



## 2004-2005 Academic Year Undergraduate Research Grants

Each grant list individual student researcher(s) with respective cooperating faculty member(s) in parenthesis.

### School of Business

- Jeremiah Riethmiller (James Kurre) - \$700  
"Follow the Leader: Creating a Leading Index for the Erie Economy"

### School of Engineering and Engineering Technology

- Lisa Buziewicz (Oladipo Onipede) - \$700  
"Stability and Vibration of Electrostatically Driven Actuators"
- Andrew Detar (Oladipo Onipede) - \$700  
"Modeling and Simulation of Twisted Airfoil Sections"
- Stephen Feder (John Roth) - \$700  
"Extending the Tool Life of Solid Tungsten Carbide Endmills using Cryogenics"
- Adam Gallagher (John Roth) - \$700  
"Cryogenic Treatment of Tungsten Carbide Tools and How the Life is Extended"
- Donald Hackworth (Thomas Hemminger) - \$700  
"An Optical-Based Projection Feedback Presentation Controller"
- Jarred Heigel (John Roth) - \$700  
"Analysis of Electrically Aided Bending Processes"
- Amy McCullough (William Lasher) - \$700  
"Fluid Flow Simulation of Sail Aerodynamics"
- Terence Musho (William Lasher) - \$700  
"Impact of Velocity Profile and Surface Proximity on Predicted Results of CFD Simulations of Spinnakers"
- Heather Myers (James Sonnenmeier) - \$700  
"Calculation of the Aerodynamic Performance of Twisted Wings"
- Eric Paszkowski (Martin Dropik) - \$700  
"Finite Element Modeling of Living Hinge Behavior"
- Joseph Piazza (John Roth) - \$700  
"Testing and Analyzing the Effects of Using Electricity with Respect to Material Properties"
- Carl Ross (John Roth) - \$700  
"Effects of DC Current on the Ductile-to-Brittle Transition and Compressive Properties of 6061 T6511Aluminum"

- Sean Salem, Brian Lee, and Brian Trapp (David Loker) - \$700  
"Development of Wireless Sensor Network"
- Nicholas Vitelli (Martin Dropik) - \$700  
"Design of an Instrumented Mold to Verify Air Gap Formation during Cooling in Cup-Shaped Parts"

### **School of Humanities and Social Sciences**

- Christine Anderson and Jeremy Reel (Dawn Blasko and Derek Mace) - \$1,400  
"The Effects of Stress on Change Detection Ability"
- Holly Blasko Drabik and Josh Rowe (Victoria Kazmerski and Dawn Blasko) - \$1,400  
"ERP Evidence of Interference across both Visual and Auditory Stroop Tasks: Part II"
- Adam Esser and Brant Hamilton (Victoria Kazmerski) - \$400  
"The Effect of Own-Gender Bias on Accuracy in Eye-Witnesses"
- Lyndsay Ferrara and Holly Greiner (Victoria Kazmerski) - \$450  
"Presence of Self-Monitoring: Dispositional vs. Situational Attributions and Explaining"
- Stephanie Gupana, Alison Koeppel, Joe Langer, Rob Lantsy, Leslie Sargent, Phil Sherfey, Chris Strayer, and Josh Wilczynski (John Gamble) - \$2,250  
"Comprehensive Statistical Database of Multilateral Treaties (CSDMT)"
- Erin Gustafson, Elma Bico, and Greg Parker (Victoria Kazmerski) - \$700  
"Local and Long-Distance Relationships and Their Effect on Stress Levels and Self-Esteem in College-Aged Students"
- Eileen Haase and John Crane (Victoria Kazmerski) - \$700  
"Sibling Behavior Variation: An Examination of a Divorce's Impact on Sibling Behavior"
- Kristin Hesch, Tammy Sudul, Shannon Bach, and Danielle Lombardo (Charisse Nixon) - \$700  
"Forgiveness, Emotional Literacy and Their Effects on Relational Aggression"
- Lisa Jacobs (Victoria Kazmerski) - \$700  
"Context Dependent Memory and Stress"
- Reneé Jerge, Aimee Frey, and Xenia Tomlinson (Victoria Kazmerski) - \$470  
"Interpretation of Sexist Jokes Varying by Gender and Personality"
- Annie Jordan and Kristen Tingley (Victoria Kazmerski) - \$538  
"The Sexual Overperception Bias"
- Timothy Lyon and Nathan Zimmerman (Charisse Nixon) - \$768  
"A Study of Variables Affecting Body-Image Distress"
- Kristie McCann and Bethany Crooks (Victoria Kazmerski) - \$400  
"Socially Accepted Levels of Relational Aggression in Short- vs. Long-Term Heterosexual Romantic Relationships"
- Marlena McNutt and Sara Bretz (Victoria Kazmerski) - \$700  
"Science Activity Learning and Spatial Abilities in Fourth Graders"

- Seraina Naef and Denise Nowacinski (Charisse Nixon) - \$1,539  
"CASS: Creating a Safe School Environment"
- Denise Nowacinski (Charisse Nixon) - \$700  
"The Effects of Media on Relational Aggression"
- Dotty Shaffer and James Morosky (Dawn Blasko and Victoria Kazmerski) - \$1,400  
"Analyzing the Influence of Directionality and Similarity in Metaphor Judgments Utilizing ERP"

### **School of Science**

- Lee Beers (Michael Campbell) - \$700  
"Microarray Analysis of RD22 and Cytochrome P450 in Dormant and Non-Dormant Potato Meristems"
- Edwin Bierbower (Jeanette Schnars) - \$700  
"Dietary and Mercury Level Analysis of Eastern Coyote Population at Presque Isle State Park"
- Charlotte Boni (Michael Campbell) – \$575  
"Creating an Antisense NDP Mutant in *Arabidopsis thaliana*"
- Jessica Collier (Jay Amicangelo) - \$700  
"The Characterization of Silicon Nitride Intermediates Using a Microwave Discharge Source and Matrix-Isolation Infrared Spectroscopy"
- Andrew Collins-Hed, Leann Bartomioli, and Jennifer Nimako (Yi-Hong Wang and Michael Campbell) - \$2,100  
"Building a Genomic Resource for Tomato through Activation Tagging and Insertional Mutagenesis"
- Jason Creps (James Warren Jr.) - \$700  
"Antibody Production of Three Zebrafish Fragile X Related Proteins"
- Joana Feliciano (David Hunnicutt) - \$700  
"Identification of the Culturable Species of Microorganisms in Compost Tea"
- Dave Gilson (Blair Tuttle) - \$697  
"Amorphous Silicon Models Using Monte-Carlo Simulations"
- Robert Goins (Paul Becker) - \$630  
"Classification of Small Groups Which Admit Faithful Blockings"
- Meredith Hyldahl (Darren Williams) - \$700  
"Frequency of Giant Impacts on Extrasolar Earth-Like Planets"
- Jamie Jones, Jason Jennings, John May, and Lindsay Patton (Charles Burchard and Gregor Olsavsky) - \$790  
"Tallow: A Calculus Software Program for Beginners"
- John Lapek Jr. (James Warren Jr.) - \$700  
"In Situ Hybridization and Morpholino Knockdown of Glycine Cleavage System Genes in Zebrafish (*Danio rerio*)"

- Lymari Martinez (Alan Jircitano) - \$700  
"Synthesis and Investigation of the Photochromic Properties of a Platinum(II) Complex with a Tridentate Schiff-Base Condensate"
- Elizabeth Marton (Martin Kocielek) - \$700  
"Synthesis of Cyano Analogues of Pterulone Natural Products"
- Floyd Mattie (Michael Campbell) - \$275  
"Analysis of Microsatellite Diversity of *Ambystoma maculatum* Using Fluorescent Microsatellite Tagging"
- Stacy Mosier (James Warren Jr.) - \$700  
"Sequence Determination of the Zebrafish MTHFD1 and MTHFD2 Genes"
- Thomas Moyer (David Hunnicutt and James Warren Jr.) - \$700  
"Virulence of Flavobacteria in Zebrafish (*Danio rerio*)"
- Sarah Pattison (Lisa Mangel) - \$700  
"Avian Population/Habitat Assessment for the Lake Pleasant Wetlands"
- Nicholas Ross (Blair Tuttle) - \$700  
"Computing through the Ages: Hands-on Curriculum Development"
- Matthew Sack (David Hunnicutt) - \$500  
"The Importance of the *lola* Gene for *Flavobacterium johnsoniae* Motility"
- Nancy Saxton (Jay Amicangelo) - \$700  
"The Characterization of Titanium Nitride Intermediates Using a Microwave Discharge Source and Matrix- Isolation Infrared Spectroscopy"
- Julie Schreibeis (Alan Jircitano) - \$700  
"A Novel Photochromic Pt(II) Compound Based on 2-Amino-4-Phenylbenzaldehyde"
- Jason Shaffer (Martin Kocielek) - \$700  
"Synthesis of Benzofused 6- and 7-Membered Rings from 3-Bromoisoxazoles"
- Daniel Slomski (G. William Baxter) - \$700  
"Mathematical Determination of Ant Search Dynamics"
- Matt Stanton, Josh Walker, Tad Ruefthaler, and Tim Reed (Ronald McCarty and Kevin Norton) - \$2,450  
"Behrend Atmospheric and Climate Observation Network"
- Christopher Suprock (Lawrence Downey) - \$700  
"Encryption by Approximation and the Exploration of Image-Based Noisy Channels"

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