at Dansbury may be coming from locals feeding a crowd of ducks. More studies will be completed to determine the coliform source(s) on Big Meadow Run.	Paul Wilson	1.09
Christopher Powers	Testing for GMO products in "Organic" labeled vegetables purchased from local food stores in the Stroudsburg area of Pennsylvania.	Here in America, the USDA certifies "organic" foods as free from genetically modified organisms (GMO's). However, a lack of control over the spread of GMO genetics into other food sources raises concerns that "organic" consumers are purchasing foods contaminated with GMO products. This study examined the integrity of the "organic" label in vegetables sold in the Stroudsburg area of Pennsylvania. DNA was isolated from vegetables and PCR performed for the presence of DNA cassettes used frequently in the development of GMO plants. The results are presented in this poster session for the East Stroudsburg University chapter of Sigma Xi.	Thomas LaDuke	1.10

CHEMISTRY AND PHYSICS

Student(s)	Title	Abstract	Sponsor	Poster Location
Michael Montone Daniel Vagie Tony Westpy	Synthesis of hexa-substituted Cyclophosphazene Rings for Electrorheological Analysis	The synthesis, identification, and characterization of a specific hexa-substituted cyclophosphazene ring is being analyzed. The research aims to validate the synthesis as a viable means of synthesizing the target molecule and to show whether or not the molecule exhibits electrorheological properties. Multiple forms of analysis including IR spectroscopy, UV/Vis spectroscopy, melting point analysis, and TLC are used to identify what products have been made. Spartan 14 is used to predict the IR spectra. In association with the physics department, the electrorheological properties are analyzed through UV/Vis analysis in the presence of a strong electrical field.	Alan Shaffer & John Elwood	1.11

COMMUNICATION STUDIES

Student(s)	Title	Abstract	Sponsor	Poster Location
Kelly Granillo	Foundacion ANAR	An inside look at Fundacion ANAR a non for profit child advocacy organization that branched off of a treaty implemented by the United Nations in 1970 to defend and protect children and adolescents. This presentation focuses on a particular Public Relations campaign started by the organization to reach the group age they had the least contact with. Fundacion ANAR is an organization that has no limits and will stop at nothing to reach children and youth at risk, even if that means using the newest technology in adverting to reach children who are with their aggressors twenty four seven.	Cem Zeytinoglu	1.12
Bari Antell	Defining Online Dating Based Upon the Coordinated Management of Meaning Theory	This paper summarizes previous research exploring the theory of Coordinated Management of Meaning. The presentation will apply theoretical understanding from past research to online dating, a subject of increasing interest to college students and beyond. The results suggest that individuals form ideas and opinions of online dating through the review of other individual's experience. As reported through their friends, blog sites, television shows such as Catfish, other social media forces, and reviews of online dating sites such as match.com, which give the idea that online dating is a positive experience.	Andi McClanahan	1.13
Danielle Nicole Perez	Societal Outcasts: Michel Foucault and the Role of Madness in Society	Michel Foucault's approach to rhetoric was unique and different from anyone else before his time. While many rhetoricians were focused on the aesthetical aspects of rhetoric, the rhythm and tone of it or the nicely fixed sentences dressed in adjectives and metaphors, Foucault focused his attention on topics less widely researched. Foucault examined the ways in which, throughout history, certain groups of people, as well as certain beliefs, were disregarded by the mainstream. The madmen, the insane, and the societal outcasts was where Foucault found his inspiration and was one of the ways he changed the perception of discourse forever.	Cem Zeytinoglu	1.14
Melissa Valentovic	FCKH8 PR Case Study	This public relations study focuses on the for-profit t-shirt company, FCKH8.com and the ads that they have used to sell their products. The ads depicting young girls dressed as princesses cursing for feminism became viral on social media this past fall. During my research I found that while FCKH8.com stands for social issues such as equality in race, gender, and sexuality, they are actually profiting from the very issues that they claim to stand against. One particular incident occurred when one charity, Race Forward, stated on their blog they would not accept any donations from FCKH8.	Cem Zeytinoglu	1.15
Jessica Haasz	The influence of communication channels on College Students' Knowledge of and Attitudes Toward a Local Medical Center	This research reports on an exploration of the channels of communication through which college students learn about and develop attitudes toward a local medical center. Focusing on a number of independent variables, this study uses an online survey to assess the continuing viability of Grunig's situational theory of publics to predict active and passive communication likelihood and behaviors. The results of the survey will add to an understanding of the relevant strength of various channels of communication as well providing model of students' knowledge and attitudes, while serving as a resource to help expand healthcare communication research.	Patricia Kennedy	1.16

COMPUTER SCIENCE

Student(s)	Title	Abstract	Sponsor	Poster Location
Nicholas DiFeo	Maze Chase	"Maze Chase" was an assignment for Dr. Marmelstein's Computer Game Development (CPSC 442) class in Fall 2014. The game is an implementation of the classic videogame, Ms. Pac Man. It works using either a computer or an Xbox 360 game system. There will be a poster explaining the history, design and underlying logic behind the game. Attendees will be able to walk up and play the game on a television using a joystick.	Robert Marmelstein	1.27

DIGITAL MEDIA TECHNOLOGIES

Student(s)	Title	Abstract	Sponsor	Poster Location
Olivia Marchesani	Metal and the Media	There are many misconceptions of metal that are brought on by media, and because of these misconceptions and stereotypes fans are often alienated and blamed for heinous crimes because it's an easy scapegoat. That being said does the medias representation of the typical "metalhead" actually effect the general public's perceptions the "metalhead"?	Beth Sockman	1.28
Eman Albuhumud	A Preference e-textbooks versus print textbooks context for the college classroom	The studies of some universities have just switched from using paper textbook to e- textbook to examine student preferences for textbooks, reading, and learning. Currently, the college students examine e-textbook in general higher education classroom but this does not necessarily mean it is effective. This proposal research will show why the university needs promote and offer further professional development to effectively use of e-textbook and to in-crease the quality of teaching and learning in the classroom in order to assess students' preference, enjoyment and to increase their grade.	Carol Walker	1.29
Julie J. O'Leary	Interactive Educational Math Videos with Embed-ded Questions versus Tra-ditional Linear Educational Math Videos	The use of videos in education is becoming increasingly popular. Now inter-active videos are starting to catch on. This study will attempt to find if the use of interactive educational math videos with embedded questions increases learning among adults when compared to the use of traditional linear educa-tional math videos.	Carol Walker	1.30
Rehab Saadoun	The Effect of Using Google Docs in Learning for Uni-versity Students' in Saudi Universities to Increase Instructional Achievement	Technology has not limited in one area. With emergence of digital technology linked with education, students have grown up completely with technology. Insert Web 2.0 such as Wiki and Google Docs to confirm effectiveness of integrated technology in learning. Collaborative learning help students to work together in a community of learning, where they acquire new skills, enhance students learning of the social skills and share ideas and experiences. Using Google Docs and an online word processing application in education enhances teaching and learning and changes traditional ways of learning to technology collaborative learning.	Carol Walker	1.31

ENGLISH

Student(s)	Title	Abstract	Sponsor	Poster Location
Katelin Delano	Anxiety and Student Writing	By collecting data inside my internship classroom Composition 103 and through scholarly research, I am investigating anxiety in college writers. My hypothesis is that students who enjoy writing are more susceptible to writer's anxiety because they care more about the writing process. I am focusing my research on three major questions. First, which kind of student is most sus-ceptible to writer's anxiety? Second, what part of the writing process causes students to feel the most anxious? Third, what strategies help to alleviate writer's anxiety?	Sandra Eckard	2.01
Amanda Schreck	Yoga & Meditation Podcast	I will be presenting an audio podcast explaining the four biggest misconcep-tions of meditation. The information I will talk about in the podcast are based off of an infographic from an article on The Huffington Post. The podcast will go through each of the four misconceptions, and my personal tips on how to combat them. The podcast will end with a guided meditation to help everyone find a few moments of peace in their busy day. I will also have a poster display outlining the misconceptions and my personal tips on meditation.	William Broun	2.02
Crystal Smith	Present 5 in 3D Art Gallery	My profile presentation consists of a visual walkthrough of the Present 5 in 3D, which was located in Madelon Powers Art Gallery in Fine Arts. It showcased five different successful artists who used 3D printers to create art. The visual walkthrough was created with a Nikon Digital SLR camera, edited in Windows Media Movie Maker with credit to the gallery, and music was added for dramatic effect. My presentation showcases the use of multimedia in journalism and how it can impact the reader more than just words on a screen or piece of paper.	William Broun	2.03

MODERN LANGUAGES

Student(s)	Title	Abstract	Sponsor	Poster Location
Kelly Cappello	History is not Always Told by the Victors	Since the borders of Spain were closed for 40 years, the publications of Requiem for a Spanish Peasant and The Family of Pascual Duarte are significant in that each exposes the real horrors of Franco's reign to the rest of the world despite the possible punishments each would have faced if found guilty of denouncing Franco. This project discusses the sneaky symbols each author employed in order to expose the horrors of Franco and examines the ways in which each author managed to publish his critical work under such a tightly ruled regime.	Esther Daganzo-Cantens	2.04
Thomas Zayac	La conducta de Pascual Duarte- ¿Innato o adquirido?	This thesis paper explains how Pascual Duarte's behavior, an infamous literary character in Spanish literature, could be reasoned through both his nature and how he was nurtured.	Esther Daganzo-Cantens	2.05
Valeria Echeverry	Violence as a Means of Control in Spanish Literature	I took four stories, all written by different Spanish authors (from Spain) at different time periods, and was able to find a reoccurring theme in them- the means of violence as control. Neither author had influenced each other, but their writings were influenced and reflects the history of their country. I explain how their different writing techniques: framing devices, naturalistic views, metaphors, etc., are so different, how the plots are so unique, but the message is the same. Violence creates fear, fear creates power, and with power there is control.	Esther Daganzo-Cantens	2.06
Belinda Nguyen	An Analysis of Iconic Paris	Paris is one of the world's most renowned cities for its treasures and beautiful masterpieces that attempt to capture its beauty or make a statement about it. These creations vary in many types of media, such as film, photography, music, and etc. Speculating celebrated works that embody its essence, I analyze and critique differing types of representations in respect to my own experience with the capital and propose a perspective on the reality of Paris versus the fallacy of Paris.	Paul Creamer	2.07

POLITICAL SCIENCE

Student(s)	Title	Abstract	Sponsor	Poster Location
Nichole Burkhart, Chantal Fulgencio, Colleen Sullivan, & John Martocci	EuroSim: Preparing the Future Leaders of Europe	EuroSim is an interactive, student-run simulation in which participants from universities within the United States and Europe engage in hypothetical negotiations over an assigned piece of European legislation. Topics in the past have ranged from minimum wage, to human rights, to this year's topic of cyber security. EuroSim teaches students useful skills such as strategies of negotiation, working with and around diverse cultures, and how to critically analyze information while remaining completely independent from direct faculty advising. This research seeks to compare experience students gain at EuroSim with actual practices within the government of the European Union.	Johann Eliasson	2.08
Kacey Jennings, Liam Polinski, Frederick Ackerman, Mathilde Tank-Munier, & Jim Dimitriou	EU and US Cyber Security Comparison	No issue is more important and less understood than cyber security. Due to the interconnected nature of data sharing and the fact that the EU and US account for half of all global trade, examining how each deals with cyber security is significant. Recent revelations of cyber security breaches involving multinational corporations and data collection by the NSA makes the examination of this relationship extremely relevant. There is no global standard on how to deal with network security issues. This research examines how each legislates in terms of money spent, agencies involved, and data protection and retention policies.	Johann Eliasson	2.09

PROFESSIONAL & SECONDARY EDUCATION

Student(s)	Title	Abstract	Sponsor	Poster Location
Gabrielle Gombos	The Popularity of Student-Generated Assignments	In English 486, I have acted as a supplemental instructor. This position allows me to shadow Dr. Eckard while learning about lesson planning, grading, conferencing, and many other aspects of teaching. Throughout my experiences, I have been utilizing data collection to learn more from the students in Dr. Eckard's Writing About Young Adult Literature class. I believe student-generated assignments are more successful due to student investment. My research will be analyzing the pros and cons to student-generated written assignments, and I will be trying to discover why these assignments are so popular amongst college students.	Sandra Eckard	2.22

PSYCHOLOGY

Student(s)	Title	Abstract	Sponsor	Poster Location
John Herrmann &	The Popularity of Student-Generated Assignments	In English 486, I have acted as a supplemental instructor. This position allows me to shadow Dr. Eckard while learning about lesson planning, grading, conferencing, and many other aspects of teaching. Throughout my experiences, I have been utilizing data collection to learn more from the students in Dr. Eckard's Writing About Young Adult Literature class. I believe student-generated assignments are more successful due to student investment. My research will be analyzing the pros and cons to student-generated written assignments, and I will be trying to discover why these assignments are so popular amongst college students.	Sandra Eckard	2.22
Sean Hall	Is There a Reciprocal Relationship Between the Processing of Spatial Language and Non-temporal Spatial Tasks?	Recent studies have examined how language might influence perception of time with some showing a relationship and some not. We asked whether spatial language and non -temporal spatial processing might have a reciprocal effect on processing speeds. Participants completed math problems presented either horizontally or vertically and then answered questions about the vertical relationship between objects. We found no significant effect of spatial congruence on reaction times but found significant gender differences. We discuss possible implications.	Irina Khusid	2.10
John Herrmann & Alyssa Sandoval-Coscia	Irresponsible Online Shopping Habits of Freshman College Students	Research has shown that students are not generally equipped with the financial literacy to use credit cards responsibly. We examined differences in online shopping behavior between students who lived on campus and students who commuted. We predicted that students who live on campus would report shopping more frequently online than commuters. Participants completed a survey that gathered information related to credit card indebtedness and shopping habits. We found a significant difference in online shopping behavior between the groups. Participants that lived on campus tended to shop 30 minutes longer online than commuters.	Rick Wesp	2.11

SPEECH-LANGUAGE PATHOLOGY

Student(s)	Title	Abstract	Sponsor	Poster Location
Megan Hau	Evidence for Discrepancies Between Expressive Language Competence and Performance in Children With High Functioning Autism	This study compared expressive language skills of four children, ages 8-12, with high functioning autism to four normal controls, using subtests from a formal measure of language competency (CELF-5) and to a formal measure of language performance (TNL). Results revealed that children with autism performed significantly lower on measures of performance as compared to measures of competency.	LuAnn Batson-Magnuson	2.23

SPEECH-LANGUAGE PATHOLOGY (CONTINUED)

Student(s)	Title	Abstract	Sponsor	Poster Location
Emily R. Doll, M.A.	Classification Validity of the Preschool Language Scale-5 Screener	Successful early identification and intervention for young children with speech and language disorders maximizes academic achievement and reduces negative effects on self-esteem. There is a need to evaluate the accuracy of screening instruments used for pre-kindergarten students. The current study presents preliminary findings assessing the ability of the Preschool Language Scale-5 Screener (PLS-5) to identify children needing referral for complete speech/language evaluations, by calculating sensitivity, specificity, and positive and negative predictive values. Study results can inform practitioners' selection of assessments, and ensure that intervention resources are focused on the children who most need speech and language support.	Rachel Wolf	2.24

SPORT MANAGEMENT

Student(s)	Title	Abstract	Sponsor	Poster Location
Dana Wieller	The Influence of Social Media on Female Body Image	The purpose of this study was to examine the effect of subliminal messages and athletic representation of female athletes on the body perceptions of collegiate female athletes. Research has found that there is positive relation between female athlete body dissatisfaction and eating disorders. (Gaines, 2014). The objective of the research was to assess whether such effects varied depending on gender and level of competition. Data will be collected by using surveys that consisted of questions that addressed gender, sport participation, levels of exercise, eating habits, and feelings towards oneself in and out of sport.	Jaedeock Lee	1.23
Elizabeth Graeber & Andrew Stevens	Are There Positive Effects to Hosting a Super Bowl?	This paper guides an understanding of results from cities within the U.S. who have hosted the Super Bowl. Some of these cities suggest that they benefited directly and indirectly financially over a period of time (Dedman, 2012). Others have noticed more of the image the city has made for them in a positive manner (Schimmel, 2006). This paper works on a variety of aspects that are put into hosting a Super Bowl. A large number of these ideas and process' are many the consumer cannot see from the eye, but are the effects that make the biggest impact.	Paula Parker	1.24
Joseph DeMattia	The Alcohol Bowl: The Impact of Alcohol Sales on Profit and Fan Aggression in College Football Stadiums	The proposed study will examine alcohol sales at college stadiums and its impact on fan behavior and economic profit. Out of 128 college football teams only 31 stadiums sell alcohol; of these, 21 have their stadiums on campus (The Drinking Age, 2013). A survey will be designed to assess fan behavior and perceptions of alcohol use. This survey will be distributed at two Division-I colleges- one selling alcohol and one not. Additionally, data regarding fan incidents will get obtained from stadium security.	Paula Parker	1.25
Laura Flynn	Media Coverage of the Female Athlete: Are they represented the same as Male Athletes?	Since Title IX was implemented in 1972, there have been significant improvements for female athletes. Even though there has been an increase in participation amongst female athletes, there are still numerous discrepancies between male and female athletes; one of these being media coverage. Media is the main form of how Americans obtain information. The media highlights female-athletes for their physical attractiveness instead of athletic ability (Kane, 1996). The purpose of this study is to determine how much media coverage female athletes receive, while also looking into how the media and sports fan portray female athletes.	Paula Parker	1.26
Michael Paul Gabriel	Effects Of Concussions on Youth VS College Hockey Players	When researchers (Marchie & Cusimano 2003) dug further into the growing problem of player safety and concussion, they realized that when looking at players from 9-17 years of age, 10-12% of these individuals suffered from hits to the head, leading to concussions. The fact that this was going on at this age shows that there is a major gap in communication between the players and coach regarding player safety. The goal of this paper is to see if there are the same problems in youth and collegiate hockey.	Paula Parker	2.12

SPORT MANAGEMENT (CONTINUED)

Student(s)	Title	Abstract	Sponsor	Poster Location
Monica Martinek	Risk Management in Campus Recreation	Risk management is a major part of any business including campus recreation. It is the process to reduce or eliminate certain hazards or threats that can impact a business in a negative and catastrophic way (McGuiness, 2014; Stier, Schneider, Kamf, 2008). The purpose of the proposed study is to identify which methods of risk management are being utilized by campus recreation in different regions of the United States and which methods are effective with reducing liability and promoting a safe environment. To evaluate the risk management programs, a qualitative digital survey will be sent out to various campuses nationwide.	Paula Parker	2.13
Thomas M. Janz	Adaptation Among National Hockey League Players Whose First Language Is Not English	The purpose of the proposed study is to explore the adaptation processes of National Hockey League (NHL) players who do not speak English as a first language. The similarities and differences of the experiences of the athletes will be analyzed based on a number of factors including language spoken by the players and their use of each of Fiske's five adaptation processes (2004). The study will use explanatory mixed methods beginning with a questionnaire for all non-English speaking NHL players, followed by interviews with a purposive sample of respondents to gather more detailed information.	Paula Parker	2.14
Brandon Phillips	A Strategic Approach of Dynamic Ticket Pricing and its Implementation into a National Football League Team Organization	With ticket pricing being one of the biggest revenue generators in professional sports, every major league sport organization throughout the United States are looking to capitalize on dynamic pricing. It is the "art and science of setting stadium seat prices based on real-time market demand and other data (Shea, 2014)." The main purpose of this study was to determine how successful the NFL would be if they implemented dynamic pricing into their ticket pricing strategies with an effective method similar to the MLB and NBA. NFL employees in ticket sales will partake in surveys via email.	Paula Parker & Jaedeock Lee	2.15

THEATRE

Student(s)	Title	Abstract	Sponsor	Poster Location
Gabrielle Gombos	The Sexuality of Salome	After reading the play, Salome, by Oscar Wilde, I analyzed the many uses of sexuality within the play. Wilde dives into virginity and purity, the idea of "looking" in a sensual manner, and through both the discussion of physical interactions and actual physical interactions in order to present sexual moments within the play. Salome continues to be recognizable in other aspects of pop culture such as art work and even an opera created utilizing Wilde's play. Through my research, I looked at beliefs of the time period showing how the sexual appearances led to the censorship of Salome.	Margaret Ball	2.25
Eric Caulfield	Linguistic Relationships and Social Class in George Bernard Shaw's Pygmalion	Pygmalion, the play written by renowned author George Bernard Shaw, creates a fictitious circumstance in which there is a direct relationship between linguistics and social class in early 20th century England, where language determines one's placement in the social structure and his or her survivability. This research uses classic literature to represent the still prevalent concerns of sociolinguistic difference, namely, Western culture's false belief that dialect is indicative of intelligence and language complexity. There is in this study an analysis of phonetics, phonology, semiotics and pragmatics in relation to the main character's sociolinguistic status throughout the play.	Margaret Ball	2.26
Asia Burnett, Tyrell Clark, Dontel Ducksworth, Luis Feliciano, Hunter Fogel, Jamil Joseph, John Lauri, Zack Lee, Rebecca Regina, Michelle Reyes, Christopher Robinson, Andrew Scoggin, Naomi Snyder, & Destiny Washington	Dreaming up Midsummer Madness	We will demonstrate our work leading to the creation of major elements of ESU's theatrical production of A Midsummer Night's Dream. Student sound designers, Michael Lloret, Jamil Joseph and Asia Burnett, will discuss their research and preparation to put together the soundtrack for the play. Student Hunter Fogel will demonstrate some aspects of dramaturgy (production research). Student actors will reveal the research, analysis, scansion and other preparation required to perform Shakespeare. Students will also periodically perform excerpts from the play.	Stephanie Daventry French	2.27

CREATIVE ARTS INSTALLATIONS AND PRESENTATIONS

(by Theatre and Art + Design Departments)

ART + DESIGN 3-D DESIGN CLASS A MIDSUMMER NIGHT’S DREAM ART INSTALLATION

Students in the Art + Design Department’s 3D Design course, taught by Prof. Darlene Farris-LaBar, will enliven the outdoors by creating a sculptural installation of art in the front of the Science and Technology Building. As collaboration with the Theater Department, the installation’s theme is based on the Shakespearean play, Midsummer Night Dream. The installation will be made from recycled material (natural and synthetic) such as plastic bottles and tree branches while resembling a magical forest at night as imagined from the play.

Students

Amy Corradino, Shanice Dailey, Kevina Dinicola, John Easton, Alexandra Farley, Joseph Fitzgerald, Quincy Graham, Aisling Kerr, Maryruth Maichin, Bailey O’Leary, Kaila Parkin, Tabitha Patrick, Alisha Rohrer Victoria Salvadge, Alyssa Seiders, Sarah Shiner, Sean Smith, Julian Tabb

Sponsor

Darlene Farris-Labar

CONNECTING TO SHAKESPEARE’S SONNETS

William Shakespeare’s (1564-1616) 154 sonnets are considered to be some of his most popular works. Their themes examine the passage of time, love, beauty, and mortality. In Voice for Performance class students develop their vocal production, including: alignment, articulation, pronunciation vocal range and quality. They analyze all works connecting their voices to the imagery and emotions in both contemporary and classical texts.

Students

Gregory M. Alexander, Jannel Armstrong, Emily A. Botke, Asia Burnett, Tyrell G. Clark, Ashleigh C. Coles, Luis A. Feliciano, Gabrielle M. Gombos, Michael A. Hinton, Rongze Ji, Jamil Joseph, Christopher Kusiappouh, John Lauri, Ciara A. Logan, Yeshu Mou, Sara R. O’Donnell, Kaseem E. Parsley, Madison C. Petro, Katherine R. Reardon, Christopher W. Robinson, Rebecca G. Roeber, Ayuana Rosario, Cherval S. Royster, Briana C. Schell, Andrew T. Scoggin, Brian M. Silva, Sophia G. Thompson, Zhane A. Warner-Duncan, Destiny Washington, Yi Yu, Yanjun Zhan, Meijun Zhou

Sponsor

Margaret Ball

DREAMING UP MIDSUMMER MADNESS

We will demonstrate their work leading to the creation of major elements of ESU’s A Midsummer Night’s Dream. The student stage manager, who runs the entire show during performance, will show and speak about her production book including the work she had to do to be ready for this large responsibility. Student sound designers, Michael Lloret, Jamil Joseph and Asia Burnett, will discuss their research and preparation to put together the soundtrack for the play. Student actors will reveal the research, analysis, scansion and other preparation required to perform Shakespeare. Students will also periodically perform excerpts from the play.

Students

Asia Burnett, Tyrell Clark, Dontel Ducksworth, Luis Feliciano, Jamil Joseph, John Lauri, Zack Lee, Rebecca Regina, Michelle Reyes, Christopher Robinson, Rebecca Roeber, Cheryl Royster, Andrew Scoggin, Naomi Snyder, Destiny Washington

Sponsor

Stephanie Daventry French

SPECIAL PRESENTATIONS

(by Computer Science and Biology Departments)

ANTHOLOGY OF A ROBOTICS TEAM: SOLDERING, CODING, AND CAFFEINATED BEVERAGES

Our presentation will describe our experiences in developing the robot we used for the most recent ESU Robotics Competition (held December 2014). We will cover a number of relevant topics, including: the task our robot had to perform, design challenges and how we solved them, how we tested our robot, and how the robot actually performed during the competition. Our presentation will include pictures, videos showing our robot in action, and we will also have a live demonstration of our robot. We will conclude our presentation with lessons learned and advice for aspiring robot hobbyists.

Students

Rudolf Geosits and Rick Ramgattie

Sponsor

Robert Marmelstein

CHANGES IN THE COMMUNITY COMPOSITION AND DISTRIBUTION OF BATS IN THE DELAWARE WATER GAP NATIONAL RECREATION AREA FOLLOWING THE EMERGENCE OF WHITE-NOSE SYNDROME

Changes in the Community Composition and Distribution of Bats in the Delaware Water Gap National Recreation Area Following the Emergence of White-Nose Syndrome.

Student

Christopher L. Hauer M’14, biology, recipient of Thesis of the Year Award

ORAL PRESENTATIONS

COMMUNICATION STUDIES

Student(s)	Title	Abstract	Sponsor	Poster Location
Kelly Cappello	Language is Life: An Analysis of Michel Foucault’s Rhetorical Theory	French philosopher Michel Foucault (1926-1984) revolutionized western philosophy by seeking truth in discourse. Foucault emphasized the connections between discourse, knowledge and power to explain how discourse actually creates the framework from which all reality and truth exist. This study sought to explain, analyze and offer personal reflections about Foucault’s theory. Research, synthesis and interpretation of Foucault’s work revealed future benefit of cross-cultural linguistic references in Foucault’s theory and offered an additional research questions regarding the liberating and constraining qualities of language.	Cem Zeytinoglu	135
James P Carson	Great Intentions and Epic Failure: How to NOT Succeed at a Facebook Viral Campaign	A project for Critical Perspectives on Social Media to achieve viral success on the social media platform Facebook goes awry and still yields valid information regarding how Likes, different posts, and paid advertisement on Facebook effect engagement and reach of the message. Through the unsuccessful viral campaign the limitations of Facebook as a social media platform emerge as well as key failures in the campaign itself which provide insight towards future and, hopefully, more successful social media viral campaigns.	Robert McKenzie	135

COMPUTER SCIENCE

Student(s)	Title	Abstract	Sponsor	Poster Location
Timothy Walter	Expressing Computation with Lambda Calculus	The lambda calculus is a system of computation based entirely on functions. I find it quite interesting that all computation can be expressed in such a simple way. The eureka moment that came when I understood how to represent numbers in the lambda calculus, and also how to translate them out into a concrete form, was quite a thrill. While this presentation will definitely be more interesting to those in the field of computer science, I intend to explain it at a level so that those with no experience can follow along.	Michael Jochen	135
Rick Ramgattie	Factoring a RSA modulus using it's greatest common divisor.	My presentation will describe how I used simple tools available in *Nix systems to verify that the SSL/TLS certificates used by .edu domains are cryptographically secure against greatest common divisor (gcd) factoring. I will cover the tools that I used to obtain the certificates and analyze them, and the algorithms that I used to verify that the numbers in the certificates were secure against gcd factoring.Our presentation will include a graph that shows the amount of .edu domains that have TLS/SSL enabled on their website, the mathematical proof behind using the gcd of two modulus.	Michael Jochen	135
Justin Moore	Developing Competitive Artificial Intelligence Agents as a Non-Trivial Exercise.	My presentation will describe the process for developing competitive artificial intelligence (AI) agents as a non-trivial exercise for learning new programming languages and software development tools. Developing competitive AI agents offers the interesting task of solving a well understood problem with stringent performance requirements. I have developed mancala, checkers, and tic-tac-toe AIs that have competed and performed well against other AIs on hackerrank.com. This presentation will discuss the process of developing an AI, what I have learned, and the implementation decisions made during the development process.	Michael Jochen	135
Rudolf Geosits	Hardware Virtualization in Computer Security	The ability to emulate a hardware system in software has many advantages; however, it's role in computer security (specifically exploit development, analysis, and education) is revolutionary. Virtualization has changed the secure computing market and has an impact on national security. I have developed an open source virtual machine that emulates the Texas Instruments MSP430 processor and peripherals, complete with an interactive debugger designed to aid the software reverse engineering and exploit development process. Although this project is a work in progress, it is usable and presentable, while new features and updates are added continually. Project Home Page: https://github.com/RudolfGeosits/MSP430-Emulator	Michael Jochen	135

ECONOMICS

Student(s)	Title	Abstract	Sponsor	Poster Location
Ryan Adhari, John Domasiewicz, Adam Hendrickson, & Greg Chervin	Economic Effect of American Student Loan Market	The purpose of this research is to compile, analyze, and report on the effects of Student Loan Debt. This research specifically analyzes default rates, employment statistics, debt burden, interest rates, and return on investment amongst recent graduates. Methodology utilized includes, but not limited to time-series analysis and regression analysis to determine trends regarding the variables above and their impact on current/future economic conditions. The goal of this research is to identify whether or not there is a looming global financial crisis derived from the American student loan market as compared to the 2008 mortgage bubble collapse.	Richard Booser	135

ENGLISH

Student(s)	Title	Abstract	Sponsor	Poster Location
Ariel Mickey	The Silicone Stigmata	Based from research done for a final paper, the presentation will be about the mentality of collectors of Reborn Babies and Live Dolls. Several notable documentaries have come out about these types of collectors but most focus on the oddities of the hobby itself while there is clear evidence showcased in the interviews that the subjects are suffering from mental illness or the beginnings of mental illness. This is what the research was done on. These findings are what will be presented during the oral presentation.	Erica Dymond	146

GEOGRAPHY

Student(s)	Title	Abstract	Sponsor	Poster Location
Wenyue Chen and Xiaoyang Qin	Application of GIS in BMPs Program	This presentation aims to show the application of GIS (Geography Information System) technology in BMPs (Best Management Practices) program, and study the advantage and disadvantage of Non-Structural BMPs. First, the introductions of why using GIS technology in BMPs program. Then, the data and all the details are provided by Monroe County Conservation District and the processing of using GIS technology to create a Geodatabase of stormwater BMPs. At last will explain how the Non-Structural BMPs works and the affection.	Shixiong Hu	136
Li , Wei; Jingling, Hu; Zhaxicairang	Structural BMPs	This presentation aims to show the application of GIS (Geographic Information System) technology in BMPs program, and study the advantage and disadvantage of Structural BMPs (Best Management Practices). First, I will provide an explanation on "What Structural BMPs are". Second, what is Structural BMPs Superiority and the analysis when compared with Non-Structural? Third, how to study and analyze BMP using GIS technology? The answer is to create a Geodatabase and build a GIS map.	Shixiong Hu	136
Bingjie Han, Peiyu Gao, Nan Jiang	Application of GIS in Knowlton Township	In order to enable more people to enjoy the scenery of Knowlton Township, Environment Committee of Knowlton decided to do some maps to display it. We carried out field trip, collected data, and built up geodatabases. By using these geo-data, we already made two maps. The first one is intrinsic qualities which is including scenic, natural, recreational, cultural, historic, and archaeological significance in the surrounding area; the other one is resource inventory that using the first map as a base map, and it shows the most prominent characteristics of Proposed Scenic Byway that have impact on the visitor (positive, negative).	Shixiong Hu	136

HISTORY

Student(s)	Title	Abstract	Sponsor	Poster Location
Ryan Clauser	The Fewest of the Few; How the Spitfire Won the Battle of Britain.	From July to October of 1940 Nazi Germany had engaged England in all out aerial war. This time period would come to be known as the Battle of Britain. The British seemed to be hopelessly out numbered and out gunned, however thanks to one fighter aircraft, the Supermarine Spitfire, the British were able defeat the Germans. Research shows that Spitfire was able to win the battle for the British because it would gain air superiority, strategy would be built around it, and it had a clear psychological effect on its enemies.	Michael P. Gray	146

MATHEMATICS

Student(s)	Title	Abstract	Sponsor	Poster Location
Alan Daher, Katie Eaton, Nathan Fegley, Erick Garcia, Liam Gibbons, Thomas Grillo, Sarah Helwa, Nicolas Joyal, Muhamadou Kaba, Philip Kreig, Alek Liskov, Daniel Macrae, Ryan McCullough, Andrew Rispin, Raymond Shiue, Kyleigh Walsh, Brianna Weaver	Solar Hot Water at ESU	The spring 2014 Introduction to Mathematical Modeling class investigated the possibility of using solar energy to heat hot water for the Science and Technology Center, Dansbury Commons, and the pool at Koehler Fieldhouse. This presentation will discuss the process the students used to determine the costs/benefits of using solar heated hot water and their conclusions. This information has been shared with Facilities Management.	Olivia Carducci	146

MODERN LANGUAGES

Student(s)	Title	Abstract	Sponsor	Poster Location
Debbie DellaRagione	The representation of black women in Latin American literature: combatting objectification by remembering history	My research talks about the representation of women, in particular black women from Latin America, in our modern society. In studying the case of some cultural productions (short story, poetry and music) as created by Latin American women such as Celia Cruz and Nancy Morejón, we can perceive the continuous and damaging effects of a colonialist ideology based on racial hierarchies. These cultural productions point to the marginalization of women while dismissing the positive and active role they had in history, as well as reinforce the objectification of black women as sexual objects, a trope used since colonial times.	Annie Mendoza	146

POLITICAL SCIENCE

Student(s)	Title	Abstract	Sponsor	Poster Location
Alexis Lutz	How Past Military Experience Effects the United States Presidency	This research examines the past military experience of United States Presidents and its impact on their military behavior in office. Using cross tabulations, the comparison of active combat, non-active combat, and no military experience is examined to determine Presidential backgrounds that correlates with most likeliness of military use of force.	Adam McGlynn	136
Aisha Abdus-Sabur	"Women and Their Rise to Executive Office in Chile, Liberia, and Finland"	Using a comparative analysis this research explores the level of democracy, the impact of NGOs, the share of females in parliament and the influence of education to determine which socio-political factors have contributed more to the election of a female head of state in Chile, Liberia and Finland.	Kimberly Adams	136
Margaret Barksdale	More Women in the Labor Workforce: Does it Mean More Women in Elected Public Office?	This research design proposes a study that will examine the relationship between women in the labor workforce and the percentage of women in elected office in state legislatures of America. Additionally this research will examine whether different regions of America affect the share of women serving in public office, or do egalitarian views play a much more distinctive role in women being elected to public office. Finally this research will investigate the challenges women in America face when they decide to run for public office.	Kimberly Adams	136
Roberto Albano	"Unions on the Decline: Under Attack or Shift in Ideology?"	This research examines the level of decline in union membership in the fifty states. Using OLS regression analysis, this research explores factors such as unemployment levels, adoption of right to work legislation, the year of adoption, median household income and political ideology to determine their impact on union membership. The expected outcome is that there will be a statistically significant relationship between union membership and political ideology, early adoption of "Right to Work", unemployment and lower wages.	Kimberly Adams	146

POLITICAL SCIENCE (CONTINUED)

Student(s)	Title	Abstract	Sponsor	Poster Location
Mary Haggerty	Proven or Passe?: A Closer Look at the Political Knowledge Gender Gap	This research seeks to examine the gender gap in political knowledge of men and women over time. By modifying the standard political knowledge measurement questions to take gender into account, it is expected that the findings will show that the political knowledge gap has lessened over time.	Kimberly Adams	146
Allison Simon	Women and the U.S. Supreme Court: The Nomination and Confirmation Process of Sandra Day O'Connor and Sonia Sotomayor	This research explores the underlying factors that contribute to president's nomination for United States Supreme Court. This research specifically analyzes the two major judicial nominations during Ronald Reagan's presidency with the nomination of Sandra Day O'Connor and Barack Obama's nomination of Sonia Sotomayor. Using a comparative analysis, this research examines the role of interest groups, the congressional climate, and the members from Senate Judiciary Committee that votes and spoke out during the hearings. This research seeks to investigate significant influences these factors had on each nominee and confirmation process of Supreme Court justices.	Kimberly Adams	146
Anthony Ruiz	Racial Disparities in Public and Private Schools: An Analysis of Counties in the Keystone	This research examines the relationship between public and private schools in terms of racial demographics, and funding. A comparative analysis and two elite interviews are conducted to explore demographic data in Lehigh, Monroe, and Northampton counties. The issue of racial disparities in schools is examined, and is then compared to national data of the northeast. The findings indicate that for public schools there is a wide racial gap in rural areas, while in more urban areas there is not. In private schools the racial gap is more pronounced.	Kimberly Adams	146
Meghan Clearie	Early Voter Turnout: A Presidential Necessity or Nuisance?	This research examines the relationship between voter turnouts in the fifty states. Using OLS regression analysis, the research explores the relationship early voting, absentee excuse required voting, absentee no-excuse required voting, and the political ideology of the state to determine which factors significantly impact voter turnout. The findings indicate that early voting and absentee voting significantly impacts voter turnout.	Kimberly Adams	146

PSYCHOLOGY

Student(s)	Title	Abstract	Sponsor	Poster Location
Kaitlyn Dietrich, Samantha Reilly, Jordan Dardas	The Validation of a measurement of retention at universities	The purpose of the presentation is to discuss the process of creating a valid multi-construct measure of student retention at universities. Methods for operationally defining the constructs, including literature reviews and focus groups, along with proposed techniques for validating this measure will be discussed. Data will be collected on this measure using between one hundred to two hundred participants, as we evaluate content and construct validity using factor analysis and expert ranking. Social desirability will be evaluated using the Holmes Paradigm (2011). Implication for the creation and validation of this measure will be discussed.	Bonnie A. Green	135
Maggie Chase, Omari Lewis, Sam Suranofsky, Shakeemah Hilaire	The Creation and Validation of a Measure of Academic Behavior	The purpose of the presentation is to discuss the process of creating a valid construct that will measure Academic Behavior and the anxiety that presents itself whenever Math/Science courses are involved. Methods for operationally defining the constructs, include literature review, along with proposed techniques for validating the measure. Data will be collected on this measure using between 50-100 participants, as we evaluate content and construct validity. Further procedures to validate and review the measure are in progress and will be discussed in further detail within the measure.	Bonnie A. Green	135

PSYCHOLOGY (CONTINUED)

Student(s)	Title	Abstract	Sponsor	Poster Location
Theresa Gehring, Alejandra Gomez, Omari Lewis, Kaseem Parsley, Adannia Ufondu	Creation and Validation of a Multi Construct Measure of Organizational Diversity	The purpose of the presentation is to discuss the process of creating a valid multi-construct measure of organizational diversity void of contamination from social desirability. Methods for operationally defining the constructs, including literature review and focus groups, along with proposed techniques for validating this measure will be discussed. Data will be collected on this measure using between a hundred and two hundred participants, as we evaluate content and construct validity using factor analysis and expert ranking. Social desirability will be evaluated using the Holmes parading (2011.) Implications for the creation and validation for this measure will be discussed	Bonnie A. Green	135
Theresa Gehring, Elizabeth Mills, Carolyn Scarponi, Allan Smith	Creation and Validation of the Measure of Academic Perseverance	The purpose of the presentation is to discuss the process of creating a valid multi-construct measure of academic perseverance. We will collect data from approximately 100 students for the purpose of finding the construct validity of this measure. The method used for operationally defining the constructs will be literature review. Proposed techniques for validating this measure will also be discussed. We will also make use of expert evaluations of the items and test-retest reliability. Further procedures to validate and revise the measure, along with implications for the use of this measure, will be discussed.	Bonnie A. Green	135
Vincent Stella and George Abdouche	Academic Perseverance	In my research I plan to explain the effects of academic perseverance, and the role it plays in a student's academic career. My research is still a work in progress, however, I will examine the self-perception these students have about themselves, and hopefully develop a way to teach students a healthy way to fail. This study is going to be designed to examine both male and female, people from a mix background, and an age group ranging from 18-26. Furthermore, we will get a population of 100 science major students.	Bonnie A. Green	135
Emily Fitzsimmons, Jacqueline Cassaro, Aisha Prodani, Savannah Doyle	Grant Writing for Undergraduate Students	There are few opportunities for undergraduates to pursue grant writing. This is one of the most difficult and critical aspects of a research program. This poster presents a recent grant writing project called "water challenge" through The Health and Wellness grants of Pennsylvania whereby undergraduate researchers conceptualized a grant, implemented it, and evaluated its program efficacies. The total budget received from the grant was \$1,500. Population consists of faculty, staff and students.	Jyh-Hann Chang	135

SPORTS MANAGEMENT

Student(s)	Title	Abstract	Sponsor	Poster Location
Maureen Ordnung	Attitudes of Student-Athletes Toward Lesbian, Gay, Bisexual, and Transgender Coaches and Teammates	For a long time, athletics has been known as "the most homophobic place on campus" (Jacobsen, 2002, as cited in Roper and Halloran, 2007, p. 920). However, more recent studies suggest and support a trend in which fewer college athletes are showing negative attitudes towards sexual minorities (Anderson, 2011). There is a need to examine relationships between players, coaches, and/or teammates who identify as a sexual minority. The goal of this study is to gather more insight as to if players have decreased levels of respect for coaches or teammates they know or believe to be a LGBT individual.	Paula Parker	136

SIGMA XI RESEARCH FORUM

SIGMA XI POSTER PRESENTATIONS

Presenters	Title	Abstract	Advisor	Poster Location
Devon Lukow and Megan Santiago	Prevalence of IgG Antibodies against Toxoplasma Gondii in Coyote (Canis Latrans) in Eastern United States	Toxoplasma gondii is a single-celled protozoan, and is responsible for toxoplasmosis. Toxoplasma can infect humans, domestic and wildlife animals. Toxoplasmosis is a major concern for immunocompromised patients and pregnant women. Coyote, infected with Toxoplasma gondii can be used as an indicator of the parasites presence in a particular location. Indirect ELISA wasused to examine serum samples from 81 coyotes collected from eastern USA for the presence of IgG to Toxoplasma. The data revealed that 74% of coyotes were positive for IgG to Toxoplasma. Data was correlated with age, gender, and geographical distribution of the tested animals.	Abdalla Aldras	1.17
Drew Costenbader and James Hunt	Settlement recruitment as observed at a field site in Lynnhaven Inlet, Virginia	Oysters play a vital role in ecosystems by filtering water. This experiment sought to analyze the frequency, and abundance of oyster spat in a Chesapeake Estuary. This experiment used Hester-Dendy plates. Six plate-sets were deployed on July 13th. Single square plates were removed once a week and analyzed under a dissecting microscope. Species observed were recorded, described and counted. No oysters were observed to settle on the plates in this experiment. Settlement, instead, was dominated by barnacles and algae. Results of this study will be used to improve settlement survey techniques in an oyster restoration project in Greenbackville, Maryland.	James Hunt	1.18
Shannon Krieg	Comparison of shell sizes and egg number in gravid Terrapins	The purpose of this study was to make a comparison of shell sizes and egg number in gravid terrapins. This project was part of a larger study led by herpetologist Dr. Stone of Kutztown University. The study site was near Wallops Island, VA (where many terrapin nesting sites are located) and the surrounding area. However, it did not include terrapins located on the COSWAY (the bridge that connects Chincoteague Island to the main land). Since the building of this bridge, female terrapin casualties in the area have increased, although this is likely not the only reason. Female terrapins go onto land to nest, while the males stay near the water and never venture onto land once hatched. The diamond back terrapins have long been a part of a fishery that harvests the eggs and adults as a delicacy. At one point this fishery was thriving to the point where terrapins were endangered. Another problem that these creatures face is that they get trapped in crab pots, which are a big industry in VA. These animals need to go to the surface to breathe, which may be prevented by crab pots and the terrapin drownings. This study addressed a simple question: how many terrapin eggs were affected from the death of one gravid female? To find out how many eggs where inside each gravid female, X-rays were taken at the Atlantic Animal Hospital in Accomac, VA. The hospital donated its time and x-ray machine for the project. The pictures were then analyzed using a software program called imagej. Once the images were analyzed, correlation statistics were then run to establish whether or not a relationship exists between shell length and the total number of eggs inside each terrapin.	James Hunt	1.19
Andrew Million, Cassandra Powell, Kyle Holiman, and Dawna Houser	Examining meiobenthic communities in sediments associated with an oyster restoration project in Greenbackville, Maryland	During the summer of 2014, meiobenthic samples were collected and processed from a beach in Greenbackville, Maryland. The site of an oyster restoration project. During the fall of 2014 and spring of 2015, sediment samples were analyzed for types and relative abundances of organisms between 63µ and 500µ in size. A subgroup of these organisms was identified for seasonal quantitative analyses that will be conducted in 2015 and 2016. The goal is to identify changes in the meiobenthic community associated with the restoration project, and potentially to use the identified types as indicators of environmental changes in local sediments.	James Hunt	1.20

SIGMA XI POSTER PRESENTATIONS (CONTINUED)

Presenters	Title	Abstract	Advisor	Poster Location
Lukasz Niemoczynski	Measuring the environmental impact of climate change associated with a living shores restoration project in Greenbackville, Maryland	Climate change is having a measurable impact on coastal communities along the eastern United States. Recent conservation efforts in one such community, Greenbackville, Maryland, have focused on restoring an oyster reef situated along a salt marsh in a region impacted by hurricane Sandy. The goal is to explore how climate change induced sea level rise is impacting the communities of oyster reefs, beaches, and marsh areas. The results of this study will be of tremendous value since the lower Chesapeake region is currently experiencing the greatest environmental impacts from climate change induced sea level rise in the continental United States.	James Hunt	1.21
Christopher Powers	Testing for GMO products in "Organic" labeled vegetables purchased from local food stores in the Stroudsburg area of Pennsylvania.	Here in America, the USDA certifies "organic" foods as free from genetically modified organisms (GMO's). However, a lack of control over the spread of GMO genetics into other food sources raises concerns that "organic" consumers are purchasing foods contaminated with GMO products. This study examined the integrity of the "organic" label in vegetables sold in the Stroudsburg area of Pennsylvania. DNA was isolated from vegetables and PCR performed for the presence of DNA cassettes used frequently in the development of GMO plants. The results are presented in this poster session for the East Stroudsburg University chapter of Sigma Xi.	Maria Kitchens-Kintz	1.22
Ryan Baldwin, Jeffery Carroll, Zachary Gotthardt, Shannon Krieg, Briana Magistro, and Christopher Powers	Watershed Monitoring as part of the Delaware River Watershed Initiative (DRWI)	This work focuses on stream ecology as part of the Delaware River Watershed Initiative (DRWI). The study was conducted within the Pocono-Kittatinny Cluster (PKC) of the DRWI and included the Brodhead, Big Bushkill, and Little Bushkill drainage systems. Changes in agricultural and ecological practices over the last fifty to one hundred years have resulted in degradation of the ecological health and water quality of the Delaware River basin. The purpose of the DRWI is to maintain, and where necessary restore, Delaware River basin ecosystems. In order to guarantee water quality in the Delaware River Basin, baseline biodiversity and water chemistry data must be established for relevant lotic systems. By establishing baseline data, the changes and effect of the DRWI on the Delaware River Basin can be measured. The information that we provide will help to guide our PKC partners in their conservation efforts. The stream chemistry portion of this assessment will focus on measurement of phosphates, nitrates, ammonia, heavy metals, chlorine, pH and conductivity. These are direct measurements of nutrient pollution from agriculture, nutrient runoff, and waste dumping. Aquatic Macroinvertebrates often serve as indicators of aquatic ecosystem health. Macroinvertebrates vary in their sensitivity to pollution and environmental perturbations. As a result community characteristics such as diversity, abundance and composition can be used to assess changes in the aquatic environment over time. The bioindicator portion of this assessment will utilize the same techniques for collection and analysis of samples as are employed by PADEP and other professionals in the field. Biological and chemical data will be compared among the three systems sampled. In addition chemical data will be compared to biological data within each system. Finally all data will be analyzed in light of the proximity of study sites to DRWI conservation projects.	Paul Wilson & Michelle Jones-Wilson	2.16
Kevin Juchno, Corey Janusz, and Nan Jiang	Long-term Population Monitoring of the Timber Rattlesnake (Crotalus horridus) in Pennsylvania	The Timber Rattlesnake (Crotalus horridus) is endemic to the eastern United States. This is an important non-game species that has faced extensive habitat reduction and loss of numbers due to hunting and harassment. Because the Timber Rattlesnake has a low reproductive rate and is susceptible to abrupt population declines, the Pennsylvania Fish and Boat Commission has determined that long term monitoring is needed to continuously assess its status. We will use a combination of Geospatial Analysis of habitat change to assess which populations are experiencing the greatest potential threat levels and a rapid assessment process to determine current population status.	Thomas LaDuke & Shixiong Hu	2.17
Zachary D. Brennan	Characterization of Light Responses In a Marine Annelid (Marenzelleria Viridis) During Anterior Regeneration	Regeneration is the ability to replace body parts that have been injured or amputated. We are using immunofluorescence microscopy to investigate regeneration of the nervous system in Marenzelleria viridis, a marine annelid, and correlating the regeneration process with restoration of the behavioral response to light.	Tracy Whitford	2.18

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Meghan Rabon, Michelle Jones-Wilson, and Ryann Fiascki	Modeling Membrane Partition of Small Molecules Using Alternatives to Octanol as the Lipophilic Layer	The study of partition coefficients is an important concept in biochemistry. A partition coefficient is the ratio of concentrations of a compound in a mixture of two immiscible phases at equilibrium. This ratio can be used to approximate and quantitate hydrophobic behaviors of molecules. Thermodynamic parameters regarding the partition coefficients of biological molecules in a membrane model environment is traditionally performed using octanol/water partition experiments. Octanol is expensive and hazardous. Our research is intended to explore alternatives to octanol as the lipophilic phase. Various oils are being investigated as a less expensive and less hazardous alternative to octanol.	Michelle Jones-Wilson	2.19
Ryan Baldwin & Christopher Powers	Using Analytical Chemsitry Techniques to Gauge Effectiveness of Field Colorimetry	The Delaware River Watershed Initiative (DRWI) focuses upon the restoration of the native ecology of the Delaware River basin ecosystem. This study in particular focuses upon the Pocono-Kittatinny Cluster (PKC), which encompasses the Brodhead, Big Bushkill, and Little Bushkill drainage systems. Changes in agricultural and ecological practices over the last 50-fifty to one hundred years has resulted in degradation of the ecological health and water quality of the Delaware River basin. A variety of projects along the entirety of the Delaware River basin under the DRWI are establishing baseline data in order to track the changing nutrient levels as restoration projects are enacted. The intention for these projects is to monitor the ecosystems and use them as indicators of the effectiveness of the DRWI initiative. As part of the baseline data being established, there are several chemical and physical characteristics of the water are being tested, including phosphates, ammonia, nitrates, heavy metals, chlorine, pH, and conductivity. These are direct measurements of nutrient pollution from agriculture, nutrient runoff, and waste dumping. These parameters are largely measured using pre-prepared powder packets of chemicals produced by Hach that are designed for colorimetry work, and either portable spectrophotometers or desktop spectrophotometers, which are also produced by Hach. However, these methods currently have not been openly tested for accuracy and precision compared to specific EPA standard methods for measuring these parameters. These tests are often done in the field in uncontrolled conditions, which could produce a great deal of error in measurement. The purpose of this study is to test these field procedures against analytical chemistry methods using colorimetry and atomic absorption spectroscopy. This will determine the reliability of the field methods currently used for the ongoing DRWI project.	Michelle Jones-Wilson and Paul Wilson	2.20
Jacqueline Cassaro, Savannah Doyle, Emily Fitzsimmons, Shaquil Roberts, Alexa Strelecki, and Aisha Prodani	Correlation Analysis of COOL Scale with Subjective Happiness and Self-Compassion	Dr. Jyh-Hann Chang published the Development and Validation of the Compassion Of Others' Lives scale in 2014. COOL scale had a high internal consistency with the theoretical definition of compassion. To strengthen the psychometric properties of COOL, additional research was conducted to explore the relationship between compassion towards others, subjective happiness, and compassion for oneself. Subjective happiness measures subjective assessment of whether one is a happy or an unhappy person, self-compassion is defined as extending compassion to one's self in circumstances of perceived inadequacy, failure, or general suffering, and the COOL scale measures one's compassion towards others.	Jyh-Hann Chang	2.21