

## **QUEST 2007: A FORUM FOR STUDENT SCHOLARSHIP PROGRAM SCHEDULE**

### **MORNING SESSION I: 8:30 – 10:00**

**COFFELT ROOM  
JAMES GALLERY  
JONES ROOM  
OHIO ROOM**

**PSYCHOLOGY  
MECHANICAL AND INDUSTRIAL ENGINEERING  
PHYSICS AND ASTRONOMY  
POSTER SESSION I: BIOLOGICAL SCIENCES**

### **MORNING SESSION II: 10:30 – 12:00**

**BRESNAHAN I ROOM  
BRESNAHAN II ROOM  
COFFELT ROOM  
HUMPHREY ROOM  
JAMES GALLERY  
JONES ROOM  
OHIO ROOM  
PUGSLEY ROOM**

**ENGINEERING AND TECHNOLOGY  
PSYCHOLOGY  
COMPUTER SCIENCE  
SOCIOLOGY AND POLITICAL SCIENCE  
MECHANICAL AND INDUSTRIAL ENGINEERING  
RESEARCH ON SAN SALVADOR, THE BAHAMAS  
POSTER SESSION II: CHEMISTRY, PHYSICS, AND BIOLOGY  
DANA SCHOOL OF MUSIC**

**CHESTNUT ROOM**

**QUEST STUDENT AND FACULTY LUNCHEON 12:00 – 1:15**

### **AFTERNOON SESSION I: 1:30 – 3:00**

**BRESNAHAN I ROOM  
BRESNAHAN II ROOM  
COFFELT ROOM  
HUMPHREY ROOM  
JAMES GALLERY  
JONES ROOM  
OHIO ROOM  
OHIO ROOM**

**MATHEMATICS AND STATISTICS  
HEALTH PROFESSIONS  
GEOGRAPHY, CHEMISTRY, AND BIOLOGY  
TEACHER EDUCATION  
MECHANICAL AND INDUSTRIAL ENGINEERING  
HISTORY  
POSTER SESSION III: SCIENCE AND TECHNOLOGY  
SIGMA XI FACULTY RESEARCH POSTERS**

### **AFTERNOON SESSION II: 3:30 – 5:00**

**BRESNAHAN I ROOM  
COFFELT ROOM  
HUMPHREY ROOM  
JAMES GALLERY  
JONES ROOM  
OHIO ROOM  
PUGSLEY ROOM**

**ENGLISH AND ART  
BUSINESS, ACCOUNTING, AND MANAGEMENT  
CRIMINAL JUSTICE  
ELECTRICAL AND COMPUTER ENGINEERING  
HUMAN ECOLOGY AND PHYSICAL THERAPY  
POSTER SESSION IV: MULTIDICIPLINARY SESSION  
ART EXHIBITION**

## MORNING SESSION I: 8:30 – 10:00

### COFFELT ROOM – PSYCHOLOGY

Session Moderators: Dr. Karen M. Giorgetti and Dr. Steve Ellyson

- 8:30 - 8:45            Body Art Becoming Habitual Stimuli  
Stephanie Sarrach  
*Faculty Advisor: Dr. Beverly Ann Gray*
- 8:45 - 9:00            My Last Scent: Effects of Background Scents on Behavior and Cognition  
Anthony Hurt  
*Faculty Advisor: Dr. Karen M. Giorgetti*
- 9:00 - 9:15            Personality and Social Attitudes  
Coletta Mace  
*Faculty Advisor: Dr. Sharon Stringer*
- 9:15 - 9:30            The Effects of Background Noise on Memorization  
Molly Dunn  
*Faculty Advisor: Dr. Steve L. Ellyson*
- 9:30 - 9:45            The Judgement Study  
Merissa Durda  
*Faculty Advisor: Dr. Steve L. Ellyson*

### JAMES GALLERY - MECHANICAL AND INDUSTRIAL ENGINEERING

Session Moderators: Dr. Elvin Shields and Dr. Cynthia Hirtzel

- 8:30 - 8:45            Axial Jack for Shield System  
Mandy Pavlicko, KC Schneider, Jeremy Minor, and Greg Mathes  
*Faculty Advisor: Dr. Elvin B. Shields*
- 8:45 - 9:00            Characterization of Ceramic-Metal Interpenetrating Phase Composites  
Ryan Paul  
*Faculty Advisor: Dr. Cynthia Hirtzel*
- 9:00 - 9:15            Collapsible Spreader Bar for Trenching (Project Orange)  
Matt Citarella, Charles Marino, Phil Carlon, and Jason Jones  
*Faculty Advisor: Dr. Elvin B. Shields*
- 9:15 - 9:30            Design and Installation of a Dumbwaiter into a Two-Story Restaurant  
Ryan Jewell, Justin Mercer, and Anthony Musolino  
*Faculty Advisor: Dr. Elvin B. Shields*
- 9:30 - 9:45            Design of a Water-Glycol Exchanger for a Hydronic Heating System  
Carrie Bailey, Pete Verostko, and Paul Wilbrink  
*Faculty Advisor: Dr. Elvin B. Shields*
- 9:45 - 10:00          Hinged Release System  
Ben DeMar, Shannon Parker, Michael T Fox, and Liz Waugh  
*Faculty Advisor: Dr. Elvin B. Shields*

## JONES ROOM - PHYSICS AND ASTRONOMY

Session Moderators: Dr. James J. Carroll and Dr. Michael Crescimanno

- 8:30 - 8:45      A Linux-Based Time Interval Counter for Precision Frequency Comparisons  
Jessica Shipman  
*Faculty Advisor: Dr. Michael J. Crescimanno*
- 8:45 - 9:00      Evaluation of Low Stress Crystal Oscillator Stability  
John Hoffman  
*Faculty Advisor: Dr. Michael J. Crescimanno*
- 9:00 - 9:15      PID Thermal Control  
Brandon Latronica  
*Faculty Advisor: Dr. Michael J. Crescimanno*
- 9:15 - 9:30      Real Time Physics Simulation  
Nathaniel Caldwell  
*Faculty Advisor: Dr. Gregg W. Sturuss*
- 9:30 - 9:45      Search for Rare Decay Branches of  $^{177}\text{mLu}$  with the TRIUMF 8pi Detector  
Sean Ludt, Stephanie McCann, and Steve Smyczynski  
*Faculty Advisor: Dr. James J. Carroll*
- 9:45 - 10:00      Symmetries and the Damped Kepler Problem  
Brian Hamilton  
*Faculty Advisor: Dr. Michael J. Crescimanno*
- 10:00 - 10:15      Theory and Design of an Energy-release Experiment on Silver-108  
Carroll, Dr James J.  
*Faculty Advisor: Dr. James J. Carroll*

## OHIO ROOM - POSTER SESSION I: BIOLOGICAL SCIENCES

Session Moderators: Dr. Jonathan Caguiat and Dr. Thomas Diggins

- 8:30 - 10:00      Alternative Treatment for Staphylococcus aureus  
Maurice Royal  
*Faculty Advisor: Dr. Diana L. Fagan*
- 8:30 - 10:00      Androgenic Regulation of Cavernosal Smooth Muscle Relaxation in the Rat  
Andrew J. Rice  
*Faculty Advisor: Dr. Robert E. Leipheimer*
- 8:30 - 10:00      Assessing the Quality of Reporting Methods in the Primary Literature  
Anna Grzebieniak  
*Faculty Advisor: Dr. Jill M. Gifford*
- 8:30 - 10:00      Characterization of Inetraction Between Rehydration Buffer and Bradford Reagent  
Asra Arif  
*Faculty Advisor: Dr. Johanna Krontiris-Litowitz*
- 8:30 - 10:00      DNA Analysis of Stenotrophomonas maltophilia, a Bacterial Strain from Oak Ridge  
Sithari Edirisooriya  
*Faculty Advisor: Dr. Jonathan J. Caguiat*
- 8:30 - 10:00      Ecological Influences on Stream Community Composition in Zoar Valley, NY.  
April M. Newman  
*Faculty Advisor: Dr. Thomas P. Diggins*
- 8:30 - 10:00      Estrogen Modulation of Dopamine Transporter Activity in the Corpus Striatum  
Dawn Amolsch  
*Faculty Advisor: Dr. Robert E. Leipheimer*

## OHIO ROOM - POSTER SESSION I: BIOLOGICAL SCIENCES - continued

- 8:30 - 10:00 Following Alcohol to Azide Conversions by IR Spectroscopy  
Robert Steffy  
*Faculty Advisor: Dr. Peter Norris*
- 8:30 - 10:00 Identification of a Cell Size Regulator in the Proteome of *Penicillium marneffe*  
Joseph A. Dikun, David Hamer, and Jaclyn Morris  
*Faculty Advisor: Dr. Gary R. Walker*
- 8:30 - 10:00 Identification of a Potential Selenite Resistance Gene in *E. coli* strain HB101  
Frank Heinselman  
*Faculty Advisor: Dr. Jonathan J. Caguiat*
- 8:30 - 10:00 Micro Assay for Testing of AB-5-89  
Michelle L. Blower  
*Faculty Advisor: Dr. Diana L. Fagan*
- 8:30 - 10:00 Pilot Study of the Effects of Partial Sciatic Nerve Ligation on Recovery in Rats  
Kevin Corman  
*Faculty Advisor: Dr. Jill M. Gifford*
- 8:30 - 10:00 Protein Variations in Castor Seeds  
Debbie Smith  
*Faculty Advisor: Dr. Daryl W. Mincey*
- 8:30 - 10:00 Proteomic Profiling of *S. maltophilia* ORO2; A Selenite Resistant Bacterium  
Ashley Nicole Jasenec  
*Faculty Advisor: Dr. Jonathan J. Caguiat*
- 8:30 - 10:00 Proteomic Studies of A Selenite Resistant Strain of *E. coli*  
Cherise Benton  
*Faculty Advisor: Dr. Jonathan J. Caguiat*
- 8:30 - 10:00 Pteridophyte Assemblage Composition and Richness as a Reflection of Woodland Mat  
Brandon T. Sinn and Erin Pfeil  
*Faculty Advisor: Professor Carl F. Chuey and Dr. Thomas P. Diggins*
- 8:30 - 10:00 Screening of Metal-Resistant Bacterial Isolates from Poplar Creek in Oak Ridge,  
Christine Franz  
*Faculty Advisor: Dr. Jonathan J. Caguiat*
- 8:30 - 10:00 The Anti-Epileptic Drug Retigabine and its Effects on Neuronal Hyperexcitability  
Amanpreet Kaur  
*Faculty Advisor: Dr. Mark D. Womble*
- 8:30 - 10:00 The Effects of Environmental Variables on Inflammation-Induced Nociception  
Asleigh Glass  
*Faculty Advisor: Dr. Jill M. Gifford*
- 8:30 - 10:00 Transposon Mutagenesis of the Multi-metal Resistant Bacterium *S. maltophilia* ORO  
Danielle DeChant  
*Faculty Advisor: Dr. Jonathan J. Caguiat*

## MORNING SESSION II: 10:30 – 12:00

### BRESNAHAN I ROOM - ENGINEERING AND TECHNOLOGY

Session Moderators: Dr. Douglas M. Price and Dr. William Wood

- 10:30 - 10:45      Carbon Dioxide Corrosion and Inhibition Studies  
Kristin Gilida  
*Faculty Advisor: Dr. Douglas M. Price*
- 10:45 - 11:00      Materials Engineering Projects: 3D Printing and Chemical Etching  
Alberto Miranda and Leah Nakely  
*Faculty Advisor: Dr. Cynthia Hirtzel*
- 11:00 - 11:15      Testing of Masonry Lintels  
Nate Malmsberry  
*Faculty Advisor: Dr. William Wood*

### BRESNAHAN II ROOM – PSYCHOLOGY

Session Moderators: Dr. Margaret Gittis and Dr. Beverly Ann Gray

- 10:30 - 10:45      What Are You Looking At? Effects of Race and Gender on Recognition  
Candace M. Younkins  
*Faculty Advisor: Dr. Beverly Ann Gray*
- 10:45 - 11:00      The Influence of Facial Feedback on a Weight Bias  
Ellen Hurd  
*Faculty Advisor: Dr. Margaret M. Gittis*
- 11:00 - 11:15      How Good is Your Memory?  
Maggie Marsh  
*Faculty Advisor: Dr. Margaret M. Gittis*
- 11:15 - 11:30      What Do You Have to Hide? Face-ism as a Factor of Gender and Age  
Candace M. Younkins  
*Faculty Advisor: Dr. Steve L. Ellyson*

### COFFELT ROOM - COMPUTER SCIENCE

Session Moderators: Dr. Alina Lazar and Dr. Bradley Shellito

- 10:30 - 10:45      C.STRAHLER STEREO DETECTION©2006: Real Estate, Planning, Analysis of Patterns  
Craig Strahler  
*Faculty Advisor: Dr. Bradley Shellito*
- 10:45 - 11:00      A Multiparadigm Approach to Epistemic Representation of Interrogative Domains  
Tracey Hughes and Cameron Hughes  
*Faculty Advisor: Dr. Alina Lazar*
- 11:00 - 11:15      Imaging and Characterization of Facial String in Long Video Sequences  
Matt Shreve and Shaun Canavan  
*Faculty Advisor: Dr. Yong Zhang*
- 11:15 - 11:30      The Sarbanes-Oxley Act: A Guide for IT Students and Professionals  
Krishna James  
*Faculty Advisor: Dr. Joseph C. Blankenship*
- 11:30 - 11:45      Time Out: Get Control of Your Cell Phone Minutes  
Jonathan Jenyk  
*Faculty Advisor: Dr. John R. Sullins*

## **HUMPHREY ROOM - SOCIOLOGY AND POLITICAL SCIENCE**

Session Moderators: Dr. David S. Porter and Dr. Qi Jiang

- 10:30 - 10:45      Complexities and Inequalities of Post- 9/11 Politics  
Marianne Dobritch and Julia Rodabaugh  
*Faculty Advisor: Dr. Qi Jiang*
- 10:45 - 11:00      Gay Marriage: Why the Right Gets it Wrong and the Left Doesn't Get it  
Albert Morar II  
*Faculty Advisor: Dr. David S. Porter*
- 11:00 - 11:15      Global Warming Crisis: An Individual and Informed Plea for Change  
Elizabeth Khumprakob  
*Faculty Advisor: Jeanne Zingale*
- 11:15 - 11:30      Model NATO  
Guy Sebastian  
*Faculty Advisor: Dr. David S. Porter*
- 11:30 - 11:45      The Rise of Islamic Extremism from the Muslim Brotherhood to Bin Laden  
John T. Blue  
*Faculty Advisor: Dr. David S. Porter*

## **JAMES GALLERY - MECHANICAL AND INDUSTRIAL ENGINEERING**

Session Moderators: Dr. H.W. Shaun Kim and Dr. Hazel Marie

- 10:30 – 10:45      Human Powered Vehicle  
Andrea Fryda, Mark Arnio, Erik Beegle, and William Tutor  
*Faculty Advisor: Dr. Hazel Marie*
- 10:45 – 11:00      Increasing the Torque and Efficiency of a Permanent Magnet Motor  
John Frech, Matthew Corsale, Matthew Mosko, and James Shuster  
*Faculty Advisor: Dr. Elvin B. Shields*
- 11:00 – 11:15      Moonbuggy 1  
David Gaffney, Benjamin Greenawalt, and Andrew Reed  
*Faculty Advisor: Dr. H. W. Shawn Kim*
- 11:15 – 11:30      Moonbuggy 2  
Robert Kotel, Jeremy Payne, and Brian Rea  
*Faculty Advisor: Dr. H. W. Shawn Kim*

## **JONES ROOM - RESEARCH ON SAN SALVADOR, THE BAHAMAS**

Session Moderators: Dr. Dawna Cerney and Dr. Shane V. Smith

- 10:30 - 10:45      A Preliminary Study of Entombed Beach Debris On San Salvador Island, The Bahamas  
Sarah Lewis, Katie Pylypiak, Tyler Furrie, and Krista Foster  
*Faculty Advisor: Dr. Ronald V. Shaklee*
- 10:45 - 11:00      An Archaeological Report on the Storr's Lake Site  
David Parker  
*Faculty Advisor: Thomas Delvaux*
- 11:00 - 11:15      Storr's Lake Archaeological site Mapping  
Jenny Geilhard and Stephanie Day  
*Faculty Advisor: Dr. Dawna Cerney*
- 11:15 - 11:30      Annual Changes of the Pigeon Creek Delta Bathymetry, San Salvador, Bahamas  
Will Emery, Noell Bonar, and Mark Mazzi  
*Faculty Advisor: Dr. Jeffrey C. Dick*

## **JONES ROOM - RESEARCH ON SAN SALVADOR, THE BAHAMAS - continued**

- 11:30 - 11:45      Depositional Patterns and Coastal Change at Sandy Point, San Salvador, Bahamas  
James Becker, Anthony Olive, and Robert Coffey  
*Faculty Advisor: Dr. Jeffrey C. Dick*
- 11:45 - 12:00      Paleosols on San Salvador, Bahamas  
Jesse Zampedro and Ron Stratton  
*Faculty Advisor: Dr. Shane V. Smith*
- 12:00 - 12:15      Paleowind Direction on San Salvador, Bahamas  
Chris Norton, Chuck Mooney, and Margarita Rodriguez  
*Faculty Advisor: Dr. Shane V. Smith*

## **OHIO ROOM - POSTER SESSION II: CHEMISTRY, PHYSICS, AND BIOLOGY**

Session Moderators: Dr. Peter Norris and Dr. John J. Feldmeier

- 10:30 - 12:00      REEL Project (Research Experience to Enhance Learning)  
Debbie Smith  
*Faculty Advisor: Dr. Timothy R. Wagner*
- 10:30 - 12:00      A One-Pot Synthesis of Azides from Alcohols  
Brian Dobosh, Lucas Beagle, and Charles Hartranft  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Analysis of Sputter-Deposited ZnO Epitaxial Semiconductor  
Aaron Schott  
*Faculty Advisor: Dr. Tom N. Oder*
- 10:30 - 12:00      Calibrating and Analyzing data from the BOKS Project  
Zachary Brown  
*Faculty Advisor: Dr. John J. Feldmeier*
- 10:30 - 12:00      C-H Insertion Chemistry on Furanose Platforms  
Calvin Austin, Ashely Malich, and Jen Patton  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Evaluation of the Effective Fragment Potential Method of Molecular Modeling  
David Martin  
*Faculty Advisor: Dr. Michael J. Crescimanno*
- 10:30 - 12:00      Following Alcohol to Azide Conversions by IR Spectroscopy  
Patrick Anderson, Mark Callow, Vinnie Peyko, Jarrett Steffy, Tareq Kayyali, and David Hamer  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Identification of a Cell Size Regulator in the Proteome of *Penicillium marneffe*  
Joseph A. Dikun, David Hamer, and Jaclyn Morris  
*Faculty Advisor: Dr. Gary R. Walker*
- 10:30 - 12:00      Mimics of Sugars Related to *S. aureus* Microcapsules  
Michael Evans  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Molecular Modeling and Ring Conformation in Honors Organic Chemistry  
Justine Busby, Thomas Krupko, and Moriah Wright  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      REEL PROJECT: Synthesis and Characterization of  $KCo_xCu(1-x)F_3$  ( $x=0$  to 10)  
Rachel Kusnic  
*Faculty Advisor: Dr. Timothy R. Wagner*

## OHIO ROOM - POSTER SESSION II: CHEMISTRY, PHYSICS, AND BIOLOGY - continued

- 10:30 - 12:00      Scalable Syntheses of Aminosugars Found in *S. aureus* Capsular Polysaccharides  
Ryan Conway and Adam Cox  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Searching for Extragalactic Planetary Nebulae in the Leo Triplet  
Ashley Skalsky and Laura Magrini (Universita di Firenze, Italy)  
*Faculty Advisor: Dr. John J. Feldmeier*
- 10:30 - 12:00      Synthesis and Reactions of Bis(2,2,2-trifluoroethyl) Phosphonoalkynes  
Ramnath Kallamadi  
*Faculty Advisor: Dr. John A. Jackson*
- 10:30 - 12:00      The Synthesis and Characterization of Ferrocenyl Polymers Using Atom Transfer Radical Polymerization  
Brittney Humphrey  
*Faculty Advisor: Dr. Sherri Lovelace-Cameron*
- 10:30 - 12:00      Towards Mimics of UDP-N-acetyl-L-fucosamine  
David Clark McCutcheon and Katherine Pavlidakey  
*Faculty Advisor: Dr. Peter Norris*
- 10:30 - 12:00      Visualizing Stereochemical Inversion in the SN2 Reaction  
Peter Norris  
*Faculty Advisor: Dr. Peter Norris*

## PUGSLEY ROOM - DANA SCHOOL OF MUSIC

Session Moderator: Dr. Silvio J. dos Santos

- 10:30 - 10:45      Between Nietzsche and Wagner: Richard Strauss's Ein Heldenleben  
Taylor Dicken  
*Faculty Advisor: Dr. Silvio J. dos Santos*
- 10:45 - 11:00      Bye bye Butterfly - Welcome Caterpillar  
Vivianne Asturizaga  
*Faculty Advisor: Dr. Silvio J. dos Santos*
- 11:00 - 11:15      Motivic and Formal Structures in Bartók's Sonata for Piano (1926)  
Wesley Krautbauer  
*Faculty Advisor: Dr. Silvio J. dos Santos*
- 11:15 - 11:30      The Appropriation and Integration of Wagner  
David Catchpole  
*Faculty Advisor: Dr. Silvio J. dos Santos*
- 11:30 - 11:45      The Reception of Schoenberg's Twelve-Tone Compositional Techniques  
Maureen Connell  
*Faculty Advisor: Dr. Silvio J. dos Santos*



**CHESTNUT ROOM - QUEST STUDENT AND FACULTY LUNCHEON 12:00 – 1:15**

**AFTERNOON SESSION I 1:30 - 3:00**

**BRESNAHAN I ROOM - MATHEMATICS AND STATISTICS**

Session Moderators: Dr. Thomas Smotzer and Dr. Jay G. Kerns

- 1:30 - 1:45      Inradius and Circumradius of a Triangle  
John Hird  
*Faculty Advisor: Dr. Thomas Smotzer*
- 1:45 - 2:00      Statistical Comparison of Discrete Audio  
Tyler Drombosky  
*Faculty Advisor: Dr. Jay G. Kerns*
- 2:00 - 2:15      The Order of Groups  
Darla Jones  
*Faculty Advisor: Dr. Neil Flowers*

**BRESNAHAN II ROOM - HEALTH PROFESSIONS**

Session Moderators: Dr. Salvatore Sanders and Dr. Kathleen Akpom

- 1:30 - 1:45      A Comparison of Teaching Methods Used to Improve house Staff Use of Metered Dose  
Pat Russo  
*Faculty Advisor: Dr. Salvatore Sanders*
- 1:45 - 2:00      Eta Sigma Gamma Community Projects  
Margaret Beniston and Katie Moore  
*Faculty Advisor: Dr. Kathleen Akpom*
- 2:00 - 2:15      HIV Testing Among College Students  
Sparkil Alli  
*Faculty Advisor: Dr. Kathleen Akpom*

**COFFELT ROOM - GEOGRAPHY, CHEMISTRY, AND BIOLOGY**

Session Moderators: Dr. Ronald Shaklee and Dr. Brian D. Leskiw

- 1:30 - 1:45      A Spatial and Temporal Overview of Urban Structure in Sub-Saharan Africa  
Stephanie Day  
*Faculty Advisor: Dr. Ronald V. Shaklee*
- 1:45 - 2:00      Are Natural Corked Wines Better?  
John Milo  
*Faculty Advisor: Dr. Brian D. Leskiw*
- 2:00 - 2:15      Bimolecular Reactions in the Gas Phase  
Daryl G. Mains  
*Faculty Advisor: Dr. Brian D. Leskiw*
- 2:15 - 2:30      GPS/GIS Applications for Local Event Planning  
Wook Rak Jung  
*Faculty Advisor: Dr. Bradley A. Shellito*
- 2:30 - 2:45      Proteomic Analysis of Phase-Switch Studies on Dimorphic Fungus *P. marneffe*  
Karen Stangl  
*Faculty Advisor: Dr. Chester Cooper*
- 2:45 - 3:00      Identification of a Cell Size Regulator in the Proteome of *Penicillium marneffe*  
Joseph Dikun, David Hamer, and Jaclyn Morris  
*Faculty Advisor: Dr. Gary R. Walker*

## **HUMPHREY ROOM - TEACHER EDUCATION**

Session Moderators: Dr. Regina Rees and Richard Pirko

- 1:30 - 1:45      Electronic Flashes, Strobes, & High-Speed Photography  
Joseph Neiheisel  
*Faculty Advisor: Richard Pirko*
- 1:45 - 2:00      Great Chicago Fire  
Daniel Rose  
*Faculty Advisor: Dr. Fred W. Viehe*
- 2:00 - 2:15      Literacy Strategies for Special Needs Students  
Lauren Glenn  
*Faculty Advisor: Dr. Regina M. Rees*
- 2:15 - 2:30      Motivating Middle School Students to Read in and out of the Classroom  
Jaclyn Elias  
*Faculty Advisor: Dr. Regina M. Rees*
- 2:30 - 2:45      Napoleon Triangles- A Brief Presentation  
Jeffrey Cornfield  
*Faculty Advisor: Dr. Thomas Smotzer*

## **JAMES GALLERY - MECHANICAL AND INDUSTRIAL ENGINEERING**

Session Moderator: Dr. Elvin Shields

- 1:30 - 1:45      Quick Release System for Trench Box  
Thomas Meikle, Kyle Sands, and Josh Winters  
*Faculty Advisor: Dr. Elvin B. Shields*
- 1:45 - 2:00      Trench Shield Quick Release Mechanism  
Christopher Keller, Brian Meek, and Joseph Pietromona  
*Faculty Advisor: Dr. Elvin B. Shields*
- 2:00 - 2:15      Trench Shoring System Pin Redesign  
Michael Long and Kevin Turner  
*Faculty Advisor: Dr. Elvin B. Shields*
- 2:15 - 2:30      Trench Spreader Bar Quick-Release Upgrade  
Scott Sherrod, Brandon Papa, Russell Newman, and William Thompson  
*Faculty Advisor: Dr. Elvin B. Shields*
- 2:30 - 2:45      YSU Channel Guard  
Tammy Donnadio, Sara Wise, Danielle Guerrieri, and Jeremy Mount  
*Faculty Advisor: Dr. Elvin B. Shields*

## **JONES ROOM – HISTORY**

Session Moderators: Dr. Anne York and Dr. Fred W. Viehe

- 1:30 - 1:45      And Justice for All? The Massacre at My Lai 4  
Lisa Vario  
*Faculty Advisor: Dr. Anne York*
- 1:45 - 2:00      Open for All Men for All Time, the Significance of Goodyear Hall  
Tammy L. Troup  
*Faculty Advisor: Dr. Donna M. DeBlasio*
- 2:00 - 2:15      The 1968 Democratic Convention  
Greg Yakubov  
*Faculty Advisor: Dr. Fred W. Viehe*

## **JONES ROOM – HISTORY - continued**

- 2:15 - 2:30      The 360: British Use of Force in Ireland  
Paul Brenner  
*Faculty Advisor: Dr. David A. Simonelli*
- 2:30 - 2:45      The Iconography of Ivan the Terrible in Stalin's USSR  
Jennifer Hanuschak  
*Faculty Advisor: Dr. Brian Bonhomme*
- 2:45 - 3:00      The Queen of Steam; Steam Locomotive No. 765  
Patrick Davis  
*Faculty Advisor: Dr. Fred W. Viehe*

## **OHIO ROOM - POSTER SESSION III: SCIENCE AND TECHNOLOGY**

Session Moderators: Dr. Frank X. Li and Dr. Joseph Andrews

- 1:30 - 3:00      "We are IT" – A Quest to Increase the Interest in Computing  
Among Young Girls  
Louise Popio and Shauna Hartline  
*Faculty Advisor: Dr. Alina Lazar*
- 1:30 - 3:00      Affects of Spherical Contact Terminal Geometry on the Electrical  
Performance of Diodes  
Mark Barlow  
*Faculty Advisor: Dr. Frank X. Li*
- 1:30 - 3:00      Assessment of the Hurricane Impact Scale, San Salvador, Bahamas  
Ginger Cartright  
*Faculty Advisor: Dr. Jeffrey C. Dick*
- 1:30 - 3:00      Face Recognition with 2D and 3D images using Support Vector Machines  
Shaun Canavan  
*Faculty Advisor: Dr. Alina Lazar*
- 1:30 - 3:00      GIS Techniques for Mapping Ground Water Pollution at a BFI Landfill  
Nicole Eve  
*Faculty Advisors: Dr. Jeffrey C. Dick and Dr. Bradley Shellito*
- 1:30 - 3:00      Heater Design for RF Sputter Deposition  
Aaron Schott, Dan Angelis, Leby Sassya, and Wajiha Ghauri  
*Faculty Advisor: Dr. Jalal Jalali*
- 1:30 - 3:00      Interpreting Tectonic History Using Fabric Analysis of Multi. Rock  
Deformations  
Dominic Vigarino  
*Faculty Advisor: Dr. Joseph E. Andrew*
- 1:30 - 3:00      Online Multiplayer Gaming Environment Capable of Real-time Interaction  
Jonathan J. Duran  
*Faculty Advisor: Suzan C. Harper*
- 1:30 - 3:00      Relationship Between Polyaromatic Hydrocarbons in Groundwater and the  
Mahoning River  
Steven A. Buffone  
*Faculty Advisor: Dr. Isam Amin*
- 1:30 - 3:00      Structural Steel Fireproofing  
Brad E. Drennen  
*Faculty Advisor: David G. Kurtanich*

## OHIO ROOM - SIGMA XI FACULTY RESEARCH POSTERS

- 1:30 - 3:00      Burrell-Optical-Kepler Survey (BOKS) I: Survey Description  
                    **Feldmeier, John J.**; Howell, S.; Harding, P.; Mihos, C.; Rudick, C.; Sherry, W.; Lee, T.; Knox, C.; Ciardi, D.; von Braun, K.; Everett, M.; Proctor, M.; van Belle, G.
- 1:30 - 3:00      Burrell-Optical-Kepler Survey (BOKS) II: Early Variability Results  
                    Howell, Steve B.; **Feldmeier, John J.**; van Braun, K.; Everett, M.; Mihos, C.; Harding, P.; Knox, C.; Sherry, W.; Lee, T.; Ciardi, D.; Rudick, C.; Proctor, M.; van Belle, G.
- 1:30 - 3:00      Carbohydrate Mimetics for Staphylococcus aureus Capsule  
                    **Diana Fagan**, Monica Vicarel, Abdul Basit, and Peter Norris
- 1:30 - 3:00      Choosing a Career in Psychology: Dilemmas for Women  
                    Margaret M. Gittis
- 1:30 - 3:00      Comparing Correlations of Metric and Morphological Data from the Deciduous and Permanent Dentitions in a European American Sample  
                    **Loren R. Lease** and H.J.H. Edgar
- 1:30 - 3:00      Continuity on Product Spaces  
                    Zbigniew Piotrowski
- 1:30 - 3:00      Is There a Correlation Between Deciduous and Permanent Dental Metrics in a Sample of Female Americans of Hispanic Descent?  
                    RJ McGinn, HJH Edgar, and **Loren R Lease**
- 1:30 - 3:00      Psychology of Women as Laboratory  
                    **Margaret M. Gittis**, Coletta S. Mace, Erin E. Gallagher
- 1:30 - 3:00      Screening of Metal-Resistant Bacterial Isolates from Poplar Creek in Oak Ridge, TN  
                    Stephen Vadia, Sithari Edirisooriya, Christine Franz, Matthew Skiljo, Devinbir Malik, **Jonathan Caguiat**
- 1:30 - 3:00      Thermally Stable Silicon Carbide Schottky Diodes using ZrB<sub>2</sub>  
                    Tom N. Oder

## AFTERNOON SESSION II 3:30 – 5:00

### BRESNAHAN I ROOM - ENGLISH AND ART

Session Moderators: Dr. Barbara Nykiel-Herbert and Dr. Stephanie Smith

- 3:30 - 3:45      Cross-Cultural Complaint Speech Acts: Taiwan vs. American  
Amy Jo Giovannone and Chia-Chi Hsu  
*Faculty Advisor: Dr. Barbara Nykiel-Herbert*
- 3:45 – 4:00      Bread Stamps in the Early Medieval World  
Jennifer Houston  
*Faculty Advisor: Dr. Stephanie Smith*
- 4:00 - 4:15      Till Eulenspiegel And His Role As Trickster In Late Middle Ages  
Gary Davenport  
*Faculty Advisor: Dr. Leonard Scott*

### COFFELT ROOM - BUSINESS, ACCOUNTING, AND MANAGEMENT

Session Moderators: Dr. David E. Stout and Dr. John B. Russo

- 3:30 - 3:45      Improving Cash-Flow Management through an Activity-Based Costing Implementation  
Gregory Bedenis  
*Faculty Advisor: Dr. David E. Stout*
- 3:45 - 4:00      Financial Literacy  
Jaime Kudary and Kevin Love  
*Faculty Advisor: Dr. Raymond J. Shaffer*
- 4:00 - 4:15      The Global position of Indian Automotive Companies  
Michael Perry  
*Faculty Advisor: Dr. John B. Russo*
- 4:15 - 4:30      Yeditepe University Case Study  
Rosanna Zarzycki-Miller  
*Faculty Advisor: Dr. Birsan Karpak*

### HUMPHREY ROOM - CRIMINAL JUSTICE

Session Moderator: Dr. John M. Hazy

- 3:30 - 3:45      Behind the Scenes: An Exploratory Study of Student Grade Performance  
Stacey Lewis  
*Faculty Advisor: Dr. John M. Hazy*
- 3:45 - 4:00      Female Delinquency: Growth & Response  
Jennifer Bierdeman  
*Faculty Advisor: Dr. John M. Hazy*
- 4:00 - 4:15      Juvenile Boot Camps and Detention Centers: Is there a better one?  
Stephanie Hughes  
*Faculty Advisor: Dr. John M. Hazy*

## **JAMES GALLERY - ELECTRICAL AND COMPUTER ENGINEERING**

Session Moderators: Dr. Jalal Jalali and Dr. Salvatore R. Pansino

- 3:30 - 3:45      An Automated System for the Hargreaves Method  
Rachel Hughes, James Venglar, and James Jackson  
*Faculty Advisor: Dr. Jalal Jalali*
- 3:45 - 4:00      Autonomous Robot  
Carl Rossler  
*Faculty Advisor: Dr. Jalal Jalali*
- 4:00 - 4:15      Design and Implementation of a Industrial Machine Monitoring System  
David Garthwaite and Ian Thompson  
*Faculty Advisor: Dr. Salvatore R. Pansino*
- 4:15 - 4:30      High Temperature Superconductor Tests for Electrical Characteristics  
Nick Lockard, Andriy Ptichkin, and Looja Tuladar  
*Faculty Advisor: Dr. Jalal Jalali*
- 4:30 - 4:45      Single to Three Phase Conversion Using a Rotary Style Design  
Cliff Barton, Edward Sutphin, Kevin Carney, and Brett Stitt  
*Faculty Advisor: Dr. Jalal Jalali*
- 4:45 - 5:00      Smart House  
Lannie Marsh, Shaun Sudol, Bob Morlan, and Kevin Coy  
*Faculty Advisor: Dr. Jalal Jalali*
- 5:00 - 5:15      Wind Turbine  
Dale Seginak, Cory Webb, Chris Harris, and Anthony Ferrell  
*Faculty Advisor: Dr. Jalal Jalali*

## **JONES ROOM - HUMAN ECOLOGY AND PHYSICAL THERAPY**

Session Moderators: Dr. Janice Elias and Dr. Mollie C. Venglar

- 3:30 - 3:45      Controversial Issues Surrounding Body Mass Index as a Measure of Health  
Lora I. Werkmeister  
*Faculty Advisor: Dr. Kathleen Akpom*
- 3:45 - 4:00      Factors Affecting Job Satisfaction in the Child Care Workplace  
Sara Jugenheimer  
*Faculty Advisor: Dr. Janice G. Elias*
- 4:00 - 4:15      FES Bike Training Impact on Ambulation after a Chronic Spinal Chord Injury  
Alexis Elias  
*Faculty Advisor: Dr. Mollie C. Venglar*
- 4:15 - 4:30      Pre-Service Students Knowledge about Prenatal Addiction  
Roslyn Fabian  
*Faculty Advisor: Dr. Carol Hawkins*
- 4:30 - 4:45      Progressive Resistive Exercise for Fibromyalgia: Function, Pain, and Sleep  
Amy Boes  
*Faculty Advisor: Dr. Marlene Iannucci*
- 4:45 - 5:00      Use of a Posterior Wheeled Walker to Improve  
Alaina-Marie Hershman  
*Faculty Advisor: Suzanne M. Giuffre*

## OHIO ROOM - POSTER SESSION IV: MULTIDICIPLINARY SESSION

Session Moderators: Dr. Martin Cala and Dr. Jake J. Protivnak

- |             |                                                                                                                                                                                                             |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3:30 - 5:00 | <u>Analysis of Lifting Task at Humtown Products</u><br>Brenten Lamoncha and Joelius Lariccia<br><i>Faculty Advisor: Dr. Martin Cala</i>                                                                     |
| 3:30 - 5:00 | <u>Brainard Rivet Company Time Study</u><br>Bobby Hepfner and Aylin Ulus<br><i>Faculty Advisor: Dr. Martin Cala</i>                                                                                         |
| 3:30 - 5:00 | <u>Bridging America's Digital Divide</u><br>Tonie Gordon<br><i>Faculty Advisor: Dr. Julia M. Gergits</i>                                                                                                    |
| 3:30 - 5:00 | <u>Determination of Sex and Ancestry Through Non-Traditional Bone Measurements</u><br>Barbara Hileman and Jill Little<br><i>Faculty Advisor: Dr. Loren R. Lease</i>                                         |
| 3:30 - 5:00 | <u>Effect of Auditory and Visual Cues on Retrieval</u><br>Jennifer Platek<br><i>Faculty Advisor: Dr. Karen M. Giorgetti</i>                                                                                 |
| 3:30 - 5:00 | <u>Effect of Socioeconomic Status and Gender on Children's Career Aspirations</u><br>Ashley Nagle<br><i>Faculty Advisor: Dr. Karen M. Giorgetti</i>                                                         |
| 3:30 - 5:00 | <u>Gia Russa (Zidian Manufacturing)</u><br>Matt Dechelis and Scott Minadeo<br><i>Faculty Advisor: Dr. Martin Cala</i>                                                                                       |
| 3:30 - 5:00 | <u>Mac Trailer Time Study</u><br>William James and Tim Jones<br><i>Faculty Advisor: Dr. Martin Cala</i>                                                                                                     |
| 3:30 - 5:00 | <u>Peer Virtual Networks: What School Counselors Should Know About 21st Century Student Communication</u><br>Rob Rivello, Lauren Sadlak, and Julie Sharrow<br><i>Faculty Advisor: Dr. Jake J. Protivnak</i> |
| 3:30 - 5:00 | <u>Respecting the Will of the People: Death with Dignity Legislation</u><br>Krystal Culler<br><i>Faculty Advisor: Dr. Daniel J. Van Dussen</i>                                                              |
| 3:30 - 5:00 | <u>School Based Conflict Resolution: A Review of the Four Most Common Approaches</u><br>Lauren Sadlak and Candice Davis<br><i>Faculty Advisor: Dr. Jake J. Protivnak</i>                                    |
| 3:30 - 5:00 | <u>Students' Knowledge of Standard Serving Sizes and Ability to Estimate Portions</u><br>Christine Casey, Allison Huck, Jenna Cole, and Brian Dubeil<br><i>Faculty Advisor: Dr. Zara Rowlands</i>           |
| 3:30 - 5:00 | <u>The Super Bowl Food Phenomenon</u><br>Emily Gillam, Kelly Scott, Molly Oder, and Cindy Sebulsky<br><i>Faculty Advisor: Dr. Zara Rowlands</i>                                                             |

## **OHIO ROOM - POSTER SESSION IV: MULTIDICIPLINARY SESSION - continued**

- 3:30 - 5:00      Time Study at Patriot Seating  
Brad Samsa and Joe Juby  
*Faculty Advisor: Dr. Martin Cala*
- 3:30 - 5:00      Use of Low Grade Joint Mobilization to Treat Chronic Joint pain Caused by System  
Shingo Tanaka  
*Faculty Advisor: Dr. Mollie C. Venglar*
- 3:30 - 5:00      Work Measurement and Standards Development at Altronic Inc.  
Joshua Babbey and Chris Tyrell  
*Faculty Advisor: Dr. Martin Cala*

## **PUGSLEY ROOM – ART EXHIBITION**

Session Moderator: Dragana Crnjak

- 3:30 - 5:00      Art and Text  
Adam Sullivan  
*Faculty Advisor: Dragana Crnjak*
- 3:30 - 5:00      Painting  
Amy Kreiger  
*Faculty Advisor: Dragana Crnjak*
- 3:30 - 5:00      Pending  
Elizabeth Sait  
*Faculty Advisor: Dragana Crnjak*
- 3:30 - 5:00      Abstract Painting  
Jennifer Townsend  
*Faculty Advisor: Dragana Crnjak*