



ANNUAL UNDERGRADUATE SYMPOSIUM FOR RESEARCH AND SCHOLARSHIP

SATURDAY, APRIL 28, 2018
9 A.M. TO 1 P.M.
OLSCAMP HALL, BGSU

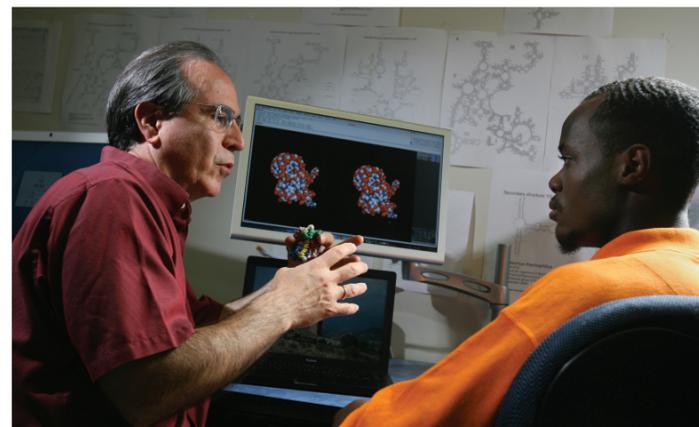
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bgsu.edu/cursresearchposters

The Undergraduate Symposium for Research and Scholarship online evaluation can be found at:

<https://www.surveymonkey.com/r/CURS18>



Help support the Center for Undergraduate Research and Scholarship!

CURS provides grants to students to conduct research, scholarly and creative projects, some of which are being showcased during this symposium. The demand for CURS grants has grown rapidly over the past few years as students discover the benefits from this high-impact learning experience. We are no longer able to fund all of the excellent applications we receive. To increase the number of projects we are able to fund, we have launched a crowdfunding project to raise additional funds for CURS grants. Please consider making a contribution at bgsu.edu/givecurss.

THANK YOU

On behalf of the Center for Undergraduate Research and Scholarship (CURS) and BGSU, I would like to recognize the people whose support has been crucial to the success of our students and this symposium. Thank you to the faculty mentors and research advisors for taking the time to assist these students in becoming the future leaders and scholars in their respective fields. Your guidance is integral to the research process and completion of the project. Thank you to the families and friends of the students we recognized today for building a foundation that encourages academic challenge and engagement, cheering them on throughout the process, and attending the symposium today. Finally thank you to the students for sharing their work with us this morning. It is truly incredible to see what our students are capable of accomplishing and is a testament to the value of a BGSU education.

Dr. Cordula Mora,
Director of CURS

GUEST SPEAKERS



Dr. Cordula Mora grew up originally in Germany and was always very interested in understanding why animals behaved the way that they did. She completed her undergraduate and graduate education at the University of Auckland in New Zealand. There she worked for her Ph.D. thesis with homing pigeons trying to understand how they use the Earth's magnetic field to home back to their loft from completely unfamiliar places. For her postdoctoral studies at the University of North Carolina she investigated the behaviour of loggerhead sea turtles to see how they use various sensory cues to find their way in their home territory as well as during long-distance migrations. In 2009, she joined the Psychology Department at BGSU, where she continued her navigation research with homing pigeons as part of the J.P. Scott Center for Neuroscience, Mind & Behavior. She became the director of the Center for Undergraduate Research and Scholarship in 2014.



Charles Kanwischer is the Director of the School of Art and Professor of Art at Bowling Green State University, where he's been teaching courses in drawing and painting since 1997. He previously taught at Amherst College and Yale University. The majority of Kanwischer's studio practice is based in drawing, with a secondary interest in photography. The various ways that drawings and photographs document and embody time is a central concern of his work. Kanwischer has presented numerous solo exhibitions of his drawings, most recently at Shaheen Contemporary Art, Cleveland in 2017. He's participated in many national and regional group exhibitions including: "The Pencil Show," at Foxy Production in New York City, "Small Worlds" at the Toledo Museum of Art, and "Visions and Revisions, Art on Paper Since 1960" at the Museum of Fine Arts Boston. Kanwischer is the recipient of seven Ohio Arts Council Individual Artist Excellence Awards and his work is included in such public and private collections as the Museum of Fine Arts Boston, the Akron Museum of Art, and the Cleveland Clinic. Kanwischer holds an MFA in Painting/Printmaking from the Yale University School of Art and a BFA in Printmaking from the University of Iowa.

GLASS AWARD

Three students giving an oral presentation and three students presenting posters will be awarded the CURS glass award designed by BGSU faculty member and glass-blower extraordinaire Joel O'Dorisio. This stunning award symbolizes the student (sphere) being embraced by BGSU (orang and brown falcon talons) with the award as a whole also resembling an abstract eye, symbolizing knowledge. Posters and presentations will be judged by faculty volunteers and the winners will be announced several days after the symposium event.



Pictured left to right, Tabitha DiBacco, Tiffany Smith, Allison Humbert, Nicholas Bischoff, Micah Haseman, Kandann Coleman, BGSU President Rodney K. Rogers, Ph.D.



UNDERGRADUATE RESEARCH & SCHOLARSHIP OPPORTUNITIES AT BOWLING GREEN STATE UNIVERSITY

Bowling Green State University strives to increase the visibility, prestige, and material support for participation in research, scholarly and creative activities by undergraduate students. Our belief is that critical and constructive thinking as well as communication are infused into the process of scholarly discovery and the dissemination of results. To that end, BGSU offers programs to enhance the experiential learning experience of undergraduate students by providing support through mentorship, funding, and skill development. Participants do not only experience pride from making an original intellectual or creative contribution within their chosen discipline, but they are better prepared for graduate studies or work-life.

The Center for Undergraduate Research and Scholarship (CURS)

<http://www.bgsu.edu/offices/curs/>

Established in 2004, the mission of CURS is to enhance the undergraduate experience with meaningful research, scholarly, and creative activities in all fields of study. Through experiencing the processes of discovery and dissemination of their results, students become fully engaged members of our learning community.

- Open to all undergraduate students at BGSU from all disciplines
- Fall and spring research grants of up to \$500 for the faculty mentors lab for supplies and a \$200 stipend for the student
- Summer research grants of up to \$500 for the faculty mentors lab for supplies and a stipend of up to \$2,500 for the student are available to support a 10-week (28 hours per week) intensive research project
- Travel grants of up to \$200 for students to present their research, scholarly, or creative activities selected via peer review or juried processes at regional, (inter)national conferences or exhibits.

Contact Dr. Cordula Mora at cmora@bgsu.edu for more information.

Ronald E. McNair Post-Baccalaureate Achievement Program (McNair Scholars Program)

bgsu.edu/offices/sa/trio/mcnair

The McNair Scholars Program is a U.S. Department of Education funded TRIO Program that encourages undergraduate students to pursue graduate studies by providing opportunities to define goals, to engage in research, and to develop the skills and student/faculty mentor relationships critical to success at the doctoral level. Staff work closely with program participants as they complete their undergraduate requirements to encourage them to enroll in graduate programs and to track their progress through to the successful completion of advanced degrees.

- Targets first-generation college students who are economically disadvantaged as well as students from underrepresented racial/ethnic populations with an interest in pursuing the Ph.D.
- Offers research opportunities and presentation experience under the mentorship of a faculty member. Encourages participation in seminars and workshops that assist in understanding the culture of graduate school, the graduate school admission process, and options for financing graduate education.

Contact Tracy Tabaczynski at ttabacz@bgsu.edu for more information.

Academic Investment in Math and Science (AIMS)

bgsu.edu/aims

The mission of the AIMS Program is to establish a world-class training center for graduating-women and underrepresented minorities- STEM Majors. Many of these students will proceed to get terminal degrees in their fields, then ultimately perform cutting edge research, service and/or teaching. Moreover, all should be well prepared to take advantage of an array of opportunities and make valuable contributions as STEM professionals.

- Program is open to incoming first-year students
- Yearly scholarships start at \$2,000 with annual increases for those in good academic standing
- Many program features enhance academic success and preparation for exemplary careers as STEM professionals

Contact aims@bgsu.edu for more information

OLSCAMP HALL MAP-FIRST FLOOR



POSTER PRESENTATIONS

COLLEGE OF HEALTH AND HUMAN SERVICES – HUMAN SERVICES (continued)

Presenter	Poster #	Faculty Mentor	Title of Presentation
Anastasia Kuebler Hannah Gardner Allison Cereghin	129	Hee Soon Lee	A Study on the Coping Skills of Victimized College Students and Implications for Service Provision from Social Workers and Law Enforcement
Anastasia Kuebler Madeline Brandewie Payton Warncke Brittany Warren	130	Hee Soon Lee	The Effects of Growing Up Around Substance Abuse

COLLEGE OF HEALTH AND HUMAN SERVICES – PUBLIC & ALLIED HEALTH

Presenter	Poster #	Faculty Mentor	Title of Presentation
Leah Burke	131	Lauren Maziarz	Sexual Risk Behavior and Online Dating Apps: Perceptions of Undergraduate Students at BGSU
Caylie Shover	132	Lauren Maziarz	Self-Care Habits in Today's Undergraduate Students
Adam Martin	133	Mary-Jon Ludy	Kids Tech University Nutrition Olympics: A Hands-On, Food-Based STEM Introduction
Josie Mansperger	134	Mary-Jon Ludy	The Relationship between Body Composition, Stress, and Academic Performance in First-Semester College Students
Ryan Kausch Aaron Cowell Chris Walls	135	Mary-Jon Ludy	Assessing Cardiovascular Risk Factors Among First Year College Students in an Academic Learning Community

COLLEGE OF MUSICAL ARTS - MUSIC COMPOSITION AND THEORY

Presenter	Poster #	Faculty Mentor	Title of Presentation
Ashlin Hunter	136	Christopher Dietz	The Experience of Live and Recorded Music: A Cello Solo

COLLEGE OF MUSICAL ARTS - MUSIC EDUCATION

Presenter	Poster #	Faculty Mentor	Title of Presentation
Francesca Leo	137	Lisa Martin	Playing Without Pain

COLLEGE OF TECHNOLOGY, ARCHITECTURE, AND APPLIED ENGINEERING - ARCHITECTURE AND ENVIRONMENTAL DESIGN

Presenter	Poster #	Faculty Mentor	Title of Presentation
Lucas Hartman	138	Sara Khorshidifard	Towards a More Sustainable Future: Architectural Adaptive Reuse on College Campuses

COLLEGE OF TECHNOLOGY, ARCHITECTURE, AND APPLIED ENGINEERING - ENGINEERING TECHNOLOGIES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Benjamin Daneker	139	Sri Kolla	Small-Scale Solar Power
Kathlyn Richmond	140	Resmi Krishnankuttyrema	A Review on the Impact of Community Outreach Programs and Women Enrollment in Engineering Majors
Matt Nelson Adam Deitrick	141	Mikhail Shilov	EVGrand Prix Cart Motor Mount Research

COLLEGE OF TECHNOLOGY, ARCHITECTURE, AND APPLIED ENGINEERING - VISUAL COMMUNICATION AND TECHNOLOGY EDUCATION

Presenter	Poster #	Faculty Mentor	Title of Presentation
Gilbert Brionez	142	Jerry Schnepf	User Experience Design for a Sign Language Training Application

UNDERGRADUATE RESEARCH & SCHOLARSHIP OPPORTUNITIES AT BOWLING GREEN STATE UNIVERSITY

Building Ohio's Sustainable Energy Future (BOSEF)

The BOSEF scholarship program is funded by the Choose Ohio First program for students in the AIMS program for students who are interested in pursuing careers in research in renewable energy and sustainable environmental practices. BOSEF draws on the special strengths of Northwest Ohio in these fields to provide state-of-the-art education opportunities. It provides scholarships and an innovative program that enriches students' opportunities for research and internships to ensure that they are optimally prepared for the next steps in their preparation for an exciting and highly successful career. Applications are submitted through the AIMS program.

Contact aims@bgsu.edu for more information

Meeting Essential Doctor Needs in Urban and Rural Areas (MEDNURA)

The MEDNURA scholarship program is also funded by the Choose Ohio First program and designed to recruit and support under-represented minority and economically disadvantaged students from urban and rural areas to become physicians providing primary care in under-served areas. Like BOSEF, MEDNURA is also part of the AIMS program and includes all of the support structures and strategies of that program plus additional activities and features to help prepare students for success in applying to and preparing for medical school, especially for the NEOMED-BGSU Pathway program which offers early admission to the NEOMED medical school program.

Contact aims@bgsu.edu for more information.

Northern Ohio Alliance for Graduate Education to the Professoriate (NOA-AGEP)

bgsu.edu/noaagep

Funded by the AGEP program of the National Science Foundation, the primary goal of NOA-AGEP is to increase the number of URM graduate and post-doctoral trainees in STEM fields throughout Northern Ohio who complete doctoral degrees and go on to successful careers in the professoriate. This is accomplished through the development, implementation, and study of innovative evidence-based models, designed to address the unique challenges faced by URM students and to improve their participation, preparation, and success in STEM graduate education and post-doctoral training. Each year, BGSU AGEP Scholars receive:

- A stipend enhancement (in addition to department funding)
- Travel allowance to attend a research conference
- Opportunities to participate in professional development activities/community building events
- Participation in annual research symposia
- A strong, supportive community of scholars and faculty

Contact noa-agep@bgsu.edu for more information.

Northwest Ohio Center for Excellence in STEM Education (NWO)

nwocenter.org

The Northwest Ohio Center for Excellence in STEM Education (NWO) strives to advance STEM education for people of all ages. To serve that mission NWO hosts a wide range of activities, events, initiatives, and programs. Among these are projects which promote the success of under-represented minority and female students in STEM undergraduate and graduate degree programs funded by state and federal grants: Building Ohio's Sustainable Energy Future (BOSEF) and Meeting Essential Doctor Needs in Urban and Rural Areas (MEDNURA) which are funded by the Choose Ohio First Program of the Ohio Board of Regents, and the Northern Ohio Alliance of the AGEP program funded by a grant from the National Science Foundation's Alliance for Graduate Education to the Professoriate (AGEP) program. NWO also plays a role in the AIMS program (Academic Investment in Mathematics and Science).

Contact nwo@bgsu.edu for more information.

Science & Math Education in ACTION (ACTION)

bgsu.edu/action

The ACTION program provides innovative opportunities to BGSU students to prepare the best science and mathematics teachers in the state of Ohio. The goal of ACTION is to increase the number of science and mathematics education graduates and to improve their effectiveness at teaching these subjects. The program achieves these goals by providing early exposure to hands-on science, mathematics, and education topics, research experience, and a "family" atmosphere. Available for incoming first-year students at BGSU who are Ohio residents. Open to top students interested in teaching science and/or mathematics in grades 4 through 12.

Funding covers: a four-year academic scholarship that increases every year, an all-expenses paid residential Summer Bridge experience before freshman year, first-year science or mathematics group research project, sophomore year science or mathematics practicum experience, junior and senior year pedagogical (classroom) research project.

Contact action@bgsu.edu for more information.

ORAL PRESENTATIONS OVERVIEW

Room 201

Moderators: John Farver and Colleen Fitzgerald

- 9:45-10:05am **Emily Ridge**- Host Microbiome Regulation of Hyperthermia Mediated by 3,4-Methylenedioxyamphetamine (MDMA, Molly)
- 10:05-10:25am **Neal Kolonay and Lana Neff**- Raising Yellow Perch (*Perca flavescens*), Freshwater Prawn (*Macrobrachium rosenbergii*), and Plants in an Integrated Multi-Trophic Aquaculture System
- 10:25-10:45am **Lana Neff and Neal Kolonay**- Assessing the Aquaponic Production of Four Vegetables Utilizing Nitrogenous and Phosphorous Waste from Yellow Perch (*Perca flavescens*) and Freshwater Prawn (*Macrobrachium rosenbergii*).
- 10:45-11:05am **Wesley Radabaugh**- Optimization of Aquaponic Crop Production from a Land-based Freshwater Integrated Multi-Trophic Aquaculture System

Moderators: Matthew Lavery and Robyn Miller

- 11:15-11:35am **Christopher Pyles**- Simulation of High Efficiency Solar Cells Using Recent Advances in Semi-conductors
- 11:35-11:55am **Elizabeth Fullenkamp**- Developing Education and Training related to Queer/Trans* Identity at BGSU (MDMA, Molly)
- 11:55am-12:15pm **Bryce Davis**- What is Masculinity: An Exploration of University Male Experiences
- 12:15-12:35pm **Gabrielle Dendinger**- Applying peer-to-peer mentoring: the impact on student growth (MDMA, Molly)
- 12:35-12:55pm **Megan McDonnell**- The Effects of Mental Health Professional Development on Preservice Teachers

Room 208

Moderators: Heath Diehl and Beatrice Guenther

- 9:45-10:05am **Renee Wott**- The Effects of Refugees and Human Rights Violations Through Media Representation
- 10:05-10:25am **Rachel Zarick**- State Sovereignty v Human Rights: How Russia Uses LGBT+ Laws to Test the Limits of State Sovereignty When Facing International Human Rights Courts
- 10:25-10:45am **Rebecca Ebert**- The Effect of Phonetic Environment on the Acoustic Duration of Verb –s
- 10:45-11:05am **Hannah Baatz**- Education in Ohio: A Lost Art

Moderators: Leigh-Ann Pahapill and Alli Hoag

- 11:15-11:35am **Jessica Brodersen**- Inquiry into Pate de Verre Processes
- 11:35-11:55am **Linore Huss**- Understanding Post-Traumatic Stress Disorder through Body Adornment
- 11:55am-12:15pm **Lindsie Pfeiffer**- Women in Music
- 12:15-12:35pm **Laura Francisco**- Women are Weapons
- 12:35-12:55pm **Amanda Glass, Megan Miazgowicz, and Jack Spencer**- Preserving the Past: Developing an Archive of Digital Art and Scholarship

Room 225

Moderators: Thomas Mowen and Stephen Crompton

- 9:45-10:05am **Kristy Atanasov**- Religious Leadership and Political Affiliation on a Secular Midwestern Campus
- 10:05-10:25am **Edward Gero**- Russia's Geopolitical Goals in Eastern Europe
- 10:25-10:45am **Rachel Coleman**- Are delinquent Minorities Receiving FEWER referrals to Mental Health services?
- 10:45-11:05am **Brad Holmes**- Community Environmental Protection: Resistance Against Corporate Projects Across The Country

Moderators: Ibrahim Basudan and Jerry Schnepf

- 11:15-11:35am **Bradley Deeter and Dakota Perry**- External Factors and Effects of Vehicle Maneuverability
- 11:35-11:55am **Noah Dunn**- Autonomous Vehicle: Object Recognition Research
- 11:55am-12:15pm **Dakota Perry and Bradley Deeter**- Effects of Regenerative Braking Systems
- 12:15-12:35pm **Hanna Pittman**- Customer Insight: Online Digital Templates
- 12:35-12:55pm **Benjamin Thornton and Gangotri Patel**- CURS Project: Exploring Software Development Methodologies and Technologies to Support Sports Management Research Teachers

POSTER PRESENTATIONS

COLLEGE OF EDUCATION & HUMAN DEVELOPMENT - SCHOOL OF FAMILY AND CONSUMER SCIENCE

Presenter	Poster #	Faculty Mentor	Title of Presentation
Courtney Yanzsa	113	Marian Zengel	Consumer Perceptions in Fashion

COLLEGE OF EDUCATION & HUMAN DEVELOPMENT - SCHOOL OF HUMAN MOVEMENT, SPORT AND LEISURE STUDIES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Amia Gaines	114	Andrea Cripps	Effectiveness of Cervical Strengthening Exercises on Reducing Brain Injury
Brett Gibbons Brian Lobban	115	Amanda Paule-Koba	Athletes' Perception of Travel on Their Performance on the Field and in the Classroom
Angeline Seames Brian Blake	116	Amanda Paule-Koba	An examination of Division I cross-country runners experiences and why they chose their university

COLLEGE OF EDUCATION & HUMAN DEVELOPMENT - SCHOOL OF TEACHING AND LEARNING

Presenter	Poster #	Faculty Mentor	Title of Presentation
Haylee Holbrook	117	Brigid Burke	Writer's Workshop in a World Language Classroom

COLLEGE OF HEALTH AND HUMAN SERVICES - COMMUNICATION SCIENCES AND DISORDERS

Presenter	Poster #	Faculty Mentor	Title of Presentation
Emily Borgemenke Jackalyn Siebenaler	118	Brent Archer	Discourse Structure in Facilitated Group Conversations for People With Aphasia
Makayla Morgan	119	Brent Archer	Nonverbal Factors in Collaborative Repair Sequences for People with Aphasia
Mia Eberts Alyssa Hulthen	120	Virginia Dubasik	Exploring Lexical Diversity in a Set of Multiples and a Singleton Sibling: A Case Study
Sophia Floehr Ryan Penny Andrew Bissler	121	Virginia Dubasik	Phonological Development in a Set of Triplets
Alyssa Hulthen Mia Eberts	122	Virginia Dubasik	Examining Variability in Productive Syntax Within a Set of Triplets
Rebecca Wettstein Rebecca Ebert	123	Colleen Fitzgerald	Toddlers' Experience with Third Person Singular: The Phonetic Environment of Allomorphs in Parent Input
Larisa Kalinowski	124	Jason Whitfield	Speech Sequence Duration and Variability in Individuals with Parkinson's Disease
Michaela Natal	125	Jason Whitfield	Effects of Dual-task Performance and Syllabic Length on Speech Tempo Regularity in speakers with Parkinson Disease
Megan Vine	126	Jason Whitfield	Gains in Speed and Accuracy in a Novel Speech Task
Colleen Walsh	127	Jason Whitfield	Effects of clear speech on articulation rate of speakers with and without Parkinson's Disease

COLLEGE OF HEALTH AND HUMAN SERVICES – HUMAN SERVICES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Rachel Ehresman Haley Jenkins Alexus Curry	128	Hee Soon Lee	The effects of pressure to attain an athletic body image on eating disorders

POSTER PRESENTATIONS

COLLEGE OF ARTS AND SCIENCES – SCHOOL OF MEDIA AND COMMUNICATION

Presenter	Poster #	Faculty Mentor	Title of Presentation
Natalie Green Jashawn Bird	92	Kate Magsamen- Conrad	Older Adults and Technology
Catherine Elgin	93	Kate Magsamen- Conrad	The Intergroup Communication Intervention: Coordination and Assessment of Five Years of Data about an Intergenerational Community Technology Training Program
Keefe Watson	94	Kate Magsamen- Conrad	Technology and the marginalization of older adults

COLLEGE OF ARTS AND SCIENCES – THEATER AND FILM

Presenter	Poster #	Faculty Mentor	Title of Presentation
Logan Maccariella	95	Geoffrey Stephenson	Making a Musical
Carlie Merlo	96	Cynthia Baron	Women in Film: A Personal Account of Women in Filmmaking
Kayson Carlin	97	Mark Hain	Building a Genre Using Love and Friendship

COLLEGE OF ARTS AND SCIENCES – WORLD LANGUAGES AND CULTURES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Tyler Way	98	Beatrice Guenther	Space Gap, Access to Technology, and the Perpetuation of Poverty
Hannah Stanich	99	Beatrice Guenther	Emigration of Soviet/Russian Jews to the United States and Israel
Manette Asta	100	Beatrice Guenther	Women's, Gender, and LGBTQ movements in Russia and China
Courtney Keeney	101	Beatrice Guenther	Humanitarian Aid and its effects on Article 25 under the UDHR
Nicole Ravotti	102	Beatrice Guenther	Human Rights of the Dead and the Spanish Civil War
Sarah Riley	103	Beatrice Guenther	Addressing Beijing's Human Rights Abuses against North Korean Defectors and Solving China's North Korean Refugee Fear
Elizabeth Stark	104	Beatrice Guenther	The History and Foreign Policy of Eritrea and the Effects on the Refugee Communities in Sudan and Ethiopia
Declan Wicks	105	Beatrice Guenther	Human-Rights Discourse: An Examination of the Shifting Conceptions of Human Rights within the Netherlands
Robert Frye	106	Beatrice Guenther	Defunding the United Nations
Jairo Munoz	107	Beatrice Guenther	What comes Next for El Salvadoran TPS-holders?
Khyrsten Acadimia	108	Beatrice Guenther	Human Trafficking in Japan Through the Use of Schoolgirls
Isabel Alvarado	109	Beatrice Guenther	Zainichi Koreans: The Struggle for Acceptance

COLLEGE OF BUSINESS – MARKETING

Presenter	Poster #	Faculty Mentor	Title of Presentation
Abigail Paskvan	110	Fei Lee Weisstein	Consumers' Price Perception of Green Products: A Cross-Cultural Study

COLLEGE OF EDUCATION & HUMAN DEVELOPMENT - SCHOOL OF EDUCATIONAL FOUNDATIONS, LEADERSHIP & POLICY

Presenter	Poster #	Faculty Mentor	Title of Presentation
Madison McDonald	111	Kristina LaVenja	Generational Differences: Managerial Perspectives
Madison McDonald	112	Matthew Lavery	Major Retention in STEM

ORAL PRESENTATIONS

Name: Emily Ridge

Faculty Mentor: Jon Sprague

Department: Center for the Future of Forensic Science - Forensic Science

Presentation Time: 9:45-10:05am

Location: Room 201

Host Microbiome Regulation of Hyperthermia Mediated by 3,4-Methylenedioxymethamphetamine (MDMA, Molly)

Hyperthermia is one of the most acute and life-threatening consequences of 3,4-methylenedioxymethamphetamine (MDMA) use. The hyperthermia induced by MDMA involves a complex interaction between heat generation and loss of heat dissipation. Recent studies have demonstrated a role for gut microbiome in the regulation of body weight and temperature. Here, we investigated the potential role of the gut microbiome in MDMA-mediated hyperthermia. For fourteen days prior to treatment with MDMA (20 mg/kg, sc) male, Sprague-Dawley rats were provided regular drinking water or drinking water laced with the non-absorbable antibiotics, bacitracin (0.5 mg/mL), neomycin (2mg/mL), and vancomycin (0.2mg/mL). Antibiotic (ABX) treatment reduced gut bacteria and increased cecal size. MDMA-induced a hyperthermic response that resulted in a maximal temperature change (ΔT_{max}) of 4.6 ± 0.1 °C and only a 50% survival rate 60 minutes after treatment. Conversely, ABX treatment prior to MDMA attenuated the hyperthermic response with a ΔT_{max} of 3.4 ± 0.6 °C and a 100% survival rate 60 minutes after treatment. An acute intraperitoneal injection of ABX 30 minutes before MDMA had no effect on the hyperthermic response, eliminating the possibility of a pharmacodynamics interaction between ABX and MDMA. Overall, these findings demonstrate that the gut microbiome contributes to the hyperthermia mediated by MDMA.

Name: Neal Kolonay & Lana Neff

Faculty Mentor: Kevin Neves

Department: College of Arts and Sciences - Biological Sciences

Presentation Time: 10:05-10:25am

Location: Room 201

Raising Yellow Perch (*Perca Flavescens*), Freshwater Prawn (*Macrobrachium rosenbergii*), and Plants in an Integrated Multi-Trophic Aquaculture System

In this study, we utilized a system to test the viability of yellow perch (*Perca flavescens*) to an economically productive size in a system with freshwater prawns (*Macrobrachium rosenbergii*) and various leafy green vegetables including green leaf lettuce (*Lactuca sativa*), curly kale (*Brassica oleracea*), basil (*Ocimum basilicum*), and garden thyme (*Thymus vulgaris*). This will allow us to assess the feasibility of a larger scale integrated multi-trophic aquaculture system with the same components.

Name: Lana Neff & Neal Kolonay

Faculty Mentor: Kevin Neves

Department: College of Arts and Sciences - Biological Sciences

Presentation Time: 10:25-10:45am

Location: Room 201

Assessing the Aquaponic Production of Four Vegetables Utilizing Nitrogenous and Phosphorous Waste from Yellow Perch (*Perca flavascens*) and Freshwater Prawn (*Macrobrachium rosenbergii*).

Aquaculture and hydroponics are an important source of food and nutrition throughout the world and involve the farming of aquatic organisms and plants in environments without soil. Aquaponics is the combination of aquaculture and hydroponics and produces both aquatic organisms and plants efficiently. The idea of aquaponics has been taken to an additional level of complexity recently through the concept of integrated multi-trophic level aquaculture (IMTA). This allows for many different levels of organisms to be grown and reduces waste because the system allows for each organism to utilize the byproducts of another trophic level. A system was built in the greenhouse at Bowling Green State University utilizing two organisms *Perca flavascens*, *Macrobrachium rosenbergii*, and four vegetable crops; *Lactuca sativa*, *Brassica oleracea*, *Ocimum basilicum*, and *Thymus vulgaris*. Two primary goals were investigated. The first was to measure the height and weight of the plants in the system to determine the growth rate of plants using the nutrients generated. The second goal was to calculate nitrogen and phosphorus consumption rates of the various plants. To date, the plants have grown well, especially the basil and kale, which have grown 4.5 and 13 times their starting weight since the start of the trial. Our results indicate that the plants have effectively removed nitrogen and phosphorus from the water.

ORAL PRESENTATIONS

Name: Wesley Radabaugh

Faculty Mentor: Kevin Neves

Department: College of Arts and Sciences - Biological Sciences

Presentation Time: 10:45-11:05am

Location: Room 201

Optimization of Aquaponic Crop Production from a Land-based Freshwater Integrated Multi-Trophic Aquaculture System

An integrated multi-trophic aquaponics system has been operational for 6 months and has shown to be productive in terms of fish and freshwater prawn growth. One step that remains is to identify ideal plant crops to effectively and efficiently remove nitrogenous wastes and phosphorus from the water. These material build up via natural bacterial processes and can reduce fish and prawn growth. Therefore, having plants that grow well and can provide an additional crop, as well as remove these materials from the water, is critical. This project compares up to 8 new plant species to kale and basil, which performed quite well over the summer. Growth was measured using visual observations and by finding the mass of each of the individual plants. It was concluded that the tomato plant had the highest success based off these measurements of growth. Using these findings, more refinement can be made to the system in an attempt to further optimize both plant and animal growth.

Name: Christopher Pyles

Faculty Mentor: Marco Nardone

Department: College of Arts and Sciences – Physics and Astronomy

Presentation Time: 11:15-11:35am

Location: Room 201

Simulation of High Efficiency Solar Cells Using Recent Advances in Semi-conductors

Recent advances in semi-conductor materials have made certain schematics for solar cells more viable. One such concept is the All-Back-Schottky-Contact (ABSC), which promises to reduce cost of solar electricity while improving reliability. Rather than a typical p-n junction, electron-hole pair separation is achieved by Schottky junctions formed between the semiconductor and interdigitated, bi-metallic back contacts. This type of device minimizes the number of semiconductor layers and removes the need for the extrinsic impurities required for p-n junction to build a high efficiency device. Here, a theoretical study is presented concerning the set of optimal parameters for an ABSC device that employs recent advances in long lifetime polycrystalline CdTe, acting as the absorber layer. An ABSC device requires long-lifetime materials to work efficiently, making CdTe an optimal choice. Computational simulations were performed using the software COMSOL Multiphysics® to find theoretical performance. It is determined that >20% efficiency can be achieved using reasonable device architecture. These results will provide guidance for the fabrication of prototypes.

Name: Elizabeth Fullenkamp

Faculty Mentor: Christina Lunceford

Department: College of Education & Human Development - Higher Education and Student Affairs

Presentation Time: 11:35-11:55am

Location: Room 201

Developing Education and Training related to Queer/Trans* Identity at BGSU

The purpose of this applied research project was to enhance the current educational outreach capacities of a LGBTQ+ undergraduate student organization at Bowling Green State University, the Queer/Trans Student Union. Recognizing the Queer/Trans Student Union's current outreach initiative "The Panel Program" as operating in accordance with a limited and outdated understanding of intersectional identity, I sought to reestablish the Panel Program as one firmly rooted in evidence-based practices and grounded in the most current literature. In order to achieve this objective, I reviewed research in an array of fields including those of education, sociology, political science, ethnic and gender and sexuality studies. The result of this study is a comprehensive resource for future leaders in BGSU's Queer/Trans Student Union, containing renovated training and presentation materials of my design which reflect current understandings of the intersectional nature of identity. The intended outcome of this applied research is to aid future Queer/Trans Student Union leaders in their effort to counteract homophobic and transphobic attitudes in the Bowling Green and Bowling Green State University communities.

POSTER PRESENTATIONS

COLLEGE OF ARTS AND SCIENCES – SCHOOL OF CULTURAL AND CRITICAL STUDIES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Andrea Rocca Ashley Tolliver	74	Vibha Bhalla	Foreign idols in the K-pop industry: path to discovery
Nahja Chesney	75	Thomas Edge	Why do you Sound White? Analyzing the Relationship Between Code-Switching and Race
Allison Pavy Cassandra Tenorio Zarina Cornelius Darlene Johns	76	Sarah Rainey	Exhibiting Differences
Gretchen Drushel Darlene Johns Cassandra Tenorio Zarina Cornelius Allison Pavy	77	Sarah Rainey	Exhibiting Differences: Bowling Green Branch
Gretchen Drushel Em Sapp Joshua Moore Jonah Wilson Teegan Matthews	78	Sarah Rainey	Exhibiting Differences: Toledo Branch
Leigh Amadi Dunewood	79	Sarah Rainey	Examining the Social Experiences and Academic Persistence of High-Achieving Students of Color at a Predominantly White Institution (PWI)

COLLEGE OF ARTS AND SCIENCES – SCHOOL OF EARTH, ENVIRONMENT AND SOCIETY

Presenter	Poster #	Faculty Mentor	Title of Presentation
Toni Bernard	80	John Farver	The Role of Fluids in the Mesquite Mine Gold Deposits
Kaitlyn Busch	81	John Farver	STRONTIUM UPTAKE INTO OTOLITHS BY DIFFERENT FISH FAMILIES
Natalie Miller	82	John Farver	Lead Contamination in Toledo Community Gardens
Ross Combs	83	Anita Simic	Measuring chlorophyll-a in Old Woman Creek in Huron, OH using Multi-spectral UAV/Drone Imagery
Nicholas Faust	84	Anita Simic	Building spectral libraries for classification of Ohio's invasive wetland species using radiometric data
Katerina Konstantinidis	85	Anita Simic	Comparing sentinel 3 images of algal blooms in Lake Erie
Nicole Light	86	Anita Simic	Surface Trend Analysis of Total Suspended Solids Using UAV Imaging
Matthew Franks	87	Angelica Vazquez-Ortega	The Effect of Agricultural Best Management Practices on Soil Quality
Wesley Stambaugh	88	Margaret Yacobucci	Taphonomy of a Cretaceous Concretion
Andrew Haugh	89	Andrew Gregory	Sage-Grouse Nest Survival in South Dakota: should we restore habitat or kill predators?
Jordyn Hutchison	90	Andrew Gregory	Seed Germination due to bird activity in Northwest Ohio
Kaylee Luke Gabrielle Ysassi	91	Andrew Gregory	Distribution of Wildrice throughout the Kalamazoo and St. Joseph River Watersheds

POSTER PRESENTATIONS

COLLEGE OF ARTS AND SCIENCES – PHYSICS

Presenter	Poster #	Faculty Mentor	Title of Presentation
Marcus Lawson	55	Farida Selim	Positron Annihilation Spectroscopy

COLLEGE OF ARTS AND SCIENCES – POLITICAL SCIENCE

Presenter	Poster #	Faculty Mentor	Title of Presentation
Tyler Way	56	Shannon Orr	Private Space Industry and International Law
Diamond Spratling	57	Andrew Kear	What Is Going on In My Backyard? Examining the Components of a Healthy Community

COLLEGE OF ARTS AND SCIENCES – PSYCHOLOGY

Presenter	Poster #	Faculty Mentor	Title of Presentation
Rob Goldsmith	58	Howard Casey Cromewell	The relative reward effect: Instrumental and consumatory contrast for sucrose in Sprague-Dawley and Alcohol-Preferring (P) Rats
Zackery Knauss Marko Filipovic Kylee A. Smith Melanie M. Queener Joseph A. Lubera Najae M. Bolden-Hall	59	Howard Casey Cromewell	Work ethic and behavior in Rattus Norvegicus: An investigation of free choice and order effects
Kyrstin James	60	Sherona Garrett-Ruffin	Electroencephalogram Measures of Slow Wave/Fast Wave ratios: A correlational study of electroencephalogram baseline measures and affective self-report measures
Carlos Resstel	61	Sherona Garrett-Ruffin	The effects of coloring mandalas on electroencephalography (EEG) asymmetry: A Pilot Study
Marcus Carter Sabra Walters	62	Sherona Garrett-Ruffin	Fifty Shades of Cray: The Effects of Binding On Crayfish Aggression
McKenzie Gilbert	63	Anne Gordon	Why do Women Wear High Heels?

COLLEGE OF ARTS AND SCIENCES – SCHOOL OF ART

Presenter	Poster #	Faculty Mentor	Title of Presentation
Stasi Wojtkiewicz	64	Ruthy Light	SACI Experience
Laura Dirksen	65	Andrew Gilliatt	Materiality of Color
Tyler Suter	66	Andrew Gilliatt	STACK: Layering Mixed Media
Sandra Rosado	67	Heejoo Kim	Converting Spaces
Jessica West Jiaxin Lin Bradley Blankenship	68	Heejoo Kim	Proposing the Short Film: Jerry
Jen Forsythe	69	Mille Guldbeck	Grids and Order in Mixed Media Work
Logan Cox	70	Lynn Whitney	Weight of Love
Anthony Kappler	71	Lynn Whitney	Showing the Life of People with Developmental Disabilities Through Photography
Clara Delagdo	72	Lynn Whitney	In the World
Maria Taylor	73	Deba Eber	Craft Clean Advertising

ORAL PRESENTATIONS

Name: Bryce Davis

Faculty Mentor: Jared Rose

Department: College of Education & Human Development - School of Intervention Services

Presentation Time: 11:55am-12:15pm

Location: Room 201

What is Masculinity: An Exploration of University Male Experiences

Men and masculinity has shifted through the decades along with how they are studied. Currently, masculinity measures focus primarily on how men adhere to traditional masculine norms. This study seeks to better understand how masculinity is defined by college men in the 21st century who are experiencing the effects of traditional masculinity on their lives, but also experiencing shifts of masculine attitudes away from traditional masculinity, i.e. acceptance of showing and sharing emotions. Through better understanding of how college men define their own masculinity in the 21st century, it will allow us to get a glimpse into these shifts to begin work towards a third generation of masculinity studies. This study used a 79- item 4-point Likert (1=strongly agree) self-report measure created by the researchers to capture the importance of stereotypical characteristics/features towards participants own masculinity, i.e. "Being straight is important to my perception of masculinity." Participants were recruited via mass email at a university in northwest Ohio. Crosstabs were used to determine agreeability (participant selecting agree or strongly agree) on items. Results indicated high agreeability (>59%) for, being in a community, expressing emotion, having a family, being physically and being able-bodied. Some shocking items that did not meet the threshold for agreeability were: Being straight, having sex, being athletic, participating in sports. In addition, participants were asked if they believed we missed any important items to masculinity and results indicated that, positive characteristics, helping behavior, kindness, responsibility, and confidence were important to participants' masculinity. These finding create agency in the field to better capture contemporary masculine ideologies and behaviors, as currently many measures would categorize some of these findings as feminine or not masculine. Future research seeks to integrate behaviors and attitudes together to create a fuller picture of contemporary masculinity.

Name: Gabrielle Dendinger

Faculty Mentor: Joanna Weaver

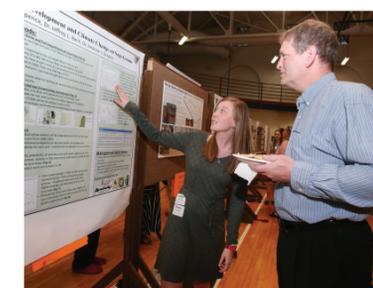
Department: College of Education & Human Development - School of Teaching and Learning

Presentation Time: 12:15-12:35pm

Location: Room 201

Applying peer-to-peer mentoring: the impact on student growth

Discover the impact of peer-to-peer mentoring at the high school and collegiate level. This presentation will draw upon the results of a case study focusing on mentoring relationships between graduate and undergraduate students and undergraduate and high school students. Applying a mentoring framework within all schools results in student growth.



ORAL PRESENTATIONS

Name: Megan McDonnell

Faculty Mentor: Patrick Vrooman

Department: College of Education & Human Development - School of Teaching and Learning

Presentation Time: 12:35-12:55pm

Location: Room 201

The Effects of Mental Health Professional Development on Preservice Teachers

One in five children from the ages of thirteen to eighteen has a mental illness and suicide is the third leading cause of death of youth from ages ten to twenty-four. With rates like this something has to be done. The best place to start is in schools where all the children are.

This study focuses on how doing professional development hours related to mental health will help preservice teachers. Learning about mental health and related skills can help a teacher in their personal life and they can use this knowledge to help students.

Name: Renee Wott

Faculty Mentor: Beatrice Guenther

Department: College of Arts and Sciences -World Languages and Cultures - Department of Romance and Classical Studies

Presentation Time: 9:45-10:05am

Location: Room 208

The Effects of Refugees and Human Rights Violations Through Media Representation

Recently, within the last few years Europe as a whole has seen a rise in refugees and asylum seekers from both the Middle East and Africa. With the rise of people seeking refuge away from their home country this causes some change for their neighboring countries. With such a surge, it is hard for many countries to keep up with the flow of refugees seeking help in their country. When taking on new people in a country, especially those of refuge it is important to keep in mind the Universal Declaration of Human Rights (UDHR) and the right to seek asylum. There are many cases of human rights violations to such a vulnerable group of people seeking refuge. It is important to uphold human rights in all aspects and situations of the world. Human rights violations cannot be ignored or put off for an extended time, which is why a shorter sunset clause would be beneficial in situations like the current refugee crisis. Media is a platform that gives governments and different companies an easy outlet for human rights violations and the spreading of wrongful information. Human rights violations and media production and information spreading has a direct effect on the lives of those seeking refuge as well as though who live in the host country.

Name: Rachel Zarick

Faculty Mentor: Beatrice Guenther

Department: College of Arts and Sciences -World Languages and Cultures - Department of Romance and Classical Studies

Presentation Time: 10:05-10:25am

Location: Room 208

State Sovereignty v Human Rights: How Russia Uses LGBT+ Laws to Test the Limits of State Sovereignty When Facing International Human Rights Courts

Russia has a long history of valuing state sovereignty as opposed to conforming to law implemented by foreign entities. This leads to conflict between majority groups and minority groups, one currently being LGBT+. Recently, Russia has begun to disregard international laws which threatens to undermine the precedence set by the European Commission of Human Rights court ruling of Alexseyev v Russia. They do recognize international legal institutions such as the ECHR, International Covenant on Civil and Political Rights, and the Universal Declaration of Human Rights, however if their legal aviation continues, and they allow human rights to go unrecognized for LGBT+ citizens, it could set a new global preeminence for how other states treat LGBT+ people. There is no way to enforce legal rulings by the ECHR which leads to the question, if states want to ignore human rights for LGBT+ people, who will be there to tell them no, and how will this affect the progression of human rights outside the region?

POSTER PRESENTATIONS

COLLEGE OF ARTS AND SCIENCES – COMMUNICATION (continued)

Presenter	Poster #	Faculty Mentor	Title of Presentation
Jesse Westfall Nicholas Jackson	40	Lisa Hanasono	Allies in Action: Exploring Who Engages in Anti-Hate Bystander Intervention

COLLEGE OF ARTS AND SCIENCES – COMPUTER SCIENCE

Presenter	Poster #	Faculty Mentor	Title of Presentation
Rebecca Knoop Tressa Killilea Erin Sims	41	Jadwiga Carlson	CODE4her Spring 2018
Allison Wurth Timothy Fortner Tressa Killilea	42	Jadwiga Carlson	Her Byte of CODE: Computer Science Summer Camp for Girls

COLLEGE OF ARTS AND SCIENCES – CHEMISTRY

Presenter	Poster #	Faculty Mentor	Title of Presentation
Johnathon Durgala	43	Pavel Anzenbacher	The Development of Intramolecular Indicator Displacement Assays for Determination of Enantiomeric Composition of Chiral Carboxylates
Rachel Bianculli	44	Joseph Furgal	Synthesis of a Silsesquioxane Based Supramolecular Polymer
Quinn Ebehard	45	Neocles Leontis	Amino Acid Variances in Mammalian Mitochondrial RNA Protein Sequences
Mary Fleck	46	Kenneth Lopata	Modeling Optical Properties of Silver-Gold Core-Shell Nanoparticles Using Finite-Difference Time-Domain
Emily Ryan Steven Carleton	47	Robert Midden	Dissolved Nutrient Removal by Photopolymer Beads
Jenna Laib	48	Robert Midden	Evaluation of Wastewater Treatment to Reduce Nutrient Transport
Autumn Kolk Nathan Tembo Marshall Carero Juliet Freed Caylin Curry Clare Sunderman	49	Robert Midden	Photopolymer Treatment of Liquid CAFO to Reduce Nutrient Transport
Josh Hudak	50	Liangfeng Sun	Single Quantum Dot Spectroscopy for Biolabeling
Nida Sundrani	51	Nida Sundrani	Positron Annihilation
Isabel Kovacic	52	Alexander Tarnovsky	Low-Lying Excited States as Energy Relaxation Bottlenecks in Photophysics of Transition Metal Complexes

COLLEGE OF ARTS AND SCIENCES – ENGLISH

Presenter	Poster #	Faculty Mentor	Title of Presentation
Alexandra Butler	53	Abigail Cloud	Rebranding with The FUSE Box: Transferring a Conference Experience to a Digital Marketing Platform

COLLEGE OF ARTS AND SCIENCES – MATHEMATICS AND STATISTICS

Presenter	Poster #	Faculty Mentor	Title of Presentation
Sarah Hercules	54	Jim Albert	A Statistical Study of Student Success in the BGSU Honors College

POSTER PRESENTATIONS

COLLEGE OF ARTS AND SCIENCES – BIOLOGICAL SCIENCES (continued)

Presenter	Poster #	Faculty Mentor	Title of Presentation
Megan Clark Sabrina Kozsey Victoria Patrick Katlyn Kendall	18	Helen Michaels	Growth of <i>Lupinus perennis</i> under varying wavelengths of light
Dillon Weik	19	Jeffrey Miner	Thermal refuge of juvenile steelhead trout in the Cuyahoga Valley
Shane Wever Andrew Patterson	20	Matthew Partin	Coral Optimization through Fragmentation
Emily Breech	21	Matthew Partin	Growth rate efficiency of <i>Sinularia flexibilis</i> provided with nutrient supplements
Shelby Cabrera	22	Matthew Partin	Morphological Response to Current Velocity in the Large Polyp Stony Coral <i>Favites</i> spp.
Renee Dollard	23	Vipaporn Phuntumart	Soybean Phytobiomes and their roles in disease resistance against <i>Phytophthora Sojae</i> , a root rot pathogen
Melanie Heldman	24	Vipaporn Phuntumart	Examining the Possible Use of Mycobacteriophage Pita2 in Phage Therapy
Nick Mendenhall	25	Scott Rogers	Assay of The Reverse Osmosis Purified Water in The Life Science Building at Bowling Green State University, Ohio
Shannon Turner	26	Scott Rogers	Microbial Survey of a 100 m Deep Ice Core Section from the Newall Glacier, Antarctica
Aliyah Ripley	27	Moira van Staaden	Psychostimulant Effects of Ethanol on <i>Drosophila melanogaster</i>
Mahnur Khan Chloe Murrell	28	Hans Wildschutte	Optimizing Transposon Mutagenesis in <i>Vibrio</i> Strains to Identify Genes Involved in Antibiotic Production
Emily Verbrugge	29	Hans Wildschutte	The Characterization of Soil Strains Isolated from the University of Tennessee Body Farm
Nate Locke Cameron Friedman Kayla Schwartz Rachel Crowl Griff Saunders	30	Ronny Woodruff	Lack of chromosome breakage and altered sex ratios by copper sulfate in <i>Drosophila melanogaster</i>
Lauren Lukasko	31	Zhaohui Xu	Investigating cell wall components of <i>Mycobacterium</i> as a target for phage therapy
Lucia Boulos	32	Zhaohui Xu	Analysis of the Bacteriophage Pita2 Tapemeasure Gene
Kayla Valente	33	Zhaohui Xu	Examining the bacteriophage Pita2 in Non-Ideal Conditions
Eleanor Behling	34	Zhaohui Xu	Superinfection in <i>Mycobacteriophage</i> Pita2
Megan Gayer	35	Zhaohui Xu	The Comparison of Lysin A and B proteins in Bacteriophages in Subcluster A1
Eric Noss	36	Zhaohui Xu	Lysin A and B proteins in Pita2 and other bacteriophage.
Natalie Wise	37	Zhaohui Xu	Understanding the Purpose of Bacteriophage Pita2's tRNA
Kristina Gara	38	Zhaohui Xu	Holin Protein in the Bacteriophage Godphather

COLLEGE OF ARTS AND SCIENCES – COMMUNICATION

Presenter	Poster #	Faculty Mentor	Title of Presentation
Caroline Inkrott Victoria Basinski Rebekah Kissling Brandon Mock Sierra Sturt	39	Lisa Hanasono	Stop the Hate: Explaining Why Bystanders Intervene

ORAL PRESENTATIONS

Name: Rebecca Ebert

Faculty Mentor: Colleen Fitzgerald

Department: College of Health and Human Services - Communication Sciences and Disorders

Presentation Time: 10:25-10:45am

Location: Room 208

The Effect of Phonetic Environment on the Acoustic Duration of Verb –s

A particular grammatical structure, verb -s (e.g., wants or needs) has been given special attention in recent research. Compared to other language structures, it has a protracted course of development. Verb -s is also relatively short in acoustic duration because it usually occurs in the middle of a sentence between other sounds. The current study aims to investigate the acoustic factors, or sound properties, of the phonetic environment of verb -s. This study is a follow-up to Fitzgerald, Bridges, Wettstein, and Ebert (2017) in which we proposed that verb -s might be longer between vowels. The question this study addresses is: how does phonetic environment affect the acoustic duration of verb -s? Verb -s is hypothesized to have the greatest duration when it is at the end of the sentence and follows a vowel (e.g., There he goes) and the shortest duration when in the middle of the sentence and between consonants (e.g., His dad walks them to their seats). Participants include 15 students from the Communication Sciences and Disorders department at Bowling Green State University. Participants were recorded reading a children's book strategically designed to have some of the verb -s uses present between vowels and others between consonants (Ebert, 2017). Recordings will be coded for sentence position (i.e., medial or final), coda phoneme (i.e., the sound before verb -s), and onset phoneme (i.e., the sound following verb -s). Differences in conditions will be analyzed with an ANOVA. Studying the acoustic factors of verb -s will shed light on whether its duration between vowels is longer and how manipulating these factors can make better therapy tools for children.

Name: Hannah Baatz

Faculty Mentor: Brad Felver

Department: College of Arts and Sciences - English

Presentation Time: 10:45-11:05am

Location: Room 208

Education in Ohio: A Lost Art

Education in Ohio has become standardized—one size being made to fit all students across different skill levels. This should not be the case, as all students have different needs that, quite simply, are not satisfied by Common Core. To combat this issue, the arts should be reintroduced to the education system as a valuable and useful tool to aid students on their academic journey. In my essay, I will be arguing for the inclusion of the arts with traditional subjects like math, science, and engineering to help students think creatively to solve problems in an interesting and hands-on learning environment.

Name: Jessica Brodersen

Faculty Mentor: Alli Hoag

Department: College of Arts and Sciences - School of Art - Glass

Presentation Time: 11:15-11:35am

Location: Room 208

Inquiry into Pate de Verre Processes

Pate de Verre is a kilncasting technique where one mixes glass powder and a binder to create a paste that you then paint into a mold. This technique allows the artist to paste color exactly where they want it to go in a mold and create nice blending which allows for a more realistic casting. My artwork has led me to use Pate de Verre processes to explore color theory and develop a color palette to create artificial light and shadows in my glass castings of different types of drapery that examine the malleability of memory and time.

ORAL PRESENTATIONS

Name: Linore Huss

Faculty Mentor: Marissa Saneholtz

Department: College of Arts and Sciences - School of Art - Metals

Presentation Time: 11:35-11:55am

Location: Room 208

Understanding Post-Traumatic Stress Disorder through Body Adornment

The problem I chose to address is the misconception that post-traumatic stress disorder survivors fit a particular description or backstory. I interviewed five survivors and recorded their stories, then made a piece of jewelry or interactive art to portray their struggle. These pieces and a pamphlet with the stories are on display at BGSU's BFA show which is open March 17th-April 1st. I predicted that the majority of viewers will be interested enough to pick up a pamphlet, and a subset of those will skim through it and discuss it with their friends and family. This proved largely true at the gallery opening, and several people approached me to thank me for shedding light on PTSD and share part of their own story. One major issue in our society is a lack of communication about difficult issues; this project will make it easier to start a conversation about PTSD and other mental illnesses. My ultimate goal is to educate people about a variety of mental illnesses as I continue the series and open their minds to the struggle that those around them are going through every day.

Name: Lindsay Pfeiffer

Faculty Mentor: Lynn Whitney

Department: College of Arts and Sciences - School of Art - Photography

Presentation Time: 11:55am-12:15pm

Location: Room 208

Women in Music

This work was made for my BFA thesis project. It consists of black and white portraits made with a large format film camera of women who play in punk and rock bands. There were nine of these photographs in the BFA exhibition this past March, however this project is ongoing. For the exhibition, I printed each portrait on 20x24 inch darkroom paper, and placed every photograph in a large white frame. The portraits were meant to be large and imposing to get the viewer to consider the visibility (or lack thereof) of women not just in these kinds of music, but also in the world. I am still making these portraits, and I hope to make the project into a book.

Name: Laura Francisco

Faculty Mentor: Janet Ballweg

Department: College of Arts and Sciences - School of Art - Printmaking

Presentation Time: 12:15-12:35pm

Location: Room 208

Women are Weapons

Despite a growing movement toward normalizing sex and female empowerment, antiquated ideas about female sexuality still prevail in many parts of our culture. My research and body of work explores female empowerment and disempowerment through sexuality and the consumption of women's bodies. These works depict moments of intimacy and sexual tension, and illustrate the act of seduction through the audience's interaction with them. Through a combination of aesthetic choices and conceptual ideas, this body of work subverts typical ideas about female sexuality. I ask asks who is the forced and the forcer, manipulated and manipulator, and the disempowered and powerful.



POSTER PRESENTATIONS

CENTER FOR FORENSIC SCIENCE

Presenter	Poster #	Faculty Mentor	Title of Presentation
Sara Bodnar Emily Ridge	1	Jon Sprague	The Role Of The TGR5 Receptors And Deiodinase II IN 3, 4-Methylene-Dioxy-Methamphetamine (MDMA, MOLLY)-Induced Hyperthermia
Rob Goldsmith	2	Jon Sprague	Use of in vivo microdialysis to assess dopamine levels in the caudate putamen
William Larsen	3	Jon Sprague	The Role of Bile Acid Suppression in MDMA-Induced Hyperthermia

COLLEGE OF ARTS AND SCIENCES – BIOLOGICAL SCIENCES

Presenter	Poster #	Faculty Mentor	Title of Presentation
Clara Sewell Samuel Kuns	4	George Bullerjahn	Effects of light intensity on Planktothrix growth
Samuel Kuns	5	George Bullerjahn	Planktothrix and Light
Benjamin Sayer	6	Julia Halo-Wildschutte	Divergent SINE Insertions in Canid Genome
Lexi Ledbetter	7	Raymond Larsen	Construct a vector for engineering specific mutations in the coliphage phi80
Ashley Everett	8	Kevin McCluney	The Effects of Fluoride on Stream Biofilm and Primary Consumers
Madison Brown Morgan Hudson Sonya Tyahla Brock Toopes	9	Helen Michaels	The Impacts of Vitamin C Addition on Zinnia Growth and Development
Cory Tibbits Hannah Brickner Anthony Gilman Brice Steiner	10	Helen Michaels	Impacts of Phosphorous on the Growth and Development of Zinnia
Dakota Jenkins Alaina Sayre Stephanie Pfaff	11	Helen Michaels	Effects of Road Salt on Zinnia elegans
Grace Patterson Jason Clendening Nick Gulling Lauren Tait	12	Helen Michaels	Phosphorus Fertilizer Effect on Growth
Nina Wimberley Jade Bolinger Rachael Deck Caleigh Reynolds	13	Helen Michaels	The Effects of Essential Oils on Mycorrhizae
David Linsky Evan Blados Michael Fowle	14	Helen Michaels	Effect of Liquid Smoke on Germination Rates of Big Bluestem (Andropogon gerardi)
Trevor Hoffman Nathan Hanna	15	Helen Michaels	Road Salt: the Effects of Terrestrial Plants
Dresden Wilson Karen Potter Gabrielle Paxton Alysha Kunz	16	Helen Michaels	Effects of Gravity on the Growth of Shoots in Zinnia elegans
Nicole Wainscott Tyler Tauscher	17	Helen Michaels	Acid Rain on Zinnia

UNDERGRADUATE FACULTY MENTOR OF THE YEAR AWARD



Dr. Virginia L. Dubasik, Assistant Professor in the Department of Communication Sciences at Bowling Green State University

She holds a M.A.Ed. with a Diverse Learner Specialization and a M.S. in Clinical Speech Pathology. Dr. Dubasik earned her Ph.D. from Arizona State University (ASU) in Speech and Hearing Sciences in 2011 and subsequently was given a Postdoctoral Research Fellowship to continue her work at ASU.

Dr. Dubasik's research spans several closely related areas and focuses on speech and language development in bilingual children in typical and clinical populations, as well as assessment and intervention. Dr. Dubasik's lines of inquiry contribute to the knowledge base by establishing a corpus of linguistic data from young Spanish-English dual language learners (DLLs), as well data from educators and practitioners who work with this group. Of special interest to Dr. Dubasik are the instructional practices utilized in early childhood education programs, and practices employed by Speech-Language-Pathologists serving DLLs, and the relationships between practices and child language and literacy outcomes. Young DLLs are an understudied group who consistently perform poorly in terms of language and literacy, relative to their monolingual peers. Intervention cannot be addressed until experts better understand the linguistic profiles of children in this group and know the measures that will be useful in predicting future performance or strategies that improve outcomes.

By exploring the interrelations among children's linguistic development and early childhood experiences and language exposure, experts in communication sciences and disorders and linguistics can work collaboratively with experts in related areas (e.g., education, psychology, early intervention) to mitigate risk of poor school outcomes for young DLLs. This line of inquiry began with Dr. Dubasik's dissertation work on a small sample of typically developing DLLs and continues at Bowling Green State University where the original project has been expanded to include larger samples of DLLs. What distinguishes her work from that of her colleagues and peers is that Dr. Dubasik's studies are designed to obtain rich data that describe all aspects of linguistic development as opposed to a single area. Results of her ongoing investigations build upon existing work and are expected to enhance understanding of the linguistic knowledge of DLLs in typical and clinical populations.

A few words from the students who nominated Dr. Dubasik:

"Dr. Dubasik goes above and beyond for all of her students. She strives to provide numerous opportunities for undergraduate students, both in the classroom and with research. She instills confidence in her students and pushes them to be successful in their research. Dr. Dubasik also allows for autonomy while working with her but still provides the necessary support to succeed. She goes out of her way to work with as many undergraduate students as she can to provide research opportunities to everyone. She has greatly contributed to my success here at BGSU as well as the success of other students. With her open door policy, I know that she is a faculty member that I can always count on."

"Dr. Dubasik strives to provide ample opportunities for undergraduate students in research. She allows students to build up their confidence when working with her by allowing autonomy in research but still providing the necessary help to be successful. She has made a very large impact on my experience at BGSU, and has inspired me to become involved in more research. She has allowed me to build confidence in my ability to conduct research through my honors project, through a project being presented at the Ohio Academy of Science annual conference, and helped me to build a proposal to hopefully present at a national conference in the fall. Dr. Dubasik has helped me to understand the process of research and has gone out of her way to provide as much support as necessary. She also has helped numerous other CDIS undergraduates in their research endeavors."

"Dr. Dubasik has been my research and professional mentor for two academic years. I have taken two major classes with her as well as completed my honors project under her advisement. I was able to present the research conducted for my honors project at conferences on a national and state level this year as well. She has challenged me more than any other professor I've ever had, but I've now accomplished more than I ever thought I would in my undergraduate career."



Dr. Dubasik with BGSU students (left to right) Tamara Dujmovic, Alyssa Hulthen & Mia Eberts at the 2017 annual convention of the American Speech-Language-Hearing Association in Los Angeles, CA. All three undergraduate students were selected to participate in the ASHA Progeny Program as undergraduate first authors!

ORAL PRESENTATIONS

Name: Amanda Glass, Megan Miazgowicz & Jack Spencer

Faculty Mentor: Bonnie Mitchell

Department: College of Arts and Sciences - School of Art - Digital Arts

Presentation Time: 12:35-12:55pm

Location: Room 208

Preserving the Past: Developing an Archive of Digital Art and Scholarship

This is a presentation by our student team of archivists and web developers about the creation of an international digital archive of historical writings and artworks in the field of Digital Art. The team has been programming an innovative content management system to house and display the content. They have also been digitizing thousands of documents and formatting them for display. The ACM SIGGRAPH scholarly papers and artworks will be used by researchers and artists around the world.

Name: Kristy Atanasov

Faculty Mentor: Madeline Duntley

Department: College of Arts and Sciences - Sociology

Presentation Time: 9:45-10:05am

Location: Room 225

Religious Leadership and Political Affiliation on a Secular Midwestern Campus

This qualitative study explores the connection between religion and political affiliation in campus organizations from the perspective of leaders in religious organizations on a secular Midwestern university. Interviews with ten leaders of Christian, Jewish, or Muslim organizations were utilized in gathering data. The current literature on campus religion is rarely qualitative, and fails to address specific campus religious organizations and their leaders. The results of the study found that religious affiliation is not a highly contributing factor in political affiliation, as previous quantitative studies have indicated. Ethnic, religious, and racial marginalization emerged as more significant indicators of political affiliation in college students.

Name: Edward Gero

Faculty Mentor: Neil Englehart

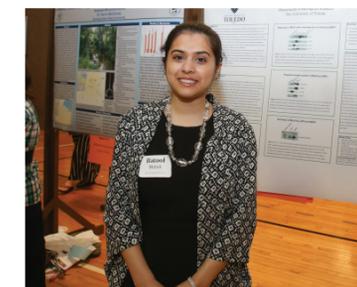
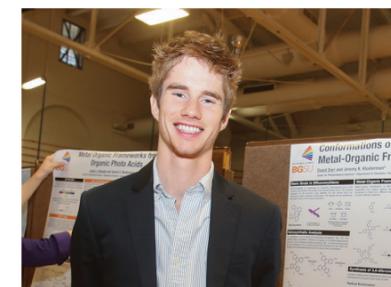
Department: College of Arts and Sciences - Political Science

Presentation Time: 10:05-10:25am

Location: Room 225

Russia's Geopolitical Goals in Eastern Europe

I will be discussing how Russia influences buffer states between them and the west in order to defend themselves from the spread of western influence. Russia is unafraid to fund and collaborate these groups to keep governments in civil disarray. Specific countries I will be discussing are Russian influence in Ukraine and Georgia.



ORAL PRESENTATIONS

Name: Rachel Coleman
Faculty Mentor: Carolyn Tompsett
Department: College of Arts and Sciences - Psychology
Presentation Time: 10:25-10:45am
Location: Room 225

Are delinquent Minorities Receiving FEWER referrals to Mental Health services?

Many minority youths in the juvenile justice system are battling between mental illnesses and being referred to receive mental services. Research shows that 65% to 80% of youth who need mental health services do not receive them, and minorities are less likely to be referred. The repercussions of this lack of treatment may lead to more crime. This study assesses the relationship between race and mental health in predicting disparities within juvenile referrals to mental health services to determine if the city of Toledo's initiative to develop recommendations aimed at addressing developmental limitations or correcting behavioral issues is working.

Name: Brad Holmes
Faculty Mentor: Kevin Vallier
Department: College of Arts and Sciences - Philosophy
Presentation Time: 10:45-11:05am
Location: Room 225

Community Environmental Protection: Resistance Against Corporate Projects Across The Country

Communities across the United States are put at risk to environmental, economic, and social harms due to the implementation of various corporate projects and operations. In this presentation, I delve into a variety of examples of communities, whether in towns, cities, or counties, that have organized in resistance against these unwanted harms. Ranging from industrial logging and aerial pesticide spraying in Oregon, to corporate water withdrawals and large-scale electricity generation projects in New Hampshire, I present findings I have gathered from these states, along with Colorado and Ohio, which paint a rather bleak picture. Essentially, due to a variety of political and economic imbalances, we are seeing corporations of various sorts overwhelm the desires of local communities across the country, instigating widespread pushback - some of which has shown to more successful than others. This presentation will encapsulate my interactions with people and groups in these four states, as well as my theories as to why these occurrences take place, and what needs to happen for them to stop.

Name: Bradley Deeter & Dakota Perry
Faculty Mentor: Mikhail Shilov
Department: College of Technology, Architecture, and Applied Engineering - Engineering Technologies
Presentation Time: 11:15-11:35am
Location: Room 225

External Factors and Effects of Vehicle Maneuverability

In the order to obtain the optimal tire settings for racing conditions a study was conducted focusing on tire pressure and the environmental factors that play into the maneuverability of vehicles at high speeds. Various experiments were conducted in this study in order to evaluate the best possible settings including acceleration testing, brake testing, and vehicle response through turns.



ORAL PRESENTATIONS

Name: Noah Dunn
Faculty Mentor: Mikhail Shilov
Department: College of Technology, Architecture, and Applied Engineering - Engineering Technologies
Presentation Time: 11:35-11:55am
Location: Room 225

Autonomous Vehicle: Object Recognition Research

As autonomous vehicles become more prevalent, finding solutions to object recognition problems are of the utmost importance. In August 2017 researchers at the University of Washington found that they could trick an autonomous vehicle's object recognition system into misidentifying a stop sign as a speed limit sign. This leads to concerns regarding how vandalized stop signs could potentially fool autonomous vehicles. Our research attempts to find an assistant algorithm for stop sign identification. This algorithm could be implemented in various autonomous vehicles, supplementing their current object recognition systems.

Name: Dakota Perry & Bradley Deeter
Faculty Mentor: Mikhail Shilov
Department: College of Technology, Architecture, and Applied Engineering - Engineering Technologies
Presentation Time: 11:55am-12:15pm
Location: Room 225

Effects of Regenerative Braking Systems

We will be looking at the effects of a regenerative braking system on a racing go-kart. Overall, we will be testing the existing braking system, fixing any parts that are not working before the testing, to see how much of an effect it has on the total distance our kart can travel. The regenerative braking system is also attached to the driven axel, so it should have a substantial amount of effect on the total distance the kart can travel on one charge. We are expecting a total distance gained to be about 5-20% and hoping to be closer to the 20% gain.

Name: Hanna Pittman
Faculty Mentor: Jerry Schnepf
Department: College of Technology, Architecture, and Applied Engineering - Visual Communication and Technology Education
Presentation Time: 12:15-12:35pm
Location: Room 225

Customer Insight: Online Digital Templates

This project aims to discover what drives individual consumers to buy digital templates for personal events online, and what method of delivery they prefer. This data will be used to enable sellers of digital templates to improve their offering and gain a greater understanding of their customers. The two methods of delivery are editable PDFs requiring the customers to have Adobe Acrobat, and "Templett," an in-browser editing software that gives the customers a great deal of editing control. Both of these methods are used by current sellers, but it is unclear which offers a greater advantage for both customers and sellers. The presentation will include data from actual customers who have bought and used the author's templates, as well as supplemental data from user testing. Additionally, qualitative data obtained through open-ended questionnaires will provide insight into how well each option performed.

Name: Benjamin Thornton & Gangotri Patel
Faculty Mentor: Jake Lee
Department: College of Arts and Sciences - Computer Science
Presentation Time: 12:35-12:55pm
Location: Room 225

Exploring Software Development Methodologies and Technologies to Support Sports Management Research

Project Goals

- Investigating different methodologies, technologies tools and tools for software development and develop a web-based experimental platform
- Examine the most controversial issue related to Law of Dilution in Sports Management area