The mission of the Office of Grants, Research and Sponsored Programs is to facilitate research and sponsored programs by increasing awareness and competitiveness in the pursuit of internal and external funding to support the mission of the university.
Annual Metrics for External Funding

The Office of Grants, Research and Sponsored Programs has made progress in advancing external funding at SRU. Growth has continued in FY16 as SRU faculty and staff participated in submitting 42 proposals: 11 federal, 5 state, 24 other/private and 2 State System transfers.

Submissions total $3,082,412 and resulted in grant awards totaling $1,359,936.

The metrics below reflect the awards received.

External Awards Received
July 1, 2015 - June 30, 2016

- Federal ($575,465) 42%
- State ($432,627) 32%
- Private/Other ($293,280) 4%
- PASSHE Flow-Through ($58,564) 22%
Awards by College and Division

<table>
<thead>
<tr>
<th>College and Division</th>
<th>Proposals Submitted</th>
<th>Proposals Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic and Student Affairs</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>College of Business</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>College of Education*</td>
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<td>9</td>
</tr>
<tr>
<td>College of Health, Environment and Science</td>
<td>14</td>
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<tr>
<td>College of Liberal Arts</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Finance, Administrative Affairs and Advancement Services*</td>
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<td>1</td>
</tr>
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<td>President's Office</td>
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<td>1</td>
</tr>
<tr>
<td>Total:</td>
<td>42</td>
<td>34</td>
</tr>
</tbody>
</table>

*Includes grants submitted in FY15 and awarded in FY16
“GEAR UP 3 Summer Camp for College Prep 2016”

Funding Source: Pennsylvania State System of Higher Education  
Amount Proposed: $20,000  
Project Dates: Jan. 1, 2016 to Dec. 31, 2016

Overview: The purpose of this project is to prepare rising 9th grade students for the rigors of post-secondary education by exposing them to the college-going culture.

“GEAR UP 3 Summer Camp for College Prep 2017”

Funding Source: Pennsylvania State System of Higher Education  
Amount Proposed: $25,000  
Project Dates: Jan. 1, 2017 to Dec. 31, 2017

Overview: The purpose of this project is to prepare rising 9th grade students for the rigors of post-secondary education by exposing them to the college-going culture.

“Promoting Healthy Minds”

Funding Source: American College Health Foundation  
Amount Proposed: $5,000  
Project Dates: June 1, 2016 to May 30, 2017

Overview: The purpose of this program is to increase the promotion of available accommodations, services, programs and support to all students regarding their mental health.
“College Health Center-Based Alcohol and Sexual Violence Intervention”

Funding Source: National Institutes of Health through University of Pittsburgh
Amount Awarded: $1,000

Overview: The purpose of this project is to serve as a referral site for a research project conducted by the University of Pittsburgh.

“U.S. Academic Host Institution Application 2016-17 International Undergraduate Student Programs”

Funding Source: International Research & Exchange Board (IREX)
Amount Proposed: $23,507
Project Dates: Aug. 28, 2016 to May 31, 2017

Overview: The purpose of this project is to support the vision and mission of the university by hosting exchange students through the U.S. Department of State’s Bureau of Education and Cultural Affairs, Global UGRAD Program.
“Pre-K Counts”

Funding Source: Pennsylvania Department of Education through Lifesteps, Inc.
Amount Awarded: $276,915
Project Dates: July 1, 2016 to June 30, 2017

Overview: The purpose of this project is to provide services to eligible children to participate in a developmentally appropriate, research-based early learning program that ensures a smooth transition to kindergarten. This is Year 03 of a five-year grant.

“SRU/SGA Preschool and Childcare CCAMPIS Grant”

Funding Source: U.S. Department of Education
Amount Awarded: $14,283

Overview: The purpose of this project is to assist student-parents who wish to enroll in college and complete a degree program but do not have the funds to pay for childcare while they attend classes. This is Year 03 of a four-year grant.
“Peer Mentoring Program”

Funding Source: Walmart
Amount Proposed: $2,500

Overview: The purpose of this project is to develop and implement a Peer Mentoring Program to assist self-identified lesbian, gay, bisexual, transgender, queer and questioning students’ transition to college life.
“Slippery Rock University Clay Target Club”
Funding Source: NRA Foundation
Amount Awarded: $2,000
Project Dates: May 1, 2016 to Jan. 1, 2017
Overview: The purpose of this project is to provide funding to offset the cost of supplies for the SRU Clay Target Club members and prospective members.

“SRU Clay Target Club”
Funding Source: MidwayUSA Foundation, Inc.
Amount Proposed: $2,772
Project Dates: June 1, 2016 to May 1, 2017
Overview: The purpose of this project is to provide equipment, supplies, travel and registration funding for the SRU Clay Target Club members.

“Government Contracting Assistance Center (GCAC)”
Funding Source: Defense Logistics Agency through California University of Pennsylvania
Amount Awarded: $20,000
Overview: The purpose of the Government Contracting Assistance Center (GCAC) is to provide services to companies interested in pursuing federal, state and local government contracts and subcontracts.
“Slippery Rock University Comprehensive Transition Programs for Individuals with Disabilities: Pre-Employment, Skill-Building Opportunities for Work, Nutrition and Physical Activity”

Funding Source: Edith L. Trees Charitable Trust
Amount Awarded: $43,731

Overview: The purpose of this project is to provide a transition program from school to adulthood including pre-employment, skill-building tasks, a nutrition education program and physical activity for adolescents and young adults between the age of 16 and 25 years. This is Year 02 of a two-year grant.

“Innovation and Expansion – SRU Transition Program”

Funding Source: Pennsylvania Department of Labor and Industry/Office of Vocational Rehabilitation
Amount Awarded: $149,519
Project Dates: Jan. 1, 2016 to Dec. 31, 2016

Overview: The purpose of this project is to expand the current SRU Transition Program for 25 high school students with disabilities leading to competitive, integrated employment or postsecondary education opportunities.

“Slippery Rock University Transition Program for Individuals with Disabilities”

Funding Source: FISA Foundation
Amount Awarded: $45,000

Overview: The purpose of this project is to secure general operating support to conduct the SRU Transition Program for individuals with disabilities between the ages of 14-25 years. This is Year 02 of a three-year grant.

“SRU TAP Program”

Funding Source: XTO Energy Inc.
Amount Proposed: $5,000
Project Dates: Sept. 1, 2016 to Aug. 31, 2017

Overview: The purpose of this project is to support the operation of the SRU Transition Program with unrestricted funding.
“Project Campus Recovery”
Funding Source: Transforming Youth Recovery
Amount Proposed: $10,000

Overview: The purpose of this project is to develop an awareness program on campus for the recovery from alcohol and other drugs and initiate ways to impact the campus community through these efforts.

“Prescription Drug Use Awareness Program”
Funding Source: Cardinal Health Foundation
Amount Proposed: $1,610
Project Dates: July 1, 2016 to June 30, 2017

Overview: The purpose of this project is to build awareness of the consequences of prescription drug misuse and increase understanding of ways that the campus community can reduce the incidences of use and access to prescription drugs.

“Pre-Service Differently”
Funding Source: Pennsylvania Department of Education through Bloomsburg University of Pennsylvania
Amount Awarded: $31,300
Project Dates: July 1, 2015 to Sept. 30, 2016

Overview: The purpose of this project is to engage SRU’s College of Education faculty, students and their student-teaching partners in the Pre-Service Differently project by improving field experiences through the use of customized software.
“Early Childhood Professional Development”

Funding Source: YWCA Greater Pittsburgh, Southwest Regional Key
Amount Awarded: $4,800
Project Dates: July 1, 2015 to June 30, 2016

Overview: The purpose of this project is to conduct early childhood professional development activities for early learning and care professionals and early childhood and early childhood/special education students.
“Pennsylvania National Horse Show Grant”

Funding Source: Pennsylvania National Horse Show Foundation
Amount Proposed: $2,800
Project Dates: Sept. 1, 2016 to Aug. 31, 2017

Overview: The purpose of this project is to provide proper footwear for at-risk youth while participating in activities at the Storm Harbor Equestrian Center.

“Protein Quality Control Mechanisms of Novel Soluble Substrates”

Funding Source: National Institutes of Health through University of Pittsburgh
Amount Proposed: $117,534
Project Dates: Sept. 1, 2016 to Aug. 31, 2021

Overview: The purpose of this research project is to explore the relationship between protein quality control (PQC) and disease associated with Triosephosphate Isomerase (TPI).
“Recreational Therapy Equine & Aquatics Program”

Funding Source: Council on Brain Injury
Amount Awarded: $1,796
Project Dates: Sept. 1, 2016 to April 30, 2017

Overview: The purpose of this project is to engage individuals with brain injuries in equine-assisted activities and therapeutic aquatic activities within a university environment utilizing Recreational Therapy students as instructors and/or mentors.

“TRAILS to Community Integration”

Funding Source: Autism Speaks
Amount Proposed: $4,845
Project Dates: Jan. 1, 2016 to Dec. 31, 2016

Overview: The purpose of this project is to expand the Therapeutic Recreation Accessing Independent Leisure and Social Skills (TRAILS) program to address the needs of young adults/adults on the autism spectrum for community integration and self-efficacy for independent participation in recreation and leisure with peers.
“Expansion and Evaluation of the I Can Do It, You Can Do It! Program with Adults Aging with Disabilities”

Funding Source: President’s Council on Fitness, Sport and Nutrition through Vantage Human Resources, Inc.
Amount Awarded: $4,500
Project Dates: Jan. 1, 2016 to Aug. 31, 2016

Overview: The purpose of this project is to continue the development and implementation of a community-based health promotion program for aging individuals with disabilities and older individuals who have acquired disabilities. This is Year 02 of a two-year grant.

“Equine-Assisted Adaptive Sports Program”

Funding Source: Department of Veterans Affairs
Amount Proposed: $54,092
Project Dates: Sept. 1, 2016 to Sept. 30, 2017

Overview: The purpose of this project is to expand the equine-assisted programs offered to disabled Veterans at the Storm Harbor Equestrian Center and to continue to prepare Recreational Therapy students to provide rehabilitation and therapeutic health care services to Veterans.
“Functional, Structural and Thermodynamic Impacts of α,α-Dialkylated Amino Acid Incorporation in Protein β-Sheets”

Funding Source: National Science Foundation
Amount Proposed: $856,002
Project Dates: June 1, 2017 to June 1, 2022

Overview: The purpose of this project is to investigate the impact of incorporation of α,α-dialkylated amino acids on the structure and proteolytic stability of peptides.

“Climate Change, Land Cover Dynamics and Land Access Xinjiang Uyghur Autonomous Region”

Funding Source: ASIANetwork
Amount Awarded: $39,778
Project Dates: Feb. 1, 2016 to July 30, 2017

Overview: The purpose of this grant is to conduct a student-faculty research study to explore the relationships between vegetative cover change and land use extensification in the Jungar basin and northern slopes of the Tian Shan, China.
“SRU Wellness Initiative”

Funding Source: Pennsylvania Health and Welfare Fund  
Amount Awarded: $2,860  
Project Dates: Sept. 1, 2015 to June 30, 2016  

Overview: The purpose of this project is to provide SRU faculty, staff, administration and family the opportunity to engage in yoga, Tai Chi and meditation to improve various aspects of their wellness.

“Psychosocial Mediators/Moderators of Disordered Eating in Lesbian, Gay and Bisexual Communities”

Funding Source: National Institutes of Health  
Amount Proposed: $364,653  
Project Dates: Jan. 1, 2017 to Dec. 31, 2019  

Overview: The purpose of this research project is to inform stakeholders of psychosocial factors predictive of disordered eating in the LGB population that will inform development of behavioral health programs and interventions to decrease health disparities in disordered eating for the LGB population.
“Seismic Investigation of the Lake Erie Bluffs”

Funding Source: Regional Science Consortium at Presque Isle
Amount Awarded: $500

Overview: The purpose of this project is to use Multichannel Analysis of Surface Waves (MASW) seismic methods to investigate the geology of the Lake Erie bluffs to gain further understanding of the local geology and to map geologic features.

“SRU Wellness Expo Initiative”

Funding Source: Pennsylvania Faculty Health and Welfare Fund
Amount Awarded: $1,500

Overview: The purpose of this program is to hold a Wellness Expo in order to allow students to develop and present wellness concepts, materials and activities to faculty, community members and other university students.
“Recruiting & Retaining Undeclared, Under-Represented and At-Risk Students into STEM Majors”

Funding Source: National Science Foundation  
Amount Proposed: $599,997  
Project Dates: Jan. 1, 2017 to Dec. 31, 2019

Overview: The purpose of this project is to increase the number of students in STEM by targeting undeclared students with a specific focus on students from under-represented demographic groups including first generation, minorities, women and economically disadvantaged students.
“RUI: Thermal Consequences and Textural Signatures of Reinjection in Mafic Sills”

Funding Source: National Science Foundation  
Amount Awarded: $163,424  
Project Dates: April 1, 2016 to March 31, 2019

Overview: The purpose of this research project is to investigate the emplacement of magma and the construction of igneous intrusions in Nipigon, Ontario, Canada.
“2017 Kaleidoscope Arts Festival”

Funding Source: Pennsylvania Council on the Arts
Amount Proposed: $2,500
Project Dates: April 17, 2017 to April 28, 2017

Overview: The purpose of this project is to provide free or low cost quality arts programming to an underserved population through the annual Kaleidoscope Arts Festival.

“Slippery Rock University Deliberative Democracy Project on Economic Inequality”

Funding Source: American Association of State Colleges and Universities
Amount Awarded: $1,000
Project Dates: March 1, 2016 to Oct. 31, 2016

Overview: The purpose of this project is to promote democratic dialogue with members of the campus community that will lead to increased knowledge of economic inequality and civic empowerment to act as agents for change.
“Humanities Ladder”

Funding Source: National Endowment for the Arts
Amount Proposed: $100,000
Project Dates: Jan. 1, 2017 to Dec. 31, 2021

Overview: The purpose of this project is to introduce college-level material in the humanities to high school students in economically and geographically isolated communities in southwestern Pennsylvania.

“SPEAK UP! Spring 2015 Forum”

Funding Source: Butler County Drug and Alcohol Program
Amount Awarded: $1,193

Overview: The purpose of this project is to conduct the SPEAK UP! Forum which will empower students to become prepared, invested and connected in their communities.

“SPEAK UP! Forum 2016”

Funding Source: Butler County Human Services
Amount Awarded: $5,000
Project Dates: July 1, 2015 to June 30, 2016

Overview: The purpose of this project is to conduct the SPEAK UP! Forum which will empower students to become prepared, invested and connected in their communities.
“The Sailcloth Art Project”
Funding Source: Erie Arts & Culture through Bayfront Maritime Center
Amount Awarded: $1,708
Project Dates: April 1, 2016 to Nov. 30, 2016
Overview: The purpose of this project is to create artwork on sails to be exhibited at the Bayfront Maritime Center during the Tall Ships Festival in Erie, Pennsylvania.

“Japanese Speech Contest for College Students in Western PA”
Funding Source: Japan Foundation
Amount Awarded: $1,000
Project Dates: April 23, 2016 to April 23, 2016
Overview: The purpose of this project is to host the second Japanese Speech Contest for College Students in western PA.
“Humanities Ladder”
Funding Source: PNC Foundation
Amount Awarded: $22,500
Project Dates: Aug. 1, 2016 to June 30, 2018

Overview: The purpose of this project is to support the Humanities Ladder, a gradual three-year process beginning in the sophomore year of high school, to expose college-level content, expectations and culture. This is Year 01 of a two-year grant.
“Gravity & Other Myths”

Funding Source: Pennsylvania Council on the Arts
Amount Proposed: $2,200
Project Dates: Nov. 9, 2016 to Nov. 10, 2016

Overview: The purpose of this project is to introduce SRU and the surrounding community to a multi-award winning acrobatics ensemble from Australia.
Internal Grants

Faculty/Student Research Grants 2015-16

The purpose of this internal grant initiative is to provide support to faculty research proposals that directly involve undergraduate or graduate students in scholarly research or creative activity directed toward a joint presentation, publication, demonstration and/or performance. The following faculty members prepared a grant proposal in response to the Request for Proposals.

Melanie Anderson*
School of Business

“Analyzing the Needs of Slippery Rock University Women – Current Students and Alumni – in Order to Develop a Women’s Business Center for the Region”
Female students and alumni will be surveyed to identify needs and gaps in business education and support provided to business women in rural northwest Pennsylvania. The survey will be used to develop a presentation that we hope to present at a regional conference and a paper that will be coauthored by two faculty and two students. Another purpose of the survey will be to identify programming for a Women in Business Center (Women’s Solar Center) that we hope to develop in northwest Pennsylvania. The research grant will also be used to fund the startup of programming, based on the results of the survey, for a Women’s Solar Center on campus.
$4,287

Martin Buckley*
Biology

“Adapting CRISPR Technology to Dissect the Function of Transcription Factors at Native Genes in Flies”
The DNA of organisms contains the genetic blueprint of life. This information is transcribed into an intermediate molecule called RNA, which is in turn translated into critical cellular regulators, called proteins. Transcription of DNA to RNA is regulated by numerous transcription factor proteins that modulate the levels of RNAs in cells. Importantly, proper regulation of RNA expression is vital to the development and health of all organisms. Historically, biologists have studied the functions of transcription factors by directly recruiting the factors to genes and assaying their influence on RNA expression. However, these studies are limited to assaying the roles of transcription factors on artificial genes in cell culture systems. In this project, we propose to adapt a cutting edge genetic technology (CRISPR) to directly recruit transcription factors to native genes in whole animals. This will provide a powerful platform to study the functions of transcription factors and other proteins.
Jan. 19, 2016 to Dec. 31, 2016
$5,000

Qi Chen*
Chemistry

“Antiviral Research for Ebola Virus: Synthesis and Drug Action Mechanism Study”
In the past few decades, continuous emergence of new and re-emerging viral infections caused serious health problems. The ongoing outbreak of Ebola in West Africa from the summer of 2014, killed tens of thousands of people and induced fear and anxiety worldwide because of its high mortality and the lack of effective treatments. The principal investigator of this project is pursuing the
counterforce by designing and synthesizing organic molecules with potential anti-Ebola viral activity. The target compounds are designed to inhibit one of the cellular enzymes, which is crucial for viral replication and preventing drug resistance.

Jan. 1, 2016 to Dec. 31, 2016
$5,000

Stentor Danielson*
Geography, Geology and the Environment

“Culture Controversy in Wildfire Management in National Forests”
Management of wildfire on public lands can present a significant challenge, as certain management techniques such as prescribed burning and logging may generate significant public controversy. Controversies over environmental issues have often been found to polarize due to clashes of cultural worldview. This research aims to examine how an environmental controversy can become culturally polarized by comparing views of wildfire management among people living near four different National Forests – some with low levels of controversy, others with high levels of controversy. The research will employ Q method to assess the content and relationship of different viewpoints.
Mar. 1, 2016 to Oct. 1, 2016
$4,585

Alice Del Vecchio*
Interdisciplinary Programs

“An Assessment of Nonprofit Workforce in Allegheny, Beaver, Butler, Lawrence and Mercer Counties”
Across the nation, the nonprofit sector is about to experience a workforce shift as baby boomers exit the sector. This project seeks to identify how nonprofits in Allegheny, Beaver, Butler, Lawrence and Mercer Counties are preparing for the exodus through succession planning; to determine the number of anticipated vacant positions through its leadership transition. As SRU currently offers Pennsylvania’s only undergraduate academic program (major/minor) in nonprofit management and philanthropic studies, the findings can also be helpful in informing curricular adjustments in the SRU program, guiding marketing efforts for the major/minor and providing direction for our job-seeking nonprofit management graduates.
$4,998

Arlene Ford
Physics and Pre-Engineering

“Optimization of Two Dimensional Hexagonal Nanostructures”
This project continues to investigate and construct complex DNA Nanoarchitectures and characterize these Nanoarchitectures for use in nanodevices and sensors.
Jan. 11, 2016 to Dec. 16, 2016

Jonathan Helmick
Music

“Forming a Methodology: Teaching Intonation for Wind Instruments”
This study contributes to current international practices regarding teaching intonation to musicians. The lack of an effective method for instructing secondary school wind instruments on how to properly tune is addressed. American scholarship on the topic of intonation is combined with current methods and developing technology utilized in Japanese music education to develop a practical, efficient method for teaching intonation to music educators. Specifically, the Yamaha Harmony Director, a cutting-edge piece of technology that replicates error-free intonation, is applied to the middle and high school band curriculum to scaffolding student learning. The SRU Concert Band is used to implement phase one of the method. Then, public school band programs from across the country are provided
the revised method in the form of a teachers' instructional manual and student packets. Data is collected from the implementation and results are synthesized in the final study.

Jan. 1, 2016 to Dec. 31, 2016

Heather Hertel*
Art

“Sailcloth Art Project: Material Investigation”
The Sailcloth Art Project is a material investigation of Physics and Art culminating with an exhibition at the Bayfront Maritime Center in Erie, PA. The goal of the project is to evoke the motion and fluidity of sailing, and the energy of the wind. A collaboration between SRU Art and Physics students will involve five phases: design, experimentation, construction, exhibition and presentation. The indoor installation will consist of large-scale paintings on recycled sails. The outdoor component will harness wind energy with kinetic metal structures of sailcloth painting. The Tall Ships Festival will also occur along the Erie Bayfront during the installation. The project will include a public reception inviting the Erie and SRU community, tourists, inner-city youth, artists and sailors. The project will share the experiential, freeing feeling of sailing through Art & Science.

Jan. 1, 2016 to Nov. 1, 2016
$4,985

Elizabeth Kemeny*
Parks and Recreation

“The Effectiveness of Two Protocols of Therapeutic Riding for Adolescents with Autism Spectrum Disorder”
Twenty participants, ages 12-21 will be recruited in an 8 week within-subject alternating-treatments design for single subjects. In the alternating treatments design, each intervention (ground work or engagement with peers) will be followed by the same therapeutic riding protocol. The study will compare two different types of social interaction (with horse or peers) prior to therapeutic riding for effectiveness in promoting prosocial behaviors, heart rate variability, and self-efficacy.

Jan. 1, 2016 to Dec. 31, 2016
$5,000

Ahmad Khalili
Interdisciplinary Programs

“The Racial and Ethnic Disparities in Neonatal and Post-neonatal Mortality: The Importance of Socioeconomic Factors”
Despite a progressive decline in infant mortality during the past decades, the United States has the highest infant mortality rate among the wealthy countries. Furthermore, the gap between Blacks and Whites has not changed significantly for our decade. We subdivide infant mortality into an early period, called neonatal mortality, and a later period, called postneonatal mortality. It could be argued that whereas the main causes of neonatal mortality are physiological, such as immaturity and birth defects, the main causes of postneonatal mortality may be related to social environmental conditions, such as parasitic diseases. We address the following questions. To what extent do environmental variables contribute to neonatal and postneonatal mortality across racial, ethnic and socioeconomic groups? What is the relationship between infant mortality as a whole and social, economic and demographic variables? Data will be collected at community level and statistical analysis will be performed to test our hypotheses.

May 15, 2016 to Dec. 1, 2016
"Proteolysis Studies of Peptides Containing a-Alkylated Amino Acids"
Unnatural amino acids when used in place of natural amino acid in a protein can protect the protein from breakdown by enzymes (proteolysis) in the body. This resistance to proteolysis makes proteins with unnatural amino acid content valuable tools for research in therapeutics. Aminoisobutyric acid (Aib), a relatively simple unnatural amino acid, has shown the ability to protect a protein from proteolysis when it is incorporated into the protein’s backbone. More complex amino acids similar to Aib, however, have not been studied. We propose to synthesize peptides (short proteins) containing various unnatural amino acids with structures similar to Aib. These peptides will be subjected to proteolysis studies in order to quantify the effect of each of these unnatural amino acids has on the stability of the peptide.

Jan. 1, 2016 to Dec. 31, 2016
$4,983

Wenhao Liu
Physical and Health Education

"Increasing Physical Activity Levels for SRU Faculty/Staff"
Eight SRU faculty/staff members who are willing to get help in increasing their physical activity (PA) levels will be recruited as clients in this project. A group of three students in the PE-331 course (Evidence-Based Physical Activity Practices) will be assigned to each client and work with the client closely to increase the client’s PA level. Each group of students will use the class-learned knowledge and best practices to design tailored PA promotion strategies for the client based on the client’s personal condition (motivation, PA history, fitness level, current PA level, daily routine/schedule, barriers to PA, family condition, social support, etc.). These PA promotion strategies aim to incorporate more PA into the client’s daily life in a progressive way without effecting the client’s original daily life schedule very much.

Feb. 1, 2016 to May 5, 2016

Rizwan Mahmood*
Physics and Pre-Engineering

"Nanoparticle Liquid Crystals as Negative Index Materials"
It is well known that negative refractive index material (NIMs or metamaterials) composites have properties different than any naturally occurring materials. Theoretically, these materials have shown remarkable optical and electrical directional dependent (anisotropic) properties which can be exploited for use in super lens, optical cloaking, ultrafast optical image processing and optical recording, etc. We plan to study electro-optical properties of gold nano rods colloids in liquid crystals. We hope the results obtained will be helpful in understanding the interaction of these materials with radiation in optical range and will help in further development of NIMs.

Jan. 1, 2016 to Dec. 31, 2016
$5,000

Marketa Schublova
Exercise and Rehabilitative Sciences

"The Effects of a Six-Week Training Program Utilizing a Suspension Training Strap and Swiss-ball on Core Stability"
Low back pain (LBP) is a common chronic condition with a lifetime incidence as high as 80%. Individuals with chronic low back pain have decreased recruitment of core muscles and exhibit core weakness. Core stability training has been indicated for low back pain treatment. Core muscle imbalance leads to LBP. Low endurance of core muscles has been a major cause of LBP recurrence. The use of instability devices to train the core muscles are an essential part of many LBP rehabilitation protocols and have a significantly greater effect on muscle activity than floor-exercise. The general purpose of this study is to determine the difference in muscular effects on core stability following a short, six-week training program using either the Swiss-ball or the suspension training strap. Examining the difference in muscle activation will provide...
the researchers with valuable data that would inform rehabilitation prescription for low back injury.

Jan. 1, 2016 to Dec. 1, 2016

Kimberly Smith
Exercise and Rehabilitative Sciences

“Preliminary Study on the Relationship Between Physical Activity and Lower Extremity Lymphedema”
Individuals with lymphedema, a chronic progressive disease of inflammation (swelling), and fibrosis (hardening) are often physical therapy patients. This preliminary research study will describe physical activity (PA) levels of patients with lower extremity (LE) lymphedema and determine the relationship of PA, measured via an accelerometer, and outcome measures in patients with LE lymphedema. Patients will have outcome measures performed at the beginning and end of their Complete Decongestive Therapy (CDT), a standard treatment for LE lymphedema patients. Following data collection on 20 participants, the second phase will begin in which patients will be encouraged to increase their PA.

Jan. 1, 2016 to Dec. 31, 2016

Roger Solano*
School of Business

“Improving Schedule Adherence in the Butler Transit Authority System”
The Butler Authority System has deployed an Automatic Vehicle Location (AVL) system in recent years. The system generates and collects AVL data including among others real time information about a bus location and adherence to schedule. This project analyses the AVL data in the system. The study builds on our previous research of the AVL data and measures the results of changes implemented in the system based on previous recommendations. The objectives are to measure improvements in on-time performance schedule adherence, and running time adherence, and identify opportunities to further improve schedule adherence and performance reliability. We perform univariate and multivariate statistical analysis and compared actual performance with the desired on-time performance for the route. Finally we will propose a new schedule for the routes and recommend further research in order to improve the system.

Jan. 1, 2016 to Dec. 31, 2016

$4,999

Sharon Sykora
Political Science

“Partisan Differences in the Context of the 2016 Presidential Election: SRU Students vs. the General Public”
We are told that the American electorate is strongly polarized into ever-hardening opinions and exclusive camps. This project aims to put this “truism” to the test by examining the consistency of public policy preferences with political party identifications of SRU students using the red/purple/blue designations so often referred to in the political commentary of our time. Playing off of a popular Huffington Post YouTube video, our students (donned in red, purple or blue shirts) will sort themselves into groups in answer to questions about a variety of issues important in the upcoming 2016 general cycle. Are their answers consistent with who they think they are in terms of their partisan identities? We’ll be watching (literally, on our own video for YouTube), and comparing our students to respondents in other studies which chronicle the public opinion of the electorate as a whole.

Sep. 1, 2016 to Nov. 11, 2016
Rebecca Thomas*
Parks and Recreation

“Attitudes Toward Massasauga Rattlesnake Conservation in the Slippery Rock Area”
Jennings Environmental Education Center (JEEC), located in Slippery Rock, Pennsylvania, is home to a rare 20-acre relict prairie ecosystem which supports a variety of unique flora and fauna, including the Massasauga rattlesnake (*Sistrurus catenatus*). Anecdotal evidence suggests that misinformation about and fear toward Massasaguas is prevalent in the community surrounding JEEC. Given that Massasaguas are a candidate for federal protection under the Endangered Species list of 1973 and that a primary threat to the Massasauga is habitat loss and degradation due to anthropogenic activity, the purpose of this study is to explore attitudes toward Massasauga rattlesnakes in the area surrounding JEEC. The researchers will develop targeted communication and outreach strategies about Massasauga rattlesnake conservation and to disseminate results at the North American Congress of the Society for Conservation Biology in Madison, Wisconsin.
Jan. 1, 2016 to Aug. 15, 2016
$4,688

*Awarded*
The Green Fund Grants 2015-16

The Green Fund was established to support environmental initiatives on campus and in the community. The Advisory Board accepts proposals and distributes funding for programs promoting environmental education and projects related to environmental sustainability. The following proposals were submitted in response to the Request for Proposals.

Anthony DeRosa (U)*
Caleb Sykora-Bodie (U)
Autumn Hyde (U)
Leah Homich (U)
Paula Lockwood (U)

Faculty Mentor:
Tricia Bishop
Art

“Bio-diesel and Waste Fuel Ceramic Kiln”
The vast majority of ceramic kilns with fuel burners are designed to be fired using natural gas or propane. Bio-diesel and waste oil as the source of fuel for ceramic kilns is a relatively new concept that has proven to be successful, to lower cost and is just as time efficient as propone or natural gas. This project will investigate low cost, environmentally beneficial fuel options with used vegetable oil and bio-diesel. A portable ceramic kiln will be built for this project using a self-supporting dry-fit arch design. Bio-diesel is produced and available from SRU Facilities. Waste oil will be obtained from food services and restaurants on and off campus. Various percentage mixtures of waste oil and bio-diesel will be tested. A fuel pump will be used to assist oil flow to burner and to atomize the fuel. Findings will determine the ideal fuel blend for firing kilns in warm and cold weather.

Jan. 25, 2016 to May 1, 2016
$2,267

Joel Brown*
Environmental Health and Safety

“Tin Recycling”
Slippery Rock University has demonstrated a firm commitment towards the promotion and embracement of sustainable practices, and is recognized as a leader in preparing its students as innovators and entrepreneurs to address environmental challenges on a global level. EHS seeks to implement additional recycling procedures that will result in the cleaning, collection, bailing and removal of tin cans from SRU dining services for recycling. This project will positively contribute to sustainable practices and has the added benefit of generating revenue for the university.

Jan. 1, 2016 to June 30, 2016
$11,800

Aaron Cowan
History

“Seeds of Sustainability”
The purpose of this project is to develop the content of a “Seeds of Sustainability” education course/program at Slippery Rock University. Its aim is to introduce sustainability issues and practices focusing on Foodways—the production, distribution, and consumption of food—to a broader audience both on and off campus. Utilizing the sustainability resources on campus and undergraduates as research and test pilots of the lectures/class materials, Seeds of Sustainability has the potential to guarantee SRU is the region’s leading model of sustainability education.

Jan. 25, 2016 to May 1, 2016
$2,267
across a broad spectrum of disciplines; agriculture, economics, foodways, geography, history and sustainability. The program would thereby benefit community members as well as undergraduate and graduate students in the following fields: Applied History, Economics, Geology, Geography, History, Inter-disciplinary Studies, Non-profit Leadership, Parks and Recreation, Public History and Sustainability Studies.

Jan. 1, 2016 to May 1, 2016

Christine McHenry-Glenn*
Bruce Boliver
Hospitality, Event Management and Tourism

“Ecotourism and Sustainable Tourism Conference”
The purpose of this project is to send 16 Hospitality, Event Management and Tourism (HEMT) students and two faculty to the Ecotourism and Sustainable Tourism Conference (EST) in Tampa, Florida. Ecotourism is one of the fastest growing sectors within the tourism industry. To better prepare students for working in this field, the HEMT Department. recently added three new courses focused on ecotourism and sustainable tourism. Many benefits will result in SRU having presence at this conference. These include professional development for students interested in seeking careers in this field. Additionally, the possibility of presenting at a future EST Conference will be explored. Finally, attending this conference will ensure that SRU is recognized as an educational resource within this field.
Nov. 11, 2015 to May 15, 2016
$2,000

Courtney Gramlich
Storm Harbor Equestrian Center

“Equine Solar Initiative”
The purpose of this project is to obtain two solar operated, manual fill water troughs for the Equestrian Center to be installed in the pastures that are located too far from the Center to economically run power to the area. These water troughs are not only a great free energy alternative, but they are also a great teaching item to show students that solar powered items are readily available and useful in everyday life.
May 1, 2016 to Aug. 31, 2016

Crichelle McDeavitt (U)
Faculty Collaborator
Rhonda Clark
School of Business

“Bigbelly Solar Smart Waste & Recycling”
Bigbelly Solar Smart Waste & Recycling is transforming one of the least efficient and most resource intensive industries on the planet – waste collection. The installation of these units on SRU’s campus, specifically around the residence halls, will change the way the university collects and processes its waste, while providing a prominent, eye-level message of sustainability to students, faculty, staff, visitors and the community alike. These solar powered, compacting and smart waste collection and recycling bins provide numerous benefits to university stakeholders and are a large step in the right direction toward the university’s commitment to sustainability.
May 2, 2016 to Dec. 31, 2016
Joseph Miller (U)
Faculty Collaborator
Daniel Brown
Residence Life

“Outside Seating with Solar Powered Charging Stations”
The project would consist of purchasing two poly recycled outside seating stations that can seat up to six people in picnic style seating. The table includes an umbrella for shade. The umbrella has solar panels attached to the top that will supply the charge to batteries located in the base of the table. The table includes ports for students to plug the electronic devices into to charge them utilizing solar power. The table is also ADA accessible. The seating is functional by giving the students a place to sit outside. The table, made out of recycled materials, provides a renewable source of power to give students a way to charge their electronic devices.

*Awarded

June 1, 2016 to June 8, 2016
The mission of Slippery Rock University’s Center for Student Research is to create a community of learners by facilitating the exchange of ideas, to provide a collegial venue that prepares students for further scholarly exploration and professional careers and to promote scholarly inquiry as a fundamental value of the SRU experience. The goal of this internal grant program is to support and promote high-quality student/faculty collaborative research, scholarship and create activity. The following students prepared a grant proposal in response to the Request for Proposals.

Kristen Bailey (U)*
Cooperating Faculty Mentor:
Teena Custer
Dance

“Annex Dance Company Work Study”
I will be traveling to Charleston, South Carolina to work with the Annex Dance Company from January 3-17. I can see myself becoming a member of this company, because there is an SRU alumnus currently employed there, and I enjoy their dance style, similar to that of the SRU Dance Department. In order to start building a relationship with the company, I must spend an intensive amount of time taking classes, watching rehearsals and helping them with production and performance needs. They will be able to see my work ethic, organizational skills, and artistry through this intensive 13 day period. Funding not provided by the grant will be obtained through several means. I have applied for the Lucy Isacco Sack Scholarship, and started a Go Fund Me account for donations from family and friends. I will also be receiving additional funds from the SRU’s Department of Dance.
$500

Carolyn Britton (G)*
Cooperating Faculty Mentor:
Mary Ann Holbein-Jenny
School of Physical Therapy

“Providing Physical Therapy to the Under-Served in Lima, Peru”
A group of Doctor of Physical Therapy students from SRU will be taking part in a mission trip to provide physical therapy to the under-served in Lima, Peru in August 2016. The students will be in Lima for two weeks. While there, the students will be setting up temporary clinics on the weekends treating patients during the weekdays, and educating Peruvian healthcare workers who join the team in the clinic. This trip will help the students to become better Physical Therapists through practicing under licensed physical therapists, increasing their cultural knowledge, working with a diverse group of individuals and enhancing their cultural awareness and responsibility. Participation in the trip allows the SRU’s Doctor of Physical Therapy students to help the university achieve its vision to “...excel as a caring community of lifelong learners connecting with the world.”
Aug. 6, 2016 to Aug. 24, 2016
$500
Michael Chojnacki (U)*
Cooperating Faculty Mentor: Patricia Campbell
Geography, Geology and the Environment

“Rapid Transport of the Morgantown Sandstone”
The Morgantown Sandstone (Pennsylvania Epoch) of the Casselman Formation of the Greater Pittsburgh Region has traditionally been classified as fluvial channel sand deposit formed by sediment filling an array of stream channels over time. More recent work suggests a different interpretation for the way the sediment was deposited. Unique characteristics found at multiple outcrops support an alternate hypothesis of deposition, such as debris flow, and transport and rapid deposition of semi-lithified beds during tectonic uplift of the Appalachian Mountains to the east. This project will study the basal features of the outcrop located at Mt. Nebo Pointe in order to determine the origin of the deformational stresses that affect the surrounding landscape.

Nov. 15, 2015 to May 3, 2016
$486

Maria DeAngelis (U)*
Cooperating Faculty Mentor: Elizabeth Kemeny
Parks and Recreation

“Exploring the Effectiveness of Heroes on the Water Program for Veterans with Disabilities”
This project will advance my knowledge, skills and abilities for qualitative research and will promote the development for at least 50 recreational therapy students for working with veterans with disabilities by using semi-structured interview methods. I will learn more about the veterans experience with Heroes on the Water, a kayaking and fishing program for veterans with physical disabilities and mental health issues. To gain insight into the Heroes on the Water experience, I will attend at least two outdoor events in the summer of 2016. In partnership with the program, I will gain knowledge and skill with adaptive equipment for the veterans. In the fall of 2016, I will host an indoor event at SRU in the Aebersold Recreation Center. After I have completed and compiled my findings, I will share them with other students and faculty to further their knowledge.

May 1, 2016 to Dec. 15, 2016
$485

David Gordon (U)*
Cooperating Faculty Mentor: Barbara Westman
Art

“Printmaking Reborn”
I am applying for the grant to attend Southern Graphics Conference International, which is the largest Printmaking convention in North America. While at the Conference I will attend lectures and workshops presenting innovations in printmaking, especially handmade inks and printmaking paper. This conference will help me tremendously with my technical skills. I will attend print exhibitions that accompany the conference. I will use this newly gained knowledge in my Senior Art Project in 2016 (BFA) and also share my knowledge with my Advanced Printmaking class after my return, as well as present at the Student Research Symposium.

March 3, 2016 to Dec. 1, 2016
$500
“Finding Profitable Trading Strategies for the Hard Working American to Help Fight Economic Inequality”

In the United States, there has been a huge problem with economic inequality; the 1% is getting richer, while the middle class is failing. The purpose of this research study is to determine proactive ways to close this gap. We will be using financial markets to create income in a sophisticated manner, much like the financial institutions on Wall Street. This will be done by creating trading strategies for the hard working Americans in order to fight the economic inequality gap in the United States.

March 1, 2016 to Oct. 1, 2016

“Beijing or Bust! Physical Therapy Faculty and Students Teaching and Serving in Beijing”

This project is to provide education and service to the physical therapists at Intech Rehabilitation Hospitals (Intech), Beijing, China. Service includes delivering lectures, labs and co-teaching patients. Three SRU-DPT students will apply their didactic education under the mentorship of Dr. Billek to provide teaching and physical therapy in Beijing.


“Developmental Consequences of Imidacloprid on Amphibian Development”

Amphibian populations around the globe are declining at alarming rates. Due to their propensity to live in both aquatic and terrestrial environments, they are greatly affected by chemical changes in their environment. This research project aims to analyze how imidacloprid, a neonicotinoid pesticide, affects the development of larval amphibians as they metamorphose into adulthood. This research will be essential to better understand how imidacloprid affects vertebrates, namely amphibians. By analyzing how imidacloprid exposure impacts amphibians throughout metamorphosis, we can better understand the full consequences of imidacloprid use.

June 1, 2016 to Dec. 31, 2016

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Kristofer Huelsbeck (U)
Cooperating Faculty Mentor:
Jeffrey Forrest
Mathematics

Lauren Michaels (U)*
Cooperating Faculty Mentor:
Vaughn Bicehouse
Special Education

Caroline Schmitt (U)*
Cooperating Faculty Mentor:
Barbara Billek-Sawhney
School of Physical Therapy

Grascen Shidemantle (U)*
Cooperating Faculty Mentor:
Paul Falso
Biology

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* indicates a student who received the grant.
**Physical Therapy Service Learning Project for the Economically Disadvantaged**

Our project is aimed at providing skilled physical therapy services as well as support services to an underprivileged family in West Virginia. The family consists of a father who is the caretaker of three young men diagnosed with cerebral palsy. Being awarded this grant money will aid students in the Doctor of Physical Therapy program to fulfill their professional responsibility as clinicians guided by the core values and Code of Ethics of the American Physical Therapy Association.

*July 24, 2015 to July 24, 2016*

*Zachary Straynick (G)*
Cooperating Faculty Mentor: Mary Ann Holbein-Jenny
School of Physical Therapy

*Kaitlin Wiegmann (G)*

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**Butler Historical**

Butler Historical is a local research project that emphasizes the importance of digital history to communities. Since the project began in 2014, SRU students and faculty have endeavored to use Butler Historical as a lasting authority for Butler County’s history. Because of the project’s scope and nature, funding will be essential for the purposes of historical digitization and digital maintenance. The following proposal should accurately illustrate Butler Historical’s purpose and importance to educators, students and the Butler County Community.

*Oct. 15, 2015 to Dec. 31, 2015*

*Dylan Vamosi (U)*
Cooperating Faculty Mentor: Aaron Cowan
History

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**Constraining the Textual Evolution of a Reinjection Horizon within the Black Sturgeon Sill**

Research has shown that through the analysis of textures and grain size quantification scientists can constrain some aspects of sill formation such as cooling history and temperature of emplacement. These are important aspects in beginning to understand the igneous processes that control the evolution of magma chambers within the crust. Each batch of magma involved in the formation of a sill has a distinct composition and cooling history, largely dependent on the size of the intrusion. This project will investigate a unique tetural variation within a reinjection horizon in Black Sturgeon Sill. Using crystal size distributions to calculate temperature of emplacement and evaluate the cooling history on the horizon.

*Oct. 15, 2015 to May 31, 2016*

*Blake Wallrich (U)*
Cooperating Faculty Mentor: Michael Zieg
Geography, Geology and the Environment

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**Expert Supplemental Advice**

Seventy-eight percent of adult Americans used a dietary supplement, including multi-vitamins or minerals, in the past 12 months. There is concern among healthcare professionals as a growing number of people forgo conventional medical treatment in favor of using products that may offer no medicinal value and taking health advice from medically

*Tianna Wikert (U)*
Cooperating Faculty Mentor: Amy Rickman
Exercise and Rehabilitative Sciences

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untrained sales representatives. Occurrences of adverse events, including death, are on the rise. The proposed study will evaluate the advice given at retail stores and pharmacies on dietary supplements. Researchers will visit 30+ stores and suggest a need for weight loss and improved exercise. They will also provide symptoms of a specific disease. We will evaluate (any potential danger) of advice given and determine the differences between pharmacists and retail store workers. The findings will provide insight into the quality of advice given in a poorly regulated, potentially dangerous and very popular industry.

April 4, 2016 to Dec. 30, 2016
$500

Wesley Woodward (U)*
Cooperating Faculty Mentor:
Cassandra Eisenreich
Music

“Development of Kinesthetic Movement, Memory and Fine and Gross Motor Skills Through Music Education”
The purpose of this research is to identify the ability of preschoolers to learn and retain music through kinesthetic movement and action songs. Through this research, we will identify the level of progress in motor development in children, ages four to five, through the use of music education. This research was inspired through teaching similar classes to students from the Butler County Children’s Center. The grant would be used towards starting a similar program in the SRU Preschool. Through creating this music program in the preschool, the students will receive music in their weekly curriculum, which could positively affect SRU Pre-service Music Educators by providing invaluable experience in the music education field.

Feb. 1, 2016 to May 31, 2016
$500

*Awarded
The Summer Undergraduate Research Experience (SURE) grant is a program designed to introduce undergraduate students to the world of academic research. The program requires that each proposal be prepared as a joint effort between the faculty member and a qualified undergraduate student, and that the proposal describes a research project that will engage the student in research skills and techniques of that discipline. The following proposals were submitted in response to the Request for Proposals.

**Emily Aldridge (U)***  
Faculty Mentor:  
Colleen Cooke  
Parks and Recreation  

**“Use of Humor Therapy as a Recreational Therapy Intervention: Does It Improve Quality of Life Among Men with Schizophrenia?”**  
Humor therapy is described as a preventative or active treatment option for individuals with disease, especially those with illnesses that are exacerbated by stress. It can be used to improve health and promote wellness. Humor Therapy is one facilitation technique that is used by Recreational Therapists. Quality of life is a term that is used to describe the general degree of well-being experienced by an individual, including the individuals’ physical, cognitive, emotional, social and spiritual well-being. Research suggests that humor therapy can enhance quality of life among participants. The purpose of this study is to observe changes in quality of life among men with schizophrenia, thereby adding to the bodies of literature related to humor therapy and the efficacy of this technique as a tool for Recreational Therapists.  
*May 10, 2016 to June 10, 2016*  
*$725*

**Amber Davidson (U)***  
Faculty Mentor:  
Qi Chen  
Chemistry  

**“Synthesis of L-carbocyclic Nucleosides as an Antiviral Agent”**  
In the past few decades, continuous emergence of new and reemerging viral infections caused serious health problems. The principal investigator of this project is pursuing the counterforce by designing and synthesizing organic molecules with potential anti-viral activity. The target compounds are designed to inhibit one of the cellular enzymes, which is crucial for viral replication and preventing drug resistance. This project provides the opportunity for students to practice their critical thinking skills by using organic chemistry to explore the field of drug discovery.  
*June 1, 2016 to July 1, 2016*  
*$725*

**Tanner Geibel**  
Faculty Mentor:  
George Lengyel  
Chemistry  

**“Organic Synthesis of Complex a-Alkylated Amino Acids”**  
There are twenty naturally occurring amino acids used as the building blocks of protein. Small chains of amino acids are called peptides, and these often form two common types of secondary structures, or shapes: a-helices and B-sheets. The formation of these secondary structures is dictated by the side chains present...
on the same amino acids found in a peptide. Our research focuses on synthesizing unnatural α-alkylated amino acids for inclusion in peptides. We have found that incorporating simple α-alkylated amino acids into the peptide is tolerated, but destabilizing to the folded structure. This project will focus on creating more complex α-alkylated amino acids by using a previously synthesized molecule, diallyl glycine, as a precursor. Diallyl glycine will provide us with a starting point for short chemical syntheses that can produce an array of other unnatural amino acids with a variety of modified side chains. 

June 1, 2016 to Aug. 1, 2016
$725

Spencer Knafelc (U)*
Faculty Mentor:
Andrew Winters
Philosophy

“Process and Extended Mind”
The extended mind thesis claims that, given the active role the environment plays in the development and sustainment of cognitive processes, we should not limit the boundaries of the mind to the skin and the skull. The view is both counterintuitive and faces many challenges. This research project assesses the difficulties of overcoming many of these objections as being a result of the extended mind thesis having been framed in a substance ontology, which states that the mind is a different kind of thing from the body. We will consider the possibility of adopting a process metaphysics, which states that the mind is a metastable process or activity, for understanding the extended mind thesis to illustrate how doing so allows the proponent of the extended mind to overcome many contemporary objections.

May 5, 2016 to June 3, 2016
$725

Gracen Shidemantle (U)*
Faculty Mentor:
Paul Falso
Biology

“Developmental Consequences of Imidacloprid on Amphibian Development”
Amphibian populations around the globe are declining at alarming rates. Due to their propensity to live in both aquatic and terrestrial environments, they are greatly affected by chemical changes in their environment. This research project aims to analyze how imidacloprid, a neonicotinoid pesticide, affects the development of larval amphibians as they metamorphose into adulthood. Development will be evaluated based on growth, immunity and mortality. This research will be essential to better understand how imidacloprid affects vertebrates, namely amphibians. By analyzing how imidacloprid exposure impacts amphibians throughout metamorphosis, we can better understand the full consequences of imidacloprid use.

June 1, 2016 to Aug. 12, 2016
$725
Robert Wellman (U)*
Faculty Mentor:
Emily Keener
Psychology

“Statistical Thinking in Developmental Psychology: Examining the Role of Gender, Sexual Orientation and Relationship Type”
Using a large data set of existing data, the student will learn advanced data management skills using a wide range of data collection and statistical analysis tools. This experience will go well beyond that of a typical undergraduate research project. Instead, the student will gain the skills and practice with the tasks requiring great precision and thus attention to details. These are the skills required to conduct psychological research. Not only will the student gain advanced statistical training, but he will also learn about the role of gender, sexual orientation and relationship type on interpersonal processes. Collaborating on research with faculty will allow the student to gain sophisticated training and the faculty member to make progress on a research project requiring a great deal of time and attention.
May 23, 2016 to Aug. 12, 2016
$725

*Awarded
Norton Undergraduate Research Scholarships 2015-16

The Norton Undergraduate Research Scholarship is a scholarship program designed to assist undergraduate students in their pursuit of academic research or creative activity. This scholarship program is intended to enhance quality mentoring relationships between faculty and students who work collaboratively to answer questions, solve problems and provide learning opportunities to the highest caliber. Research conducted by Norton Scholars with faculty mentors should contribute in meaningful ways to the knowledge base of a given discipline and support the strategic initiatives of the University.

Katelynn Kletzli (U)*
Faculty Mentors:
Jeffrey Lynn and Amy Rickman
Exercise and Rehabilitative Sciences

“Expert Advice on Dietary Supplements”
The purpose of this project is intended to evaluate the safety and effectiveness of dietary supplement advice provided by supplement retailers and pharmacies. A second purpose is to determine whether there is a meaningful difference in the advice provided by pharmacists and supplement retailers. Finally, we will determine whether either of them recognize symptoms of a serious disease or simply prescribe a supplement as treatment. We hypothesize that both the pharmacists and the retailers will recommend supplements that have no physiologic value and may be dangerous. We also hypothesize that the retailers will recommend more supplements and provide more potentially dangerous advice. Finally, we hypothesize that both will have instances of not recognizing the need to refer to a physician, but the retailers will make this error significantly more than the pharmacists.

April 4, 2016 to Dec. 31, 2016
$500

Timothy Samec (U)*
Faculty Mentor:
Arlene Ford
Physics and Pre-Engineering

“Fabrication and Investigation into Properties of Integrated DNA Nanostructures”
The purpose of this project is aimed at perfecting the techniques needed to produce DNA lattice structures as well as imaging techniques using atomic force microscopy. Our practice will cause a greater understanding of what is necessary for architecture functionalization and the opportunity to explore the various methods that can be used to adhere the metallic nanoparticles to DNA structures. The future goals include successful functionalization of DNA lattice structures with metallic nanoparticles, optical response investigations over time and full establishment of a transition to fully utilizing DNA nanotechnology for nanodevice fabrication on SRU’s campus.

$500

*Awarded
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