## Biology

**Development of the Nasolacrimal Apparatus in the Fetal Pig (Sus scrofa domesticus)**  
Presenter: Miracle Maloy-Franklin  
Faculty Sponsors: Dr. Susan Rehorek Dr. Simon Beeching and Dr. Timothy Smith

**Developmental Consequences of Imidacloprid on Amphibian Development**  
Presenter: Grascen Shidemantle  
Faculty Sponsor: Dr. Paul Falso

**Effects of Resveratrol Treatment on Temperature Sensitive Paralysis in the Drosophila melanogaster for TPI Deficiency**  
Presenters: Darren Kuhn and Austin Shirk  
Faculty Sponsor: Dr. Stacy Hrizo

**The Effect of Resveratrol on Mechanical Stress Sensitivity in Drosophila with TPI Deficiency**  
Presenters: Katie Skolnick and Kaitlyn McNamara  
Faculty Sponsor: Dr. Stacy Hrizo

**Utilizing Live Cell Imagining in Drosophila Cells to Identify Stressors that Induce Protein Misfolding**  
Presenters: Annette Choi and Mengqi Wang  
Faculty Sponsors: Dr. Martin Buckley and Dr. Stacy Hrizo

## Chemistry

**Design and Synthesis of L-Neplanocin Analogues as Antiviral Agents**  
Presenters: Amber Davidson and Matthew Heffelfinger  
Faculty Sponsor: Dr. Qi Chen

**Modifying the Bridging Anion of LnX4M 12-metallacrown-4 Complexes**  
Presenter: Jessica Reed  
Faculty Sponsor: Dr. Thaddeus Boron III

**Thermodynamic and Structural Impact of a,a-Dialkylated Residue Incorporation in a β-Hairpin Peptide**  
Presenters: Gabrielle Gette and Shelby Schettler  
Faculty Sponsor: Dr. George Lengyel

## Communication

**Communication, cont.**

**Longstreth Community Relations**  
Presenter: Renee Rosenblum  
Faculty Sponsor: Dr. Katrina Quinn

**Public Relations Case Study: Crisis Management Plan IKEA**  
Presenter: Andrea Hegarty  
Faculty Sponsor: Dr. Katrina Quinn

**Shriners Hospital for Children: Case Study in Community Relations**  
Presenter: Sarah Morrison  
Faculty Sponsor: Dr. Katrina Quinn

**The National Football League’s Crisis Management in Response to Long-Term Concussion Issues**  
Presenter: Diana Caruso  
Faculty Sponsor: Dr. Katrina Quinn

**Crisis Management and Public Relations Ethics of the Volkswagen Group**  
Presenter: Morgan Ellenberger  
Faculty Sponsor: Dr. Katrina Quinn

**Community and Employee Relations of Stand Up To Cancer**  
Presenter: Elissa Berardi  
Faculty Sponsor: Dr. Katrina Quinn

**Community Relations, AEO, Inc.**  
Presenter: Mariah Ricci  
Faculty Sponsor: Dr. Katrina Quinn

## Criminology and Criminal Justice

**Does Childhood Trauma Lead to Delinquent Behavior?**  
Presenter: Meghan Torok  
Faculty Sponsor: Dr. Sarah Kuehn

**Getting Tough on Juvenile Offenders: An Exploration of Advantages and Disadvantages of Harsh Juvenile Sentencing Laws**  
Presenters: Veronica Miller and Jayme Tatko  
Faculty Sponsor: Dr. Sarah Kuehn

## Gender and Diversity Studies

**Effects of Hegemonic Masculinity on Gay Men**  
Presenter: Alex Sharo  
Faculty Sponsor: Dr. Cindy LaCom
<table>
<thead>
<tr>
<th>Department</th>
<th>Title</th>
<th>Presenter</th>
<th>Faculty Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography, Geology and the Environment</td>
<td>Depositional and Structural Features of the Basal Morgantown Sandstone, Pittsburgh, PA</td>
<td>Michael Chojnacki and Logan Jacobs</td>
<td>Dr. Patricia Campbell</td>
</tr>
<tr>
<td></td>
<td>Morphologic Evidence for Pleistocene Groundwater Sapping Along the Flanks of the Jacksville Esker, West Liberty, Lawrence County, PA</td>
<td>Samuel Evans and Maraina Miles</td>
<td>Dr. Patrick Burkhart</td>
</tr>
<tr>
<td>History</td>
<td>Reaffirming Masculinity Through Consumption: The Relationship Between Consumption and Individuality During the Early Cold War Era</td>
<td>Matthew Stock</td>
<td>Dr. William Bergmann</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>Assessing Statistical Differences of Pedagogical Methods</td>
<td>Cody O’Brien</td>
<td>Dr. Dilrukshika Singhabahu</td>
</tr>
<tr>
<td></td>
<td>The Role of Cronbach's Alpha Coefficient in Analyzing Reliability</td>
<td>John Yannotty</td>
<td>Dr. Dilrukshika Singhabahu</td>
</tr>
<tr>
<td>Music</td>
<td>Implementation and Assessment of Improvisational Music Therapy with a Child with Autism Spectrum Disorder</td>
<td>Erin Oulton and Kenneth Farinelli</td>
<td>Mr. Vern Miller</td>
</tr>
<tr>
<td>Parks and Recreation/Recreational Therapy</td>
<td>Comparative Effectiveness of Two Different Recreational Therapy Modalities for Social Skills and Self Efficacy for Youth with Autism Spectrum Disorder</td>
<td>Chelsea Craine, Lindsey Crandell, Alexa Milstein, Taylor Pykus and Kelsey Edwards</td>
<td>Dr. Betsy Kemeny and Dr. Deborah Hutchins</td>
</tr>
<tr>
<td></td>
<td>Exploring the Effectiveness of Heros on the Water Program for Veterans with Disabilities</td>
<td>Maria DeAngelis</td>
<td>Dr. Betsy Kemeny</td>
</tr>
<tr>
<td></td>
<td>Humor Therapy</td>
<td>Emily Aldridge</td>
<td>Dr. Colleen Cooke</td>
</tr>
<tr>
<td>Physical and Health Education</td>
<td>Growing with a Garden: Sustainability and Nutrition</td>
<td>Madeline Badaczewski</td>
<td>Dr. Hannah Brewer</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>Development of the Orbital Cavity in the Squirrel Monkey (Saimiri)</td>
<td>Judi Wu</td>
<td>Dr. Timothy Smith</td>
</tr>
<tr>
<td>Physics and Engineering</td>
<td>Discoveries of ALMA</td>
<td>Jared Todorowski</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td></td>
<td>Investigations into Civilian Drone Flight Stability</td>
<td>Lillian Reynolds and Amanda Holskey</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>How Green and Efficient Are Electric Cars?</td>
<td>Chase Zikmund</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Music</td>
<td>The Possibility of Predicting a Nova in 2022</td>
<td>Joseph Pounds</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Physics and Engineering</td>
<td>Quantum Computers</td>
<td>Jacob Ciare</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>Supermassive Black Hole Spin</td>
<td>Jacob Palmer</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Physical and Health Education</td>
<td>The Crab Nebula: Discoveries and Implications</td>
<td>Marshall Tuten</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Parks and Recreation/Recreational Therapy</td>
<td>The Future of Nuclear Fusion</td>
<td>Dean Ketterer</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Mathematics and Statistics</td>
<td>Wonders Beyond Our Solar System</td>
<td>Conor Page and Megan Moser</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
<tr>
<td>Music</td>
<td>Investigating Proxima b’s Habitability</td>
<td>Kayla Kuppertz</td>
<td>Dr. Krishna Mukherjee</td>
</tr>
</tbody>
</table>
**Physics and Engineering, cont.**

*Nanoelectronic Prosthetic Advancements in Modern Medicine*
Presenter: Timothy Samec  
Faculty Sponsor: Dr. Krishna Mukherjee

*Laser Cooling*
Presenters: Kimberly Matsinger and Alex Gipple  
Faculty Sponsor: Dr. Krishna Mukherjee

*The Women Who Pioneered Dark Matter*
Presenter: Kara Manning  
Faculty Sponsor: Dr. Krishna Mukherjee

*Determining Material Properties of Nanotube Filament*
Presenters: Patrick Campoli, Adam Giovanelli and Noah Shinn  
Faculty Sponsor: Dr. Krishna Mukherjee

*Dielectric Anistrophy and Elastic Constants Near the Nematic-Smectic A Transition*
Presenter: Angelo Visco  
Faculty Sponsor: Dr. Rizwan Mahmood

**Political Science**

*Cost and Benefit of Combating Nutrient-Based Hypoxia in the Gulf of Mexico*
Presenter: Daniel Petrelli  
Faculty Sponsor: Dr. Heather Rice

*Background Check Requirements for Child-Care Personnel: The Forefront of Child Protection?*
Presenter: Nicole Loncaric  
Faculty Sponsor: Dr. Heather Rice

**Psychology**

*An Examination of Sexual Orientation and Body Image: Do Relationships with Friends Protect Us From Body Dissatisfaction?*
Presenters: Robert Wellman and Darien Yarger  
Faculty Sponsor: Dr. Emily Keener

*Brain Awareness Week: The Brain Basis of Mental Disorders*
Presenters: Nicole Benvento, Lindsey Gehman, Abigail Cornett, Alexius Dutrieuille, Alaina Marshall, Kali Kirlangitis, Renee Schmitzer, Stephanie Smith, Kelly Rothrock and Victoria Coleman  
Faculty Sponsor: Dr. Jennifer Willford

*Conceptualizing Spirituality: What Is It and How Do We Assess It?*
Presenters: Alana Garrison and Megan Kausmeyer  
Faculty Sponsor: Dr. Emily Keener

*The Influence of Massage Induced Hormones on Productivity*
Presenters: Kaylee Pitzer, Victoria Coleman and Carly Riedmann  
Faculty Sponsor: Dr. Jennifer Willford