Research Days
A series of events celebrating research, scholarship and creative activity

Poster Sessions
April 15, 2016
Dear students, faculty, staff and friends:

Thank you for joining Binghamton University in celebrating the remarkable research, scholarship and creative work being conducted across campus. As we wrap up this year’s Research Days with two vibrant poster sessions, we can be proud of the strides we have made over the past year.

Research, scholarship and creative work have long been part of the fabric of academic excellence at Binghamton, and we continue to expand opportunities for our students. In the past year, we added two research streams to our groundbreaking Freshman Research Immersion (FRI) program. Given the success of our three initial research streams — biofilms, smart energy and neuroscience — we added streams in image and acoustic signals analysis and biomedical chemistry this year. These research streams provide exceptional opportunities for students to combine their academic studies with the experience of conducting authentic research. Three more research streams will be added in the fall.

This three-semester program helps to position our students to continue research in faculty laboratories, obtain internships and prepare for careers in science and engineering. And we offer a lot more opportunities for undergraduates to engage in original research. Across the campus — in the humanities, the social sciences, the arts and our professional schools — students are engaged in faculty-mentored research that helps them experience the joy of discovery. This summer, 20 undergraduates will receive financial support from the University as part of our Summer Scholars and Artists Program.

We have also forged strong collaborations across campus through our five Transdisciplinary Areas of Excellence (TAEs). The TAEs involve more than 200 faculty members in the areas of citizenship, rights and cultural belonging; health sciences; material and visual worlds; smart energy; and sustainable communities.

We appreciate your support for research, scholarship and creative work at Binghamton University.

Sincerely,

Donald G. Nieman
Executive Vice President for Academic Affairs and Provost
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<td>Liz Rosenberg, professor, English</td>
<td>Leonine: Almost My First Novel</td>
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<td>Jocelyn Ao, freshman, undeclared; Julie Kunnumpurath, freshman, computer science; Logan Abrams, junior, accounting, management</td>
<td>Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community</td>
<td>DiRT: Impact of Makerspaces on Teacher’s Creative Self-Efficacy and Perceptions of Their Ability to be More Creative in Their Teaching</td>
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<td>Jacqueline Clark, graduate student, biological sciences</td>
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<td>Doing Too Much and Accomplishing So Little: The Effect of Multi-Tasking on Class Performance in Large Lectures</td>
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<td>Seokheun Choi, assistant professor, electrical and computer engineering</td>
<td>Fluorescence-detection of Mercury (II) Chloride on a Filter-paper Substrate Using Genetically Engineered E. coli</td>
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Thomas Costello, senior, psychology, philosophy
Advisor: Steven Jay Lynn, distinguished professor, psychology
Free Will, Hopelessness, and Cognitive Vulnerability to Depressed Mood

Timothy Crump, senior, cell and molecular biology
Advisor: Jeffrey Schertzer, assistant professor, biological sciences
Detection for Viable Mycobacterium Avium Paratuberculosis in Commercial Whole Milk Using qPCR Techniques

Dakota Desantis, sophomore, psychology and financial economics; Brina Chu, senior, psychology; Sophie Portnoy, junior, integrative neuroscience; Rebecca Feinman, junior, psychology and human development; Alyssa Goodman, freshman, psychology, human development; Sloane Ferenchak, junior, psychology; Morgan Cinnamo, junior, psychology
Advisors: Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies; Susan Seibold-Simpson, assistant professor, nursing
Talking and Stalking: Gender Differences Among Social Media Users

Andrea Esposito, freshman, history; Caroline Terhaar, freshman, chemistry; Melissa Bornico, freshman, undeclared; Bradley Matican, freshman, management
Advisor: Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community
DiRT: The Relationship Between Authentic Leadership and Leaders’ Views of Success

Afix Famosa, graduate student, nursing
Advisor: Judith Quaranta, assistant professor, nursing
Relationship of Asthma Action Plans and Asthma Control in Adults with Asthma

Samantha Fradkin, senior, psychology
Advisors: Max Owens, postdoctoral fellow, psychology; and Brandon Gibb, professor, psychology
Emotional Reactivity in Individuals at Risk for Depression

Katie Garrison, senior, mechanical engineering; and Sara Riedesel, sophomore, systems science and industrial engineering
Advisor: Michael Elmore, director, Engineering Design Division
Netzero Energy Buildings on University Campuses, Government Buildings in Upstate N.Y.

Oluwashola Gbemi, senior, psychology
Advisors: Michael West, professor, sociology and Africana studies; and Donald Nieman, executive vice president and provost
Examining Psychological Well-Being of African American Students at Predominantly White Institutions

Arianna Gorkowitz, senior, integrative neuroscience; Daniel Friedman, junior, integrative neuroscience; Caroline Sendek, senior, integrative neuroscience; Alecia Moser, graduate student, psychology
Advisor: Peter Gerhardstein, professor, psychology
Using CCTV and Eye-tracking to Examine Effects of Social Contingency on Transfer Learning in Toddlers
Jenny Guan, junior, nursing; Ashley Oddo, junior, nursing; Valois Feneziani, junior, nursing; Melanie Hernan, junior, nursing; Katherine Festa, junior, nursing; Annalisa Samaroo, senior, nursing; Emily Blunnie, sophomore, undeclared; Lillian Ruan, senior, biological sciences; JuHee Yoo, senior, nursing
Advisors: Judith Quaranta, assistant professor, nursing; and Fran Srnka-Debnar, clinical associate professor, nursing

E-Cigarettes and Asthma

Ezra Guttmann, sophomore, biological sciences and Sherry Lam, junior, integrative neuroscience
Advisor: Corinne Kiessling, neuroscience research educator, psychology

Effects of cholinergic Denervation in Akinesia and Dyskinesia in a Hemiparkinsonian Rat Model

Alexandria Hammond, senior, biological sciences; and Adrianna Maliga, graduate student, biochemistry
Advisor: Ralph Garruto, research professor of biomedical anthropology

Lyme Disease Pathogen Sequestration in the Reservoir Host, the White Footed Mouse

Sara Hobler, sophomore, history, sociology
Advisor: Sidney Dement, assistant professor, German and Russian studies

Rhetoric Versus Reality: The Gap Between Philosophical Writings and Life Experiences for Soviet Women

Robert Huang, senior, biological sciences
Advisor: Anthony Fiumera, associate professor, biological sciences

The Effects of Silicon Dioxide Nanoparticles on Drosophila Development and Body Size

Tara Jackson, senior, integrative neuroscience
Advisor: Monteith McCollum, assistant professor and undergraduate director, cinema

Exposing Auditory Processes Through Experimental Sound

Jared A. Jaeger, sophomore, biological sciences and environmental studies
Advisor: Jessica Hua, assistant professor, biological sciences

Plasticity and Food: How Does Resource Limitation Influence Rapid Pesticide Resistance in Daphnia?

Laila Kassis, senior, political science and sociology
Advisor: David Cingranelli, professor, political science

The Right to a Fair Trial and British Colonial Influence: A Cross-National Empirical Research Study

Deanna Keenan, senior, psychology and Africana studies; Mmekom Udosen, sophomore, integrative neuroscience and Africana studies; Melissa Schacko, junior, biological anthropology; Gabrielle Schiller, senior, history; Helen Frazer, junior, biological anthropology; Dailyn Aquino, junior, biochemistry
Advisor: Titilayo Okoror, associate professor and director of undergraduate studies, Africana studies

Ebola Outbreak and Africans in the Diaspora: Perceptions and Experiences of African Immigrants Living in the U.S.

Minyoung Kim, graduate student, biological sciences
Advisor: Claudia Marques, assistant professor, biological sciences

Staphylococcus Aureus as an Etiological Agent of Atopic Dermatitis Through Skin Barrier Disruption
Elizabeth Kisty, junior, nursing; and Julia Jozefowski, senior, nursing
Advisors: Judith Quaranta, assistant professor, nursing; and Fran Srnka-Debnar, clinical associate professor, nursing

Relationship of Attending Open Airways for Schools Taught by Undergraduate Students and Asthma Management Skills and Level of Asthma Control

Raneem Kurzum, senior, psychology
Advisor: Richard Mattson, associate professor, psychology
Past Relationship and Breakup Effects on Hook-Up Attitudes During College

Christian Lawlor, senior, integrative neuroscience
Advisor: Brandon Gibb, professor, psychology
BIS/BAS and Psychophysiological Responses to Social Stress

Emma Lecarie, senior, psychology
Advisor: Brandon Gibb, professor, psychology
Child and Parent Perceptions of Parenting:Sibling Differences and Links to Child and Parent Psychopathology

Jingwei Anna Li, senior, cinema and mathematical sciences
Advisor: Tomonari Nishikawa, assistant professor, cinema
From the Stars — A Documentary

Eunchong Sarah Lim, senior, psychology
Advisor: Donald Spangler, associate professor, management
Automated Analysis of Power through Natural Language

Karen Lin, senior, nursing
Advisor: Ann Fronczek, assistant professor, nursing
Mental Health Initiatives in Asian-Americans

Liang Liu, graduate student, mechanical engineering
Advisor: Timothy Singler, professor and graduate director, mechanical engineering
Regulation of the Deposition Morphology of Inkjet-Printed Crystalline Materials via Bio-Inspired Polydopamine Functional Coatings

Zhao Liu, senior, electrical and computer engineering
Advisor: Ziang Zhang, assistant professor, electrical and computer engineering
A K-Nearest Neighbors Algorithm-Based Solar Forecasting Model with a Weather Condition Classification Process and a Physical Model of PV Units

Emily Van Loan, senior, integrative neuroscience; and Arthur Natera, senior, integrative neuroscience
Advisor: Nicole Cameron, assistant professor, psychology and biological sciences
Maternal Care Modulates Ethanol Consumption and Preference Behaviors in Rats

Pamela Lovejoy, graduate student, biological sciences
Advisor: Anthony Fiumera, associate professor, biological sciences
Genetic Variation in Paraquat Susceptibility in D. melanogaster

Zachary Lowy, senior, integrative neuroscience; and Melissa Levine, junior, integrative neuroscience
Advisor: Peter Gerhardstein, professor, psychology
Classification of Urban Sounds

Marlisha Marcellin, senior, Africana studies
Advisor: Anthony Ephirim-Donkor, associate professor and chair Africana studies
Voodoo as a Viable African Religion in Haiti
Sarah Marcus, graduate student, biological sciences  
Advisor: Anthony Fiulera, associate professor, biological sciences  
*Genetic Basis of Susceptibility to the Herbicide Atrazine in D. melanogaster*

Bradley Matican, freshman, accounting  
Advisor: Kim Jaussi, associate professor, management, and collegiate professor, Dickinson Community  
*DIRT: TIER Talks vs. PANAS: The Power of Change in Moods*

Jermel McClure, sophomore, sociology  
Advisor: Jason Moore, assistant professor, sociology  
*The Curse of Gentrification, Haunting Harlem’s Housing 1985–2015*

Mary McGahay, senior, physics; Haian Qiu, graduate student, physics; Jong Hyun Shim, graduate student, mechanical engineering; Steven Button, graduate student, physics  
Advisors: Junghyun Cho, professor, mechanical engineering; and Jeffrey Mativetsky, assistant professor, physics  
*Hybrid Organic-Inorganic Nanomaterials for Solar and Mechanical Energy Harvesting*

Benjamin McLauchlin, sophomore, environmental studies  
Advisor: Jessica Hua, assistant professor, biological sciences  
*Tadpoles, Trematodes, and Toxins — Oh My!*

Jon Mermelstein, senior, history  
Advisor: Kent Schull, associate professor, history  
*The Oil Industry in Iraq and British Soft Imperialism: 1920-1932*

Elin G. Mina, graduate student, biological sciences  
Advisor: Claudia Marques, assistant professor, biological sciences  
*Macrophage Recognition and Pathogenicity of S. aureus Persister Cells*

Maytar Nebel, freshman, economics  
Advisor: Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community  
*DIRT: Feelings of Career Preparation: The Experiences of White Students vs. Non-white Students in Higher-Level Education*

Danielle Nigro, senior, theatre  
Advisor: Anne Brady, professor, theatre  
*An Open Door- Devising an Original One-Woman Show*

Roseann Biju Puthiyamadam, sophomore, human development  
Advisors: Diana C. Gildea, visiting lecturer, geography; and Ann Merriwether, lecturer, psychology and human development  
*From Behind Closed Doors: The Shift in Sexual Hookup Culture as Depicted Through Film from 2005-2015*

Anita Raychawdhuri, senior, English  
Advisor: Barrett Bowlin, lecturer, English  
*Defining Ourselves and Outlining Our Lives*

Sara Riedesel, sophomore, systems science and industrial engineering  
Advisor: Michael Elmore, director, Engineering Design Division  
*State Universities of New York: Renewable Energy*
Kelsie Robinson, freshman, biochemistry
Advisor: Tatyana Boyko, research educator, biological sciences
Investigating the Contribution of ppx, lasI and sagS to Biofilm Development and Biofilm Tolerance to Antibiotics in Pseudomonas aeruginosa

Gabrielle Sagesse, junior, integrative neuroscience
Advisor: Laura Musselman, assistant professor, biological sciences
Role of Homeobrain Gene in the brain during over-nutrition

Elana Schlossberg, graduate student, public administration
Advisor: George Homsky, assistant professor and capstone advisor, public administration
How to Run an Educational Theatre Production Management Internship

Chenelle Seck, sophomore, sociology
Advisors: Diana Gildea, professor, geography; and Kelvin Santiago-Valles, associate professor, sociology
School Segregation in the Southern Tier: Consequences of Race and Class on Education

Benjamin Seitz, junior, psychology; and Cody Polack, graduate student, psychology
Advisor: Ralph Miller, distinguished professor, psychology
Adaptive Memory: Is There a Benefit to Recall of Reproduction Processing?

Caroline Sendek, senior, integrative neuroscience
Advisor: Peter Gerhardstein, professor, psychology
The Differential Outcomes Effect: An Eye-Tracking Paradigm

Marilyn Sombrotto, sophomore, psychology; Ayesha Siddiqua, freshman, undeclared; Mohammad Hussain, freshman, biological sciences
Advisor: Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community
DiRT: The Effect of Social Sparking on Radical Creativity

Colin Roth, junior, architectural history
Advisor: Julia Walker, assistant professor, art history
Expressions of Stadium Architecture: Mirroring a Century of National Identity and Cultural Evolution

Hoang Ta, senior, bioengineering
Advisor: Pong-Yu (Peter) Huang, assistant professor, mechanical engineering
A Hybrid Model of Endothelial to Mesenchymal Cell Transformation

Anne Taylor, junior, integrative neuroscience; and Jessica Chumsky, junior, integrative neuroscience
Advisors: Christopher Bishop, professor and chair, psychology
Effects of Vilazodone on L-DOPA Induced Dyskinesia and Striatal Gene Expression

Julia Townsend, sophomore, biochemistry; Abu Rahat, sophomore, biological sciences; Michael Goldberg, sophomore, integrative neuroscience
Advisors: Ralph Garruto, research professor of biomedical anthropology; and Amanda Roome, graduate student, biomedical anthropology
Ecological Risk Factors Influencing Tick Density and Infectivity

Yonaida Valentine, junior, integrative neuroscience
Advisor: Vanessa Young, research advisor, Equal Opportunity Program
Understanding the Epigenetic Effects of Chronic Cannabis Use
STUDENT PRESENTATIONS AND POSTERS
2 p.m. Friday, April 15

Tamilar Abayeva, senior, psychology
Advisors: Susan Seibold-Simpson, assistant professor, nursing; and Richard A. Kauffman Jr., project coordinator, evolutionary studies

Family Influence on the Effects of Child’s Attitudes toward School, Academic Performance, and Substance Use

Gabriela Acobo, senior, nursing and Angela Balkunas, senior, nursing
Advisors: Susan Seibold-Simpson, assistant professor, nursing; and Richard A. Kauffman Jr., project coordinator, evolutionary studies

Adolescent Cigarette Use in Relation to Family Conflict and Depression

Shahrokh Akhlaghi, graduate student, power system dynamic
Advisors: Ning Zhou, assistant professor, electrical and computer engineering

Exploring Adaptive Interpolation to Mitigate Non-Linear Impact on Estimating Dynamic States

Meghan Bell, senior, integrative neuroscience
Advisors: Ralph Miller, distinguished professor, psychology, and Cody Polack, graduate student, psychology

pH-(low)-insertion peptide (pHLIP) as a Vehicle in Chemotherapeutic Drug Delivery to Malignant Brain Tumor Tissue

Miriam Wade, senior, Arabic, Judaic studies, Middle East and North Africa program
Advisors: Jonathan Karp, associate professor, Judaic studies and history

The Integration of Moroccan Jews into Israeli Society

Jessica Wasserman, junior, integrative neuroscience; and Fannie Chen, senior, psychology

Advisors: Ralph Miller, distinguished professor, psychology, and Cody Polack, graduate student, psychology

Effects of Episodic and Semantic Integration on RIF

Lin Qiang Wang, senior, bioengineering
Advisors: Bonggu Shim, assistant professor, physics

Gold Nanoparticle Third Harmonic Generation

Cassie Anzalone, senior, nursing; Brittany Bungert, junior, nursing; Ashley Guerra, senior, human development
Advisors: Geraldine Britton, assistant professor, nursing; Lori-Marie Sprague, clinical assistant professor, nursing; Rosemary Collier, clinical assistant professor, nursing; Joyce Rhodes-Keefe, clinical assistant professor, nursing

The Experiences of College Students Regarding New Nicotine-Tobacco Product Usage on a Northeastern University Campus: A Qualitative Study

Faruk Ballipinar, graduate student, electrical and computer engineering
Advisors: Alok C. Rastogi, associate professor, electrical and computer engineering

Direct Synthesis of Thin Film p-SnS-n-ZnO(S) Heterojunction Devices for Photovoltaic Solar Cells

Jessica Wasserman, junior, integrative neuroscience; and Fannie Chen, senior, psychology

Advisors: Ralph Miller, distinguished professor, psychology, and Cody Polack, graduate student, psychology

Effects of Episodic and Semantic Integration on RIF
Trey Bonaparte, junior, English
Advisor: Aja Martinez, assistant professor, English

*The School to Prison Pipeline*

Melissa Bornico, freshman, integrative neuroscience; Caroline Terhaar, freshman, chemistry; Andrea Esposito, freshman, history; Bradley Matican, freshman, management
Advisor: Kimberly Jaussi, associate professor, management; and collegiate professor, Dickinson Community

*DIRT: Coping Strategies and Perceptions of Success*

Khadijah Boxill, junior, psychology, Africana studies
Advisor: Patricia Lespinasse, assistant professor, Africana studies

*How Has the Process of the Return Affected the Caribbean American Subject?*

Matthew Britton, sophomore, physics; and Maggie Fox, sophomore, chemistry
Advisors: Jennifer Proper, smart energy research educator, Freshman Research Immersion; and Matthew Wahila, graduate teaching assistant, physics

*Synthesizing Superior Supercapacitors*

Anna Brooks, senior, environmental studies, English
Advisor: Joseph Graney, professor, geological sciences and environmental studies

*Biogeochemical Metal Cycling in Roadside Environments*

Haley Burdge, sophomore, biological sciences, sociology; Kimberly Lato, senior, environmental studies; Jade Johnson, senior, biological sciences; Maria Wadowska, senior, integrative neuroscience; Andria Kroner, graduate student, biological sciences
Advisors: Anne B. Clark, associate professor, biological sciences; and Andria Kroner, doctoral candidate, biological sciences

*Social Complexity Across Crows and Ravens (Genus Corvus)*

Alexandra Cain, senior, history, political science
Advisor: Stephen Ortiz, associate professor, history

*One Man’s Terrorist is Another Man’s Freedom Fighter: The Cold War International Terrorism Network*

Arianna Caradonna, sophomore, biological sciences
Advisors: Susan Seibold-Simpson, assistant professor, nursing; and Richard A. Kauffman Jr., project coordinator, evolutionary studies

*School Commitment and Grades’ Effect on Cigarette Smoking, Marijuana and Alcohol Use*

Ginger Cates, senior, psychology
Advisor: Richard Mattson, associate professor, clinical psychology

*The Association Between Depressive Symptoms and Social Support*

Rachael Cavallaro, junior, psychology, human development; Sloane Ferenchak, senior, psychology; Sophie Portnoy, junior, integrative neuroscience
Advisors: Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies; Susan Seibold-Simpson, assistant professor, nursing

*Abortion: Barriers and Facilitators*
Janieba Chang, senior, English and creative writing
Advisor: Patricia Lespinasse, Africana studies

Tallawah: The Making of a Novel

Ian Chiu, senior, nursing; Monica Chappidi, senior, integrative neuroscience; Tori Pena, sophomore, undeclared
Advisors: Susan Seibold-Simpson, assistant professor, nursing; Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies

Male Interpersonal Violence: A Review

Lindy Chiu, senior, biological sciences, studio art; and Ashley Paynter, senior, biological sciences, ecology, evolution and behavior
Advisor: Ralph Garruto, research professor of biomedical anthropology

Blacklegged Tick Abundance and Infectivity with B. burgdorferi on White-Tailed Deer: Implications for Hunters, Conservation Officers, and Butcher Shops

Jesse Cole, junior, integrative neuroscience
Advisor: Marvin Diaz, assistant professor, psychology

Moderate Prenatal Alcohol Exposure May be Linked With Stress-Dependent Anxiety-Like Behavior

Gaby Cordero, senior, integrative neuroscience, health and wellness; and Veronica Wang, sophomore, integrative neuroscience, Spanish
Advisor: Nicole Cameron, assistant professor, psychology and biological sciences

Maternal Care Programs Sensitivity to Ethanol-Induced Hyponnosis and Modulates GABAA Receptors

Karen Dermer, senior, integrative neuroscience
Advisor: Nicole Cameron, assistant professor, psychology and biological sciences

Relationship Satisfaction in Married Couples and Its Effect on Stress

Patrick DiFlorio, senior, psychology
Advisors: Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies; Susan Seibold-Simpson, assistant professor, nursing

Sex and Satisfaction: Retrospective Expectations and Pleasure During Sex

Rahul Dixit, graduate student, electrical and computer engineering; and Joshua Montague, junior, electrical and computer engineering
Advisor: David Klotzkin, associate professor, electrical and computer engineering

Silica Particle Size Detection Using Optical Backscattering

Elodie Eid, graduate student, environmental studies
Advisor: John Titus, associate professor, biological sciences

Effects of Deer Overpopulation on Forest Regeneration

Emily Fleischman, junior, integrative neuroscience
Advisor: Christof Grewer, professor and director of graduate admissions, chemistry

Di Am Ester in HEK and C6 Glioma Cells

Jared Gatto, senior, cell and molecular biology
Advisor: Laura Musselman, assistant professor, biological sciences

The Effects of Caloric Excess on Drosophila Physiology and Metabolism
Andrew Genussa, sophomore, mathematical sciences; and Jenn Donohue, sophomore, chemistry, engineering
Advisors: Jennifer Proper, smart energy research educator, Freshman Research Immersion; and Matthew Wahila, graduate teaching assistant, physics

Copper Iodide: The Future of p-Type Semiconductors

Sarah Glose, graduate student, public administration
Advisor: George Homsy, assistant professor, public administration

Sustainable Funding Streams for the Broome County Land Bank

Sidney Guterman, graduate student, mechanical engineering
Advisor: David Klotzkin, associate professor, electrical and computer engineering

Optimized Scattering Films

Timothy Hillis, senior, psychology
Advisors: Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies; Susan Seibold-Simpson, assistant professor, nursing

In and Out of the Friend Zone, College Students Experiences with Friendship and Relationships

Alexei Hinkelman, senior, psychology
Advisors: Ann Merriwether, lecturer, psychology and human development; Sean Massey, associate professor, women, gender and sexuality studies; Susan Seibold-Simpson, assistant professor, nursing

It’s not Cheating; It’s Non-Exclusivity: Sex Differences in the Desirability of Non-Exclusive Relationships

Shelby Hochberg, senior, psychology; Rachael Shaw, junior, psychology; Loretta O’Brien, senior, psychology; Alexandra Pappacena, junior, psychology; Alejandra Sanchez, junior, psychology
Advisors: Donald Levis, professor, psychology; Patricia Rourke, senior counselor, University Counseling Center; Paul Knowlton, graduate student, psychology

Unraveling the Mystery of Traumatic Memory: A Case Study

Brianna Infante, junior, psychology; and Melissa Keller, senior, psychology
Advisor: Erin Washburn, assistant professor, education

New York State Teachers’ Knowledge of Reading-Related Content

Christina Jones, senior, psychology
Advisors: Susan Seibold-Simpson, assistant professor, nursing; and Richard A. Kauffman Jr., project coordinator, evolutionary studies

Identifying Family Factors that Contribute to Adolescent Delinquency Across Gender

Rupinder Kaur, senior, biological sciences; and Jessica Yuk, junior, biological sciences
Advisor: Susan Seibold-Simpson, assistant professor, nursing

The Influence of Family and Friends on Adolescent Substance Use

Dana Kinel, sophomore, environmental studies; philosophy, politics and law
Advisor: Diana Gildea, professor, geography

Nicaraguan Banana Plantation Workers Not Awarded Compensation for Sterility Problems

Alexandra Kugler, senior, psychology
Advisor: Peter Gerhardstein, professor, psychology

Investigating Object Recognition in Intermediate Vision
Dana Kuster, sophomore, human development; and Nicole Senderovich, sophomore, integrative neuroscience
Advisors: Richard A. Kauffman Jr., project coordinator, evolutionary studies; and Susan Seibold-Simpson, assistant professor, nursing

The Effects of Adult Rewards for Prosocial Involvement on Delinquency Among Adolescents

Shai Lev, junior, nursing; Cassandra Flanagan, junior, nursing; Sydney Landsman, senior, psychology; Holly Russel, junior, nursing; Caroline Keenan, junior, nursing; Anna Schor, senior, psychology; Alana Heyman, junior, nursing
Advisors: Judith Quaranta, assistant professor, nursing; and Fran Srnka-Debnar, clinical associate professor, nursing

Literature Review for Asthma and Adverse Childhood Events

Chris Li, senior, sociology; Lucas Sparovich, junior, nursing; Oliver Ramirez, junior, cell and molecular biology; Melanie Gray, junior, nursing; Jessica Lliguicota, junior, psychology
Advisors: Judith Quaranta, assistant professor, nursing; and Fran Srnka-Debnar, clinical associate professor, nursing

Marijuana and Asthma

Kyle Loftus, junior, biochemistry
Advisor: Sozanne Solmaz, assistant professor, chemistry

Cell-Cycle Specific Recruitment of Dynein to the Nucleus

Susana Loo-Li, senior, nursing
Advisor: Susan Seibold-Simpson, assistant professor, nursing

Are Individuals With Mental Illness More Likely to be Gun Violence Perpetrators?

Yanbing Mao, graduate student, electrical and computer engineering
Advisor: Ziang Zhang, assistant professor, electrical and computer engineering

Frequency Synchronization and Phase-difference Tracking for Kuramoto Oscillators

Amelia Martin, sophomore, biological sciences
Advisor: Pavel Masek, assistant professor, biological sciences

Multimodal Modulation of Taste-Driven Feeding Preference

Bradley Matican, freshman, accounting
Advisor: Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community

DiRT: Achievement Expansion: How Male Leaders View Success

Tara McElroy, senior, biological sciences; Zaid Tayyem, senior, biological sciences; Mohammed Hasan, senior, biological sciences; Torah Scheininger, junior, biological sciences; Samantha Bangug, junior, biological sciences; Alexa Hartmyer, graduate student, biology
Advisor: Kathleen Horwath, associate professor, biological sciences

Cryoprotectant Efficiency in Preventing Cellular Cryoinjury Through Inference in Ice Recrystallization Events

Benny Mei, senior, computer science, mathematical sciences
Advisor: Pavel Masek, assistant professor, biological sciences

Development of a Behavioral Assay for Real-Time Tracking of Multiple Freely Moving Drosophila Flies
Nikki Naim, senior, biochemistry  
Advisor: Jeffrey Schertzer, assistant professor, biological sciences  
*The Bilayer Couple Model vs. Quorum Response for Pseudomonas Quinolone Signal and Outer Membrane Vesicle Biogenesis*

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Tuc Hiep Minh Nguyen, graduate student, biological sciences  
Advisor: Heather Fiumera, associate professor, biological sciences  
*Mitochondrial Genome Instability in Saccharomyces cerevisiae*

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Jowell Padro, senior, Latin American and Caribbean area studies  
Advisor: Aja Martinez, assistant professor, English  
*Critical Masculinity and TMOC Narratives of Intelligibility*

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Anly Palacios, senior, sociology  
Advisor: Leslie Gates, associate professor, sociology  
*The Ethnic Shift on New York Dairy Farms*

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Meeti Purani, senior, integrative neuroscience, sociology  
Advisor: Brandon Gibb, professor, psychology  
*The Role of Race in Parent and Child Depression*

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Emily Ragusa, senior, integrative neuroscience  
Advisor: Ralph Garruto, research professor of biomedical anthropology  
*Household Pets: Sentinel Species and Potential for Increased Risk of Human Cases of Lyme Disease*

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Andrew Rappa, senior, biochemistry  
Advisor: Lina Begdache, adjunct lecturer, biological sciences, and research assistant professor, health and wellness studies  
*Differential Dietary Attitudes in Division I Females versus Male Athletes*

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Chelsea Reome, graduate student, public administration; Margaret Goodfellow, graduate student, public administration; Catherine Henriquez, graduate student, public administration; Colin Millone, graduate student, public administration; Dai Newman, graduate student, public administration; Anjelica Stanko, graduate student, public administration; Tinamarie Williams, graduate student, public administration  
Advisor: Thomas Sinclair, associate professor, public administration  
*Unfulfilled Promise: The Community Reinvestment Act in Broome County*

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Tatiana Requijo, junior, cell and molecular biology  
Advisor: Laura Musselman, assistant professor, biological sciences  
*Drosophila AMPs Control Metabolism*

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Michael Rulli, Senior, English and creative writing  
Advisor: Joseph Weil, assistant professor, English  
*How to Become America’s Next Drag Superstar*

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Sina Sadeghi, junior, cell and molecular biology  
Advisor: Lina Begdache, adjunct lecturer, biological sciences, and research assistant professor, health and wellness studies  
*Association Between COMT and GSTP1 Polymorphisms and ALS as Reflected in Auto CM Analysis*

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Christian Salazar, senior, cell and molecular biology  
Advisor: Chuan-Jian Zhong, professor, chemistry  
*Functionalization of Nanoparticles for SERS Imaging and Detection of Biomolecular Activities*
Acacia Smash, senior, Africana studies
Advisor: Titilayo Okoror, associate professor and director of undergraduate studies, Africana studies
The Implications of American Slavery on the African-American Family Structure

Jocelyn Solis-Moreira, senior, integrative neuroscience
Advisor: Peter Donovick, professor, psychology
Assessing the Role of Bilingualism in Phonological Working Memory

Jennifer Swaine, junior, nursing; Lauren Stiles, junior, nursing; Sarah Ryszka, junior, anthropology; Megan Eiche, junior, nursing; Letitia Chang, junior, nursing; Danielle Gerome, senior, integrative neuroscience; Nicole Caridi, senior, nursing; Amanda Gershowitz, junior, nursing; Luis Ferreira, junior, nursing; Bryan Claveria, junior, nursing; Danielle Kiczales, senior, nursing; Joshua Segovia, senior, nursing
Advisors: Judith Quaranta, assistant professor, nursing; and Fran Srnka-Debnar, clinical associate professor, nursing
GIS Mapping and Asthma Findings

Crystal Tasber, junior, integrative neuroscience and Sharon Bossert, junior, integrative neuroscience
Advisor: Christopher Bishop, professor and chair, psychology
The Effects of 5-HT1AR-Biased Agonists on L-DOPA-Induced Dyskinesia in Parkinson’s Disease

Caroline Terhaar, freshman, chemistry; Bradley Matican, freshman, management; Andrea Esposito, freshman, history; Melissa Bornico, freshman, undeclared
Advisor: Kimberly Jaussi, associate professor, management, and collegiate professor, Dickinson Community
DIRT: How Women View Failure: A Motivating Force in the Workplace

Cruz Torres, sophomore, environmental studies; and Dan Armstrong, junior, biological sciences
Advisors: James Sobel, assistant professor, biological sciences; and George Meindl, postdoctoral research associate, biological sciences
The Effects of Soil Chemistry on Self-Pollination for Two Species of Mimulus

Julia Townsend, sophomore, biochemistry; Abu Rahat, sophomore, biological sciences; and Michael Goldberg, sophomore, integrative neuroscience
Advisors: Ralph Garruto, research professor of biomedical anthropology; and Amanda Roome, graduate student, biomedical anthropology
Ecological Risk Factors Influencing Tick Density and Infectivity

Dina Truncali, graduate student, public administration
Advisor: George Homsy, assistant professor, public administration
Strategic Environmental Advocacy

Kelly Vest, senior, biological sciences
Advisor: Aja Martinez, assistant professor, English
A Comprehensive Understanding of the Jewish Perspectives on Genetic Counseling

Lisa Wadolowski, senior, integrative neuroscience
Advisor: Peter Gerhardstein, professor, psychology
The Categorization of Facial Expressions of Pain at Various Intensities

Paul W. Woods, graduate student, biological sciences
Advisor: Claudia Marques, assistant professor, biological sciences
Effects of Introducing P. aeruginosa into Established S. aureus Biofilms
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