Research, Scholarship, and Creative Activity

Fiscal Year 2018-2019

FEATURED INSIDE
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36 FACULTY AND STUDENTS JOURNEY TOGETHER
42 INNOVATIVE DEVELOPMENTS
Warriors enjoy a spring day on campus

ESU’s annual ‘Color Me Warrior’ event for students
It takes the work of many hearts and hands to serve our students, and the faculty and staff at East Stroudsburg University have been committed to student success from the start.

The individuals highlighted in this booklet are involved in research, scholarship and creative work that won internal and external funding in order to implement their projects and research - with the ultimate goal of enhancing the student experience at ESU. Their efforts throughout the past academic year are no exception. By involving students in research projects, our faculty and staff have helped them to understand what it takes to lead an investigation on their own (with the mentorship of a faculty member) or to engage in a life-changing project that may have far-reaching impact or implications.

This booklet highlights research that took place in 2018-2019, soon after the Board of Governors announced plans for a system redesign and Dr. Daniel Greenstein became Chancellor of Pennsylvania’s State System of Higher Education. Therefore, it’s important to remember that our research efforts are fundamental to ensuring and supporting ESU’s Strategic Plan, Students First: Empowering Innovation through Collaboration, as well as the State System’s redesign priorities: ensuring student success, leveraging university strengths and transforming the governance/leadership structure. Our common work is to educate, to improve lives, and to ensure quality.

Grant awards are often the catalyst that turns a good idea into a ground-breaking experience. If we could bring it to scale, ESU, our State System, and most importantly, our students, faculty and staff would all benefit. After all, sponsored projects and research is a route to infuse funding into current educational opportunities in order to expand and improve scholastic achievement leading to postgraduation success for our students. Yet, if we are to continue to build on our achievements we will require additional grants and investments not only from the Commonwealth, but also from private donors, national funding agencies, private philanthropies and through public/private partnerships.

I hope you’ll take some time to celebrate the innovative endeavors and research within this booklet, particularly those that have directly contributed to improved educational experiences for our students. Thank you for your continued perseverance toward a commitment to learning and growth and for passing forth YOUR passion to our students.

Sincerely,
Marcia G. Welsh, Ph.D.
THE MISSION of the Office of Sponsored Projects and Research, Division of Academic Affairs is to advance the research enterprise at East Stroudsburg University by promoting an environment that fosters creativity, collaboration, and community.
Research, Scholarship, and Creative Activity

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The Office of Sponsored Projects and Research, within the Division of Academic Affairs, continues to support the advancement of the research and creative activity enterprise at ESU. In 2018-2019, ESU brought in $2,631,438 in external awards. The University continues to submit a growing number of grant proposals each year, with numbers being consistent over the years, and dollar amounts high. The number of grant submissions has averaged in the range of 59 proposals per year since 2013-2014. The fluctuations in grant awards does differ, with some years seeing big increases due to a large federal or private grant, as was the case in the 2016-2017 fiscal year.

### External Grant Awards 2018-2019

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### External Grant Requests 2018-2019

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2018-2019 PERCENT OF AWARDED EXTERNAL SUBMISSIONS AND CUMULATIVE DOLLAR AMOUNT OF AWARDS

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<th>College/Division</th>
<th>Proposals Submitted</th>
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<tr>
<td>Health Sciences</td>
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</tr>
<tr>
<td>University Divisions and Affiliates</td>
<td>21</td>
<td>14</td>
</tr>
</tbody>
</table>

University Divisions and Affiliates include: Athletics, Economic Development and Entrepreneurship, ESU Foundation and Office of University Advancement, Graduate and Extended Studies, Kemp Library, Student Affairs

Faculty Development and Research (FDR) Internal Grants

**FDR Total Amount Requested 18-19** $104,548  
**FDR Total Amount Awarded 18-19** $76,640

FDR FUNDING REQUESTED AND AWARDED BY COLLEGE/DIVISION

<table>
<thead>
<tr>
<th>College/Division</th>
<th>$ Amount Requested</th>
<th>$ Amount Awarded</th>
<th># Proposals Submitted</th>
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## External Grants

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## Internal FDR Grants

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<tr>
<td>Proposals Submitted</td>
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Hair samples from bobcat snares in New Jersey were submitted for analysis and DNA samples were extracted using a Qiagen DNeasy Blood and Tissue Extraction Kit. In addition, a specific real time PCR assay for bobcats was used to screen DNA samples to determine species. Identified bobcat samples were analyzed for individualization using seven microsatellite loci. This microsatellite analysis was created for NJ bobcat analysis completed in 2012. Results of this study were compared to the diversity and individuals from the 2012 study.

Pike County Tick Project Part 3
Funding Source: Tick-Borne Diseases Support Network
Amount Awarded: $47,000
This project is a two-year study to develop prevalence of tick-borne diseases (TBD) in Pike County, PA, which currently has the highest rates of TBD in Pennsylvania. This was the largest county study conducted in the state. A total of 1,000 blacklegged ticks were collected from nine grids of Pike County, PA. The collected ticks were evaluated for seven tick-borne diseases.

Springsnail Genetics
Funding Source: Wildlife Resource Consultants
Amount Awarded: $700; $6,915
Springsnails are a primary indicator of water quality and abundance on the landscape. This project was conducted to better understand presence of various species of springsnails to develop a conservation strategy. Springsnails were collected from various streams throughout Nevada. DNA of each snail was extracted and sequenced to determine species.

JOHN ELWOOD
Physics
J.F. Reichert Foundation Equipment Grant
Funding Source: J.F. Reichert Foundation
Amount Awarded: $6,004
The J.F. Reichert Foundation Grant funded materials required for the construction of several quantum optics/photon quantum mechanics experiments at ESU. Apparatus purchased included a visible laser...
(GaN - 405 nm), down conversion crystal, optical steering and processing components (mirrors, polarizers, waveplates, beam splitters, filters, etc.), fiber optics, coincidence electronics, avalanche photodiode detectors, and processing software. The apparatus is capable of studying parametric down conversion, single photon interference, the Hanbury Brown Twiss effect, the quantum eraser, delayed choice, photon entanglement, Bell inequalities, quantum cryptography, quantum teleportation, and myriad other optical effects requiring a full quantum mechanical analysis.

CHRISTINE HOFMEISTER  
Computer Science  
Department of Defense Cyber Scholarship Program  
CO-PI: MINHAZ CHOWDHURY  
Computer Science  
Funding Source: United States Department of Defense - National Security Agency  
Amount Awarded: $190,673  
The goal of the ESU Cyber Scholarship Program (CySP) is to bolster student success through financial, academic, mentor, and counseling support to qualified ESU Computer Security majors, with the understanding that they will serve the Department of Defense as thriving interns and cyber defense engineers. The ESU-CySP encourages students to succeed as Computer Security majors, participate in Department of Defense internships, obtain their degrees, and serve as effective cyber professionals. The program also encourages more students to participate in cyber defense education.

JOSHUA LOOMIS  
Biological Sciences  
Sigma Xi: Grants in Aid of Research  
CO-PI: AMANDA LAYDEN (graduate student)  
Funding Source: Sigma Xi, The Scientific Research Honor Society  
Amount Awarded: $888  
Sigma Xi Grants in Aid of Research promote scientific excellence and achievement through hands-on learning and encouraging close working relationships between students and mentors. ESU graduate student Amanda Layden was awarded for her biology research project proposal with Professor Loomis. The project focused on Batrachochytrium dendrobatidis, which is a fungal pathogen that belongs to the phylum Chytridiomycota and causes the disease known as Chytridiomycosis. A major limitation to understanding the biology of B. dendrobatidis is that it is difficult to grow in vitro. The major goal of the investigation was to create a new in vitro system that attempted to simulate submerged amphibian skin and then tested the effect of different environmental conditions on the growth of B. dendrobatidis using the new in vitro system.

CARRIE MALONEY  
Sociology, Social Work, and Criminal Justice  
Northwest New Jersey Community Action Partnership: Byrne Criminal Justice Innovation  
CO-PI: DARLA DARNO  
Sociology, Social Work, and Criminal Justice  
Funding Source: United States Department of Justice (USDJ)  
Amount Awarded: $71,250  
NORWESCAP and the Phillipsburg Police Department have been working together on community building since 2010 in an effort to reduce crime and improve community safety. The Phillipsburg Project has a special focus on youth and the Juvenile Detention Alternative Initiative (JDAI) by diverting youth from the criminal justice system. Professors Maloney and Darno are involved in this initiative as research specialists in the area of youth criminal justice. They will evaluate the program for continuous improvement, providing a critical, objective lens to the work.

ANNE MENDOZA  
Modern Languages  
6th Annual Latino Heritage Month Film Festival  
Funding Source: ESU Foundation  
Amount Awarded: $1,000  
Raising awareness of the diverse cultures of Hispanic communities abroad as well as here in the United States is particularly important to many ESU students who are carrying out minors and majors in Spanish language and literature, as well as studying Spanish, Latin American, and U.S. Latino history, culture, and social studies for their connections to other fields. Many students from across different colleges and majors from different departments attend the film festival in order to gain cultural awareness necessary for their diverse fields.

JONI OYE-BENINTENDE  
Art + Design  
River Fugues/Moving Waters  
Funding Source: ESU Foundation  
Amount Awarded: $1,000  
The exhibition, River Fugues/Moving Waters, showed in the Madelon Powers Art Gallery in winter 2019. It is an installation that is part meditation and part call to action. Its content reminds us of our dependence on clean water for life and asks us to reflect on how we care for, value and use our water. The artist, Margaret Cogswell, has spent more than a decade exploring the interdependency of people with water through a series of site-specific installations based on various rivers, reservoirs and waterways around the world. She uses the structure of the musical fugue as the vehicle for editing and weaving together the disparate visual and audio components to create
work that explores the interdependency of people, industry and river waters in post-industrial cities.

**The Hand in Art and Fine Craft**

**Funding Source:** PA Council on the Arts - Pocono Arts Council  
**Amount Awarded:** $1,202

The Hand in Art and Fine Craft project is a reminder that traditional art and craft making continues to not only exist, but thrive and remain relevant in the technologically-charged world of the 21st century. As society speeds toward a future packed with the wonders of artificial intelligence, robotics, biometrics, and immersive virtual realities in industry and art, the project created a pause and an opportunity for the university and local communities to admire works and learn from artists who use time-honored processes to convey contemporary ideas and forms.

**MATTHEW WALLACE**  
**Biological Sciences**

**Field Studies on the Spotted Lanternfly in PA**  
**Funding Source:** United States Department of Agriculture (USDA)  
**Amount Awarded:** $105,165; $16,302

This project continued important work towards the discovery and development of effective traps and lures for the Spotted Lanternfly (SLF), and bolstered the eradication efforts through research that ensures the eradication strategy is optimized based on a correct understanding of the insect’s biology, such as alternative host plant suitability and dispersal capabilities. The Spotted Lanternfly is highly polyphagous and feeds on more than 80 species of plants in at least 37 families, and it is a serious pest of grapes. The SLF are found in Pennsylvania on tree-of-heaven (*Ailanthus altissima*), and are now in six counties in Pennsylvania.

**HOWARD WHIDDEN**  
**Biological Sciences**

**Continued Monitoring and Management of White Nose Syndrome-Affected Bats**  
**Funding Source:** United States Department of Interior - National Park Service  
**Amount Awarded:** $114,543

Professor Whidden monitored bat populations in the Upper Delaware Scenic and Recreational River Corridor in an effort to protect surviving populations and minimize future threats. His goal was to collect data on bat activity and distribution in the corridor following the appearance of White-nose Syndrome (WNS). Professor Whidden and his students recorded bat echolocation calls and then analyzed the number of calls per unit of time to provide an index of bat activity along the routes. They also conducted emergence counts at four bat maternity roosts in the park to collect data on the size of maternity colonies and the success of reproduction in these colonies.

**Assessment of Bat Activity in the Delaware Water Gap National Recreation Area Following the Appearance of White-nose Syndrome - Summer 2019**  
**Funding Source:** United States Department of Interior - National Park Service  
**Amount Awarded:** $2,480

**PAUL WILSON**  
**Biological Sciences**

**Natural Lands: Water Quality Monitoring**  
**Funding Source:** William Penn Foundation  
**Amount Awarded:** $7,967

This grant includes two major aspects. The first is the collection of data related to water quality (biological, chemical and physical) on two tributaries of Masthope Creek. In addition, the grant covers the purchase of two Mayfly Remote Data Logging stations. These stations were constructed by Stroud Water Research Center and were installed on Cherry Creek. These installations will expand Professor Wilson’s efforts to establish Cherry Creek as an outdoor laboratory for the study of stream ecology and stream restoration and conservation practices.
Professor Zhang attended a two-week summer institute titled “Statistics for Big Data” at the University of Washington. The course was designed to introduce modern statistical techniques for the analysis of biological Big Data. This training allowed Professor Zhang to gain new knowledge and skills in bioinformatics, an interdisciplinary field combining biology, computer science, and statistics that he plans to use to develop a bioinformatics course at ESU.

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**EXTERNAL GRANT SUBMISSIONS**

**NICOLE CHINNICI, Dr. Jane Huffman Wildlife Genetics Institute**
- PA-WTD GENOTYPING, Funding Source: PA Game Commission, Amount Requested: $7,500 not funded
- PEREGRINE FALCON GENOTYPING, Funding Source: PA Game Commission, Amount Requested: $2,000 not funded
- SNAIL IDENTIFICATION, Funding Source: Arizona Fish and Game, Amount Requested: $1,050 not funded
- RFP Neon, Funding Source: Neon-Batelle, Amount Requested: $252,000 pending*

**LAURENE CLOSSEY, Sociology, Social Work, and Criminal Justice**
MENTAL HEALTH RECOVERY MODEL EDUCATION FOR FUTURE SOCIAL WORK AND EDUCATION PROFESSIONALS

**CO-PI: MICHELLE DILAURO, GINA SCALA**
Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) - Faculty Professional Development Council (FPDC) Amount Requested: $7,700 not funded

**BONNIE GREEN, Psychology**
MINDFULNESS MATH

**CO-PI: CATHERINE GOOD, Baruch College**
Funding Source: National Science Foundation, Amount Requested: $174,853 not funded

**JAMES HUNT, Biological Sciences**
ENVIRONMENT RESTORATION

**CO-PI: OLIVIA CARDUCCI, BONNIE GREEN**
Funding Source: National Science Foundation, Amount Requested: $363,991 not funded

**MICHELLE JONES-WILSON, Chemistry**
CLEAR PATH 2

**CO-PI: OLIVIA CARDUCCI, BONNIE GREEN**
Funding Source: National Science Foundation, Amount Requested: $4,964,439 pending*

**MARGARET MULLAN, Communication**
CRAFTING A BOOK PROPOSAL FOR DIALOGUE IN A TECHNOLOGICAL AGE: GABRIEL MARCEL’S PHILOSOPHY OF BEING
Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) - Faculty Professional Development Council (FPDC), Amount Requested: $5,361 not funded

**PAUL WILSON, Biological Sciences**
DELAWARE WATERSHED CONSERVATION FUND, CHERRY CREEK RESTORATION AND OUTREACH PROJECT
Funding Source: National Fish and Wildlife Fund
Amount Requested: $20,000 not funded

*Pending refers to all external grants pending as of June 30, 2019, the last day in the fiscal year 2018-19.
INTERNAL GRANTS

FDR MINI GRANTS

DONGSHENG CHE
Computer Science

Online Training of Applied Data Science with Python Specialization
Amount Awarded: $411

Online Training in Advanced Machine Learning and Big Data
Amount Awarded: $800

ESTHER DAGANZO-CANTENS
Modern Languages

2019 Modern Language Undergraduate Conference
Amount Awarded: $1,124

LEIF JOHAN ELIASSON
Political Science

Domestic Contestation and Politicization of European Foreign Policy, CSOs, Parties, and Parliament
Amount Awarded: $1,119

DARLENE FARRIS-LABAR
Art + Design

Construct 3D at Georgia Tech: Learning New 3D Software that Creates Artistic 3D Forms Inspired by Math and Science
Amount Awarded: $1,200

Atmospheric Waterlines: 3D Printing Rain Drops
Amount Awarded: $1,200

STEPHANIE FRENCH
Theatre

Forum Theatre Intensive
Amount Awarded: $1,200

EUGENE GALPERIN
Mathematics

2019 International Conference on Technology in Collegiate Math
Amount Awarded: $1,200

TERRY MASTER
Biological Sciences

Eastern Hemlock – Louisiana Waterthrush Relationships
Amount Awarded: $1,200

ANDREA MCCLANAHAN
Communication

Be Body Positive Professional Orientation and Licensing
Amount Awarded: $1,200

MARGARET MULLAN
Communication

Application for an FDR Mini Grant for Assistant Professor Margaret Mullan’s Professional Development
Amount Awarded: $1,199

MATTHEW WALLACE
Biological Sciences

Treehopper Collecting Expedition: Discovering Diversity in the Florida Wildlands
Amount Awarded: $1,100

HOWARD WHIDDEN
Biological Sciences

Scientific Illustrations of West Indian Shrews (genus Nesosophontes)
Amount Awarded: $1,200

XUEMAO ZHANG
Mathematics

Online Training in Data Visualization With R
Amount Awarded: $800

Development of a Statistical Cloud Computing Center
Amount Awarded: $1,200

Students enjoy learning at the ESU Data Visualization Summer Institute.
FDR Major Grants

Laurene Clossey
Sociology, Social Work, and Criminal Justice

Complementary and Alternative Medicine (CAM) Among Mental Health Consumers

CO-PIs: Michelle Dilauro, Chin Hu, and Hooshang Pazaki
Amount Awarded: $5,127

This study explored the impact of consumer use of CAM on mental health recovery outcomes. It also examined the relationship between culture and beliefs about healing and treatment behavior. This study had two goals. One was to explore CAM use among mental health consumers and their experience in discussing the use of such practices with their mental health providers. The second goal was to examine whether cultural beliefs and the use of CAM has an impact on mental health recovery.

Kristin Noblet
Mathematics

Developing Math Pedagogical Content Knowledge (PCK) Through Tutoring

Amount Awarded: $9,958

The grant paid for undergraduate early childhood education majors to tutor at least a dozen local elementary school students in mathematics. This tutoring program impacted the undergraduate education majors’ mathematical knowledge for teaching and the elementary school students understanding of mathematics. The data obtained from this study was used in support of external grant funding applications, which will expand the tutoring program, reaching more undergraduate education majors and local school children.

Jerry Ross
Physics

ESU’s Turbo Jet Engine

Amount Awarded: $10,000

A “Turbojet” style jet turbine was made out of miscellaneous automotive and custom fabricated parts. The project is entirely student run. The grant was used to further research on the jet turbine and to purchase equipment used to analyze the thruster.

Xuemao Zhang
Mathematics

Summer Data Camp for ESU Students and Monroe County, PA High School Math Teachers/Students

CO-PI: Jonathan Keiter
Amount Awarded: $9,738

The Summer Data Camp was a 4-day workshop to introduce data visualizations in data science to Monroe County (PA) high school math students. It was open to ESU students and high school math teachers as well. The camp included diverse topics focusing on data visualization using the statistical software R. The participants learned the basic R language syntax, data import, data tidying, basic plotting, and advanced data visualization skills. The participants then had the opportunity to practice the programming implementations in computer lab sessions.

Entrepreneurship Across the Campus

Maria Cohen
Physics

Move-Out Collection Sale

CO-PI: Darlene Farris-Labar
Art + Design
Amount Awarded: $1,999

At the end of the 2019 spring semester, Maria and her team collected reusable items that were usually thrown into the trash by students moving out of dorms. The collected items were either sold or donated. After another collection during the 2020 spring semester, all profits will be donated to the Warrior Food Pantry which supports food-insecure ESU students. This effort took place in collaboration with Patrick Monaghan, director of residential life and Sailor Moore, custodian at ESU.

Yoshi Tanokura
Theatre

Tazewell Thompson Visits ESU

Amount Awarded: $1,000

This grant helped to bring a renowned African American opera, theatre director, playwright and teacher, Tazewell Thompson to ESU. Thompson conducted a workshop, which aimed to improve self-promotional skills, and presented a public talk on entrepreneurship in the entertainment industry.
## External Grants

<table>
<thead>
<tr>
<th>Category</th>
<th>Funds Awarded</th>
<th>Funds Requested</th>
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## FDR Grants

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<tr>
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JASON ENGERMAN

RICHARD OTTO
EXTERNAL GRANTS

JASON ENGERMAN
Digital Media Technologies

ESportsU Foundations Project: Culturally Relevant Computing through Esports Participatory Cultures

CO-PI: RICHARD OTTO

Funding Source: National Science Foundation
Amount Awarded: $399,853; $45,841

The ESportsU Foundations Project is an exploratory Innovative Technology Experiences for Students and Teachers (ITEST) proposal to create transformational and culturally-relevant learning experiences for foster care students to generate awareness, interest and motivation in STEM skill development. ESportsU is a partnership between ESU’s Digital Media Technologies (DMET) department and Monroe County Children and Youth to service a rural population in Northeast Pennsylvania. In two, six-day sleep away educational summer camp sessions to take place in summer 2020, 24 students will go through the process of replicating competitive digital gaming (esports) activities, modifying in-game features and coding, designing and developing graphics and website content, leveraging digital media marketing data analytics, as well as working on video production streaming and video editing. Professors Engerman and Otto received additional funds in the form of an additional $45,841 from the NSF to support the involvement of more ESU students in the project.

INTERNAL GRANTS

FDR MAJOR GRANTS

MINKYO LEE
Sport Management

An Examination of Emotional and Cognitive Priming Effects in Televised Sports: A Psycho-Physiological Approach

Amount Awarded: $8,830

A total of four sport management master’s students from Professor Lee’s research methods class [SMGT 513 and SMGT 570] during the 2019-2021 academic years will be recruited as investigators. They will help Lee to develop experimental stimuli, conduct a pre-test for stimuli selections, create computerized experiments through a software, and conduct experiments. The students will be given training sessions for the experiment (e.g., CITI certificate, experimental software, and psycho-physiological data collection). The experimental equipment will allow students and faculty to use more diverse research methods and measurements including surveys as well as psychophysiological, laboratory, and quasi experiments.
# External Grants

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<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

# Internal FDR Grants

<table>
<thead>
<tr>
<th>Category</th>
<th>Awarded</th>
<th>Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$4,800</td>
<td>$15,200</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$4,800</td>
<td>$15,200</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>
EXTERNAL GRANTS

KELLY MCKENZIE
Academic Enrichment and Learning

American Association of University Women (AAUW) Start Smart Salary Negotiation Workshop

Funding Source: ESU Foundation
Amount Awarded: $1,000

This award allowed purchase of a three-year American Association of University Women (AAUW) Start Smart license. The license permitted ESU to provide facilitator training for three faculty and/or staff and delivery of 18 salary negotiation workshops for women who were graduating. The workshops focused on helping women develop negotiation skills to lessen the wage gap. The grant provided ESU with an opportunity to enhance the learning community by offering a curriculum that focused on one of the most challenging aspects of being a woman in the workplace in the 21st century, less pay for equal work.

BETH SOCKMAN
Professional and Secondary Education

National Writing Project/Pocono Writing Project: Science in the Park

CO-PI: LAURA KIESELBACH

Funding Source: National Writing Project
Amount Awarded: $3,500

Professors Sockman and Kieselbach used this project as a means to engage families in our local national park, Delaware Water Gap National Recreation Area, plus encourage children to think like scientists and learn from the world around them. They conducted multiple activities and engaged students and families through technology by allowing them to see their pictures plotted out on the innovative Siftr app. Participants also crafted personal e-portfolios in Google classroom to better detail their adventures. At the conclusion of the project the students created a story book to tell about their adventures. The writing activities were responsive, purposeful, and reflected learning in a new and innovative way. The project was embedded in a unique exploration of science in nature combined with individual opportunities for expression.

Student participating in the Science in the Park project.

Jan Gebert, Stefani Stricker, Reiny McKenna, Laura Kieselbach and Jane Verdergeist.
EXTERNAL GRANT SUBMISSIONS

TERRY BARRY, Dean, College of Education
INNOVATIVE TEACHER AND PRINCIPAL RESIDENCY PROGRAM

CO-PI: GINA SCALA
Funding Source: Pennsylvania Department of Education
Amount Requested: $66,780 pending*

MIHYE JEONG, Health and Physical Education
PARENTAL SUPPORT FOR PHYSICAL ACTIVITY PARTICIPATION OF THEIR CHILDREN WITH DISABILITIES - US
Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC), Amount Requested: $7,825 not funded

LAUREEN NELSON, Early Childhood and Elementary Education
THE PASSHE HIGHER EDUCATION EARLY CHILDHOOD EDUCATION PROFESSIONAL DEVELOPMENT ORGANIZATION
Funding Source: PA Department of Human Services – Shippensburg University, Amount Requested: $257,346 pending*

JESSICA SANTIAGO, Academic Enrichment
GEAR UP SUMMER CAMP
Funding Source: Pennsylvania’s State System of Higher Education, Amount Requested: $15,630 not funded

BETH SOCKMAN, Professional and Secondary Education
THE GROWING CONNECTIONS: NEUROSCIENCE IN HIGH SCHOOL BIOLOGY
CO-PI: JOSH LOOMIS
Funding Source: National Science Foundation, Amount Requested: $1,171,199 not funded

PENG ZHANG, Health and Physical Education
PARENTAL SUPPORT FOR PHYSICAL ACTIVITY PARTICIPATION OF THEIR CHILDREN WITH DISABILITIES – US
CO-PI: CHRISTINE BRETT
Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC), Amount Requested: $6,980 not funded

*Pending refers to all external grants pending as of June 30, 2019, the last day in the fiscal year 2018-19.

INTERNAL GRANTS

FDR MINI GRANTS

MARY ELIZABETH AZUKAS
Secondary Education
Personal Learning: Are States Making it a Priority?
Amount Awarded: $1,200

DIANE HOLBEN
Secondary Education
Bullying Prevention: Will States Insure that Every Student Succeeds?
Amount Awarded: $1,200

KELLY MCKENZIE
Academic Enrichment and Learning
Developing an Equitable and Inclusive Tutoring Program
Amount Awarded: $1,200

Developing Peer Tutors into Professionals
Amount Awarded: $1,200

ONE IN A LIFETIME GRANT

KELLY MCKENZIE
Academic Enrichment and Learning
Amount Awarded: $2,000

The Once in a Lifetime Grant provided funding for Professor Kelly McKenzie and Denasia Mosteller, a student, to travel to the University of Applied Science in Bielefeld, Germany. The purpose of their trip was to teach international students and German students about leadership, gender in communication, and intersectionality. McKenzie gave two presentations to students from the US, Europe, and Asia in the frame of a European summer school. She spoke about why gender still matters in the international business sector. Mosteller was a guest speaker during McKenzie’s presentations and spoke about intersectionality theory and women CEOs in the US. McKenzie also taught a course on leadership and gender at the university. Mostellar was a learning assistant for the course. She engaged in discussions with students about American culture; gave presentations on intersectionality and women CEOs in the US; met with students outside the class to discuss and review course content; assisted with research for the class; and presented her findings to the class from an interview with a Turkish professor related to Intersectionality in Germany.
# College of Health Sciences

## External Grants

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$387,405*</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$378,585</td>
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## Internal FDR Grants

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$11,200</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$11,200</td>
</tr>
</tbody>
</table>

| Proposals Awarded         | 5       |
| Proposals Submitted       | 6       |

| Proposals Awarded         | 2       |
| Proposals Submitted       | 2       |

*Awards are larger than requests because some funds had been requested in the 17-18 FY.*
CLARE LENHART
Health Studies – Institute of Public Health Research and Innovation (IPHRI)

HELP: Healthy Local Pantries
Funding Source: Pennsylvania's State System of Higher Education (PASSHE) - Faculty Professional Development Council (FPDC)
Amount Awarded: $8,379

Chronic disease is more common among food insecure populations than the general public, yet food pantries are rarely used as intervention sites to meet this need. Professor Lenhart and students built upon a collaboration with the Pocono Mountains Hunger Coalition and recent needs assessment findings highlighting the need for community-based preventive services to lead a service project to bring the pantry-specific Cooking Matters program to pantries in Monroe and Pike Counties, PA. They worked with pantry directors to implement new guidelines governing acceptance of donated food so that more nutrient-dense foods could be made available to vulnerable community members, and the pantry recipients would be better positioned to use that food for the benefit of their health.

Comprehensive Asthma Control Through Evidence-based Strategies and Public Healthcare Collaboration

CO-PI: KRISTINA ZWOLENIK
Health Studies – Institute of Public Health Research and Innovation

Funding Source: Centers for Disease Control and Prevention (CDC) - Pennsylvania Department of Health
Amount Awarded: $69,186

Professor Lenhart’s research team was awarded a continuing grant for an additional year of evaluation of the impact of Pennsylvania’s statewide asthma control efforts with emphasis on the evaluation of the Pennsylvania Asthma Partnership (PAP), expansion of the Community Asthma Prevention Program (CAPP), and implementation of clinical, practice-based quality improvement efforts to enhance asthma care. Additional research was also conducted to highlight areas of disparity in asthma need versus asthma services and funding in order to advocate for underserved regions moving forward.

AKILA RAJAPPA
Communication Sciences and Disorders

Dysphagia Warriors Program: An Evidence-based Outreach Educational Model on Dysphagia Prevention for Community Dwelling Older Adults

CO-PI: LUANN BATSON-MAGNUSON
Communication Sciences and Disorders

Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) - Faculty Professional Development Council (FPDC)
Amount Awarded: $8,550

Professors Rajappa and Batson-Magnuson were awarded funding to fill the crucial need to develop a concrete dysphagia prevention and management model that will exclusively focus on dysphagia clinical education for speech pathology graduate students and serving the local senior community. There are no evidence-based approaches that focus exclusively on dysphagia prevention in the community and there is a considerable lack of community-based outreach educational models about dysphagia prevention and management for older adults. The newly created Dysphagia Warriors Program aimed to
partner ESU’s graduate speech pathology program faculty and students with local seniors to raise awareness about dysphagia and its complications. Dysphagia is a disruption in swallowing and it affects one in 25 adults in the United States. Without effective education and treatment, dysphagia can lead to dehydration, malnutrition, pulmonary complications related to chronic aspiration (food/liquids entering airway), reduced rehabilitation potential, social interaction, quality of life, or even death.

RACHEL WOLF
Communication Sciences and Disorders
ESU Autism Education Center
CO-PI: GINA SCALA
Special Education & Rehabilitation
Funding Source: All One Foundation
Amount Awarded: $261,840

Professor Wolf, along with faculty from the College of Education and the College of Arts & Sciences and with the support of Denise Seigart, Dean of the College of Health Sciences, formed the ESU Autism Education Center and have joined the All One Foundation’s Autism Collaborative Centers of Excellence (ACCE) to support the mission of meeting the needs and minimizing the service gaps for individuals with autism spectrum disorder (ASD) and their families. Based on the established need for these resources, and the strong relationships ESU has fostered with organizations and affiliates throughout the surrounding region, the ESU Autism Education Center will service three counties: Monroe, Pike and Wayne. It will be a multi-disciplinary center offering referrals, networking, resources, workshops, and training for the broader community living in the three counties, as well as for ESU students, faculty, community teachers and parents of children with autism. The ESU Autism Education Center will create a consistent, seamless approach across agencies and systems, information sharing, tracking transitions across services, and creating a team with a shared culture. It will provide a means of connecting stakeholders who are interested in the issues faced by individuals with ASD and their families and who seek a unified solution to address these needs.

KRISTINA ZWOLENIK
Health Studies – Institute of Public Health and Innovation
Asthma Health Needs Assessment
Funding Source: Centers for Disease Control and Prevention (CDC) - The Asthma and Allergy Foundation of America (AAFA)
Amount Awarded: $33,450

Kristina Zwolenik worked to develop and administer two separate needs assessments to identify potential barriers to including asthma patients and family members in research, as well as ways to overcome those potential barriers. One assessment captured the perspective of patients and family members. The second assessment captured the perspective of researchers. In addition, IPHRI served as the lead evaluator for CDC on the entire AAFA project.

EXTERNAL GRANT SUBMISSIONS

SUSAN DILLMUTH-MILLER, Communication Sciences and Disorders
PERIPHERAL AND CENTRAL AUDITORY MANIFESTATIONS IN RHEUMATIC DISEASE
CO-PI: LUANN BATSON-MAGNUSON, Communication Sciences and Disorders
Funding Source: American Hearing Research Foundation,
Amount Requested: $35,344 not funded

INTERNAL GRANTS

FDR MAJOR GRANTS

AKILA RAJAPPA
Communication Sciences and Disorders
Psychophysical Evaluation of Urge-to-Cough (UTC) Sensation in Healthy Young and Older Adults
Amount Awarded: $10,000

Swallowing and cough impairments co-exist and can lead to death. The overarching aim of Professor Rajappa’s research is to evaluate the psychophysical processes of urge-to-cough (UTC) in healthy young and older adults as currently no such study to establish normative data exists. The long-term objective is to understand the relationship between cough sensations and stimuli and promote effective diagnostics in the impaired population. Effective understanding of cough sensations will lead to early identification and intervention of both swallowing and cough impairments.

FDR MINI GRANTS

EMILY SAUERS
Exercise Science
Nutrition Workshop and Conference
Amount Awarded: $1,200
University Divisions and Affiliates

Athletics
Economic Development and Entrepreneurship
ESU Foundation and Office of University Advancement
Graduate and Extended Studies
Kemp Library
Student Affairs

WILLIAM BAJOR
XENI BARÁKOS-YODER
LIANNA DESANTIS
SHARONE JONES
CHRISTINA MCDONALD
KEITH MODZELEWSKI
MARY FRANCES POSTUPACK
RICHARD SANTORO
LAURA SUITS
**EXTERNAL GRANTS**

**WILLIAM BAJOR**  
*Graduate and Extended Studies*

**All Learning Counts Planning Grant**

**Funding Source:** Lumina Foundation  
**Amount Awarded:** $10,000

William Bajor fashioned a comprehensive plan to help meet the Lumina Foundation’s goal of 60% of all Americans holding some form of a high-quality credential beyond a high school diploma. The plan’s main objective was to grow the credit for prior learning activity (CPL) exponentially through partnerships with other PASSHE schools, by providing uncompromising access to educational opportunities for adult and nontraditional learners, especially those from underrepresented communities. ESU and its PASSHE partners would ensure geographic coverage across the entire Commonwealth while providing PA residents (and others) a diverse array of opportunities at a unique set of universities with which to complete their intended degrees using the developed collaborative CPL services. The planning grant resulted in the submission of a full proposal in partnership with Edinboro University and the Chancellor’s office.

**XENI BARAKOS-YODER**  
*Athletics*

**NCAA: Make it Yours, Coaching Enhancement Grant: Women’s Lacrosse**

**Funding Source:** National Collegiate Athletic Association (NCAA)  
**Amount Awarded:** $51,600

This grant has enhanced the mission of the athletic department and university by providing coach Barakos-Yoder funding for an assistant women’s lacrosse coach and professional development training. ESU has a diverse student population which is reflected in the over 500 student athletes competing on 22 intercollegiate athletic teams. This funding furthers the goals that have been established in the athletic department’s strategic plan to address the inequities that exist. Although women’s lacrosse was granted varsity sport status in 1963, the program has only recently experienced regional and national success. The culture of ESU women’s lacrosse changed with the hiring of Barakos-Yoder in 2016, who has taken the team to new heights. In 2017, the Warriors won their first PSAC championship and in 2018 they claimed their first regional championship.

**ESU FOUNDATION**

**Pennsylvania Tick Research Lab at ESU**

**CO-APPLICANT:** NICOLE CHINNICI  
*Dr. Jane Huffman Wildlife Genetics Institute*

**Funding Source:** Pennsylvania Department of Health and Human Services  
**Amount Awarded:** $500,000

As a result of this important grant, the Pennsylvania Tick Research Lab at ESU provides free tick testing to all Pennsylvania residents. Tests include Lyme disease and three additional tests based on the species of tick submitted. Results of the tests are provided to residents and include important information about risk/exposure to tick-borne diseases. Funding has also supported the development of a

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**EXHIBIT 1: EXTERNAL GRANTS**

<table>
<thead>
<tr>
<th><strong>External Grants</strong></th>
<th><strong>FDR Grants</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funds Awarded</strong></td>
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<td><strong>Funds Requested</strong></td>
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<td><strong>Proposals Awarded</strong></td>
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</tr>
<tr>
<td><strong>Proposals Submitted</strong></td>
<td><strong>21</strong></td>
</tr>
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</table>
data analytic website that provides infection rates across the Commonwealth, areas with high tick density, and demographics associated with the tick bite. This data will establish a baseline for the prevalence of ticks and tick-borne diseases in Pennsylvania. Since 2011, the Commonwealth has been the nation’s leader in annual confirmed cases of Lyme disease.

**Upgrade and Expand ESU Aquaria**

**CO-APPLICANT: JAMES HUNT**  
*Biological Sciences*

**Funding Source:** Pennsylvania Department of Education  
**Amount Awarded:** $100,000

ESU has an active program in marine sciences and is a member of the Marine Science Consortium at the Chincoteague Bay Field Station in Virginia. This grant has helped to build and maintain larger professional aquaculture systems that greatly enhance student learning. Dr. Hunt has been able to establish a variety of different aquaculturing approaches, including the Berlin Reef system, the Jaubert Monaco System, marine ornamentals, freshwater aquatics, specialty tanks—such as a plankton kreisel for keeping jellyfish or growing corals—as well as feeding and rearing stations. The project includes an update of ESU’s current facilities, including professional-grade water filtration and storage equipment. As a result of this project students gain real world experience with the same types of systems they are likely to find in large public aquaria, research labs, aquatic farms, and other facilities where care and husbandry of aquatic plants and animals is conducted.

**Sanofi Community Annual Scholarship**

**Funding Source:** Sanofi  
**Amount Awarded:** $67,212

This grant supported scholarship funds to offer annual scholarships to science majors with a preference on transfer students from community colleges majoring in the Biological Sciences.

**William T. Morris Foundation Scholarships**

**Funding Source:** William T. Morris Foundation  
**Amount Awarded:** $5,000

This grant supported five scholarships of $1,000 each for incoming ESU freshmen.

**SHARONE JONES**  
*Economic Development and Entrepreneurship | Workforce Development*

**WEDnetPA**

**Funding Source:** Pennsylvania Department of Community and Economic Development  
**Amount Awarded:** $374,791

WEDnetPA training program funds are provided through the Department of Community and Economic Development. As a certified partner, ESU is responsive to the needs of Pennsylvania’s business community and administers funds to support essential skills and advanced technology training to qualified employers. The training allows companies to stay competitive in a global economy.

**CHRISTINA MCDONALD**  
*Office of Sponsored Projects and Research*

**Faculty Professional Development Council Grant Writing Workshop**

**Funding Source:** Pennsylvania’s State System of Higher Education (PASSHE) - Faculty Professional Development Council (FPDC)  
**Amount Awarded:** $3,710

This grant supported a PASSHE-wide, two-day federal grant writing workshop for PASSHE faculty. Altogether, 45 faculty and staff attended from 13 PASSHE universities. The workshop, Federal Grant Writing, took place in May 2019 at Bloomsburg University of Pennsylvania and was facilitated by Robert Porter, an expert in research and administration who has won more than $8 million in awards from government agencies and private foundations. The workshop provided on-site grant writing experience and mentoring for faculty to use in their upcoming proposal preparations.

**KEITH MODZELEWSKI**  
*Economic Development and Entrepreneurship | Business Accelerator*

**VentureWell E-Team Program Stage I Grant**

**CO-PI: ZACH WALDMAN**  
*Falchion Systems*

**Funding Source:** VentureWell  
**Amount Awarded:** $5,000

The E-Team Program is an integrated program of grant funding, training, coaching, and investment by Venture Well to give student teams the best possible chance to move technologies out of the lab or classroom and into the marketplace. The ESU E-Team is Falchion.
Systems, a new cybersecurity startup which aims to help guard against hackers. Unintentional downloading of malicious code costs companies $3.62 million dollars per incident, on average. To address this problem Falchion Systems provides lightweight, virtual applications (web browser, email client) for users to do their work, without poor behavior effecting the confidentiality, integrity, and accessibility of a valuable company data.

MARY FRANCES POSTUPACK
Economic Development and Entrepreneurship | Center for Research and Economic Development (CFRED)

Monroe 2030 Study: Planning for the Future: Aligning Strategies for Commuters, Millennials, Entrepreneurs, Automation and Quality of Life in Monroe County, Pennsylvania
Funding Source: Lester G. Abeloff Foundation
Amount Awarded: $1,000
This grant represents seed funding in support of the Monroe 2030 study to plan for improving the quality of life in Monroe County, PA. This project is planned in segments and will move forward as funding becomes available. This seed funding allows work on the first areas of focus, commuters and entrepreneurs.

ESU 2018-19 Ben Franklin Small Business Incubator Project

CO-PI: KEITH MODZELEWSKI
Economic Development and Entrepreneurship | Business Accelerator
Funding Source: Pennsylvania Department of Community and Economic Development – Ben Franklin Technology Partners (BFTP)
Amount Awarded: $5,000
The Small Business Incubator funding provided by the Ben Franklin Technology Partners of Northeastern PA (BFTP/NEP) has successfully resulted in marketing efforts focused on attracting new companies to the entrepreneurial programs at ESU including the Business Accelerator, coworking space, and the Warrior Launch Pad (a student incubator). BFTP support helped launch a social media presence and digital marketing campaign to increase visibility and awareness of support services for entrepreneurs in Monroe County and the surrounding region. The efforts have resulted in top line lead generation for the ESU Business Accelerator and coworking space. BFTP funding also supported the marketing efforts for the grand opening of ESU’s Business Accelerator’s 16,000 sq. ft. expansion on second floor of the Innovation Center.
ESU is committed to improving its campus culture by increasing awareness about sexual violence while reducing barriers to its reporting process, which can negatively impact survivors. ESU continues the It’s On US, ESU campaign, which began in March 2018. Taking ownership of this campaign and branding it with ESU’s name creates a sense of community and possession of the campaign’s mission. The goals for ESU’s campaign include the following: improve awareness, prevention, reporting, and response systems regarding sexual violence at ESU to better serve all students; remove/reduce barriers that prevent survivors of sexual violence from reporting and/or accessing vital resources by creating a more consistent, empowering reporting process for student survivors of gender-based violence; and demonstrate significant, proactive, and sustainable leadership to change campus culture by pledging to improve our institution’s climate.

ESU’s Three-Pronged Alcohol Awareness Program
Funding Source: Pennsylvania Liquor Control Board
Amount Awarded: $20,000

The ESU Three-Pronged Alcohol Awareness Program is structured to reach young people effectively through the use of social media and online courses. The goals for this project are reducing underage drinking, reducing high-risk drinking or dangerous drinking, and promoting responsible alcohol consumption for those of legal drinking age. The program consists of social media videos that portray abstinence from alcohol consumption, harm reduction strategies, and positive social norm data from the 2019 American College Health Association’s National College Health Assessment II. The other critical components of the program are EVERFI, AlcoholEdu Courses and additional shuttle bus services to be provided during high alcohol consumption time periods.

State System Alcohol and Other Drugs (AOD) Coalition Grant; ScreenU
Funding Source: Pennsylvania Commission on Crime and Delinquency - PASSHE Foundation
Amount Awarded: $2,407

Pennsylvania’s State System of Higher Education (PASSHE) established the State System AOD Coalition to help eliminate underage and dangerous drinking and drug use at universities including implementing ScreenU, a program for all students who are interested in getting feedback and accessing resources about their use of alcohol, marijuana, and prescription drug use. ESU is a partner in this effort and received the ScreenU tool free of charge plus funding to hire a student worker who provides assistance in screening with a Brief Interaction and Referral to Treatment (SBIRT) training and implementation, who publicizes the program through social media, and who conducts in-person presentations about ScreenU for all interested students.

*Pending refers to all external grants pending as of June 30, 2019, the last day in the fiscal year 2018-19.
ESportsU Foundations Project

Largest external grant of the year

Professors Jason Engerman, DMET and Richard Otto, Chair, DMET secured the largest external grant in the 2018-2019 fiscal year with a $399,853 National Science Foundation grant in December 2018 in support of their research on gaming as a pathway to STEM education and careers.

The project and research utilizes competitive esports for at-risk children in Monroe County, focusing on motivating and preparing at-risk youth to pursue STEM careers. Engerman and Otto hope to broaden interest for STEM learning among a historically underrepresented population while addressing misconceptions about STEM.

The growing field of esports is individual or team-played computer games that allow large audiences to watch live matches and cheer on the game’s players, similar to watching a professional sporting match. Engerman and Otto see the bridge between this rapidly growing global phenomenon and the foundational principles of STEM being taught in college classrooms today. The project is in partnership with Monroe County Children and Youth and Judge Jonathan Mark, court of common pleas, 43rd judicial district. The grant is augmented by involving leading professionals in the field. This was supplemented with an additional $45,841 from the NSF to support the involvement of more students in the project.

Several related events and projects are emerging connected to this grant, including creation of a Creative Media Factory, a workshop that recreates the activities and practices of an esports industry business, and participation at state and national events and conferences related to the field of esports.

The ESportsU Foundations Project was honored, together with ESU NSF S-STEM project Clear Path, in 2019 by INSIGHT into Diversity Magazine that recognized both projects “for their success, dedication, and mentorship for underrepresented students.”

JASON ENGERMAN

RICHARD OTTO
Most internal grants in one year!

Five internal grants in the 18-19 fiscal year totaling $20,738

1. FDR Mini Grant Fall 2018
2. FDR Major Grant Fall 2018
3. FDR Mini Grant Spring 2019
4. FPDC PASSHE Grant 2019
5. S.U.R.E. 2019

In 2018-19 Professor Zhang won five grants, four internal grants and one FPDC, all of which he utilized in his mission to bring data science to ESU. With his FDR Major Grant, Professor Zhang offered the first ESU Data Visualization Summer Institute during the summer of 2019, along with his colleague, Professor Jonathan Keiter. He used his 2019 FDR Mini Grant funds to purchase a server for cloud computing, and his FPDC award and 2018 FDR Mini Grant were used for professional development to allow him to increase his skills in data science. Finally, his S.U.R.E. award gave an opportunity to an undergraduate student, John Cilli, to gain experience in the fast-growing field of “big data” research. What a year!
S.U.R.E AWARD RECIPIENTS

< TIMOTHY BEERY
Physics, 
Junior

> FACULTY MENTOR:
JERRY ROSS
Physics
Amount Awarded: $1,988

ESU’s Turbo Jet Engine Development
This grant was paired with Professor Ross’s larger FDR grant to further the development of ESU’s Turbo-Jet Engine project. The jet engine required a circuit to be fabricated so it could be turned on and monitored. Tim worked to custom fabricate the ignition system for the jet engine.

< SEAN CHANDLER
Digital Media Technologies, 
Sophomore

> FACULTY MENTOR:
RICHARD OTTO
Digital Media Technologies
Amount Awarded: $2,000

ESportsU: Organic STEM Learning Documenting the Creation of the ESU Digital Warrior Den
Student Sean Chandler was engaged in a study to document the processes of the creation of an ESU Esports learning environment and its development from a student’s perspective. Sean helped document the creation of this ESU esports gaming room. This study was a great opportunity for Sean to learn more about how to film a space, edit photos and video, and design posters.

< JOHN CILLI
Computer Science, 
Junior

> FACULTY MENTOR:
XUEMAO ZHANG
Mathematics
Amount Awarded: $2,000

Exploratory Data Analysis of 500 Cities: Local Data for Better Health
Professor Zhang and John analyzed the data from the “500 Cities: Local Data for Better Health” project from 2016, 2017, and 2018. He wrote a technical report summarizing the data analysis. This project allowed John to gain advanced exploratory data analysis skills including data manipulation, data summarization, and data visualizing using a leading programming language of data science, R.

< BENJAMIN CUFF
Psychology, 
Junior

> FACULTY MENTOR:
BONNIE GREEN
Psychology
Amount Awarded: $2,000

Creation and Validation of a Measure of Oppositional Mindset: Part 4
For this project, Ben built upon prior literature searches for three previous studies and examined the most recent literature on topics related to oppositional mindset. He created a survey for data collection as well as collected data using social media sources. With the assistance of Professor Green, Ben analyzed the data and conducted a validity study of the measure. He also assisted with writing a potential journal article.
Assessing Construction Impacts on Water Quality Using Continuous Data Logging Stations

Clear Path Scholars Benjamin and Levi sought to assess the impact of Route 191 tunnel construction north of Analomink, PA on the quality of water and aquatic habitat in the adjacent Paradise Creek. They assessed stream conditions, collecting data before and after the start of construction both upstream and downstream of the construction site. They then analyzed the data and presented their work at a scientific meeting.

A Curriculum of Girlhood in an All-Girls School in Liberia

As part of this project, Doreen updated a literature review on the topic of youth action participatory research and visual methodologies. She contributed to the research study design and drafted an institutional review board application, as well. This project provided Doreen with skills to construct a future research paradigm of her own.

Habitat Distribution and Flooding Tolerance in Smartweeds

Nijmih was responsible for assisting in the laboratory and field to carry out research projects investigating the ecology and distribution of the Persicaria smartweed species. This involved conducting field surveys along the banks of local streams, maintaining experimental treatments in the greenhouse, and collecting regular measurements on the experiment.

Bird-Window Collisions on ESU’s Campus

Bird-window collision is perhaps the most serious conservation concern facing birds other than habitat destruction. This project quantified the extent to which buildings at ESU contribute to this problem. Aubrianna collected data on bird mortality surrounding six separate ESU buildings in summer 2019 according to an established method in the literature. The buildings were of different sizes and had differing levels of nearby green space. One goal of the study was to suggest management/mitigation measures to reduce bird-window collisions.

ESportsU: Esports Experiences Towards Culturally Relevant Computing

Ayanna and Monica worked on planning and successfully executing the Esports Day Experience. They organized and provided support for tournament organization, campus tours seminar, and video and photographic production to capture the experience.
GRADUATE STUDENT RESEARCH ASSISTANTS (GSR)

Started in spring 2018, the Graduate Student Research Assistant position has continued to thrive, supporting graduate students to engage in meaningful research with a faculty mentor. The Graduate College-funded position has expanded to include research undertaken during the summer.

The GSR is responsible for assisting the mentoring faculty member in a variety of non-administrative tasks, which may include preparing resources, equipment, materials for the research, and documenting results. The research project provides the opportunity to learn proper research procedures and techniques, with the supervising faculty determining research goals and supervising the student in achieving those goals. The supervising faculty is responsible for providing ongoing feedback and a formal assessment at the conclusion of the assistantship.

As of the conclusion of summer 2019, the GSR program had supported eight graduate students with meaningful research work since its inception.

Funding Source: ESU Graduate College
Amount Awarded: $1,500

Effects of Habitat Variables on Timber Rattlesnake Distribution in Pennsylvania

Jonathan worked on an aspect of the Timber Rattlesnake Monitoring Project, a grant-funded project by the PA Fish and Wildlife Commission that Professor LaDuke leads. His work involved working on the Geographic Information System (GIS) component of the study.

Jonathan studied the relationship between specific habitat features and Timber Rattlesnake occupancy and density for a given region.

FACULTY
APPLICANT:
THOMAS LADUKE
Biological Sciences

< JONATHAN ADAMSKI
Fall 2018, Biological Sciences

< EMILY BOYLE
Fall 2018, Professional and Secondary Education

FACULTY
APPLICANT:
BETH SOCKMAN
Professional and Secondary Education

Establishing Neuroscience Pathways for High School Biology

Professors Beth Sockman (Professional and Secondary Education) and Joshua Loomis (Biological Sciences) applied for a Discovery Research PreK-12 (DRK 12), National Science Foundation grant which they titled: Growing Connections: Neuroscience in High School Biology. Emily provided general support on the entire project including

Interview (Jr. High Science Teacher PM East)

“By learning about the brain, students can better understand what’s happening in themselves.”

“A lot of the time, students wait for a lightbulb to go off. If we give them those tools and they realize they can get there a different way, they can be successful.”

“If you understand yourself and understand how you learn, you can take more pride in your work.”

“I would enjoy teaching Neuroscience and I think the students would like it too. When you give them something, like the different parts of the brain, students start to think about themselves.”

Example of an interview protocol contributing to the research project Establishing Neuroscience Pathways for High School Biology.
research on past findings, and aligned project objectives, goals and assessments using the Understanding by Design instructional design process. She also created a research-focused website, and identified potential partners.

**MASON HENNING**  
*Summer 2019, History*

**> FACULTY APPLICANT:**  
**CHRISTOPHER BROOKS**  
History/Geography

**Funding Source:** ESU Graduate College  
**Amount Awarded:** $1,500

**Dr. John S. Rock, Esq. and His Long Road to the US Supreme Court Bar**

Mason conducted research, prepared fact sheets, summarized research results, provided assistance with project-related reports, manuscripts, presentations, and proofread drafts. This research supported Professor Brooks in writing a book about John S. Rock’s life and ascendency to the US Supreme Court Bar in 1865.

**MEGAN LAWRENCE**  
*Spring 2019, Communication Sciences and Disorders*

**> FACULTY APPLICANT:**  
**ELAINE SHUEY**  
Communication Sciences and Disorders

**Funding Source:** ESU Graduate College  
**Amount Awarded:** $1,500

**Interprofessional Practice and Telehealth**

Megan was responsible for arranging simulated translator and telehealth therapy practice for communication science and disorder graduate students. She had to create necessary informed consent and evaluations to assess the experiences. Megan gathered outcome data, analyzed it, and presented results to faculty and graduate students.

**IVAN MENDOZA**  
*Spring 2019, Health Studies – Public Health*

**> FACULTY APPLICANT:**  
**CLARE LENHART**  
Health Studies

**Funding Source:** ESU Graduate College  
**Amount Awarded:** $1,500

**Chronic Disease Among Food Pantry Recipients: Needs Assessment and Tool Kit Development**

Ivan analyzed needs assessment data collected from Monroe County food pantries in the context of the chronic disease burden in the community. He developed a toolkit of readily accessible solutions for use by pantry directors in combatting the chronic disease risk factors encountered by pantry recipients.

**SANDRA REILLY**  
*Summer 2019, Professional and Secondary Education*

**> FACULTY APPLICANT:**  
**STEPHANIE MCCALL**  
Professional and Secondary Education

**Funding Source:** ESU Graduate College  
**Amount Awarded:** $1,500

**A Philosophical and Pedagogical Framework for a Critical Curriculum for a Girls’ School**

Sandra assisted Professor McCall and partnering school leaders in drafting a curriculum rationale. She synthesized the schools’ approved charter school application, the schools’ most current curriculum articulation documents, McCall’s related research and publications, and other research. As a result, they submitted a conference proposal to the National Council of Girls’ Schools.
The 2019 Student Research and Creative Activity Symposium was held on Wednesday, April 10th in the Hoeffner Science and Technology Center. The keynote speaker was William Schindler III, Ph.D., director center for Eastern Shore Food Lab and associate professor of anthropology and archaeology at Washington College in Chestertown, Maryland. Dr. Schindler’s talk, titled “Food Evolution Revolution: The Cutting Edge Fusion of Archaeology, Anthropology and the Modern Kitchen”, addressed the modern diet using an applied experimental archaeological approach. His research holds that biologically, we are essentially the same as we have been since we first made an appearance as a species, so our nutritional needs have not drastically changed, but our cultural needs have seismically shifted, and our expectations of taste, smell, texture and presentation have significantly impacted the way we think about food. He demonstrated that by fusing lessons from our dietary past with modern culinary techniques we can create a food system that is meaningful, accessible, relevant and delicious.

This year 156 undergraduate and graduate students presented at the symposium. The students represent 24 departments across campus and were sponsored by 49 faculty members. The symposium event included the Sigma Xi research forum competition and a special presentation highlighting student teachers and their experiences in the field. Oral and poster presentations included topics on Climate Change, Athlete Scandals, and College Student Nutrition.

The Research and Creative Activity Symposium helps to enhance student experiences by creating a space where students actively learn by applying research and testing methods in real world contexts. The university is proud to provide a platform where undergraduate and graduate students can showcase their research and findings.
Ashley Mascellino
Kristin Meislahn
Sabrina Mezzina
Brooke Moatz
Matthew Natale
Emily Pilipczuk
Pat Radice
Allison Schaller
Taryn Scott
Rebecca Stieb
Valentina Thatcher
Keirstan Wambold

**ENGLISH**
Ruth Connors
Jack Melquist
Rashira Rice
Najah Spruill
Cheyanne Werkheiser
Dakota Wiles

**ENVIRONMENTAL SCIENCE**
Destiny Cole
Morgan Guenther

**EXERCISE SCIENCE**
Michael Angelucci
John Blue
Alexis Castro
Matt Crispe
Meaghan Dwyer
Jacob John
Taya Lindenmuth
Morgan Mauro
Casey Seely
Allyson Stitzer
Sarah Tenney
Paul Wilbur

**HEALTH STUDIES**
Nikos Milios

**HOTEL, RESTAURANT & TOURISM MANAGEMENT**
Lori Bloch

**MARINE SCIENCE**
Brianna Gullotta
Bill Stewart
Antaya Williams

**MATHEMATICS**
Alicia Kakakios
Scott Kiskaddon
Menachem Perlman
Caitlin Simpson

**PHYSICAL EDUCATION**
Shane McGrath
Cody O’Connor

**POLITICAL SCIENCE**
Ellijah Brown
Ryan McBee
Caitlyn Stout

**PROFESSIONAL & SECONDARY EDUCATION**
Rafael Cordero

**PSYCHOLOGY**
Carissa Ceballo
Herec Colon
Benjamin Cuff
Christopher Galanti
Stephanie Hawk
Edward Parmer
James Roe
Jaeben Rosario
Raquel Sosa
Julia Sule
Heather Zeifert

**PUBLIC HEALTH**
Ivan Mendoza

**SOCIOLOGY**
Dion Brown
Zachary Sommer

**SPECIAL EDUCATION & REHABILITATION**
Erinni Binikos
Julianna Tavormina

**COMMUNICATION SCIENCES & DISORDERS**
Peyton Ritter
Kira Russo
Melissa Zak

**SPORT MANAGEMENT**
Ryan Adamonis
Jenna Bertoti
Allie Camp
Matthew Cardonne
Dan Cason
David Chirco
Joshua Eckert
Emily Eder

Jacob Feland
Luis Ferrin
Kevin Henley
Nick Herrmann
Brandon Hill
Justin Johnson
Jordan Madaya
Jerrid Matlock
Naijaa Michel
Gerard Morgan
Keondre Morris
Melanie Nicodemo
Michael Palazzi
Heather Phillips
Evan Pollock
Rusty Schander
Jacob Schneck
Erik Schumacher
Isaiah Swint
Brandon Teel
Erin Thuring
Tiana Webster
Veronica Wright
George Zutell
The Provost's Colloquium Series is a grassroots, faculty-initiated lecture series that began in fall 2016. Its mission is to create an exciting, intellectually rich campus forum where students, faculty, staff and members of the area community come together to share ideas and engage in inquiry and lively debate. The series is overseen by a faculty committee, which is co-chaired by Professor Cem Zeytinoglu, department of communication, and Professor Eugene Galperin, department of mathematics.

True to its original goals, the series has included presenters from the larger community to present on topics related to their areas of expertise, in addition to showcasing the research and creative work of ESU’s faculty. Well-attended, lively and offering different perspectives, the series has proven to be much appreciated and an important cornerstone to ESU’s intellectual culture.
ESU EAST STRoudsburg UNIVERSITY

Spring 2019
Provost’s Colloquium Series
An intellectual experience that promotes dialogue among ESU faculty, staff, students, and the community through a series of events highlighting developments in all disciplines and professions.

CARMEN — SPANISH DANCE MUSIC AND HUMAN DRAMA
Wednesday, January 30, 2019 - Cecilia S. Cohen Recital Hall

ARE WE SO DIFFERENT?
A Comparative Examination of Student Self-Reported Value Prioritization and the Perceived Value Prioritization of Others
Wednesday, February 6, 2019 - Beers Lecture Hall

RECOGNIZING HUMAN PRESENCE IN A TECHNOLOGICAL AGE: BEING, BODIES, AND INVOCATION
Wednesday, February 20, 2019 - Beers Lecture Hall

FAILURE: THE SECRET TO SUCCESS
Wednesday, March 20, 2019 - Beers Lecture Hall

DISCUSSING CULTURAL PERCEPTIONS OF LEARNING AND TEACHING
Wednesday, April 3, 2019 - Beers Lecture Hall

STAYING SAFE ON THE WEB: A Discussion About Social Media Cyberbullying, and how to use the Internet to Your Best Advantage for Career Success
Wednesday, April 24, 2019 - Beers Lecture Hall

ESU 125
1872-2018

COMMUNITY ON THE FRINGE
A forward-thinking study of the care given to people with disabilities in nursing homes.
Wednesday, September 26
Dr. Mary Lou Quinn, Ph.D., Assistant Professor in Human Development

EMOTIONS IN RATIONAL STRATEGIC DECISION MAKING PROCESS
A Choice-Shift Causal Experiential Tasks Study
Wednesday, September 26
Dr. Krista K. M. Schell, Ph.D., Assistant Professor in Human Development

ANTIBIOTIC RESISTANCE: THE NEXT GREAT EPIDEMIC?
Wednesday, October 10
Dr. Angela L. Rafter, Ph.D., Assistant Professor in Biological Sciences

CHILDREN’S LITERATURE IN STATE SYSTEM HIGHER EDUCATION
Wednesday, October 24
Dr. William G. H. Boyer, Ph.D., Assistant Professor in Educational Leadership

AFFECTION ENTANGLEMENTS OF GENDER AND CURRICULUM IN THE EDUCATION OF GIRLS IN LIBERIA
Wednesday, November 14
Dr. Mary T. Meier, Ph.D., Assistant Professor in Educational Leadership

IMPLEMENTING OPEN EDUCATIONAL RESOURCES (OER) AT ESU
Wednesday, November 28
Dr. Mary T. Meier, Ph.D., Assistant Professor in Educational Leadership

JAZZ LOUNGE LISTENING SERIES
Kemp Library | 7 p.m.
Third Wednesday of each month
Listen to jazz on vinyl, a different recording every session. For the schedule and more info visit www.esu.edu/jazzlounge

MEET THE LECTURERS

East Stroudsburg University of Pennsylvania
TIM CONNOLLY AND 4 STUDENTS

CHINA
Professor Tim Connolly traveled to China with four students and visited the cities of Beijing, Kaifeng, and Changsha. They saw sites such as the Great Wall, the Forbidden City, the Shaolin Temple, Yuelu Mountain, and the Longmen Grottoes. Students read about Chinese philosophy, especially Confucianism and Daoism, as part of the course PHIL 212: Asian Thought and Culture.

KELLY MCKENZIE AND DENASIA MOSTELLER

GERMANY
Professor Kelly McKenzie was awarded a Once in a Lifetime Grant which enabled her and her graduate student Denasia Mosteller to travel to Germany’s University of Applied Science in Bielefeld, Germany. The purpose of their trip was to teach international students and German students about leadership, gender in communication, and intersectionality. They also went to Koln, Germany and Rome, Italy.

THOMAS LADUKE, TERRY MASTER, HOWARD (SANDY) WHIDDEN AND 12 STUDENTS

COSTA RICA
For the past decade Professor Thomas LaDuke, Professor Terry Master, and Professor Howard (Sandy) Whidden have been co-teaching a course on the Biology of Tropical Ecosystems (BIOL 493/593). The class meets one evening a week during each spring semester and takes an eight day Spring Break trip to Costa Rica. The course usually has 8-12 undergraduate and graduate student Biology majors interested in organismal biology and ecology. The group spends half of the trip at a field station in a tropical forest in northeastern Costa Rica and the second half of the trip visiting a different ecosystem in another part of the country.
ROBERT MCKENZIE AND 9 STUDENTS
MAZATLÁN, MEXICO

Professor Robert McKenzie took nine students to Mazatlán, Mexico as part of the course CMST 410/510: Comparative Media. They toured a Mexican newspaper, a Mexican village, a tequila farm, an open market, a lighthouse, and an aquarium. They attended a Mexican culture show highlighting song and dress from different regions of the country. They held class every morning in a classroom in their hotel. Professor McKenzie has written the book, Comparing Media from Around the World (Pearson, 2006), and been hired by the US Embassy, Mexico City, and the US Consulate, Juarez City, as a consultant to conduct workshops for Mexican journalists.

ESTHER DAGANZO-CANTENS AND 17 STUDENTS
SPAIN

Professor Esther Daganzo-Cantens led a Study Abroad Program in collaboration with Universidad de Córdoba, Spain in May 2019. The students had daily classes in Córdoba and on the weekends they took excursions to Málaga, Sevilla, and Granada. They also had visits to the main historical and archeological sites near Córdoba.

Participating students were: Kamila Alario, Mavie Alario, Alica Burak-Montano, Rachel Casteel, Karina Cantens, Sara Giglio, Kyndra Goodwyn, Erin Grucelski, Katherine Hartmann, Itana Heffernan, Jessica McKeown, Jack Melquist, Lucas Nevins, Jarrett Person, Kylie Reagan, Sarah Smith and Erin Ward
ENTREPRENEURSHIP AND INNOVATION

East Stroudsburg University is proud to recognize the entrepreneurial and innovative programs that continue to inspire creativity and fuel the passion for learning at ESU. ESU students, faculty and staff continue to push boundaries and to take risks as innovators, creators, and entrepreneurs. Together, they are exploring new academic pathways and experiential learning practices that prepare students for infinite career possibilities.

ESU INAUGURAL FACULTY AND STAFF INNOVATOR OF THE YEAR

The inaugural ESU Innovator of the Year Award was presented to Professors Michelle Jones-Wilson, Olivia Carducci and Bonnie Green for their Clear Path project and grant. The annual Innovator of the Year Award honors ESU faculty and staff for outstanding efforts in Innovation and entrepreneurship. Becoming an innovator in the field of higher education requires one to think outside of the box to create an initiative that will inspire educators to help students to be successful in their studies and professional careers. Jones-Wilson, Carducci and Green did just that when they applied for – and were awarded a $4,039,527, five-year grant to assist 120 transfer students complete their undergraduate education at ESU in the fields of chemistry, biochemistry, physics, computer science and mathematics. Best known by its name, Clear Path, the grant-funded program also provides students with peer mentoring, advanced coursework tutoring, targeted advising and the infusion of high impact practices, including success seminars.

PRESIDENT’S DISTINGUISHED ENTREPRENEUR SPEAKER SERIES

The President’s Distinguished Entrepreneur Speaker Series continued with Ryan McMunn, CEO and Founder of BRIC Language Learning, an interactive online language learning program that accelerates fluency in Mandarin Chinese, Spanish, Brazilian Portuguese and other languages; followed by ESU alumnus Chris Paradysz, Co-CEO/Founder of PMX Agency, with special guest Mike Visceglia, bassist for Kinky Boots. The series, launched in 2017, brings entrepreneurs to ESU’s campus to talk about the various challenges they’ve faced in their careers as well as life experiences and educational opportunities that have guided them on their journey. The series also supports the ESU Strategic Plan - Students First: Empowering Innovation through Collaboration - and ESU’s outreach efforts to engage the campus and community in the entrepreneurial learning environment.
ESU RECEIVES $500,000 TO SUPPORT TICK TESTING

In October 2018, State Representative Rosemary Brown presented a check for $500,000 that she established in the 2018-19 State Budget (on behalf of the PA Department of Health and Human Services) to ESU and its Northeast Wildlife DNA Laboratory for the development of The Pennsylvania Tick Research Lab at ESU. The Tick Research Lab provides free tick testing to all Pennsylvania residents. Tests include Lyme disease and three additional tests based on the species of tick submitted. Results of the tests are provided to residents and include important information about risk/exposure to tick-borne diseases. Funding also supports the development of a data analytic website that will provide infection rates across the Commonwealth, areas with high tick density, and demographics associated with the tick bite. This data will establish a baseline for the prevalence of ticks and tick-borne diseases in Pennsylvania. Since 2011, the Commonwealth has been the nation’s leader in annual confirmed cases of Lyme disease.

The Tick Research lab launched free testing April 1, 2019 and since has tested 6,400 ticks from all 67 Pennsylvania counties. All tick testing results are published live on the Tick Lab website, ticklab.org. Of the ticks tested, 50 percent of blacklegged (deer) ticks have been identified to carry a minimum of one tick-borne disease. The Tick Research Lab is tracking the distribution of ticks across the Commonwealth as well as the diseases within the tick population. Results of the tests are provided to residents via email and text message which include important information about risk/exposure to tick-borne diseases.

DR. JANE HUFFMAN WILDLIFE GENETICS INSTITUTE

ESU dedicated the Dr. Jane Huffman Wildlife Genetics Institute on April 24, 2019, honoring its founder and visionary and celebrating a $150,000 fundraising campaign for the institute that serves students, the community and region. Former Distinguished Professor of Biological Sciences, Jane Huffman, Ph.D., M’07, who passed away in 2017, was a member of the ESU family for 29 years, retiring in 2015. She began her career at ESU in 1986 and from the start was a powerful influence on students studying biological sciences, particularly those in wildlife microbiology and parasitology. Throughout her career, Dr. Huffman modeled the active role of the scientist for all of her research students. Their considerable success in various areas related to biological sciences is a certain measure of her excellence in the classroom and the field. She also dedicated her expertise to Pennsylvania’s scientific community by serving on the Pennsylvania Academy of Sciences, including two years as president. In 2005, Huffman supported ESU’s efforts to develop The Northeast Wildlife DNA Laboratory, which played a significant role in the establishment of Pennsylvania’s Lyme Disease Task Force, established by then-Governor Tom Corbett. Huffman’s work in the lab with ESU graduate Melissa Shaw resulted in development of Lyme Aid (now known as Cutter™ Lyme Disease Tick Test), the first-ever faculty/student commercialization agreement at ESU and within Pennsylvania’s State System of Higher Education.

East Stroudsburg University of Pennsylvania
BUSINESS PLAN COMPETITIONS

ESU wins first place in regional tecBRIDGE Business Plan Competition

ESU received top honors in both the collegiate and non-collegiate sectors of the tecBRIDGE Business Plan Competition on April 25, 2019 at the F.M. Kirby Center in downtown Wilkes-Barre. ESU students Zachary Waldman and Nick Neely, both seniors majoring in computer security from Mechanicsburg, Pa., earned first place in the collegiate sector of the competition with their creation, Falchion Systems. Nicole Chinici ’14, director of The Jane Huffman Wildlife Genetics Institute at ESU, won first place in the non-collegiate sector with her creation, Organtick. Winning companies received $10,000 in cash and up to $100,000 of in-kind business support services. Jessica Rosen, a 2011 graduate of ESU from Henryville, was a finalist in the non-collegiate competition with her reptile food business, The Laughing Lizard.

PASSHE Student Business Plan Competition

Fifteen ESU students participated in the PA State System of Higher Education Business Plan Competition with two students placing as semifinalists: Jose Nunez, NuTech LLC, which provides next-generation, smart apparel that helps professionals in the sports industry improve performance and prevent injuries; and Nickolas Frassinelli, Writer’s Terminal, a website that sells digital products and services to amateur writers to help them finish and publish their novels.

INNOVATOR OF THE YEAR AWARDS

The second annual ESU Innovator of the Year Award for high school students participating in the Region 21 Future Business Leaders of America (FBLA) Leadership Conference, hosted by ESU, was awarded to the Jim Thorpe School District. More than 100 students participated in the “Made in the Poconos” Business Pitch Competition representing the FBLA Region 21 high schools: Stroudsburg, East Stroudsburg South, Pocono Mountain East, Pocono Mountain West, Pleasant Valley, Palmerton, Leighton, Panther Valley and Jim Thorpe. The conference featured exercises in entrepreneurial thinking, innovative activities and leadership skill building. Students also participated in workshops on 3D printing, rapid prototyping, tick testing, leadership development, and 21st century work environments.

GREATER POCONO CHAMBER OF COMMERCE BIZZY AWARDS

Zachary Waldman ’19 and Nick Neely ’19, computer science majors and founders of Falchion Systems, received the Innovator of the Year Award for their innovative platform called Bulwark, a computer security platform that helps companies secure their computer networks and counter web-based social engineering attacks.

ESU BUSINESS ACCELERATOR WELCOMES NEW COMPANIES

The Business Accelerator achieved 54% occupancy and welcomed seven new early-stage companies to the program during FY18-19: Ameda Logistics, LLC; Charus Technologies; Freebowlwer; Jesco Projects; Lili Clarke; and Solid Dynamics, LLC. In FY 18-19, a total of 21 companies participated in the program: 19 early-stage companies, one anchor company, and one university initiative. Additionally, the Business Accelerator added 16,000 sq. ft. of accelerator space with the support of a federal grant from the Economic Development Administration (EDA). The new space includes offices, co-working space, and conference rooms.

VENTUREWELL

With the support from the Provost and Office of Sponsored Projects and Research, ESU became a member of VentureWell, an organization whose mission is “to cultivate a pipeline of inventors, innovators and entrepreneurs driven to solve the world’s biggest challenges and to create lasting impact.” In support of ESU’s entrepreneurial faculty initiatives, seven faculty and staff members attended the VentureWell Open conference to learn entrepreneurial practices from universities across the country. Falchion Systems, LLC, an ESU student-owned business, was also awarded a VentureWell grant to be trained on how to grow their business.

OUT OF THE BOX GRANT

The Entrepreneurship Across the Campus grant program revised their guidelines to become Out of the Box! This grant initiative includes students, staff and faculty members in support of initiatives that infuse entrepreneurial topics and activities into the classroom. The funding supports ESU efforts to create a robust entrepreneurial culture that allows students across all colleges to experience the positive impact of
entrepreneurship. Grant recipients during the FY 18-19 academic year were Maria Cohen, who received $2,000 to run the Warrior Community Yard Sale. A total of $739.70 was raised from the sale of items from dorm move outs. The funds benefited the Warrior Food Pantry. Yoshi Tanokura received $1,000 to host Tazewell Thompson, an acclaimed theatrical manager/director, who discussed how artists can become economic engines for social and cultural revitalization.

STARTUPPOCONO WEBSITE LAUNCHED
StartUpPocono (startupocono.org), a website designed to drive economic development, attract new businesses, and create life-sustaining jobs in Monroe County, PA was launched in collaboration with the Monroe 2030 Business Development Strategic Doing Team and the ESU Center for Research and Economic Development. The website provides useful information on starting, funding and growing businesses in addition to innovative networking activities and events.

ENTREPRENEURIAL WORKSHOP SERIES
The Entrepreneurial Workshop Series is sponsored by the ESU Entrepreneurial Leadership Center (ELC). The ELC accelerates the practice of student entrepreneurship by providing emerging student entrepreneurs with access to events, workshops, mentoring and competitions that enable them to develop and refine their entrepreneurial skills.

The series continued with ESU alumni Bill McFadden ’81, former policy analyst in the Department of the Interior Office of Small and Disadvantaged Business Utilization; Robert F. Cormack ’74, executive director of the Bucks County Economic Development Corporation; Chris Paradysz ’83, co-CEO/founder of PMX Agency; and Mike McCann ’88, president of MVM Associates, Inc. Other featured speakers were Holly Pilcavage, director of operations and business development for Coal Creative; and David Parsons, founder and partner of MG Malls, LLC and Global Mall Media, LLC.

UPDATES:
Year after year, New Mind Design continues to increase the size of its team and its number of satisfied clients. The student-run design agency services ESU organizations and local, regional, and national businesses. http://newminddesignesu.com/

In FY 18-19, the G3Design/Stratasys Super Lab continued to provide opportunities for ESU students to learn groundbreaking technology in the areas of art, design, and more. The Lab bought a new Computer Numerical Control (CNC) router and a 3D metal printer with the generosity of the R. Dale and Frances Hughes Foundation. Having this equipment, the 3D printing and fabrication facilities, high-end computer/software, and 3D scanners provided the Product Design, Graphic Design, and Fine and New Media Art concentrations the chance to produce objects that are unique, contemporary and state-of-the-art. Some service-learning projects created 3D-printed sculptures for the Whitney Museum of Art, a trophy prototype design for Delta Airlines, a 3D-modeled snow making machine, among many others.
AQUACULTURE

In late 2018, State Rep. Maureen Madden secured a $100,000 grant from the Pennsylvania Department of Education (PDE) for ESU to build and maintain a large, state-of-the-art, professional aquaculture laboratory. The Aquaculture Lab will offer marine science majors hands-on experience during the academic year. ESU’s marine science program is highly regarded, with College Values Online naming ESU as one of the top schools in the nation to offer studies in marine science. This funding is helping to update the present facility, which is outdated and lacks the capacity to meet student needs. With the support, Professor James Hunt has been able to establish a variety of different aquaculturing approaches, including the Berlin Reef system, the Jaubert Monaco System, marine ornamentals, freshwater aquatics, specialty tanks—such as a plankton kreisel for keeping jellyfish or growing corals—as well as feeding and rearing stations. When complete, the new aquaculture lab will expose students to the same types of aquaculture systems they are likely to find in large public aquaria, research labs, aquatic farms, and other facilities where care and husbandry of aquatic plants and animals is conducted.

ANATOMAGE TABLE

ESU students now have access to an Anatomage Table, the most technically advanced virtual dissection table for anatomy education. The Anatomage Table is a segmented real human 3D anatomy system that allows students to visualize anatomy without fresh cadavers. Housed in the Department of Athletic Training, the table is used by professors in the College of Health Sciences and directly impacts approximately 200 students a year, particularly for anatomy and physiology courses and clinical classes. The table presents anatomy as a fully interactive, life-sized touch screen experience and fully engages students.
DELAWARE TRIBE HISTORIC PRESERVATION OFFICE OPENS AT ESU

In September 2018, ESU announced a formal partnership/agreement with The Delaware Tribe of Indians of Oklahoma, a federally-recognized tribal nation, to foster collaborative and educational initiatives between the two organizations. A formal signing celebration event was held on September 21, 2018 and a Memorandum of Understanding (MOU) was signed by ESU President Marcia Welsh and Delaware Tribe Council Member Joe Brooks. As a result of this agreement, The Delaware Tribe of Oklahoma has moved their Eastern Tribal Historic Preservation Office, Eastern Office to ESU. This partnership supports existing programs and the development of new interdisciplinary programs through the newly-enabled collaboration between the Delaware Tribe and ESU. ESU’s students, faculty and staff may now work with archeologists, historians and others to learn from the long and proud legacy of Indian tribes in the region. The partnership also provides opportunities for undergraduate research and distance learning as well as the chance to share grant funding and provide student scholarships.

DIGITAL MEDIA TECHNOLOGIES TV STUDIO UPGRADE

The Digital Media Technologies (DMT) department at ESU made significant technology upgrades to its TV production studio in 2018-19 for the benefit of its students. An impressive full greenscreen cyclorama space has been added as well as a Tricaster (brand name) video switcher. This device is used to switch between different audio or video sources. Other new equipment for DMT students includes new cameras, internal storage, furniture for the classes, and new storage space for staging and upgrades to the lighting grid. Additionally, five Sony cameras have been upgraded from 3K to 4K for increased resolution. Students can now produce shows that mirror the professionalism of broadcast television. With these improvements students have the capability of digitally changing an entire studio background to utilize in special FX projects and can create special effects or illusions and visual tricks often used in film.
CREATIVE EXHIBITS

DARLENE FARRIS-LABAR

Art + Design

Waterlines

University of British Columbia, Vancouver – June 2019
Professor Farris-LaBar displayed Atmospheric Cords, 3D-printed rain as it fell on the surface of a 3D digital virtual flower model. This work allowed the viewers to visualize the natural forms that are created through rain drops.

EcoVisionaries

Matadero Madrid Contemporary Art, Madrid, Spain – June 2019
At this exhibit, Professor Farris-LaBar displayed 3D-printed ancient Mediterranean flowers. The show brought together international artists from around the world who are depicting various environmental concerns through their work.

Tomorrows: Urban Fictions for the Possible Future

Les Lieu Unique Museum, Nantes, France – April 2019

Art as Food and Ritual

Assam State Museum, India – February 2019
An exhibition at the Assam State Art Museum in India showcased the work of the surrounding planet, which included Professor Farris-LaBar’s 3D-printed plants, flowers, seeds and more.

12 Shouts to the Ten Forgotten Heavens

Whitney Museum of Art, New York, New York – December 2018
As part of this show, Professor Farris-LaBar displayed 3D-printed flowers and seeds titled “Vibes of a New World” with their embryos in a retrospective exhibition of spring, summer and winter performances in collaboration with Sibyl Kempson’s performance, 12 Shouts to the Ten Forgotten Heavens.

Construct 3D

Georgia Tech, Atlanta, Georgia – October 2018
Professor Farris-LaBar presented the work of the “Surrounding Planet,” which showcased the art of 3D-printed flowers from around the world.

3D Printing Super Lab

SUNY, New Paltz, New York – October 2018
Professor Farris-LaBar presented work at SUNY New Paltz’s 3D Printing Super Lab in the frame of New Paltz’ Digital Design and Fabrication program.

Rejuvenate/Accumulate

Buggy Factory, Brooklyn, New York – September 2018
Professor Farris-LaBar presented 3D-printed flower works of art.

Infinite Potentials

New York Hall of Science, Queens, New York – August 2018
Professor Farris-LaBar presented 3D-printed replicas of the milkweed flower and its 3D-printed microscopic perspective were presented to represent the theme if stem cells were artistic means by which we design the future.
DAVID MAZURE
Art + Design

Periodic Table of Elements
Rangoli Metro Art Centre, Bengaluru, India - May – November 2019

The Science Gallery of Bengaluru (SGB), India requested that the creative interpretation of the Periodic Table of Elements, created by Professor Mazure and his students in 2012 and 2017, be displayed at their month-long celebration of the 150th anniversary of the periodic table. The work was initially displayed in the hallway of the Hoefner Science and Technology Center on ESU’s campus.

The Horror A4, Volume 1, Issue #3 Comic Book Lettering
May 2019

Professor Mazure worked with comic book writer and illustrator Gaz Gretsky to create the lettering for the third issue of “The Horror A4.” The lettering includes all dialogue balloons and sound effects. The comic book made its debut at San Diego Comic-Con International, which is a multi-genre entertainment and comic book convention held annually in San Diego, California.

above: Creative interpretation of the Periodic Table of Elements. Photo by David Mazure.
PUBLISHED BOOKS BY MEMBERS OF THE ACADEMIC COMMUNITY

SANDRA ECKARD
College of Arts and Sciences | English

Comic Connections: Building Character and Theme
Published by Rowman and Littlefield Education, 2019

The Comic Connections series is designed to be both theoretical and practical, allowing educators from middle school to college to not only learn why comics and graphic novels can help students scaffold information, but also provide clear, hands-on activities and assignments from in-class debates to written projects. Each chapter in this volume, Building Character and Theme, focuses on a specific facet of character analysis or thematic deconstruction that any English Studies instructor could easily modify for a classroom, increasing in complexity for a variety of learners and courses.

Comic Connections: Reflecting on Women in Popular Culture
Published by Rowman and Littlefield Education, 2019

Comic Connections: Reflecting on Women in Popular Culture is designed to help teachers from middle school through college find exciting new strategies that they can use right away as part of their curricular goals. Each chapter has three pieces: comic relevance, classroom connections, and concluding thoughts; this format allows a reader to pick-and-choose where to start. This volume in the Comic Connections series focuses on female characters such as Wonder Woman, Peggy Carter, and Lois Lane, with each chapter deconstructing a specific character to help students engage in meaningful conversations, writing projects, and other activities that will complement and enhance their literacy skills.

LEIF JOHAN ELIASSON
College of Arts and Sciences | Political Science and Economics

Civil Society, Rhetoric of Resistance, and Transatlantic Trade
Published by Palgrave Macmillan, 2019

This book investigates the politics of transatlantic trade, specifically the Transatlantic Trade and Investment Partnership negotiations. Using a novel approach, the authors analyze the rhetorical choices made by opponents and supporters of an agreement, and the logic behind their arguments. Opponents used emotive frames and strategically chosen issues to increase public opposition to the negotiations; supporters countered, but also accommodated, parts of opponents’ rhetoric in hopes of quelling discontent. The study also highlights the resulting changes to European Union trade policy, thus contributing to the literatures on trade policy, politicization, and rhetorical analysis.
MICHAEL GRAY  
*College of Arts and Sciences | History*

**Crossing the Deadlines: Civil War Prisons Reconsidered**  
*Published by the Kent State University Press, 2018*

The “deadlines” were boundaries prisoners had to stay within or risk being shot. Just as a prisoner would take the daring challenge in “crossing the deadline” to attempt escape, *Crossing the Deadlines* crosses those boundaries of old scholarship by taking on bold initiatives with new methodologies, filling a void in the current scholarship of Civil War prison historiography, which usually does not go beyond discussing policy and prison history. Due to its eclectic mix of contributors—from academic and public historians to anthropologists currently excavating at specific stockade sites—the collection appeals to a variety of scholarly and popular audiences. Readers will discover how the Civil War incarceration narrative has advanced to include environmental, cultural, social, religious, retaliatory, racial, archaeological, and memory approaches.

BONNIE GREEN  
*College of Arts and Sciences | Psychology*

**Measuring Humans: Fundamentals of Psychometrics in Selecting and Interpreting Tests**  
*Published by Cognella, 2018*

Beginning with historical background and early approaches to testing, *Measuring Humans: Fundamentals of Psychometrics in Selecting and Interpreting Tests* gives students a foundational understanding of critical concepts in the discipline. The book covers test classifications, criteria, and norms, as well as test construction, reliability, and validity. Designed to provide the context necessary for addressing complex topics, the book is an invaluable resource for learning how to select and interpret tests. Clear and accessible, *Measuring Humans* can be used by those with a minimal background in statistics. It is well suited to courses on measurement and testing in psychology, education, and business, or classes that address evaluation in social science settings.

BONNIE GREEN  
*College of Arts and Sciences | Psychology*

KRISTIN NOBLET  
*College of Arts and Sciences | Psychology*

**Assignments and Exercises for Statistical Concepts for the Behavioral Sciences, 2nd Edition**  
The book *Assignments and Exercises for Statistical Concepts for the Behavioral Sciences* is an extensive workbook designed to be used by undergraduate students taking statistics classes to maximize their learning and understanding. In the second edition, Noblet used her expertise in mathematics education to identify content that could be better supported through additional assignments. Noblet worked through the existing assignments to identify surface level opportunities for improvement. She then identified gaps in the content coverage of the assignments, and crafted new assignments to fill those gaps and support student learning.
If there is one trend in children’s and YA literature that seems to be enjoying a steady rise in popularity, it is the expansion of the YA dystopian genre. While the genre has been lauded for its potential to expand horizons, promote critical thinking, and foster social awareness and activism, it has also come under scrutiny for its promotion of specific ideologies and its often sensationalist approach to real-world problems. In an examination of six YA dystopian texts spanning more than twenty years of development of the genre, this book explores the way in which posthumanist ideologies in particular are deployed or resisted in these texts as a means of making sense of the specific challenges which young people confront in the 21st century.

Theories in Digital Composite Photographs: 12 Artists and Their Work presents a theoretical investigation of digital composite photographs through a philosophical exploration of artists’ concepts of reality. With an international cohort of contemporary digital composite artists, this book presents twelve case studies on artists’ motivation, production process, and the relation of their worldview to theoretical interpretation. Author Yi-hui Huang situates each artist’s work in the context of photographic theory and western aesthetics, including realism, expressionism, formalism and postmodernism.

As creation of digital composites grows in popularity and influence, this is the first to integrate a philosophical and theoretical understanding of this unique art form. Featuring a wide range of international artists, this volume is both insightful and inspirational for students and seasoned professionals alike.

ESU English Professor Bill Broun’s 2017 book, Night of the Animals, has been translated into Mandarin and published in China to great acclaim. Broun was also interviewed and featured in the Beijing News about his book. Congratulations to Professor Broun on this achievement! His book was recognized in the 2016-2017 Research, Scholarship, and Creative Activity booklet.
T. MICHELLE JONES-WILSON  
College of Arts and Sciences | Chemistry  

A Solution to Solutions: A Practical Guide to Understanding and Preparing Solutions in Biological Chemistry (First Edition)  
Published by Cognella, 2017

Solution to Solutions: A Practical Guide to Understanding and Preparing Solutions in Biological Chemistry teaches students the background and theory of laboratory calculations and practices, provides clear instructions and examples to help complete specific calculations, and gives students confidence in their laboratory skills. Students learn terminology, concentration units, and how to convert units. They study basic chemistry, chemical equilibria, multicomponent assays, laboratory measurements, and the dangers of “rough handling” in the lab. Math anxiety is reduced by a clear, concise review of basic algebra and the necessary logarithms. Laboratory exercises feature success tips and calculation exercises include a “reality check” component that encourages students to consider whether or not their calculations make real-world sense. A Solution to Solutions is a class-tested, accessible, and student-friendly resource that provides all the skills necessary to survive and succeed in laboratory work.

PROFESSIONAL PUBLICATIONS

Recognizing works of professional writing that underwent an extensive review and/or editing process that is similar to book publications and is published by a reputable publishing entity, for example an external or national professional organization.

KELLY BOYD  
College of Health Sciences | Health Studies

Irene Cucina, Plymouth State University

National Standards & Guidelines for Initial Health Education Teacher Education

This co-authored book serves as the exclusive guidelines for all health education teacher education (HETE) preparation programs for the implementation of the 2018 SHAPE America – CAEP Health Education Teacher Education Program Standards. Additionally, the book leads HETE programs through assessment, review, and program improvement by way of establishing and using internal measures. This book captures the knowledge and skills that are unique to newly prepared health education teacher preparation candidates.