

QUEST 2015: A Forum for Student Scholarship

Projects Organized by Sessions

Session 1a: Poster Presentations (8:30 - 9:30)

CLASS

Ohio

- | | | |
|----|-----|---|
| 01 | 187 | Grand Valley Hunting Ranch Collaboration and Planning
Eric Shehadi, Nathaniel Simmons, & Donnie Ferns
<i>Faculty Sponsor(s):</i> Dawna L. Cerney
Geography |
| 02 | 119 | Creating A Display for Archaeological Artifacts Recovered from YSU Archaeological
Excavations on San Salvador Island, The Bahamas.
Chelsey Hammond
<i>Faculty Sponsor(s):</i> Ronald V. Shaklee
History |
| 03 | 178 | Math Self-Efficacy Mediates the Relationship Between Math Anxiety and
Performance in an Adult Population
James Palestro
<i>Faculty Sponsor(s):</i> Molly Jameson Cox
Psychology |
| 04 | 307 | The Effects of Physical Activity on Attention in Student Athletes
Amanda Shuluga
<i>Faculty Sponsor(s):</i> Molly Jameson Cox
Psychology |
| 05 | 150 | The Effects of Training on Reducing Academic Anxieties
Brooke R. Fusco
<i>Faculty Sponsor(s):</i> Molly Jameson Cox
Psychology |
| 06 | 86 | Student Academic Anxieties are Not Influenced by Teaching Styles
Kayleigh Perline
<i>Faculty Sponsor(s):</i> Molly Jameson Cox
Psychology |
| 07 | 77 | A Qualitative Exploration of Clinicians' Perceptions of Addiction Measures
Lyndsie Smith
<i>Faculty Sponsor(s):</i> Molly Jameson Cox
Psychology |
| 08 | 233 | Attitudes Toward Tattoo Culture
Jennifer Waltman
<i>Faculty Sponsor(s):</i> Amanda Fehlbaum
Anthropology |
| 09 | 212 | Religion, Gender and Identity in a Hmong Village
Glynnis Gunnnett
<i>Faculty Sponsor(s):</i> Paul B. Gordiejew. |

Anthropology

- 10 87 Socio-Economic Status of Youngstown, Ohio during the Early 20th Century:
Archaeological Examination of Glassware Use and Production
Zaakiyah Cua
Faculty Sponsor(s): Matt E. O'Mansky
Anthropology
- 11 124 A Descriptive Analysis of Cleft Neural Arches in the Hamann-Todd Osteological
Collection
Shannon Klainer
Faculty Sponsor(s): Loren R. Lease
Anthropology
- 12 301 Implications for the evolution of speech through a comparative study of modern
human, non-human primates and hominine hyoid morphology
Stacy Leigh Deraway & Amanda Osborne
Faculty Sponsor(s): Loren R. Lease
Anthropology
- 13 234 "But What Can I Do?" Online Harassment and the Bystander Effect
Alexander Acri
Faculty Sponsor(s): Qi Jiang
Anthropology
- 14 340 Russia - Ukraine Conflict : An Analysis of the Conflict
Jeffrey Michael Bash, Michael David Hernandez, Catherine Marie Cooper, & Dylan
Thomas Edwards
Faculty Sponsor(s): David S. Porter
Political Science
- 15 202 Attitudes About Gender Behavior
Colleen Sturgeon
Faculty Sponsor(s): Amanda Fehlbaum
Sociology
- 16 154 The Effect of Previous Victimization and Environment on Perceived Risk of a School
Shooting in Urban and Rural Schools
Amanda Hernandez, Amber Durkin, Shelby Santullo, & Brytani Grier
Faculty Sponsor(s): Qi Jiang
Sociology
- 17 78 Consent Education at YSU
Krista Phillips
Faculty Sponsor(s): Amanda Fehlbaum
Sociology
- 18 235 Assessing Cultural Competency: An Initial Exploration of Assessing Self-Reported
Competency in BSW Students
Ashley Rossi
Faculty Sponsor(s): Azadeh M. Block
Social Work

- | | | |
|----|-----|---|
| 19 | 123 | Vision Pursue™ Mentor Project
Sarah N. Northcott
<i>Faculty Sponsor(s):</i> Melinda L. Wolford
School Psychology |
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Session 1b: Poster Presentations (8:30 - 9:30)

Geology & Environmental Studies

Bresnahan 1 & 2

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|----|-----|---|
| 01 | 343 | Characterization of Metals in Urban Soils
Braxton L. Wessell
<i>Faculty Sponsor(s):</i> Colleen E. McLean
Environmental Studies |
| 02 | 318 | Sedimentologic Study of Washover Features on San Salvador Island, Bahamas:
Determining Their Sediment Sources and History
Ronald N. Kichton
<i>Faculty Sponsor(s):</i> Christopher R. Mattheus
Environmental Studies |
| 03 | 258 | Internal Architecture of a Washover-Fan, San Salvador Island, Bahamas
Richard D. Yovichin III
<i>Faculty Sponsor(s):</i> Christopher R. Mattheus
Geology |
| 04 | 317 | Hydrology, Sedimentology, and Geomorphology as Drivers of Succession vs. Flood
Disturbance within Riparian Forests of Middle Order Streams of the Northeast
Leah Kaldy
<i>Faculty Sponsor(s):</i> Thomas P. Diggins
Biological Sciences |
| 05 | 274 | Biological Stream Quality Evaluation of Pine Run (Sharon, PA)
Suzanne Kepple
<i>Faculty Sponsor(s):</i> Felicia P. Armstrong
Environmental Studies |
| 06 | 260 | Water Quality and Macroinvertebrate Diversity as Indicators of Potential
Residual Effects of Mirex Leaching: An Investigation of the Middle Fork of Little
Jennifer Libbey & Kathryn Hamilton
<i>Faculty Sponsor(s):</i> Felicia P. Armstrong
Environmental Studies |
| 07 | 226 | Spatio-temporal patterns in beaver pond complexes as habitat for Eastern
Spotted Newts (<i>Notophthalmus viridescens</i>) in a hemlock-northern-hardwood
Shannon J. Doherty
<i>Faculty Sponsor(s):</i> Thomas P. Diggins
Biological Sciences |

- 08 19 The Spatial and Temporal Post-fire Vegetative Regrowth Mosaic Associated with Mature Tree Stands and Topography on Sofa Mountain
Erin O'Connor
Faculty Sponsor(s): Dawna L. Cerney
Environmental Studies
- 09 330 Geomorphology of a Late Holocene Strandplain on San Salvador, Bahamas
Salam Farhan & Jeremy Grimes
Faculty Sponsor(s): Christopher R. Mattheus
Geology
- 10 192 Geomorphology of a Sandy Barrier Complex along Eastern Lake Ontario Evaluated from GPR Data and Aerial Photographs: A Study of Lake-barrier Inlet Dynamics
Derrick Allen & Josh Fowler
Faculty Sponsor(s): Christopher R. Mattheus, , Robin Mattheus, & Tom Diggins
Geology

Session 2: Oral Presentations (8:30 - 10:00)

Biology

Coffelt

- 01 84 Enhanced Wound Healing Using Bone Marrow-Derived Mesenchymal Stem Cells
Raymond Vaio
Faculty Sponsor(s): Diana L. Fagan
Biology Pre Medical
- 02 363 Deceptive Mating Strategies
Erin Freed
Faculty Sponsor(s): Ian Renne
Biological Sciences
- 03 353 Development of myosin fiber type expression and prehensile tail function in the gray short-tailed opossum (*Monodelphis domestica*)
Dylan Thomas
Faculty Sponsor(s): Michael T. Butcher
Biological Sciences
- 04 245 Ontogeny of Locomotor Performance in Rabbits: They Do It By Putting Their Back Into It
Zachary Glenn
Faculty Sponsor(s): Michael T. Butcher
Biological Sciences
- 05 152 Myosin Fiber Type in the Vertebral Extensors of Eastern Cottontail Rabbit (*Sylvilagus floridanus*)
Brock DeAngelo
Faculty Sponsor(s): Michael T. Butcher
Biological Sciences

Engineering 1

Gallery

- 01 145 Hot Vehicle Alert System

Ahmad Omishat, Tom Bauer, & Mike Modelski

Faculty Sponsor(s): Jalal Jalali
Electrical Engineering

- 02 140 The JuiceBox
 Jordan Brown, Corey Dunbar, & Nick Getsy
Faculty Sponsor(s): Jalal Jalali
 Electrical Engineering Computer/Digital Option
- 03 220 Smart Power Strip
 Josh Foor, Cassie George, & Ruth Lin
Faculty Sponsor(s): Jalal Jalali
 Electrical Engineering
- 04 59 Smart Helmet
 Fahad Alotaibi, Chad Piccirilli, &
 Paul Weidle
Faculty Sponsor(s): Jalal Jalali
 Electrical Engineering
- 05 127 LED³
 Shayne Brown, Justin Moff, & Jacob Straccola
Faculty Sponsor(s): Jalal Jalali
 Electrical Engineering
- 06 131 The Welcome Center
 Daniel Eich, Laura Corson, Joshua Henson, &
 David Peterson
Faculty Sponsor(s): Jalal Jalali
 Electrical Engineering

Anthropology & Geography

Jones

- 01 364 YSU Archaeological Excavations at the Fresh Lake Site on San Salvador Island, The Bahamas.
 Hannah Scarazzo
Faculty Sponsor(s): Matt O'Mansky & Thomas Delvaux
 Anthropology
- 02 249 Artifact Curation for Youngstown State University Archaeological Excavations at San Salvador Island, Bahamas
 Alexa Kensinger, Hannah Scarazzo, & Zaakiyah Cua
Faculty Sponsor(s): Thomas Delvaux & Matt O'Mansky
 Anthropology
- 03 13 An Analysis of Areas Surrounding Four Former Youngstown City Schools
 Jayne Catlos
Faculty Sponsor(s): Ronald V. Shaklee
 Geography
- 04 210 Development of Contemporary Political Parties in Puerto Rico
 Pedro Sanchez
Faculty Sponsor(s): Ronald V. Shaklee

Geography

- 05 221 Archaeology on San Salvador Island: The Woodstar Site
 Zaakiyah Cua & Danamarie Donatelli
 Faculty Sponsor(s): Thomas Delvaux & Matt O'Mansky
 Geography

Session 3a: Poster Presentations (9:40 - 10:40)

Health & Human Services

Ohio

- 01 308 Innovation in Conscious Fashion Design
 Elaine Reedy
 Faculty Sponsor(s): Priscilla N. Gitimu
 Merch Fashion and Interiors
- 02 164 3D Printed Clothing
 Katrina Darkadakis
 Faculty Sponsor(s): Tacibaht Turel
 Merch Fashion and Interiors
- 03 163 Sustainable Self-Heating Garment
 Katina Darkadakis
 Faculty Sponsor(s): Tacibaht Turel
 Merch Fashion and Interiors
- 04 36 The Effectiveness of Cupping Technique in the Treatment of Plantar Fasciitis.
 Toby Gerez, Corey Vukovic, & Adam Kaufman
 Faculty Sponsor(s): Weiqing Ge
 Physical Therapy
- 05 161 Educational Preparation for Outcomes and Practice-Based Research in Dietetics
 William Masters
 Faculty Sponsor(s): Rachael. Pohle-Krauza, S. M. Leson, J. L. Mincher, & Z. C. Rowland
 Coordinated Program Dietetics
- 06 153 Optimizing Nutrition in Athletes: Nutrition Assessment and Intervention
 William H. Masters, Gina Kontur, & Jessica Romeo
 Faculty Sponsor(s): Rachael J. Pohle-Krauza
 Coordinated Program Dietetics
- 07 15 Gluten-Free Diet: Facts, Fiction, and Perceptions
 Chelsey Palumbo, Taylor Entzi, Michael Liposchak, & Greg Durkin
 Faculty Sponsor(s): Zara C. Rowlands
 Coordinated Program Dietetics
- 08 4 Perceptions About Dietetics Among Nurses and Student Nurses
 Joanne Starkey, Harley Carroll, Emily Gabriel, Gina Kontur, & Jessica Mertens
 Faculty Sponsor(s): Zara C. Rowlands
 Coordinated Program Dietetics

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| 09 | 182 | The Benefits of Pharmacological and Non-pharmacological therapy in children with Attention Deficit Hyperactivity Disorder (ADHD)
Linda Thomas
<i>Faculty Sponsor(s):</i> Jennie M. Wood
Family Nurse Practitioner |
| 10 | 370 | Efficacy and Safety of Influenza Vaccine
Brandi Carroll
<i>Faculty Sponsor(s):</i> Jennie M. Wood
Family Nurse Practitioner Option |
| 11 | 345 | Geographical Variations in the Incidence of Inflammatory Bowel Disease
Nicole Noday
<i>Faculty Sponsor(s):</i> Ronald V. Shaklee
Nursing BSN G |
| 12 | 141 | Early Initiation of Adequate Calcium Intake for Osteoporosis Prevention
Larissa Roth
<i>Faculty Sponsor(s):</i> Valerie M. O'Dell
Family Nurse Practitioner Option |
| 13 | 79 | ACTIVate your Asthma
Doug Sposetta
<i>Faculty Sponsor(s):</i> Patricia M. Hoyson
Nursing BSN G |
| 14 | 30 | Complementary Therapy & MS
Justina Rachella & Terri Coffee
<i>Faculty Sponsor(s):</i> Pamela A. Schuster
Nursing BSN G |
| 15 | 82 | Mechanical and Pharmacological Approaches to the Prevention of VTE Following Major Orthopedic Surgery
Jennifer Love
<i>Faculty Sponsor(s):</i> Valerie M. O'Dell
Family Nurse Practitioner Option |
| 16 | 35 | The Effects of Gastric Residual Volume on Aspiration Pneumonia in Mechanically Ventilated Adult Patients
Giacinta Brinsey
<i>Faculty Sponsor(s):</i> Jennie M. Wood
Family Nurse Practitioner Option |
| 17 | 246 | Choosing a Neuromuscular Blocking Agent: Succinylcholine v. Rocuronium to Reduce the Risk of Gastric Aspiration during Rapid Sequence Induction
Sarbjit Kaur
<i>Faculty Sponsor(s):</i> Patricia M. Hoyson
Family Nurse Practitioner Option |
| 18 | 83 | Exposing Myths of Childhood Immunizations: An Approach to Patient Education
Ciara Candle
<i>Faculty Sponsor(s):</i> Valerie M. O'Dell
Family Nurse Practitioner Option |

- 19 322 Exploring the Objective and Subjective Career Success of Paramedic Program
Directors
Cornelia Bryan
Faculty Sponsor(s): Charles B. Vergon & John M. Hazy
Educational Leadership / Criminal Justice &
- 20 378 Security Measures for File Sharing in a Cloud Environment
Joseph Gantz
Faculty Sponsor(s): Feng Yu
Computer Science

Session 3b: Poster Presentations (9:40 - 10:40)

Criminal Justice & Forensic Science

Bresnahan 1 & 2

- 01 144 The Connection Between Police Officer's Stress and Domestic Violence
Abigail Frohnapfel
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice LKLD
- 02 251 What Contributes to Crime?
Laurie Bridge, Alexis Feronti, & Robert Duncan
Faculty Sponsor(s): John M. Hazy
Criminal Justice LCCC
- 03 2 Capital Punishment
Monica Woolensack & Haley Lapceovich
Faculty Sponsor(s): Derick A. Young
Criminal Justice Bachelors
- 04 362 Effects of the Workplace and how it moves into the Home
Kelsey M. Adkins
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice
- 05 305 Homicide in Metro City, Metro County, & Non Metro Areas
John McDole
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice
- 06 283 Partly Cloudy and a Chance of Crime: A Crime Analysis through Meteorology
Gary Repasky
Faculty Sponsor(s): John M. Hazy
Criminal Justice
- 07 243 The Efficacy of Drug Use Resistance Education: A Statistical Analysis of Self-Report
Data
Christopher Adkins
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice

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| 08 | 225 Use of Guns Among Adolescents
Chelsey Haney
<i>Faculty Sponsor(s):</i> Richard L. Rogers
Criminal Justice |
| 09 | 201 Medication: A Critical Element in Treating Veterans with Mental Health Issues
Lawrence Reents
<i>Faculty Sponsor(s):</i> Richard L. Rogers
Criminal Justice |
| 10 | 64 The Difference of Violent Crime Between Men and Women
Stephen E. Dempsey
<i>Faculty Sponsor(s):</i> Richard L. Rogers
Criminal Justice |

Session 4: Oral Presentations (10:30 - noon)

Environmental Studies

Coffelt

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| 01 | 224 Natural Waterfalls of the Youngstown Region
Charles Chavara
<i>Faculty Sponsor(s):</i> Bradley A. Shellito
Geography |
| 02 | 230 Utilizing stable hydrogen isotopes to understand range shifts with the Magnolia warbler (<i>Setophaga magnolia</i>)
Elizabeth Abraham & Lucas DeGroote
<i>Faculty Sponsor(s):</i> Colleen E McLean, Peter Kimosop, & Ian Renne
Environmental Studies |
| 03 | 18 A case study of the spatial relationship between bat occurrence and artificial light pollution along a bike trail in Portage County, Ohio
Stefanie Hudzik
<i>Faculty Sponsor(s):</i> Dawna L. Cerney
Environmental Studies |
| 04 | 62 Foraminifera Distribution Across San Salvador Island
Brittany Stockmaster
<i>Faculty Sponsor(s):</i> Christopher R. Mattheus
Geology |
| 05 | 264 Adding Fuel to the Fire: An in Depth Look At The Absorption of Medical Oxygen in the Home
Melissa James
<i>Faculty Sponsor(s):</i> Susan A. Clutter
Criminal Justice Bachelors |

Engineering 2

Gallery

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| 01 | 280 PLC (Programmable Logic Controller)
Chris Judge, Xinyuan Li, Kamal Ennoui, & Ahmed Alghamdi
<i>Faculty Sponsor(s):</i> Salvatore R. Pansino |
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Electrical Engineering

- 02 271 Elevator Design
Cory Merlo, Nicolette Allen, Abdulrhman Alshahrani, & Jon Bancroft
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering
- 03 319 Unmanned Aerial Systems: Theory and Applications
James Carter, Lucas Ciprian, Stephen Koulianos, Garrett McIntyre, & Cory Thomas
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering
- 04 302 Sumo Bot
Chris Poullas, Sultan Almuji, Karan Eunni, Ali Dhiaa aldeen, & Andrew Morgan
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering
- 05 112 Nikola Tesla: Father of Modern Technology
Ryan Thomas, Stuart Blank, Donald Koehler, Nathan Niemi, Bradlee Roberts, & William Santos
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering Computer/Digital Option
- 06 294 Design and Construction of a High-Voltage Generator Using a Cockcroft-Walton Multiplier
Brent Cole, Kyle Spickler, Matthew Pilch, Brennen Morrison, & Stephen Schlitt
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering Computer/Digital Option

Service Learning

Humphrey

- 01 380 Service Learning Project 2015 - Northwest Haiti Christian Mission
Sidney Snyder, Danielle Dutton, & Kaitlin Lehner
Faculty Sponsor(s): Sherri Woods
Nursing

Psychology

Jones

- 01 143 Humor and Writing Reduced Negative Affect
Amy Nash, Chelsea Thompson, & Mary Gaudio
Faculty Sponsor(s): Sharon A. Stringer & Stacey Williams
Psychology
- 02 142 Mindfulness and Writing Exercises Increased Compassion
Kelsey Ault, Ken Juart, Alexandra Fontaine, & Jerrilyn Guy
Faculty Sponsor(s): Sharon A. Stringer & Stacey Williams
Psychology
- 03 181 Attenuating Perceptual Bias through Instructional Sets
Elizabeth Hanna, Krystle Van Dyke, & Rae'ven Crum
Faculty Sponsor(s): Michael L. Raulin
Counseling & Psychology

- 04 256 The Influence of Social Media on Eyewitness Accounts
Torrian M. Pace
Faculty Sponsor(s): Gordon G. Frissora, Richard Rogers, & Adam Earnhardt
Criminal Justice
- 05 373 Measuring the Daily Well-Being of Accounting Students using Experiential
Sampling Techniques
Dominic Jackett
Faculty Sponsor(s): Marsha M. Huber
Accounting
- 06 304 The Autonomy of Religion and Morality
Marissa Cattoi
Faculty Sponsor(s): Deborah E. Cunningham
English

Session 5: Poster Presentations (10:50 - 11:50)

STEM / COFSP

Ohio

- 01 237 The Comparison of Different Water Quality Characteristics along Yellow Creek,
Northeastern Ohio
Kayla Coldsnow, Nicholas Karousis, & Justin Waldern
Faculty Sponsor(s): Carl G. Johnston
Biological Sciences
- 02 324 Transposon mutagenesis of *Stenotrophomonas maltophilia* OR02
Vincent Pilolli, Jeremy Borton, Angel Muns, & Hayley Spalla
Faculty Sponsor(s): Jonathan J. Caguiat
Biological Sciences
- 03 229 Development of a PCR-Based Assay to Detect *Penicillium marneffei* in Insects
Jamielynn Doyle, Kristen Latessa, Jason Gilmore, & Sara Johnson
Faculty Sponsor(s): Chester R. Cooper
Biological Sciences
- 04 218 The Effect of Auditory Distractors on Stress-evoked Galvanic Skin Responses
Kaylin Camp, Rae'ven Crum, Christopher Leymarie, Thomas Rebracca, & Tyler
Tsangaris-Braatz
Faculty Sponsor(s): Johanna Krontiris-Litowitz
Biological Sciences
- 05 214 Morphological Support Effects in Metal-CeO₂ Catalysts for CO Oxidation
Samantha Mock & Thomas Stoner
Faculty Sponsor(s): Ruigang Wang
Chemistry Pre Medical
- 06 122 Removal of Pharmaceuticals From Water by Charcoal Filtration
Allison Guerrieri, Taylor Baum, Samantha Mock, Rachel Centofanti, & Tayah Turocy
Faculty Sponsor(s): Nina V. Stourman
Chemistry Pre Pharmacy

- 07 236 Synthesis and Characterization of CdS_xSe_{1-x} Alloyed Quantum Dots and Silica-Shell Coating
Jennifer Miller & Swayandipta Dey
Faculty Sponsor(s): Jing Zhao (UCONN)
Chemistry
- 08 47 Efficiently Generating Network Links for Bluetooth and Other Mobile Networks
Jenna Wise, Sasha Monroe, Tyler McVicker, & Kevin London
Faculty Sponsor(s): Richard G. Goldthwait
Math Applied Math Track
- 09 32 Markov Chains in America's Pastime
Drew Saluga
Faculty Sponsor(s): Thomas P. Wakefield
Math Applied Math Track
- 10 48 Predicting Fungal Protein Subcellular Location
James Munyon
Faculty Sponsor(s): G. Andy Chang & Xiangjia Min
Math Statistics Track
- 11 55 Correlation between Magnesium Concentrations in Drinking Water and Ischemic Heart Disease Mortality Rate in Ohio
Nicole Rodomsky, Amanda Seidler, Ralph Roth, Amanda Svenson, & Lydia White
(Graduate Student Adviser: Nana Acheampong)
Faculty Sponsor(s): Alan M. Jacobs & Isam E. Amin
Biology Pre Medical
- 12 157 Inflammation, Habitation and Nociception: Are they interrelated?
Jillian Billeck, Olivia Roy, & Katherine Stiff
Faculty Sponsor(s): Jill M. Gifford
Biological Sciences
- 13 238 Anthropogenic Effects on the Costal Ecosystems in Vieques, Puerto Rico
Kayla Coldsnow & Justin Waldern
Faculty Sponsor(s): Carl G. Johnston
Biological Sciences
- 14 269 The Effects of Probiotics on Stress and the Microbial Community of the Gastrointestinal Tract
Daniel Lisko & Justin Waldern
Faculty Sponsor(s): Johnston, Carl G.
Biology
- 15 314 An Observational Assessment of Mangrove Forests in Vieques, Puerto Rico
Nicholas Karousis & Daniel J. Lisko
Faculty Sponsor(s): Carl G. Johnston
Biological Sciences
- 16 352 Study Design for Phytoremediation of Heavy Metals by Using EDDS
Yener Ulus
Faculty Sponsor(s): Carl G. Johnston

Biological Sciences

- 17 361 Bioluminescence in Mosquito Bay Vieques, Puerto Rico
Erin Freed & Kaitlyn Frederick
Faculty Sponsor(s): Carl G. Johnston
Biological Sciences
- 18 169 Effects of Aging on Rho Kinase Activity in Aortic Smooth Muscle of Rats
Michelle Kordupel
Faculty Sponsor(s): Robert E. Leipheimer
Biological Sciences
- 19 199 Histological Study of Hair Follicles and Fiber Characteristics of the Huacaya and
Suri Alpaca
April Chestnut
Faculty Sponsor(s): Mark D. Womble
Biological Sciences
- 20 339 Identification of Saliva Bacteria by 16s rRNA Sequencing
Samantha Bartolone
Faculty Sponsor(s): Jonathan J. Caguiat
Biology Pre Medical

12:00 – 1:15 – Luncheon & Keynote Speaker – Chestnut Room

Martin A. Abraham, Ph.D., P.E.

Interim Provost

“The Role of Research at a Comprehensive University”

Session 6: Poster Presentations (1:30 - 2:30)

Engineering / COFSP

Ohio

- 01 136 Baja Car Body Panel Attachment
Alexander Fitzgerald, Richard Ferry, & Carmen Marinucci
Faculty Sponsor(s): Hazel Marie
Mechanical Engineering
- 02 239 Teaching Children Circuits at Oh Wow! Science Center
Eduardo Bustillos & Mike Kunzer
Faculty Sponsor(s): Hazel Marie
Mechanical Engineering
- 03 26 Energy Backup for St. Joseph's Hospital
Tyce Gall, Anthony Hill, Jason Huey, Jennifer McAnallen, Justin Stellmar, & Blake Walker
Faculty Sponsor(s): John H. George
Mechanical Engineering Tech A
- 04 34 Innovation Of Proximal Interphalangeal Finger Joint
Nick Buffa, Ian Schantz, Rana Abu-Hashim, & Matthew Hetzel
Faculty Sponsor(s): Jae J. Ryu

Mechanical Engineering

- 05 31 Automation of Semi-Trailer Landing Gear
James Schuster
Faculty Sponsor(s): Elvin B. Shields
Mechanical Engineering
- 06 22 Coefficient of Friction Testing Machine: Design and Operation
Dakota Joy
Faculty Sponsor(s): Virgil C. Solomon
Mechanical Engineering
- 07 346 CNC Multi-Table (Phase 1)
Patrick Hyden
Faculty Sponsor(s): Salvatore R. Pansino
Mechanical Engineering
- 08 348 The Design and Installation of a 2 Ton Jib Crane
Benjamin Tadla & Christopher DeChellis
Faculty Sponsor(s): Elvin B. Shields
Mechanical Engineering
- 09 310 Properties and Applications of Shape Memory Polymer Using 3D Printing
Antonio DiSalvo, Samuel Capelli, Daniel Martin, & Kelly Kovaceich
Faculty Sponsor(s): Pedro Cortes
Mechanical Engineering
- 10 205 Personal Bar Tap
Zachary Abraham & Dominic Sikora
Faculty Sponsor(s): Michael J. Juhasz
Mechanical Engineering
- 11 223 Pulse Jet Engine
Tim Shreeve, Mike Bestic, Zachary Bromley, Sam Faykus, & Mike Savopoulos
Faculty Sponsor(s): Ganesh V. Kudav
Mechanical Engineering
- 12 39 Using 3D Printing to Integrate Thermal Management into High-Altitude Flight
Vehicle Structure
Caitlyn Rodomsky, Lauren Rodomsky, Michael Seifert, Nick Onderko, Ryan Lewis,
Thomas Bobosky, & Matthew Conner
Faculty Sponsor(s): Brett P. Conner
Mechanical Engineering
- 13 337 The Internet Lock
Brandon Mirto
Faculty Sponsor(s): Jason A. Zapka
Electrical Engineering Computer/Digital Option
- 14 151 Automated Brewing System
Jonathan Doran, Patrick Bollinger, & Jeffrey Wormley
Faculty Sponsor(s): Jalal Jalali
Electrical Engineering Computer/Digital Option

- 15 50 Linear Transformations in Computer Graphics
Benjamin Wilson, Jonathon Mudrinich , & Steven Schiffhauer
Faculty Sponsor(s): Padraic W. Taylor
Electrical Engineering
- 16 42 Design and Construction of an Operational Multwii Quadcopter
Kyle Spickler, Matthew Pilch, Patrick Hyden, Brennen Morrison, & Austin Snovak
Faculty Sponsor(s): Salvatore R. Pansino
Electrical Engineering
- 17 68 Study of Effects on Production Economics using 3D Printed Sand Casting Molds
James Limperos, Dakesha Jordan, Matthew Manna, & Dylan Pflager
Faculty Sponsor(s): Guhaprasanna P. Manogharan
Industrial and Systems Engineering
- 18 113 Determining the Viscosities of Motor Oils at Various Temperatures
Kyle Bryan, Justin Getz, Michael Craver, & Jesse Saluga
Faculty Sponsor(s): Suresh Sharma
Civil Engineering
- 19 33 Using 3D Printing to Understand Customer Engagement During Active
Customization
Ashley Martof
Faculty Sponsor(s): Brett P. Conner
Industrial and Systems Engineering
- 20 288 Large Scale Automatic Photovoltaics Manufacturing on Mars
Michael Baker, Nicholas McGuigan, & Martin Strong
Faculty Sponsor(s): Donald J. Priour
Physics

Session 7: Oral Presentations (1:30 - 3:00)

Computer and Information Systems

Coffelt

- 01 359 Towards Understanding the Context of Student and Professional Developers
Using Eye Gaze Features
Ahraz Husain
Faculty Sponsor(s): Bonita Sharif
Computing and Information Systems
- 02 240 Towards Understanding Student Problem Solving Behavior via Eye Tracking
Jessica Whitely & Jenna Wise
Faculty Sponsor(s): Bonita Sharif & Alina Lazar
Computer Science
- 03 174 The Construction and Deployment of High-Altitude Systems
Richard Elrod & James Carter
Faculty Sponsor(s): Salvatore R. Pansino
Computer Science

- 04 231 Towards An Automated Approach for Correcting Eye tracking Data on Source Code
Chris Palmer
Faculty Sponsor(s): Bonita Sharif
Computer Information Systems B
- 05 349 Comparing Natural Language Text and Source Code - An Eye-Tracking Study
Patrick Peachock
Faculty Sponsor(s): Bonita Sharif
Computing and Information Systems
- 06 355 Tracing Software Developers' Eyes and Interactions for Change Tasks
Timothy Shaffer, Katja Kevic, Braden Walters, Thomas Fritz, & David Shepherd
Faculty Sponsor(s): Bonita Sharif
Chemistry

Engineering 3

Gallery

- 01 366 Comparison of Uniform and Delta doped p- and n- type ZnO Thin Films
Ravichandra Reddy Gade
Faculty Sponsor(s): Tom N. Oder
Electrical Engineering Computer/Digital Option
- 02 365 Creating 3D Photonic Crystals and GRIN Films Using Sputter Deposition
Cory Merlo
Faculty Sponsor(s): Tom N. Oder
Electrical Engineering
- 03 134 R.O.V.R. (Remotely Operated Video Reconnaissance)
Mark Calautti, Michael Slavens, & Ryan Melichar
Faculty Sponsor(s): Jalal Jalali
Electrical Engineering Biomedical Option
- 04 160 Optimized Parameters for Additive Manufacturing of Metallic Powders
Matthew Caputo
Faculty Sponsor(s): Virgil C. Solomon
Materials Science and Engineering
- 05 267 Classification of Observed Stacking Faults in ZnO Thin Films Using High-Resolution
Transmission Electron Microscopy and Electron Crystallography
Matthew W. Kelly
Faculty Sponsor(s): Virgil C. Solomon
Materials Science and Engineering
- 06 170 Characterizing High-Strain Rate Behavior of Stainless Steel Fabricated by Additive
Manufacturing
Ashley Bowers
Faculty Sponsor(s): Brett P. Conner
Industrial and Systems Engineering

Health & Human Services

Humphrey

- 01 126 Obsessive Dieter's Excessive Supplement Use: Advantages of Incorporating

Objectivity into Existing Questionnaires for Orthorexia Nervosa.

Garrett Zuzik

Faculty Sponsor(s): Abel G. Waithaka
Didactic Program in Dietetics

02 320 Medically-Assisted Treatment: Expert Opinion Regarding the Use of Suboxone (buprenorphine) in Response to the Opiate Epidemic

Michael Welsh

Faculty Sponsor(s): Joseph P. Lyons
Health and Human Services

03 177 Effectiveness of Cleaning Methods for Dental Appliances

Dana Powell, Nicole Bodnar, & Krystal Fuller

Faculty Sponsor(s): Diane P. Kandray
Dental Hygiene

04 75 Carpal Tunnel Syndrome Symptoms Reported by Dental Hygiene Faculty
Cynthia Zatroch & Migdalia Feliciano

Faculty Sponsor(s): Diane P. Kandray
Dental Hygiene

05 74 Dental Hygienists Use of Dental Anxiety Management Protocols

Nichelle Bilotto & Jonna Omerzo

Faculty Sponsor(s): Diane P. Kandray
Dental Hygiene

06 71 Dental Hygienists' Opinions on Dental Hygiene Appointment Length

Michele Sosnick & Hannah Ropp

Faculty Sponsor(s): Diane P. Kandray
Dental Hygiene

Education

Jones

01 360 Talk the Talk: A Case for L2 Acquisition for Academic and Global Success

Megan Factor

Faculty Sponsor(s): Deborah E. Cunningham
English

02 118 The Cost of Language Attitudes: What Price do Nonnative English Speakers Pay for Nonnative English Pronunciations?

Shannon Lutz

Faculty Sponsor(s): Jennifer Behney
English

03 197 Mental Health and College Retention--A Collaborative Student Support Proposal
Timothy Wince

Faculty Sponsor(s): DeBorah D. Graham
Counseling

04 49 How are Institutions of Higher Education Implementing Transition Courses for Student Veterans?

Rebecca McMenamin & Krysta Kurzynski

Faculty Sponsor(s): Matthew J. Paylo

Counseling

- 05 21 Assessing the Effects of Socioeconomic Status on School District Success
Megan Evans
Faculty Sponsor(s): Rosemary D'Apolito
Individual Curriculum Program
- 06 326 Who Holds the Paddle: Teacher and Community Involvement in Bullying
Prevention
Mackenzi Brozovich
Faculty Sponsor(s): Deborah E. Cunningham
English

Session 8: Poster Presentations (2:40 - 3:40)

Biology & Chemistry

Ohio

- 01 207 Developing a Protocol that Characterizes and Quantitates Collagen Oxidation at
Methionine Residues
Kayshala Symonette, Muhammad Erfan Uddin, & David Yash
Faculty Sponsor(s): Johanna Krontiris-Litowitz
Biology Pre Veterinary
- 02 213 Quantitation and Characterization of Collagen Oxidation in TGF-beta stimulated
Fibroblast Culture
Muhammad Erfan Uddin, Kayshala L. Symonette, & David Yash
Faculty Sponsor(s): Johanna Krontiris-Litowitz
Biological Sciences
- 03 69 Analysis of Gene Expression in Developing C2C12: Changes in the Proteome, Titin,
and Myosin
Susan Rashid, Lorna Gallagher, & Robert Giles
Faculty Sponsor(s): Gary R. Walker
Biological Sciences
- 04 92 Gene Expression of the Quinic Acid (qa) Gene Cluster in Neurospora crassa
Kayla Brown
Faculty Sponsor(s): David K. Asch & Gary Walker
Biological Sciences
- 05 168 A Review of the Current State of Cardiac Stem Cell Therapy
Gabriella Vaturi
Faculty Sponsor(s): Gary R. Walker
Biology
- 06 216 Genomics of Biobutanol from Clostridium beijerinckii
Eric Cargal
Faculty Sponsor(s): Gary R. Walker
Biological Sciences
- 07 167 Characteristics of Mesenchymal Stem Cells and Their Use in Wound Repair
Zachary Morse

Faculty Sponsor(s): Diana L. Fagan
Biological Sciences

- 08 162 Use of Phage Display to Identify Specific Peptide Ligands that Bind to Human Serum Albumin
Bill Rees
Faculty Sponsor(s): Diana L. Fagan & Pedro Cortes
Biological Sciences
- 09 70 The Development of Monoclonal Antibodies Against HIV-1 Viral Protein r using Hybridoma Technology
Ogunwumi Olumide
Faculty Sponsor(s): Diana L. Fagan
Biological Sciences
- 10 351 Contruction of an MHR1 Gene Knockout to Determine its Effects on mtDNA in p-Yeast
Joanna Peng & Robin McConahy
Faculty Sponsor(s): Heather E. Lorimer
Biological Sciences
- 11 341 Glucan Synthase Gene Expression in Penicillium marneffeii in Response to Cell-Wall Stressors
Sarah Eisnaugle
Faculty Sponsor(s): Chester R. Cooper
Biological Sciences
- 12 354 Chitin Synthase Gene Expression in Penicillium marneffeii in Response to Cell-Wall Stressors
Joshua Engle
Faculty Sponsor(s): Chester R. Cooper
Biological Sciences
- 13 206 Recombineering Strategies for Isolating, Cloning, and Deleting Genes in Enterobacter Species YSU and S. maltophilia OR02
Christine Curtis
Faculty Sponsor(s): Jonathan J. Caguiat
Biological Sciences
- 14 222 Toward the Synthesis of the First Perfluorinated Anionic Indium MOF
Mariah D. DeFuria & Douglas T. Genna
Faculty Sponsor(s): Douglas T. Genna
Chemistry
- 15 106 Elucidation and Characterization of Commercially Produced CMA Road Deicer
Jennifer R. Miller, Matthew J. LaLama, Darian E. Wilson, Paije M. Kiraly, & Samuel W. Dickson
Faculty Sponsor(s): Matthias Zeller
Chemistry
- 16 189 Effect of Nutrients on the Growth of E. coli Cells Overexpressing beta-Glucosidase BglX
Tara L. Pickens

Faculty Sponsor(s): Nina V. Stourman
Chemistry

- 17 85 Characterization of Predicted Bacterial Glutathione Transferase, YliJ
Ashten Gibson & Shelby Woodward
Faculty Sponsor(s): Nina V. Stourman
Chemistry Pre Medical
- 18 282 Synthesis of bis(2,2,2-trifluoroethyl) (Z)-vinyl phosphonates from bis(2,2,2-trifluoroethyl) 1-alkynylphosphonates using Lindlar's catalyst
Brian Kamerer
Faculty Sponsor(s): John A. Jackson
Chemistry
- 19 379 Synthesis of Bis(2,2,2-trifluoroethyl) Phosphonates
Jordan Zaluski
Faculty Sponsor(s): John A. Jackson
Chemistry
- 20 184 Controlling Supramolecular Structure of Anionic Metal Organic Frameworks with
Cationic Nitrogen Containing Additives.
Joseph Mihaly & Michael Bellas
Faculty Sponsor(s): Douglas T. Genna
Chemistry

Session 9: Oral Presentations (3:30 - 5:00)

History

Coffelt

- 01 125 Richard III: Bad to the Bone?
Brittany Trask
Faculty Sponsor(s): Brian Bonhomme
History
- 02 265 Factors that Affect the Mental Health of Combat Veterans: Social Support vs.
Substance Abuse
Joshua Hall
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice
- 03 20 Entheogens & the Law
Jason Slosnerick
Faculty Sponsor(s): Fred W. Viehe
History
- 04 17 Italian Immigration
Elizabeth Miller
Faculty Sponsor(s): Fred W. Viehe
History
- 05 10 Piracy Through the Centuries
Robert Miller

Faculty Sponsor(s): Fred W. Viehe
History

- 06 9 An Analysis of the Evolution of the American City and Orchestral Music Due to Technology
Todd D. Rossi
Faculty Sponsor(s): Fred W. Viehe
History

Engineering 4 & STEM

Gallery

- 01 241 Spinel-Based TCON Composites via Transformation of Printed Precursor Shapes
Monica Ramunno
Faculty Sponsor(s): Timothy R. Wagner
Chemistry
- 02 254 A Classical Analog of a Kerr Black Hole
Connor J. Hetzel
Faculty Sponsor(s): Michael J. Crescimanno
Physics
- 03 90 Removable Multilayer Polymer Appliques as Wavelength Selective Filters for Mirrors When Night Driving
Gwen Dmitruk
Faculty Sponsor(s): James H. Andrews
Physics
- 04 158 Advancing Heat Transfer with Impinging Jets, Channel Flow and Two Phase Mediums
Brian Friedrich
Faculty Sponsor(s): Kyosung Choo
Mechanical Engineering
- 05 53 Solid Oxide Fuel Cells (SOFCs): A Novel Manufacturing Method through Binder-Jetting
Meshack Kioko
Faculty Sponsor(s): Guhaprasanna P. Manogharan & Clovis Linkous
Mechanical Engineering
- 06 61 Heat Transfer and Fluid Flow Characteristics of the Effects of Impinging Air Jets and Nozzle Diameter
Karen Schilling
Faculty Sponsor(s): Kyosung Choo
Mechanical Engineering

Diversity & Conflict

Humphrey

- 01 262 The Second Gilded Age: The Government's Responsibility to the Wealth Gap
Mark Holland
Faculty Sponsor(s): Deborah E. Cunningham
English

- 02 171 Musical Medicine: Jazzing Up the Therapy World
Tayah Turocy
Faculty Sponsor(s): Deborah E. Cunningham
English
- 03 200 In The Media We Trust?
Mia Daly
Faculty Sponsor(s): Alyssa J. Lenhoff
Journalism
- 04 1 Domestic Violence Myths and Neutralizing Attitudes of Society Towards Victims
Molly Hartsough
Faculty Sponsor(s): Denise A. Narcisse
Sociology
- 05 277 Helping Our Veteran and Military Students Succeed and Persist to Graduation: An
Exploratory Study
Jessica Yarab
Faculty Sponsor(s): Mari L. Alschuler
Social Work
- 06 196 Fear as a Weapon: The Evolution of Terrorism, 1945-2015
Brandon M. Lehnert
Faculty Sponsor(s): Richard L. Rogers
Criminal Justice Bachelors

Health & Human Services

Jones

- 01 219 Wait, College Students Sleep?
Safah Esmail
Faculty Sponsor(s): Amanda L. Roby
Respiratory Care
- 02 208 Epinephrine Pen Training at Grades k-12 Schools
Sarah McCann
Faculty Sponsor(s): Amanda L. Roby
Respiratory Care
- 03 203 Why Are College Students Saying No to Organ Donation?
Deanna Robertson
Faculty Sponsor(s): Amanda L. Roby
Respiratory Care
- 04 198 Hospital Menus and Food Allergies in Children
Tori Heverly
Faculty Sponsor(s): Amanda L. Roby
Respiratory Care
- 05 195 You're Smoking What?
Alexandria Baugh
Faculty Sponsor(s): Amanda L. Roby
Respiratory Care

- 06 369 Core Strengthening vs. Standard Strengthening Protocol When Implemented for
Anterior Knee Pain in Young Athletes
Dawnelle Jewell, Meische Cox, & Michael Carson
Faculty Sponsor(s): Kenneth E. Learman
Physical Therapy

Session 10: Poster Presentations (3:50 - 4:50)

STEM

Ohio

- | | | |
|----|-----|--|
| 01 | 335 | Front Line Supervision within the Construction Industry
Sydney DeMaarco
<i>Faculty Sponsor(s):</i> Carol M. Lamb
Civil and Construct Eng Tech B |
| 02 | 281 | Chemistry 3720 Honors Project: Carbohydrate Structures by NMR and Molecular Modeling
Jenna Weems, Cassandra Shaffer, Alexa Schmidt, & Breanna Naylor
<i>Faculty Sponsor(s):</i> Peter Norris
Chemical Engineering |
| 03 | 102 | Analysis of Time Study at Resco Products Inc.
Johnny Medina & Mike Kunzer
<i>Faculty Sponsor(s):</i> Martin Cala
Mechanical Engineering |
| 04 | 95 | Work Sampling for CCL Container
Ariana Zebrasky & Daniel Delahunty
<i>Faculty Sponsor(s):</i> Martin Cala
Industrial and Systems Engineering |
| 05 | 96 | Work Analysis of an Ignition System Packing Process at Altronic of Girard
Jordan Thomson & Alex Waggoner
<i>Faculty Sponsor(s):</i> Martin Cala
Industrial and Systems Engineering |
| 06 | 99 | Applying Work Study Processes to Thermocouple Manufacturing at Fireline Inc.
Sarah Staley & Mia Barchetti
<i>Faculty Sponsor(s):</i> Martin Cala
Industrial and Systems Engineering |
| 07 | 101 | Methods Engineering Analysis and Work Design at Brainard Rivet for Quality Improvement
James Mayor & Mazen Jamaan
<i>Faculty Sponsor(s):</i> Martin Cala
Industrial and Systems Engineering |
| 08 | 104 | Analysis of Work Design at Gasser Chair
Devon Rambo & Jeremiah Kibler
<i>Faculty Sponsor(s):</i> Martin Cala
Industrial and Systems Engineering |

- | | |
|----|---|
| 09 | <p>120 Modeling the Spread of an Infectious Disease in a Semi-Closed Environment
Crystal Mackey
<i>Faculty Sponsor(s):</i> Alica Prieto Langerica
Math Applied Math Track</p> |
| 10 | <p>14 Development of ProtSecKB: the Protist Secretome and Subcellular Proteome Knowledgebase
Brian Powell, Vamshi Amerishetty, & John Meinken
<i>Faculty Sponsor(s):</i> Xiangjia Min, Chester Cooper, & Feng Yu
Computer Science</p> |
| 11 | <p>159 Design of an Open World Obstacle Creation System for Novice Driver Training
Andrew Smiles
<i>Faculty Sponsor(s):</i> Abdurrahman Arslanyilmaz
Computer Science</p> |
| 12 | <p>116 Understanding a Novice Programmer's Progression of Reading and Summarizing Source Code
Andrew Morgan
<i>Faculty Sponsor(s):</i> Bonita Sharif
Computing and Information Systems</p> |
| 13 | <p>242 Methods for the Synthesis of Directional Amphiphilic Ligands for Use in Biological Systems
Jennifer Moore, Matthew Torres, & Abigail Ansah
<i>Faculty Sponsor(s):</i> Peter Norris
Chemistry</p> |
| 14 | <p>156 The use of arylsulfonyl azides as precursors to organic derivatives
Michael Delost
<i>Faculty Sponsor(s):</i> Peter Norris & Matthias Zeller
Chemistry</p> |
| 15 | <p>190 Purification and Biochemical Studies of Glutathione Transferase YliJ from Escherichia coli
Collins Aboagye
<i>Faculty Sponsor(s):</i> Nina V. Stourman
Chemistry</p> |
| 16 | <p>250 Synthons of UDP-N-acetyl-L-fucosamine (UDP-L-FucNAc) and D-ManNAcA as potential inhibitors of Staphylococcus aureus capsular polysaccharide
Philemon Ngoje & Emmanuel R. Buabeng
<i>Faculty Sponsor(s):</i> Peter Norris
Chemistry</p> |
| 17 | <p>263 Novel Approaches to Acyl Nitrenes
Christopher Copeland & Cephas Afeke
<i>Faculty Sponsor(s):</i> Peter Norris
Chemistry</p> |
| 18 | <p>23 Recording of Original Compositions
Lauren Eisenreich & Christopher Rudzinkas
<i>Faculty Sponsor(s):</i> David S. Morgan</p> |

Music Performance Instrument

- 19 377 End Stage Renal Disease (ESRD) Patient's Perception of Their Health and Compliance with their Dialysis Prescription.
 Linda Robinson
 Faculty Sponsor(s): Amy Weaver
 Nursing
- 20 375 Methods of Engineering Time Study Analysis at General Extrusions Inc.
 Ben Spencer & Etienne Hall
 Faculty Sponsor(s): Martin Cala
 Industrial & Systems Eng