



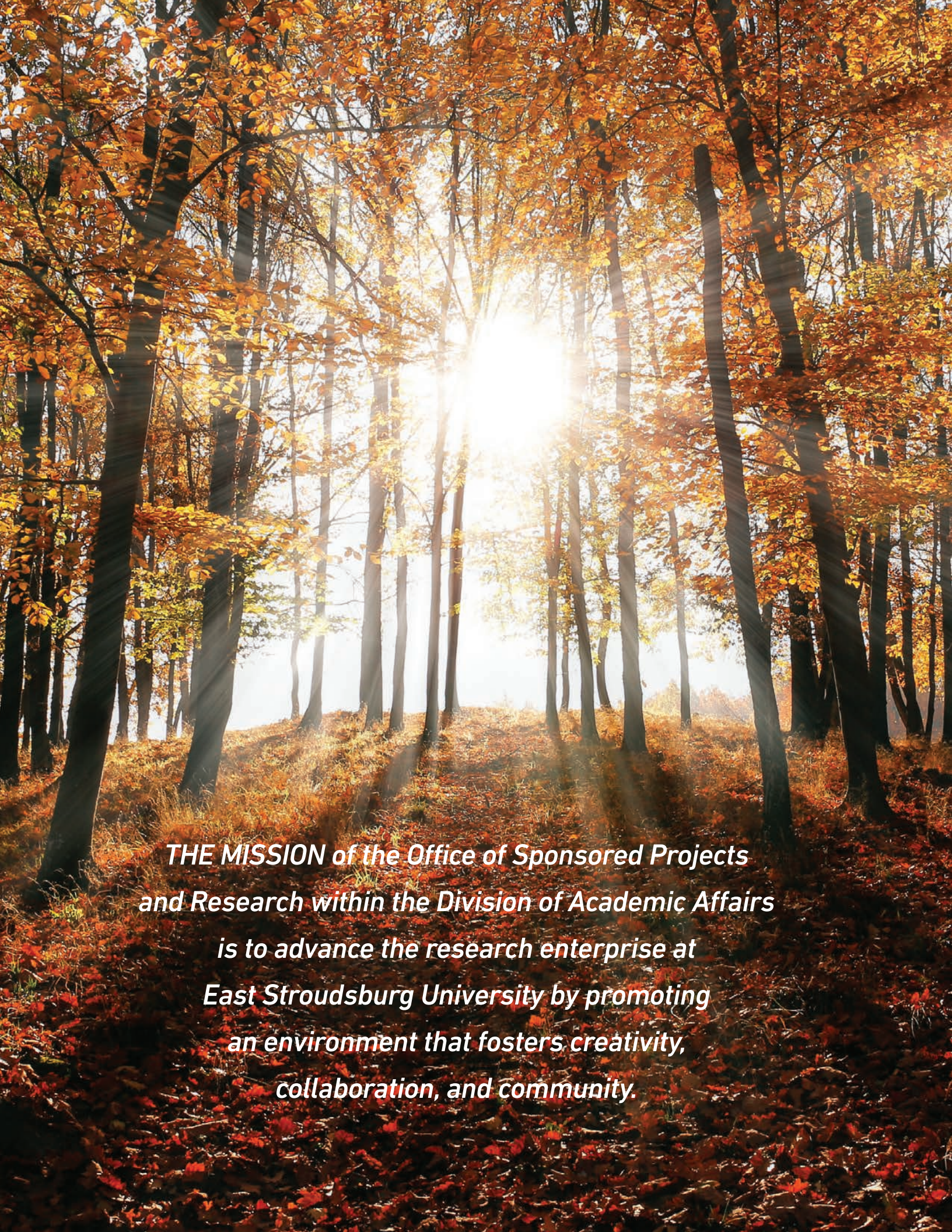
EAST
STROUDSBURG
UNIVERSITY

Research, **Scholarship,** and **Creative** **Activity**

Fiscal Year 2020-2021

FEATURED INSIDE

4-5 FUNDING METRICS FOR SPONSORED PROJECTS • 22-23 WE HAVE COMPANY! Claire Lu, Wesley Brown
27 STUDENTS AND RESEARCH • 38 SPOTLIGHT ON EXTERNAL GRANTS

A photograph of a forest during autumn. The trees have vibrant orange and yellow leaves. Sunlight is streaming through the canopy, creating a bright, hazy atmosphere. The ground is covered in fallen leaves.

*THE MISSION of the Office of Sponsored Projects
and Research within the 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

CONTENTS

- 2** Message from the President
- 4** Annual Research Metrics for Sponsored Projects
- 6** College of Arts and Sciences
- 13** College of Business and Management
- 15** College of Education
- 18** College of Health Sciences
- 20** University Divisions and Affiliates

- 22 WE HAVE COMPANY!**
 - Claire Lu
 - Wesley Brown



STUDENTS AND RESEARCH

- 27** S.U.R.E. Grant Recipients
- 32** Graduate Student Researchers

FEATURES

- 34** Provost's Colloquium Series
- 36** Joni Oye-Benintende

SPOTLIGHT ON EXTERNAL GRANTS

- 38** ESU Upward Bound

ESU CREATES!

- 39** Entrepreneurship and Innovation
- 41** Creative Exhibits
- 43** Published Books by Members of the Academic Community



COVER DESIGN: Miranda Davis, senior BFA Art + Design major, graphic design concentration

MESSAGE FROM THE PRESIDENT



I am honored to announce the theme of this year's 2020-2021 *Research, Scholarship, and Creative Activity* booklet, "Hope." "Hope" is a theme that inspires us to look toward the future with an optimistic eye as we embark on our endeavors. It has been said "hope is not a strategy." Instead, it is a mindset and a critical part of achieving a strategy based on what is possible. The late historian Howard Zinn writes:

"To be hopeful in bad times is not just foolishly romantic. It is based on the fact that human history is a history not only of cruelty, but also of

compassion, courage, kindness ... If we see only the worst, it destroys our capacity to do something. If we remember those times and places ... where people have behaved magnificently, this gives us the energy to act ..."

As we continue to navigate the disruptions and challenges caused by the COVID-19 pandemic, I'd like to express my gratitude for how our community has responded. Together we have made our return to campus this semester successful – and, hopeful.

We look ahead and seek to engage with the opportunities and obstacles facing higher education today, to continue our dedication to making investments that strengthen our community, to create an environment for our students and faculty to pursue their passions, and to position ESU for future success. Let us continue working hard and moving forward, capitalizing on our shared momentum. I remain optimistic about our future, knowing that we possess the ability to work together as a campus community to help one another heal, grow, and continue to build a welcoming and inclusive environment.

As the COVID-19 pandemic shifts into hindsight, our university's hope and commitment to returning to campus life free of discrimination, harassment, and racism continues to persist. We continue to make significant progress toward a socially just and welcoming community.

I encourage you to take the time to review the grants, research, and creative activity that took place this past year by our students, faculty, and staff.

In closing, I want to personally thank you for weathering the difficult times of the pandemic with us. We will continue to execute our plans for the 2021-2022 academic year and look forward to having you with us.

A handwritten signature in black ink that reads "Kenneth Long". The signature is written in a cursive, flowing style.

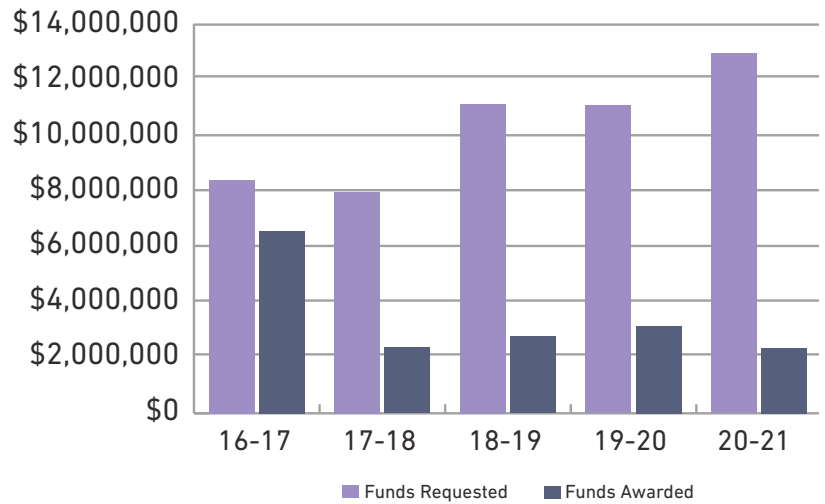


Funding Metrics for Sponsored Projects and Research

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 2020-2021, ESU brought in \$2,432,559 in external awards and achieved an overall average 58% acceptance rate on its submissions.

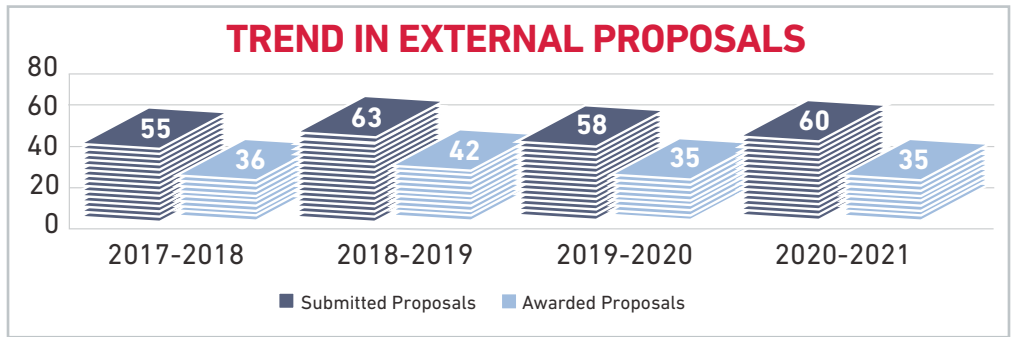
The University submitted 60 proposals in 2020-21 and the amount requested was \$12,812,768. While the dollar amount of external awards decreased as compared to 2019-20 the total number and total dollar amount of requests put in to external funders was actually slightly higher for 2020-21, even with the challenges presented due to the COVID-19 pandemic. This points to the sustained interest in sponsored projects and research by the ESU community and their willingness to invest time and energy to continue these important initiatives.

FIVE YEAR OVERVIEW: EXTERNAL GRANTS REQUESTS AND AWARDS

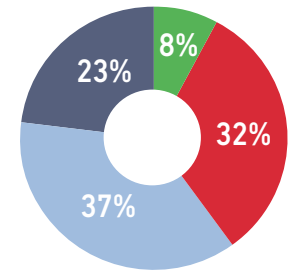


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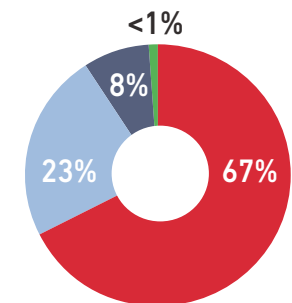
AVERAGE ANNUAL # OF PROPOSALS SUBMITTED








EXTERNAL GRANT AWARDS 2020-2021		Proposals Awarded
● PASSHE	\$192,169	11
● Federal	\$770,464	6
● State	\$897,593	8
● Private	\$572,333	10
SUM	\$2,432,559	35



EXTERNAL GRANT REQUESTS 2020-2021		Proposals Requested
● PASSHE	\$248,855	12
● Federal	\$8,569,455	18
● State	\$2,998,071	11
● Private	\$996,386	19
SUM	\$12,812,768	60



2020-2021 PERCENT OF AWARDED EXTERNAL SUBMISSIONS AND CUMULATIVE DOLLAR AMOUNT OF AWARDS

College/Division	Proposals Submitted	Proposals Awarded	Amounts Submitted	Amounts Awarded	% Submissions Awarded
 College of Arts and Sciences	23	14	\$5,742,698	\$325,143	61%
 College of Business and Management	3	3	\$118,798	\$65,241	100%
 College of Education	8	6	\$2,353,271	\$607,556	75%
 College of Health Sciences	3	2	\$53,371	\$16,360	67%
 University Divisions and Affiliates	23	10	\$4,544,629	\$1,418,259	43%
TOTALS	60	35	\$12,812,768	\$2,432,559	58%

University Divisions and Affiliates include: Academic Affairs, Administration & Finance, Athletics, Campus Life and Inclusive Excellence, Economic Development and Entrepreneurship, Enrollment Management, ESU Foundation and Office of University Advancement, and Kemp Library

CARES ACT

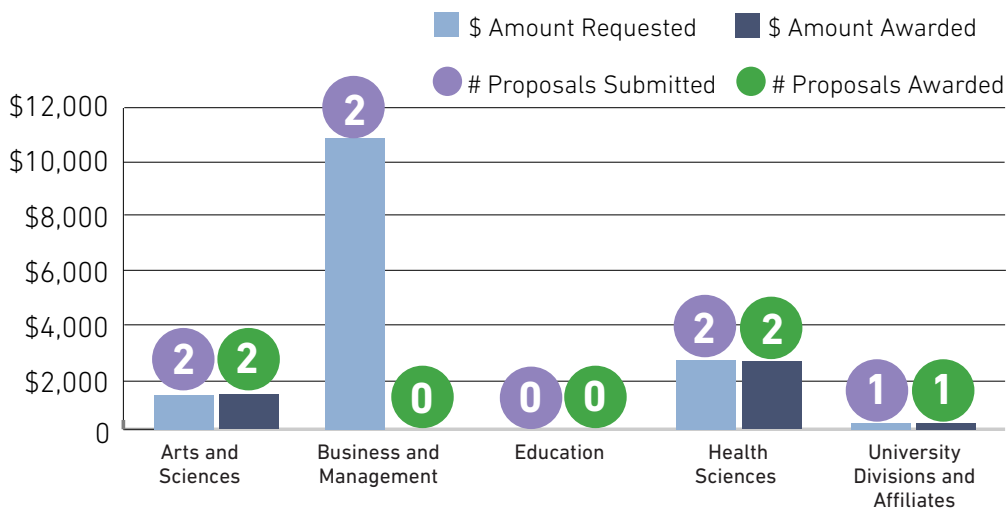
The COVID-19 pandemic was in full force in 2020-2021 and ESU received additional pandemic relief

funding from the U.S. Department of Education, Coronavirus Aid, Relief, and Economic Security (CARES) Act. This aid, Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and American Rescue Plan (ARP) funding, totaled \$29,917,925. In addition, the Governor's Emergency Education Relief Fund (GEER) was contributed by the Commonwealth. These funds supported both students directly and ESU as an institution of higher education during 2020-2021 while struggling with the conditions presented by the pandemic. To the right are the individual award amounts from 2020-2021:

- **\$3,234,662** CRRSAA Emergency to Students
- **\$270,085** GEER
- **\$7,012,132** CRRSAA Institutional Aid
- **\$438,622** CRRSAA Strengthening Institutions Program-Eligible Institutions
- **\$10,246,793** ARP Emergency Grants to Students
- **\$8,985,716** ARP Institutional Aid

FACULTY DEVELOPMENT AND RESEARCH (FDR) INTERNAL GRANTS

FDR FUNDING REQUESTED AND AWARDED BY COLLEGE/DIVISION



FDR Total Amount Requested 20-21

\$15,382

FDR Total Amount Awarded 20-21

\$4,182



COLLEGE OF
Arts and Sciences



OLIVIA CARDUCCI



NICOLE CHINNICI



MD MINHАЗ CHOWDHURY



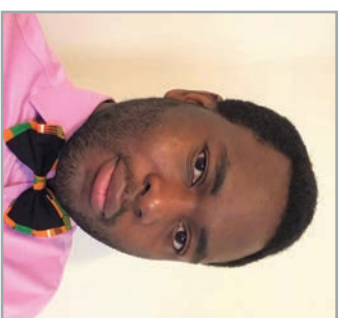
XUE (STELLA) DONG



CHRISTOPHER DUBBS



DARLENE FARRIS-LABAR



RENÉ FUANTA



CHRISTINE HOFMEISTER



MICHELLE JONES-WILSON



JONATHAN KEITER



LAURA KIESELBACH



JOHN KRAVBILL-GREGGO



JONI OYE-BENINTEDE



MATTHEW WALLACE



PAUL WILSON



XUEMAO ZHANG

External Grants

Funds Awarded	\$325,143
Funds Requested	\$5,742,698
Proposals Awarded	14
Proposals Submitted	23

Internal FDR Grants

Funds Awarded	\$1,682
Funds Requested	\$1,682
Proposals Awarded	2
Proposals Submitted	2

NICOLE CHINNICI

Dr. Jane Huffman Wildlife Genetics Institute

Prevalence of Tickborne Diseases in Mice of Philadelphia County, PA

Funding Source: Temple University

Amount Awarded: \$1,080

Mice collected from Temple University students were evaluated for Lyme disease, Anaplasmosis and Babesiosis.

Species Identification of Spring Snails

Funding Source: Wildlife Resource Consultants

Amount Awarded: \$700

Snails collected from various freshwater streams across the western coast of the United States were submitted for species identification. Each sample was extracted and evaluated to determine their genus species. Results of this information are used for environmental surveying.

MD MINHAZ CHOWDHURY

Computer Science

CO-PI: CHRISTINE HOFMEISTER

Computer Science

Department of Defense NSA Cyber Scholarship Program

Funding Source: U.S. Department of Defense – National Security Agency

Amount Awarded: \$201,627

The goal of the ESU-CySP Basic Scholarship Program is to bolster student success through two full years of scholarship, plus mentoring and counseling support, to qualified ESU Computer Security majors, with the understanding that they will serve the Department of Defense (DoD) as thriving interns and cyber

defense engineers. The ESU-CySP encourages students to succeed as Computer Security majors, participate in DoD internships, obtain their degrees, and serve as effective cyber professionals. The program also encourages more students to participate in cyber defense education. With the award of this funding ESU continued its leadership in cyber defense education and ultimately helped the DoD meet its goal of protecting our critical cyber infrastructure. This was the third time ESU's Computer Science department and their students earned this award.

XUE (STELLA) DONG

Art + Design

CO-PI: DARLENE FARRIS-LABAR

Art + Design

Incorporating the Engineering Mindset into Art and Design Education with Generative Design

Funding Source: Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)

Amount Awarded: \$6,419

Artists, designers, and engineers have increasingly recognized the importance of the generative design process as an interdisciplinary subject. Investigations have focused on its application in industries such as art, automotive, consumer goods, and architecture. The evolution of interdisciplinary collaboration using the generative design process and incorporating engineering mindset in art and design has become a valuable skill for design students. In this grant project faculty collaborated with undergraduate students to investigate the generative design process, push the limits, and compare it to the conventional art and design process. They did so by combining the generative design process with other engineering skillsets such as 3D CAD modeling, artificial intelligence, additive manufacturing, and digital fabrication.

Photos of PIs and Co-PIs are located in their respective college or division, even when their grant is reported elsewhere.

CHRISTOPHER DUBBS*Mathematics***Development of Desmos-Integrated Mathematics Content Courses for pre-K through Grade 8 Education Majors****Funding Source:** Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)**Amount Awarded:** \$8,000

This project focused on improving instruction in mathematics content courses for pre-kindergarten through grade 8 education majors, courses critical for the development of the content knowledge they need as future teachers. This involved adapting research-based active and cooperative mathematics tasks from extant curriculum to the online mathematics platform, Desmos. Desmos is a transformative technology that fundamentally changes how students engage with mathematics concepts and can increase problem-solving confidence in preservice teachers. The project also involved implementing and studying the revised curriculum across the two-course sequence. No similar technology-integrated mathematics content course curriculum existed before and it provided an innovative experience for students.

RENÉ FUANTA*Chemistry and Biochemistry***Investigating Marine-Derived Chemical Agents and Their Effects on Tuberculosis Shikimate Kinase****Funding Source:** Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)**Amount Awarded:** \$7,519

Tuberculosis is an infection of the respiratory tract. It is caused by the germ *Mycobacterium tuberculosis*. *M. tuberculosis* is one of the world's leading causes of mortality from a single bacterial pathogen. Drug-resistant strains are on the rise, with only one FDA-approved medication in the last four decades. There is a growing need for the discovery and development of new anti-tubercular agents. *M. tuberculosis* shikimate kinase (MtSK) is an enzyme in the shikimate pathway. This pathway is absent from mammals making it a suitable drug target. This project aimed to screen different marine natural product extracts for their activity against MtSK. These products come from deep sea sponges. They were also tested on *M. smegmatis*, a nonvirulent *Mycobacterium* species. The mode and mechanism of action of these products was evaluated and recommendations made on their potential for subsequent stages in the drug development pipeline engineering.

Natural Product Extracts and Their Antibacterial Properties**Funding Source:** ESU Foundation**Amount Awarded:** \$1,000

This research was to evaluate the potency of natural product extracts—such as avarone—on bacterial infections of the respiratory tract. Students participated in determining the inhibitor activity of natural product extracts on hospital-acquired infections

and tuberculosis. They were afforded much needed hands-on experience as is used in the early stages of antibiotic discovery and development. These skills helped make them better competitors for venturing into the job market or seeking other professional positions or graduate programs.

MICHELLE JONES-WILSON*Chemistry and Biochemistry***CO-PI: OLIVIA CARDUCCI***Mathematics***PDA Advising – Faculty Education and Training****Funding Source:** Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)**Amount Awarded:** \$6,335

Effective advising is essential for student success and retention. While traditional prescriptive advising suffices for some students, many of ESU's students are not traditional students versed in navigating academe. As a result of an NSF-funded grant, Clear Path, the investigators created an evidence-based holistic advising protocol combining two distinct approaches to advising: proactive advising and developmental advising and discovered a new advising component coined *advocacy advising*. This PDA has enhanced student retention when compared to traditional prescriptive advising models. This project supported professional development of 40 faculty for two days of PDA advising education and training with additional reflection and education opportunities during open meeting times. Through program assessment the project directors further refined the PDA advising model and protocol. The program now serves as a model to improve advising at ESU, PASSHE, and potentially across the nation.

JONATHAN KEITER*Mathematics***Strong Start to Finish: Developing and Implementing Co-Requisite Learning Support for Mathematics****Funding Source:** Education Commission of the States – Pennsylvania's State System of Higher Education (PASSHE)**Amount Awarded:** \$17,254

This project allowed our State System to develop system-wide guidelines for developing co-requisite mathematics learning support that could be implemented at scale. The guidelines include best practices for curriculum design, learning support implementation, and assessment. Achievement of best practices are reached by aligning developmental and gateway math course content to create a clear pathway and to purposefully redesign course learning outcomes in developmental and gateway courses to align with each other while scaffolding learning. In addition, Course Maps were created that illustrate the alignment between developmental and gateway courses. Course content was contextualized, a protocol was established for design of curriculum to be inclusive of corequisite and prerequisite courses, and a statistics math pathway was created.



PDA Advising Training: Nikolay Borisov, Christine Hofmeister, and Kelly McKenzie during faculty training.

JOHN KRAYBILL-GREGGO

Sociology, Social Work, & Criminal Justice

CO-PI: MICHELLE DILAURO

Sociology, Social Work & Criminal Justice

CO-PI: CHIN HU

Sociology, Social Work & Criminal Justice

Carbon-Monroe-Pike Drug & Alcohol Commission, Department of Drug and Alcohol Programs (DDAP) Needs Assessment Services Agreement

Funding Source: Carbon-Monroe-Pike Drug & Alcohol Commission

Amount Awarded: \$5,000

The mission of the Department of Drug and Alcohol Programs (DDAP) is to engage, coordinate and lead the Commonwealth of Pennsylvania's effort to prevent and reduce substance use disorders and to promote recovery, thereby reducing the human and economic impact of the disease. This work is carried out in conjunction with the Single County Authorities (SCAs), their contracted providers, and the community at large. The Carbon-Monroe-Pike Drug & Alcohol Commission serves as the SCA for the three counties. To adequately plan for services most needed, SCAs must complete a Needs Assessment in order to identify any demographic changes that must be considered, current service use, including capacity and access issues, and any other areas of concern, gaps or needs that should be addressed. This project

utilized services from pre/post test survey data collection and analysis, and assistance with the implementation/evaluation of Phase F of the DDAP Needs Assessment.

JONI OYE-BENINTENDE

Art + Design

CO-PI: DARLENE FARRIS-LABAR

Art + Design

Pennsylvania Project in the Arts (PPA): PROGRAM Stream

Funding Source: PA Council on the Arts/Pocono Arts Council

Amount Awarded: \$2,000

The Madelon Powers Gallery at ESU is an exhibition and event space administered by the Art + Design department. The gallery has received multiple years of PPA Project Stream in the past and this year was included in the PPA Program Stream awardees, making it a preferred awardee by the agency. The Madelon Powers Gallery shares the Art + Design Department's mission to advance the critical value and integrated relevance of visual art and design to the university and the community beyond. Through exhibitions, workshops, and presentations, the gallery seeks to develop aesthetic literacy, art and design entrepreneurship, and to nurture and advance opportunities for creative and innovative voices in traditional and new media.

MATTHEW WALLACE*Biological Sciences***Field Studies on Spotted Lanternfly in PA – Amendment #1****Funding Source:** U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS)**Amount Awarded:** \$20,000

A cooperative relationship between ESU and the Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) continued to conduct field studies in Pennsylvania on the newly invasive Spotted Lanternfly, *Lycorma Delicatulata*. This amendment provided additional funding for the year. Studies supported the development of survey and detection tools by the USDA APHIS Otis Laboratory through research on discovery of semiochemicals such as pheromones and testing of improved traps and lures.

PAUL WILSON*Biological Sciences***Phase II Extension of the Delaware River Watershed Initiative****Funding Source:** William Penn Foundation - The Nature Conservancy**Amount Awarded:** \$41,714

The Delaware River Watershed Initiative (DRWI) project's overarching goal is to protect the abundant forests, wetlands, intact floodplains, and associated ecosystem services that are critical to protecting water quality and quantity in the Delaware River Watershed.

Professor Wilson has been involved with the DRWI project for many

years as a member of the Pocono Kittatinny Cluster (PKC) group. This grant represented a continuation of this important environmental science work. He provided scientific guidance to PKC partners and maintained a monitoring program to assess aquatic habitat and water quality. The water quality monitoring plan for the PKC fulfilled educational objectives by including the participation of ESU students in the Stream Ecology and/or Limnology classes. ESU research students took part in monitoring activities.

XUEMAO ZHANG*Mathematics***Boosting Students' Programming Interest Using an R Shiny App in General Education Statistics Courses****Funding Source:** Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)**Amount Awarded:** \$6,495

A computing class of any kind is usually included in a GE (general education) program. Learning to code familiarizes people with the values of a digital society such as how people collaborate and share information. However, non-computing majors generally do not take a typical programming course due to their fear of the command line, which puts them at a technical disadvantage. Statistical software packages like SPSS are not helpful to improve a student's programming skill. R is one of the top programming languages in data science which can implement a wide variety of statistical and graphical techniques. This project funded the development of a web app using the R Shiny package that could be applied to any GE statistics course in order for students to learn the programming language R without actually coding all the lines.

The image displays two screenshots of the Rstats web application. The left screenshot shows the 'Data import/export and transformation' interface. It features a 'Choose a Dataset' dropdown menu with 'mtcars' selected. Below this are buttons for 'Enter data manually', 'Data transformation', 'Download data', and 'Reset data'. A table of car data is visible, with columns for 'mpg', 'cyl', 'disp', and 'hp'. The right screenshot shows the 'Probability Calculation' interface. It includes a 'Choose the distribution of X:' dropdown menu set to 'Normal'. Below this are input fields for 'Mean μ:' (set to 0) and 'Standard deviation σ:' (set to 1). The 'Parameters' section shows $\mu = E(X) = 0$, $\sigma = SD(X) = 1$, and $\sigma^2 = Var(X) = 1$. The 'Formula' section shows $P(X \leq 1) = ?$. The 'Answer' is $[1] 0.8413447$. The 'R code' section shows `pnorm(1, mean = 0, sd = 1, lower.tail = TRUE)`. A 'Graph illustration' section shows a normal distribution curve with the area under the curve to the left of 1 shaded in red.

The web app Rstats was developed to promote students' interest in R programming while learning introductory statistics. The R code in the web app can be pasted to the R workspace installed on a PC or Mac to reproduce the data analysis results. Students can learn the programming language R without coding with this web app on any web browser.

EXTERNAL GRANT SUBMISSIONS

NICOLE CHINNICI, *Dr. Jane Huffman Wildlife Genetics Institute*

DETECTION OF WEDGEMUSSELS

Funding Source: US Fish & Wildlife

Amount Requested: \$2,600 pending

GENETIC IDENTIFICATION OF MINK

Funding Source: Central Connecticut University

Amount Requested: \$2,125 pending

PIKE COUNTY TICK TESTING PHASE II

Funding Source: Pike County Commissioners

Amount Requested: \$40,000 pending

TICK TESTING FOR CSI-DX

Funding Source: CSI-Dx, Huntingdon, PA

Amount Requested: \$30,000 pending

MD MINHAZ CHOWDHURY, *Computer Science*

DEPARTMENT OF DEFENSE, NSA, CYBER SCHOLARS
2021-2022

CO-PI: CHRISTINE HOFMEISTER, Computer Science

Funding Source: US Department of Defense;
National Security Agency

Amount Requested: \$259,615 pending

DARLENE FARRIS-LABAR, *Art + Design*

PPA PROGRAM STREAM INTERIM GRANT

Funding Source: Pennsylvania Project in the Arts (PPA)

Amount Requested: \$2,000 pending

MICHELLE JONES-WILSON, *Chemistry and Biochemistry*

S-STEM (CLEAR PATH 2)

CO-PIS: OLIVIA CARDUCCI, Mathematics

KRISTIN NOBLET, Mathematics

DIANE RINGHOFF (Northampton Community College)

Funding Source: National Science Foundation

Amount Requested: \$5,000,000 not funded

S-STEM (CLEAR PATH 2) - RESUBMIT

Funding Source: National Science Foundation

Amount Requested: \$4,990,682 pending

THOMAS LADUKE, *Biological Sciences*

EFFECTS OF FIRE-BASED MANAGEMENT ACTIVITIES ON
AMPHIBIANS AND REPTILES IN PA'S STATE GAME LAND

CO-PI: EMILY ROLLINSON, Biological Sciences

Funding Source: U.S. Fish and Wildlife Service -

PA Fish and Boat Commission

Amount Requested: \$350,000 pending

EFFECTS OF FIRE-BASED MANAGEMENT ACTIVITIES ON
AMPHIBIANS AND REPTILES IN PA BARREN COMMUNITIES

Funding Source: PA Dept. Conservation & Natural
Resources (DCNR)

Amount Requested: \$35,752 not funded

PAUL SCHEMBARI, *Mathematics*

UNDERSTANDING THE DIFFERENT APPROACHES TO
COLLEGE MATH PLACEMENT

Funding Source: National Science Foundation - RAND
Corporation - IUP Research Institute

Amount Requested: \$36,503 not funded

NANCY VANARSDALE, *English*

KATE CHOPIN, LITERATURE, AND WOMEN IN THE U.S.

Funding Source: National Endowment for the Humanities

Amount Requested: \$139,437 pending

MATTHEW WALLACE, *Biological Sciences*

FY22 FIELD STUDIES ON SPOTTED LANTERNFLY
IN PA-RENEWAL

Funding Source: U.S. Department of Agriculture (USDA),
Animal and Plant Health Inspection Service (APHIS)

Amount Requested: \$84,751 pending

XUEMAO ZHANG, *Mathematics*

ESU DATA VISUALIZATION SUMMER INSTITUTE 2021

Funding Source: State Farm Insurance

Amount Requested: \$9,911 not funded

INTERNAL GRANTS

FDR MINI GRANTS

DONGSHENG CHE, *Computer Science*

Online Training: Natural Language Processing Specialization

Amount Awarded: \$823

MICHAEL GRAY, *History & Geography*

History Fit for History of Pennsylvania: Following the Footsteps of Washington's Crossing

Amount Awarded: \$859

ONCE IN A LIFETIME

SUSAN BACHOR

History & Geography

Delaware Tribe Grant

Amount Awarded: \$1,125

The Lenape people were one of the first indigenous groups to be displaced by colonization in the United States. Most of their original homelands were taken under deception, duress, or manipulation. The Lenape, like many other people, still feel the effects today. John Thomas and his delegation came to discuss the removal process, effect on the Lenape, and the current social movements originating out of Indian Country to help raise awareness. These topics are of significance to ESU's students, staff, and local community as the school resides on land taken by the infamous Walking Purchase. Those who presented at ESU were: John Thomas, Theresa Johnson, Daniel Strongwalker Thomas, Wanita Faye, and Martina Thomas from the Delaware Tribe. The presentation furthered ESU's commitment to address the uncomfortable past while developing stronger relationships with the Delaware Tribe, Delaware Nation, Stockbridge Munsee Community, and the Seneca Cayuga moving forward.



Daniel Strongwalker Thomas and members of the Lenape Nation talk with Susan Bachor.



OUT OF THE BOX

XUE (STELLA) DONG

Art + Design

PPE Manufacturers & Suppliers Responding to Reopen Challenges During COVID-19

CO-PI: DARLENE FARRIS-LABAR

Art + Design

Amount Awarded: \$2,500

This Out of the Box grant funded the continuation of 3D printing of Personal Protective Equipment (PPE) supplies for the Pocono Region healthcare providers while simultaneously providing an educational and experiential component for students at ESU. The result was to reduce employee exposure to hazards and provide safe and efficient working environments through a collaborative group effort. By establishing partnerships with the Lehigh Valley Health Network, St. Luke's Hospitals, and local makers around the area, ESU was able to mass produce face shields and stethoscopes at a much faster rate than before the collaborative. The project incorporated potential solutions by using product design skills, digital fabrication techniques, as well as entrepreneurship strategies to address the healthcare needs caused by COVID-19. The work included further investigation into sustainability, safety, and mass production.

The project gave the team valuable experience in collaborating remotely, and it was especially gratifying that the students were recognized for their achievements. ESU's PPE design project was featured at the "Masks and Makers" exhibit of the College of Central Florida that ran through September 2020. Professors Dong and Farris-LaBar and senior Katrina Stenger presented at the 2020 Pennsylvania Art Education Association Conference on the topic of "Creative Mindsets into Covid-19 PPE Exploration" and the article was published on the PAEA Blog to encourage more interdisciplinary conversations among art educators, students, and healthcare professionals.

<http://paeablog.org/incorporate-creative-mindsets-into-ppe-exploration/>

The team was also featured on local television Fox 56 in March 2021.

<https://fox56.com/news/local/esu-students-and-faculty-create-face-shields>

COLLEGE OF Business and Management

External Grants		Internal FDR Grants	
Funds Awarded	\$65,241	Funds Awarded	\$0
Funds Requested	\$118,798	Funds Requested	\$11,200
Proposals Awarded	3	Proposals Awarded	0
Proposals Submitted	3	Proposals Submitted	2



JASON ENGERMAN



MINKYO LEE

JASON ENGERMAN
Digital Media Technologies

CO-PI: RICHARD OTTO
Digital Media Technologies

REU Supplemental Support ITEST #2
Funding Source: National Science Foundation
Amount Awarded: \$50,129

The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. This grant was the second REU supplemental support for the ITEST (Innovative Technology Experiences for Students) grant, "ESports U Foundations Project: Culturally Relevant Computing through Esports Participatory Cultures" awarded by NSF to Professors Engerman and Otto in 2019-2020. It allowed them to continue supporting two ESU undergraduates who contributed to the project and who gained valuable research experience.

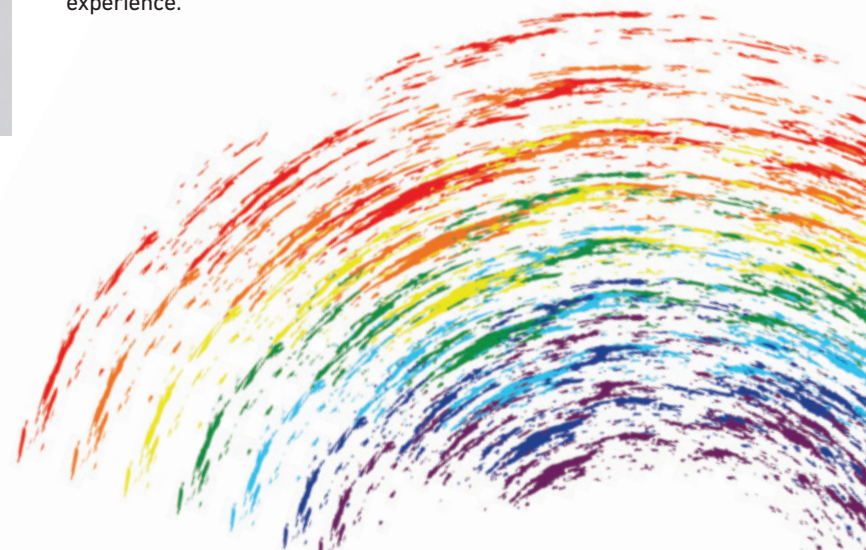


RICHARD OTTO



AHMED YOUSOF

Photos of PIs and Co-PIs are located in their respective college or division, even when their grant is reported elsewhere.



MINKYO LEE*Sport Management***Flow and Emotional Experiences of Mediated Sports through 4D Technology**

Funding Source: Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)

Amount Awarded: \$8,000

This study aimed to identify key factors that drive sport viewing experiences by comparing existing technologies (i.e., 2D TV and VR) with future 4D technology. This study proposed that scents distributed by a 4D system would be a key factor in creating a more immersive experience for sports viewers. The advances in broadcasting technology have changed the way in which sport viewers consume sporting events. These advances have helped improve the production and broadcasting quality of sporting events and have continued to enhance the sport consumer's experiences to a degree that brings the broadcast closer to a comparable experience to being in the stadium for the event. It is crucial to understand how new and different features of the upcoming technologies improve sports fans' viewing experiences.

AHMED YOUSOF*Digital Media Technologies***Game-Based Virtual Reality: New York Film Academy Course**

Funding Source: Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)

Amount Awarded: \$7,112

Professor Yousof attended an extensive training course on the use of gamified Virtual Reality (VR) at the New York Film Academy and then trained ESU faculty members on the new technology. VR environments reinforce the active participation of students and their role as active members of the learning process. With this technology students can discover, or even produce, new knowledge, regardless of their actual physical space. Within these virtual worlds, students can come together online and interact with virtual objects to study. These objects include 3D models, text, image, sound, and/or video. This project was aligned with the PASSHE redesign goal to define an optimal model for technology in terms of instructional design services and classrooms and their related instructional technology spaces.

**EXTERNAL GRANT SUBMISSIONS**

CAROL WALKER, *Digital Media Technologies*

INSTITUTIONAL RESILIENCE AND EXPANDED POSTSECONDARY OPPORTUNITY

Funding Source: U.S. Department of Education - Pennsylvania's State System of Higher Education (PASSHE)

Amount Requested: \$102,798 not funded

COLLEGE OF Education



JANINE HYDE-BRODERICK



MARYANNE KASH



JESSICA SANTIAGO



GINA SCALA



BETH SOCKMAN

External Grants

Funds Awarded	\$607,556
Funds Requested	\$2,353,271
Proposals Awarded	6
Proposals Submitted	8

Internal FDR Grants

Funds Awarded	\$ 0
Funds Requested	\$ 0
Proposals Awarded	0
Proposals Submitted	0

Photos of PIs and Co-PIs are located in their respective college or division, even when their grant is reported elsewhere.

JANINE HYDE-BRODERICK*Upward Bound***CO-PI: MARYANNE KASH***Upward Bound***Upward Bound****Funding Source:** U.S. Department of Education**Amount Awarded:** \$478,462; \$16,746

The Upward Bound Program (UB) has been a critical component of the U.S. Department of Education's efforts to improve college access and completion for students who have been traditionally underrepresented in postsecondary education by focusing on improving college readiness. Since 1974, UB has been advancing the idea of equal opportunity in post-secondary education. ESU believes that students from all segments of the population should have an opportunity to achieve academic excellence at the high school and college levels. The mission of ESU's Upward Bound program has been to promote intellectual curiosity and academic excellence, to acquire the ability to engage, make prudent choices, and develop the technical skills necessary to succeed in their secondary and post-secondary education. To fulfill this mission, the federal grant enabled the UB faculty and staff to provide academic instruction in subject areas supportive of the high school curriculum, group counseling, cultural programs, and career guidance. Students have been exposed to people, places, and events that deepened their dreams and broadened their life vision while they learned how to identify, establish, and achieve goals discovered on their journey. The program pivoted for online classes and activities for the high school students participating in 2020-21.

LAURA KIESELBACH AND BETH SOCKMAN*English; Professional & Secondary Education***Pocono Writing Project - Empowering Teaching Naturally (Renewal)****Funding Source:** National Park Service - National Writing Project**Amount Awarded:** \$3,500

This was the second year that the ESU Pocono Writing Project partnered with the Delaware Water Gap Recreational Area (DEWA) and a design team made of local teachers and businesses to empower teachers by gaining skills that they can transfer to their students through the writing process and appreciation of nature, specifically at DEWA. The community of educators, ESU professors, DEWA personnel, and two local businesses used the instructional design process to create online modules with experiential learning and process writing that honored the cultural perspective of all participants through mindful awareness of our local ecosystem. The modules were implemented with a larger group of local teachers, and upon completion, teachers earned ACT 48 hours.

**JESSICA SANTIAGO***Department of Academic Success***GEAR UP: The Warrior Rising Initiative****Funding Source:** U.S. Department of Education – Pennsylvania State System for Higher Education (PASSHE)**Amount Awarded:** \$100,098

The Pennsylvania GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) program was designed to support Title I high schools in low-income communities. The program provided services to GEAR UP students and their families in preparation for a post-secondary education. The program helped eliminate barriers and ensured low-income minority students entered college prepared to succeed. ESU participated with other PASSHE schools during the Fall 2020 and Spring 2021 semesters. The ESU program was titled The Warrior Rising Initiative. Throughout the year GEAR UP students were provided with ongoing access to academic advising, career services, tutorial services, academic coaching and mentoring. In addition, there were academic workshops in test taking, study skills, and time management plus virtual café dialogue workshops.

GINA SCALA*Special Education & Rehabilitation***PaTTAN Pathways to Graduation (P2G) IHE Partnerships****Funding Source:** PaTTAN (PA Training and Technical Assistance Network), an arm of the PA Department of Education**Amount Awarded:** \$8,000

Working with the Pennsylvania Department of Education's Bureau of Special Education, PaTTAN provided a full array of professional development and technical assistance targeted to improving student results. This project funded the development of pre-service/in-service training and procedures designed to decrease dropout rates for middle school students with emotional disturbance. The goals were to increase daily attendance, decrease state reportable offenses, decrease school code of conduct incidents, and increase course performance (Language Arts/Math). These IHE tools built the capacity of pre- and in-service teachers to address the academic, behavioral, and transition needs of middle school students with emotional disturbance utilizing an early warning system including data with a focus on cultural competence.

GINA SCALA*Special Education & Rehabilitation***Higher Education Suicide Prevention Coalition (HESPC)****Funding Source:** PA Department of Education**Amount Awarded:** \$750

The purpose of the HESPC grant project was to assemble a Mental Health Stakeholder Coalition in order to develop and implement a comprehensive strategic plan for support strategies, resources, and trainings on the issue of suicide prevention. The project developed a Mental Health Speaker Series relevant to constituent needs.

EXTERNAL GRANT SUBMISSIONS**LIZ AZUKAS**, *Professional & Secondary Education***KRISTIN NOBLET**, *Mathematics*

NOYCE TEACHER SCHOLARSHIP PROGRAM

Funding Source: National Science Foundation**Amount Requested:** \$1,199,888 not funded**DOUG LARE**, *Professional & Secondary Education*

KATE CHOPIN, LITERATURE, AND WOMEN IN THE U.S.

Funding Source: National Endowment for the Humanities**Amount Requested:** \$134,174 not funded**LAUREEN NELSON**, *Early Childhood & Elementary Education*

EARLY CHILDHOOD EDUCATION PROFESSIONAL DEVELOPMENT ORGANIZATION (YEAR 2)

Funding Source: U.S. Department of Health and Human Services - PA Department of Human Services – The Office of Child Development and Early Learning (OCDEL) – Pennsylvania’s State System of Higher Education
Amount Requested: \$414,287 operations pending; \$121,204 tuition pending

JACK TRUSCHEL, *Department of Academic Success***DENISE SEIGART**, *College of Health Sciences*

PUBLIC WORKS AND ECONOMIC ADJUSTMENT ASSISTANCE (PWEAA)

Funding Source: U.S. Department of Commerce – Economic Development Agency (EDA) – Pennsylvania’s State System of Higher Education
Amount Requested: \$19,086 not funded

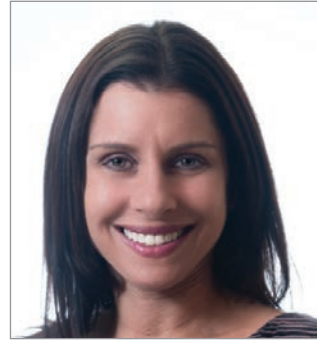
INTERNAL GRANTS**OUT OF THE BOX****KELLY MCKENZIE**, *Department of Academic Success***CO-PI: KEVIN CASEBOLT**, *Physical Education***The Mindset Project Phase 3****Amount Awarded:** \$2,500

The primary purpose of The Mindset Project was to create a new and innovative approach to integrating principles of entrepreneurship across colleges at ESU. The project engaged students in understanding and applying problem-solving strategies using a collaborative process, enhanced the development of the mindset of first-year students by focusing on creating curiosity, inventiveness, risk taking, and compassion, engaged students in community building in order to increase awareness of an individual and a group’s ability to impact a community and society in a transformative way, developed students’ sense of their future professional self from the time they enter the university, and honed students’ entrepreneurship skills and developed an understanding of how to integrate entrepreneurship in their future professional selves. There was not previously a cohesive framework or assignment that targeted the teaching and learning of an entrepreneurial-type cognitive processes. Such an endeavor has been a valuable learning experience to elevate students’ innovative ideas into a venture—whether that be a transformation of the student’s thought process, or a solution to a social, cultural, environmental problem, or a business venture.

COLLEGE OF Health Sciences



MIHYE JEONG



RACHEL WOLF

MIHYE JEONG

Physical Education Teacher Education

Physical Activity Participation of Children with Disabilities: Parental Support

Funding Source: Pennsylvania’s State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)

Amount Awarded: \$4,160

Parental influence and support are important for physical activity participation of their children with disabilities (CWD). The purpose of this study was to validate the Theory of Planned Behavior (TPB) as a tool to measure American parents’ beliefs and intention toward supporting physical activity participation of their CWD and to examine factors affecting parental support. Despite legislation obligating states and schools to provide equal access, the opportunities for physical activity are limited for children with



External Grants

Funds Awarded	\$16,360
Funds Requested	\$53,371
Proposals Awarded	2
Proposals Submitted	3

Internal FDR Grants

Funds Awarded	\$ 2,400
Funds Requested	\$ 2,400
Proposals Awarded	2
Proposals Submitted	2

Photos of PIs and Co-PIs are located in their respective college or division, even when their grant is reported elsewhere.

disabilities. As a result of this research the TPB model was validated as an assessment tool and ESU students participated and learned the process of research and how to develop critical thinking and problem-solving skills.

RACHEL WOLF

Communication Sciences and Disorders

ACCE Expanded Programming for Parents and Caregivers

Funding Source: All One Foundation – University of Scranton

Amount Awarded: \$12,000

This funding allowed for enhanced opportunities for clients of the ESU Autism Education Center. The Center worked with the AllOne Foundation, and other Autism Collaborative Center of Excellence (ACCE) hubs, to support programming development that could run in all hubs. ESU provided specific programs including socialization and sibling socialization groups, health classes, and parent support groups and parents night out activities. Families were able to join in via Zoom. ESU students engaged children with Autism Spectrum Disorders (ASD) in fun activities under supervision of an ESU faculty supervisor. Health classes included yoga, swim and gym classes. Parent support groups meet concurrently with socialization sessions for children with ASD and Parent's Night Out occurred monthly.



Student tests a subject for sleep quality for FDR mini grant

EXTERNAL GRANT SUBMISSIONS

CLARE LENHART, *Health Studies*

HEART: HEALTHY EATING AND REDUCING TOBACCO FOR FOOD PANTRY CLIENTS

Funding Source: Pennsylvania's State System of Higher Education (PASSHE) – Faculty Professional Development Council (FPDC)

Amount Requested: \$7,992 not funded

POCONO PANTRIES IN THE PANDEMIC

Funding Source: Center for Rural PA

Amount Requested: \$41,219 not funded

INTERNAL GRANTS

FDR MINI GRANTS

SUSAN DILLMUTH-MILLER

Communication Science and Disorders

DEVELOPING NORMATIVE DATA FOR FREQUENCY FOLLOWING RESPONSE (FFR) IN AUDITORY EVOKED POTENTIALS

Amount Awarded: \$1,200

EMILY SAUERS

Exercise Science

EFFECT OF PHYSICAL ACTIVITY AND EXERCISE INTERVENTION IN INACTIVE COLLEGE-AGED STUDENTS

Amount Awarded: \$1,200



University Divisions and Affiliates

Academic Affairs

Administration & Finance

Athletics

Campus Life and Inclusive Excellence

Economic Development and Entrepreneurship

Enrollment Management

ESU Foundation and Office of University Advancement



LIANNA DESANTIS



CHRISTINA MCDONALD



MARY FRANCES POSTUPACK



RICHARD SANTORO



LAURA SUITS-DOLAN

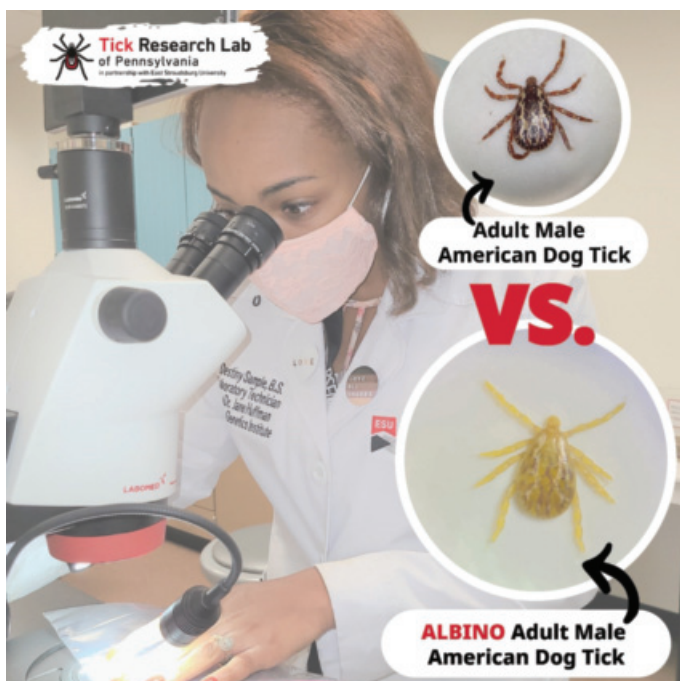
Photos of PIs and Co-PIs are located in their respective college or division, even when their grant is reported elsewhere.

External Grants

Funds Awarded	\$1,418,259
Funds Requested	\$4,544,629
Proposals Awarded	10
Proposals Submitted	23

Internal FDR Grants

Funds Awarded	\$100
Funds Requested	\$100
Proposals Awarded	1
Proposals Submitted	1



ESU FOUNDATION

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

The Pennsylvania Tick Research Lab at ESU was supported by the Commonwealth for the third year in a row in order to continue to provide free tick testing to all Pennsylvania residents. Tests included 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 and risk/exposure to tick-borne diseases. Funding has also supported the development of a data analytic website that provides infection rates across the Commonwealth, areas with high tick density, and demographics associated with the tick bite. This data established 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.

Community Health Education and Simulation Center

Funding Source: The R. Dale and Frances M. Hughes Foundation

Amount Awarded: \$250,000

This grant supported the construction of the Community Health Education & Simulation Center to advance healthcare professionals' abilities to perform complex medical procedures and life-saving techniques. The Center will offer simulation training for nursing, athletic training, and other health science students, regional healthcare professionals, and community members. This valuable training environment complements traditional academic offerings.



ESU nursing students gain hands-on experience

Community Health Education and Simulation Center

Funding Source: Monroe County Local Shares Account

Amount Awarded: \$251,641

This grant provided additional support for the construction of the Community Health Education & Simulation Center to advance healthcare professionals' abilities to perform complex medical procedures and life-saving techniques. The Center will offer simulation training for nursing, athletic training, and other health science students, regional healthcare professionals, and community members. Construction for this facility will begin in May 2022.

University Divisions and Affiliates continued on page 24



Dr. Claire Lu

In May 2019 then-Provost Joanne Z. Bruno wrote to the Office of Sponsored Projects and Research expressing her interest for the university to apply for a Fulbright Scholar-in-Residence. When the call for applications was released, Stanley Chiang, professor in the Department of Hospitality, Recreation & Tourism Management, took the lead to put together an application which was submitted in fall 2019.

ESU was first notified in January 2020 about its successful application. However, the world shut down in March 2020 and the Fulbright Scholar-in-Residence would have to be postponed.

Finally, ESU's scholar, Dr. Claire Lu, professor of tourism from Taiwan, arrived to the United States in August 2021, one year and a half later! Dr. Lu has come from Taiwan to be the first Fulbright Scholar-In-Residence (SIR) at East Stroudsburg University! Welcome Dr. Lu!



Dr. Lu learned about ESU four years ago when she first visited our campus on an exchange as her university, the Chinese Culture University, is sister schools with ESU. She had continued to keep tabs on ESU and also encouraged her

students to spend a year abroad here. In 2019 she saw a poster advertising the Fulbright Scholar-in-Residence opportunity and decided to apply.

Dr. Lu arrived to ESU with an open mind and no expectations. She was ready for her experience. With two suitcases in hand she made her way from New York City to East Stroudsburg. Dr. Lu appreciates the Fulbright mission to enhance connections between people and nations, ultimately to enhance our common understanding and to bring peace. She encourages her own students to travel and experience the world as well. To step out of our comfort zone is to become vulnerable but also to grow.

Dr. Lu appreciates the atmosphere and people at ESU. She speaks of the smiles and thoughtfulness that she has encountered in her short time here already. She feels lucky and says she will recommend ESU to future Fulbright Scholars.

She has been very busy since she took her residence on ESU's campus. She has been involved in an FDR grant with her department peers looking at the local Pocono wine industry and writing a scholarly journal article for publication. In addition, she is active in ESU's Department of Hospitality, Recreation, & Tourism Management where she is co-teaching and lecturing.

Dr. Lu loves to travel; she has always traveled extensively and hopes to continue to see all of the national parks in the United States

Travel Records

2020	
ITALY	Venice, Cortina, Florence
USA	CA
2019	
THAILAND	Bangkok Ayutthaya
CHINA	Suzhou
USA	NYC, MA, OH, KY, IN, CA
JAPAN	Osaka, Kyoto, Nara
2018	
CHINA	Xiamen
JAPAN	Osaka, Kobe, Awaji, Himeji
USA	CA, WA, OR, CA, PA
SINGAPORE	
2017	
ITALY	Sicity
CHINA	Suzhou, Nanking, Wuxi, Hangzhou
KOREA	Seoul, Gyeonggi
USA	CA
NETHERLAND	Amsterdam
BELGIUM	Kent, Antwerp, Ixelles
SWITZERLAND	Zurich, Lausanne, Sam,
2016	
CHINA	Sichuan, Xinjiang
THAILAND	Bangkok, Ayutthaya
USA	CO, WY, UT, AZ, NM
CHINA	Wuxi
TURKEY	Istanbul
GREECE	Rhode Islands
MALAYSIA	Kuala Lumpur, Putrajaya
SWITZERLAND	Zurich, Chuc, Verbier Luzerne, Geneva
2015	
THAILAND	Bangkok, Chaiwat
USA	CA
ITALY	Milan, Como
SWITZERLAND	Lugano
GERMANY	Hamburg
SINGAPORE	
CROATIA	ten countries
TURKEY	Istanbul
AUSTRIA	Vienna

someday. We wish Dr. Lu a wonderful stay and appreciate all that she can share with our community.

Wesley T. Brown

is a Frederick Douglass Scholar and instructor of ceramics in the Department of Art + Design for the 21-22 academic year.

ESU had not been on Wesley's mind but when he heard about an open position in June 2021, he applied. Successful in his application, he joined ESU in fall 2021.

Brown is a ceramic artist from Dayton, Ohio. He holds an Associate of Arts degree from Sinclair Community College, a Bachelor of Fine Arts from Bowling Green State University, and a Master of Fine Art from Indiana University-Bloomington.

Although ESU had not been on his radar, since coming to this area he has enjoyed the place and its proximate location to large cities. What he finds special about ESU, specifically, are the students. He finds them to be particularly perseverant; ESU students follow up, make a plan and stick to it!

Brown was not always good at sculpting, he admits, but he was challenged to figure it out; and figure it out he did. His artistic inspiration comes from his love of bold contrast, as well as in imperfection and a wholeness in that. Clay is impressionable and with it you can build up texture. He likes to match movement to something that will have a functionality. From nothing he creates beauty.

Working at ESU has been intense. With his time here he has had to learn to run a department, handle needed repairs on equipment, and work with more students than he had in the past. With 20+ students in a classroom it is more difficult to find the intimacy one can find in smaller classrooms. Yet, he is excited to run his own department and to be master of that. It is a challenge he welcomes.

While at ESU Brown hopes to gain classroom experience, skills in running a studio on his own as well as good record keeping. All skills needed, in addition to his artistic ones, that will help him on his journey in the future.



Swim & Gym Program

Funding Source: Ronald McDonald House Charities of NEPA, Inc.

Amount Awarded: \$5,998

CO-APPLICANT: MIHYE JEONG

Physical Education Teacher Education

This grant supported ESU's Physical Education Teacher Education Swim and Gym Program. The funds supported the acquisition of new equipment that provided both children ages 5-12 with disabilities and the ESU students within the Physical Education Teacher Education program a hands-on educational experience.

William T. Morris Foundation Scholarship

Funding Source: William T. Morris Foundation

Amount Awarded: \$3,000

The grant supported three scholarships of \$1,000 each for incoming ESU freshmen.

CHRISTINA MCDONALD

Academic Affairs/Office of Sponsored Projects and Research

Strong Start to Finish, Seeding Site Grant Program/Developing and Implementing Co-Requisite Learning Support for Mathematics

Funding Source: Education Commission of the States Pennsylvania's State System of Higher Education (PASSHE)

Amount Awarded: \$20,777

Strong Start to Finish (SSTF) is a network of committed postsecondary leaders and philanthropists working together to change institutional practice and policy across the nation to bring equity to education. The collaborative initiative believed the single most impactful way to help students finish college and achieve a degree was to help them get a strong start by completing college-level math and English in their first year of study. Through remedial education reform, SSTF sought to improve college completion rates, lessen debt burden, and make an overall impact on the economic viability of communities.

MARY FRANCES POSTUPACK

Entrepreneurship and Economic Development/ Workforce Development

WEDnetPA

Funding Source: PA Department of Community & Economic Development

Amount Awarded: \$311,843

Created by the Department of Community & Economic Development and made available through the Workforce and Economic

Development Network of Pennsylvania – WEDnetPA – the program provides qualified employers training funds for new and existing employees. WEDnetPA is a unique, collaborative partnership of community colleges, state system universities and other educational institutions working together to be responsive to the needs of Pennsylvania's business community. Funding can be used for a wide range of incumbent worker training. The training must be skill-building for employee's current job or for an advancement or promotion. ESU has been a WEDnetPA partner institution since 2002.

Ben Franklin Technology Partners Challenge Grant: 2020-21 Ben Franklin Small Business Incubator Project

Funding Source: PA Department of Community & Economic Development; Ben Franklin Technology Partners

Amount Awarded: \$5,000

ESU is a member of the Ben Franklin Technology Partners of Northeastern PA's Ben Franklin Incubator Network. The Challenge Grant was to provide ongoing support for its members. The mission of the Ben Franklin Technology Partners of Northeastern Pennsylvania (BFTP/NEP) is to promote, sustain, and invest in the transformation of our regional economy through innovation and partnering. This is done by combining the resources of universities/colleges and private sector companies, along with state funds to invest in applied R&D and technology transfer activities. BFTP/NEP also makes available additional technical and business services as needed to complement these activities.

INTERNAL GRANTS

FDR MINI GRANTS

MEGAN SMITH, *Kemp Library*

Open Education Conference Workshops

Amount Awarded: \$100

OUT OF THE BOX

SANTIAGO SOLIS

Campus Life and Inclusive Excellence

Latinx Recruitment Videos Production

Amount Awarded: \$2,450

This Out of the Box grant helped develop innovative strategies to recruit local Latinx students during the COVID-19 pandemic to attend ESU. The project developed a bilingual (English/Spanish) "Reaching the Dream" video series with radio host and social media personality Christina Luna who used her deep connections in the local Latinx community to market and promote ESU.

LAURA SUITS-DOLAN

Campus Life and Inclusive Excellence/Wellness Education and Prevention

Reducing Underage and Dangerous Drinking

Funding Source: PA Liquor Control Board

Amount Awarded: \$40,000

The goals of this project were reducing underage drinking, reducing high-risk drinking, and promoting responsible alcohol consumption for those of legal drinking age. The project created professionally produced social media videos, employed a graduate student worker, and utilized EVERFI's AlcoholEdu online courses to motivate students to make healthier decisions related to their alcohol consumption.

It's On US! ESU

Funding Source: PA Department of Education

Amount Awarded: \$30,000

ESU is committed to improving our campus culture by increasing awareness about sexual violence while reducing barriers to our reporting process, which can negatively impact survivors. ESU continued the It's On US! ESU campaign, which began March 1, 2018 by increasing the sense of community and possession of the campaign's mission. The goals for the campaign were to improve awareness, prevention, reporting, and response systems regarding sexual violence in the university in order 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 demonstrating significant, proactive, and sustainable leadership to change campus culture by pledging to improve the institution's climate.

EXTERNAL GRANT SUBMISSIONS

CFRED, Center for Research & Economic Development
POCONO MOUNTAINS KEYSTONE INNOVATION ZONE
Funding Source: Monroe County Local Shares Account
Amount Requested: \$25,000 not funded

ROBERT D'AVERSA, Academic Computing
CAMPUS CONSORTIUM/C19 AI RAPID RESPONSE APPLICATION
Funding Source: Campus Consortium
Amount Requested: \$50,000 (equivalent services value) not funded

ESU FOUNDATION, ESU Foundation
COMMUNITY HEALTH EDUCATION AND SIMULATION
Funding Source: The Ann and Joseph Farda Foundation
Amount Requested: \$10,000 pending

ESPORTS CAMPAIGN
Funding Source: Mount Airy Foundation
Amount Requested: \$21,819 pending

PLANETARIUM PROJECTOR
Funding Source: The R. Dale and Frances M. Hughes Foundation
Amount Requested: \$205,700 pending

R. DALE AND FRANCES M. HUGHES FOUNDATION
ENDOWED SCHOLARSHIP
Funding Source: The R. Dale and Frances M. Hughes Foundation
Amount Requested: \$50,000 pending

PROTECT FROM COVID-19: INNOVATIVE 3D PRINTED PPE FOR OUR FUTURE
CO-PI: DARLENE FARRIS-LABAR
Funding Source: TD Bank, The 2020 TD Ready Challenge
Amount Requested: \$250,000 not funded

ANNUAL FUND - UNRESTRICTED DOLLARS FOR CANCELED FUNDRAISING PROGRAMS DUE TO COVID-19
Funding Source: Monroe County; CARES Act grant request
Amount Requested: \$34,698 not funded

SOCCER COMPLEX IMPROVEMENT PROJECT
Funding Source: The Redevelopment Assistance Capital Program, PA Office of the Budget
Amount Requested: \$1,000,000 not funded

SOCCER COMPLEX IMPROVEMENT PROJECT (REAPPLY)
Funding Source: The Redevelopment Assistance Capital Program, PA Office of the Budget
Amount Requested: \$1,000,000 pending

EXTERNAL GRANT CONTINUED

JAMIE KIZER, *Entrepreneurship and Economic Development/
Business Incubator*

PASSHE START UP CHALLENGE COORDINATOR
(AKA STUDENT BUSINESS COMPETITION COORDINATOR)

Funding Source: Office of Chancellor, Pennsylvania's State
System of Higher Education (PASSHE)

Amount Requested: \$60,000 pending

MARY FRANCES POSTUPACK, *Entrepreneurship and Economic
Development*

APPALACHIAN REGIONAL COMMISSION (ARC) 2020-21
ENTREPRENEURSHIP LAUNCHPAD

Funding Source: PA Dept. of Community & Econ. Dev./ARC
Amount Requested: \$70,000 pending

USDA SPOTTED LANTERNFLY (SLF) RESEARCH
SUPPORT AT ESU

Funding Source: U.S. Department of Agriculture (USDA),
Animal and Plant Health Inspection Service (APHIS)
Amount Requested: \$229,896 pending

SUSAN WILD COMMUNITY PROJECT FUNDING / TICK LAB

Funding Source: Congressional Appropriations
Amount Requested: \$150,000 not funded

SUSAN WILD COMMUNITY PROJECT FUNDING/
RIDGEWAY STREET

Funding Source: Congressional Appropriations
Amount Requested: \$300,000 not funded

ELIZABETH SCOTT, *Kemp Library*

PHMC ARCHIVAL RECORDS GRANT / KEMP LIBRARY
DIGITIZATION PROJECT

Funding Source: PA Dept. of Historical and Museum
Commission

Amount Requested: \$2,257 not funded

LAURA SUITS-DOLAN, *Wellness Education and Prevention
CO-PI: LONNIE ALLBAUGH*

ESU IT'S ON US (RENEWAL)

Funding Source: PA Dept. of Education
Amount Requested: \$30,000 pending

JENNIFER YOUNG, *Counseling and Psychological Services
(CAPS)*

CDC COMPREHENSIVE SUICIDE PREVENTION

Funding Source: U.S. Dept. of Health and Human Services/
U.S. Centers for Disease Control and Prevention
Amount Requested: \$501,493 not funded



STUDENTS AND RESEARCH

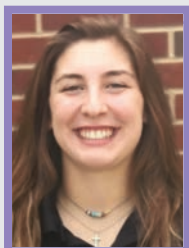
SUMMER UNDERGRADUATE RESEARCH EXPERIENCE (S.U.R.E)

TOTAL STUDENTS INVOLVED: 10

TOTAL AMOUNT AWARDED: \$19,683

COLLEGE	PERCENTAGE
HEALTH SCIENCES	12% (1)
EDUCATION	12% (1)
ARTS & SCIENCES	75% (6)

S.U.R.E AWARD RECIPIENTS



○ GABRIELLE BUCKLEY, *Health and Physical Education, Junior*

○ FACULTY MENTOR: MIHYE JEONG, *Physical Education Teacher Certification*

Measuring Preservice Physical Educators' Confidence in Teaching Students with Disabilities

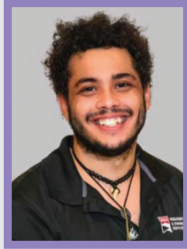
Amount Awarded: \$2,338

The U.S. Department of Education (2018) reported 95% of students with disabilities age 6-21 receive service in general education settings under the Individuals with Disabilities Education Act (IDEA); of these students, 80% participated in general physical education classes (U.S. Government Accountability Office, 2010). Indirect to this report, the assumption can be made that the role of General Physical

Education (GPE) teachers has shifted to teach both students with and without disabilities in their classes. This study examined the effect of Adapted Physical Education Practice on pre-service physical educators' confidence in teaching students with disabilities and to test the factors affecting their confidence. In the project, Gabrielle Buckley was involved and learned the research process with the full support of Professor Jeong.

“Partaking in this research program will prosper growth exponentially. It is imperative as an educator to have the ability to analyze and apply information with the use of research. Research can help supplement lessons, units, and curriculum. Furthermore, possessing the skills needed to properly research will enable me to adopt traits, skills, and strategies needed to best meet the individual needs of my students with disabilities. Education is constantly evolving and with the help of research, educators like myself can apply new techniques in the gymnasium that will improve inclusion along with adequate modifications and adaptations for students.”

-Gabrielle Buckley



**MALORIE GORMAN AND
JAMES HOLLOWAY**

Integrated Art + Design, Sophomores

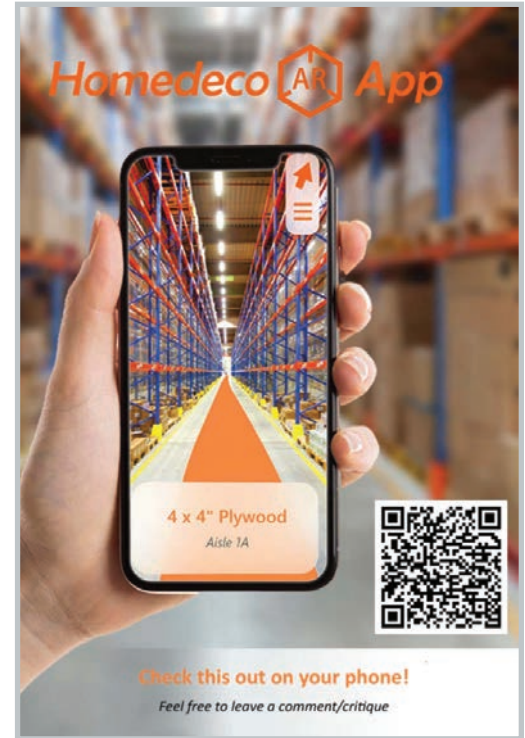
FACULTY MENTOR: XUE DONG, *Art + Design*

Using Augmented Reality (AR) to Bring Product Design Experience to Life

Amount Awarded: \$2,438

This project focused on exploring augmented reality (AR) technology and its application in the product design process. Two undergraduate students, James Holloway and Malorie Gorman, collaborated with Professor Dong to implement AR Technology to their specific new product concepts. James and Malorie also experienced a systematic investigation of AR technology. Under Professor Dong's guidance, they investigated and compared different AR hardware and software and found the appropriate

ones that could be used in the product design concept process. The students created several design inputs—ranging from images, 3D CAD Models, sound to video, graphics to GPS overlays, and more – in digital content that responds in real-time to changes in the user's environment, typically movement. This project incorporated both digital and analog techniques, such as 3D Cad Modeling, photo-realistic renders, and 3D Printing. They used AR to visualize the product's primary features by bringing real context experience to life.

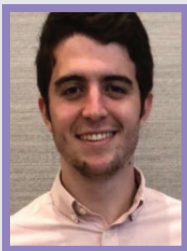


“I have developed a myriad of skills in various segments such as graphic design, product design, and visual communication throughout my graphic design academic career. I want to implement these skills to help the team explore AR technology and incorporate that in our real-world situations as we initially plan. With my skills, I can help develop research via surveys, interviews, etc.”

– James Holloway

“This is an exciting opportunity to learn about and engage with new technology. By working with this project and doing this research into incorporating AR with product design, I will gain a skill that will be rare to find with my peers in the professional field. This grant will also be a fantastic opportunity to hone my ingenuity and help develop new products from the ground up. I love the idea of taking product design concepts, such as 3D Cad model, package design, or animations merging the virtual design into a physical space to allow for accurate representations of future products and works.”

– Malorie Gorman



- **GARRETT LUGIANO AND ALISSA TRESSLER** *Psychology, Sophomores*
 - **FACULTY MENTOR: JOHN CHANG**, *Psychology*
- Cross-Cultural Compassion and Depression**
Amount Awarded: \$2,500

Alissa and Garrett conducted a research study that compared compassion and depression scores among American and Latin American samples. To investigate cross-cultural differences and a potential relationship between compassion and depression levels, the students created online surveys that eligible participants took on an online research survey platform, Prolific. Data was exported from Prolific, imported into Microsoft Excel, and analyzed in SPSS. The mentor helped students manipulate the data in order to

interpret the meaning of and derive conclusions from the quantitative data. The project was reviewed to determine its potential for presentations and publication. This research project allowed the students to learn the skills required to conduct graduate-level research, find the association between compassion and depression scores, and determine if there are cross-cultural differences in the two sets of scores.

“ My future career goals are to become a licensed clinical psychologist and a college professor to teach psychology courses. I hope to further my education and be accepted into a graduate program for clinical mental health psychology. I want to pursue working in local hospitals and possibly starting a private practice. My goal is to help people overcome psychological issues by diagnosing and treating these cognitive, behavioral, and emotional issues. ”

-Alissa Tressler



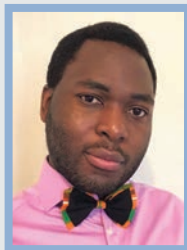
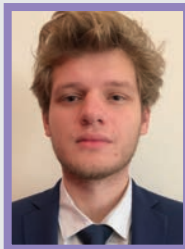
- **JESSICA NULL**, *Political Science and History, Junior*
- **FACULTY MENTOR: KIMBERLY ADAMS**, *Political Science*

An Examination of State Voter Laws that Negatively Affects Racial Minorities

Amount Awarded: \$2,438

The primary goal for this project was to examine voting and election laws that have a negative impact on the voting power of racial minorities in the U.S. The introduction and passage of voter suppression laws, of the most egregious type, are not new in this country. History is replete with examples of such laws and Black Americans marching and protesting to challenge them. Shockingly, in 2021, the fight continues. This research examined a very timely and important issue; restrictive voter laws and their disparate impact on racial minorities. By identifying the sponsors of such bills and amplifying the voices and struggles of those who are most affected by the measures, the research

findings may be the basis for more compassionate state legislation on voting and elections. Research findings will assist and inform the development of a new course. The course will examine Black political participation and activism in the United States. The research and the subsequent course development on black political participation and activism fills a void in the University's course offerings and expands political science departmental course offerings on Diversity, Equity and Inclusion. Jessica Null worked with Kimberly Adams to collect, code, and analyze data.



MARCIN OGRODNICZUK *Biochemistry and Chemical Biotechnology, Junior*

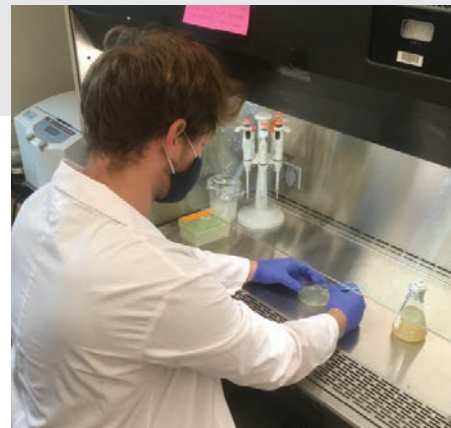
FACULTY MENTOR: RENÉ FUANTA, *Chemistry and Biochemistry*

Tuberculosis Shikimate Kinase as a Potential Target for New Antibacterials

Amount Awarded: \$2,490

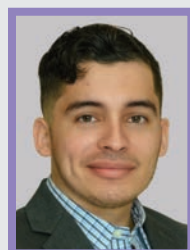
Studies in the last decade have shown that tuberculosis rates continue to increase. This observation suggests that there is an alarming increase in the prevalence of drug-resistant strains of tuberculosis, thus the need for the discovery of novel anti-tubercular agents. When searching for potential enzymatic pathways for drug discovery it is vital that the pathway possesses minimal overlap with the host. The shikimate pathway is a seven-step metabolic route that produces aromatic amino acids and other cellular metabolites. This pathway is found in plants and microorganisms and has no mammalian counterpart, making any of the enzymes in this pathway suitable targets for the screening

of potential anti-tubercular agents. The target enzyme in this project, Mycobacterium tuberculosis Shikimate Kinase (MtSK), catalyzes the 5th step of this pathway. The overall goal of this project is to produce and characterize MtSK to screen for potential anti-tubercular agents. Marcin's responsibilities as a research assistant during this period included procedure creation, reagent preparation (buffers, gels, etc.), and reading research journals about the enzyme of interest. Weekly procedure approval was required for Marcin prior to any experimentation. This acted to minimize the chances of procedural error and serve to conserve laboratory resources.



Marcin Ogrodniczuk, a senior in the Department of Chemistry and Biochemistry, working on his S.U.R.E. grant project over the summer. He is performing a classical microbiology technique used for bacterial culture and isolation referred to as streaking. Marcin is carrying out this procedure under a containment level 2 cabinet to prevent sample contamination.

Photo credit: Dr. René Fuanta



JULIAN ORTIZ, *Computer Science, Sophomore*

FACULTY MENTOR: MD MINHAZ CHOWDHURY, *Computer Science*

Trust Aware Decision Making

Amount Awarded: \$2,500

Computational trust is analogous to social trust that we use in our everyday decision making. The machine learning and artificial intelligence-based machines can use this trust concept as a new dimension of decision making. It is important to know how such decision-making works, and what are the state-of-the-art methods for making these trust-based decisions. A rapid review is important

to find out what the methods used are in the trust research area that aids artificial intelligence and machine learning. Student researchers, Julian and Nicholas, met with Dr. Chowdhury once a week about their findings. They asked questions about this research study during the meeting.

“In my college career thus far, the extent of my knowledge is confined mostly to inside of schoolwork. The skills and research techniques I hope to acquire during this project will improve my real-world experience as I study topics that I have not delved much into before. The rapid research methodology is something I would be glad to have more practice with. I believe that being able to quickly and successfully research information needed for a project is a valuable skill that is utilized very often. Knowledge of computational trust in machine learning and AI are things that I perceive that I will look back on in future projects. The field of computer science is constantly evolving, and this experience will help to ensure that I can always adapt to new experiences.”

-Julian Ortiz



○ **JULIANA SCHRAER**, *Exercise Science, Junior*

○ **FACULTY MENTOR: EMILY SAUERS**, *Exercise Science*

The Relationship Between Sleep Quality and Quantity and Body Composition in a College Population

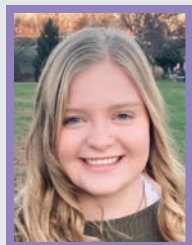
Amount Awarded: \$2,489

The amount of sleep and the quality of that sleep can affect many physiological components to the body. It is recommended that most receive around 7-8 hours of sleep per night. On average college students receive around 6.34 hours of sleep a night during the school week according to The American Journal of Pharmaceutical

Education. While many studies have been done on adults, very few have been done in college students. The purpose of this study was to find how sleep quality and quantity is related to body composition in a non-athletic population of typical college students.

“ This research experience has allowed me to practice and learn the skills of research that I will use into my further education. Having this opportunity was a big contributor to my interests in this field while also realizing my interest in research as I will continue to utilize these skills for future. I plan on conducting more research studies and this opportunity gave me a good understanding of what to expect and confirmed my future interest of doing research. ”

-Juliana Schraer



○ **EMILY SERPICO**, *History, Junior*

○ **FACULTY MENTOR: SUSAN BACHOR**, *History & Geography*

Under Documented Archaeological Collections

Amount Awarded: \$2,489

Local historical societies and local avocational archaeologists have collections that need to be documented and evaluated for research or teaching purposes. Both the Monroe County Historical Society and Greene-Drehr Historical Society have under-documented collections that were examined at ESU and on site at the historical society. All COVID restrictions were followed. The first goal of this project was to create or complete each collection's documentation. The second goal was to collect information to develop a document history, maps, and use recommendation for research or teaching. Student research assistant, Emily Serpico, tracked down the documented information while also learning methods used by museum registrars.



Emily Serpico and Darlene Farris-LaBar

“ From this summer's research, I have improved my administrative abilities as well as my understanding of all the work that goes into maintaining a collection. I also have further developed and expanded my knowledge of tribal relations with public history institutions regarding artifacts and individuals. There is a respect and appreciation that had been preexisting but after this summer has grown tremendously within me. It has given me the experience necessary for my career field as well as a new perspective on the importance of the work. ”

-Emily Serpico

GRADUATE STUDENT RESEARCH ASSISTANTS (GSR)

ACADEMIC YEAR 2020-2021 | SUMMER 2021

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.



○ JASON KLUK, *Education*



○ FACULTY APPLICANT: JASON ENGERMAN, *Digital Media Technologies*

Building Esports Curriculum through Culturally Relevant Computing Activities

Funding Source: ESU Graduate College

Amount Awarded: \$3,000

As universities seek to enhance student engagement to meet student digital needs in a post COVID era, Jason Kluk worked towards producing esports curriculum and engagement opportunities. ESU seeks to become a leader in esports programming throughout the PA State System of Higher Education. Supporting this goal, the project provided opportunity for Jason to work with Professor Engerman and faculty instructors in co-designing learning environments for esports curriculum through scientific methods of empirical and peer-reviewed research. Ultimately, Jason played a substantial role in the development of new didactic models with online tools for an emergent digital generation of learning, career readiness and also fostered engagement of the student body by developing and managing esports-related research activities.



○ MATTHEW YASWINSKI, *Computer Science*



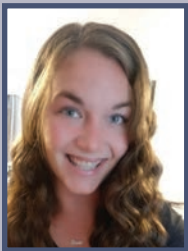
○ FACULTY APPLICANT: EUNJOO LEE, *Computer Science*

Information Hiding in Images Using Steganography Techniques

Funding Source: ESU Graduate College

Amount Awarded: \$3,000

Information hiding is the process of concealing confidential information in the codes that formulate digital images. Hash-based approaches are widely used in data security due to its low computational cost, but can be vulnerable to ensuring the security of information hidden in digital images due to its collision-resistant weakness. In this research, Matthew Yaswinski and Professor Lee present a novel hash-based approach that uses a provably secure and collision-resistant hash function based on Fast Fourier Transform (FFT). Experimental results show that this approach provides not only good security but also fast processing for encoding and decoding. While studying the previous topics, Matthew attended regular seminars to help develop algorithms for the project. Professor Lee developed an algorithm for the project in the fall 2020 semester. During the spring 2021 semester, Matthew implemented and tested the algorithm with various images and messages.



● **CHELSEA SWINNEY**, *Professional and Secondary Education*

● **FACULTY APPLICANT: MIHYE JEONG**, *Physical Education Teacher Education*

Measuring Physical Education Teachers' Behavior in Teaching Students with Disabilities

Funding Source: ESU Graduate College

Amount Awarded: \$1,500

Chelsea Swinney is a graduate student in the Adapted Physical Education (APE) track in the Professional and Secondary Education Program. She is a Health and Physical Education teacher in the Valley Forge School District and teaches general physical education as well as adapted physical education classes for students with disabilities. Chelsea had an opportunity to learn the research process through this Graduate Student Research (GSR) Summer 2020 experience. As a first step, Chelsea was involved in Dr. Jeong's ongoing research and started with pilot data; Chelsea had previously completed a Collaborative Institutional Training Initiative (CITI) course for data collection dealing with human subjects. With this, she became eligible to be involved in collecting data giving her the ability to expand her research experience and knowledge. With this summer GSR 2021 project Chelsea was involved in the IRB submission, assisted in constructing a questionnaire for the main study, and learned how to create an online survey.



● **MATTHEW YASWINSKI**, *Computer Science*

● **FACULTY APPLICANT: MD MINHAZ CHOWDHURY**, *Computer Science*

Cloud Computing Security Issues and Solutions

Funding Source: ESU Graduate College

Amount Awarded: \$1,500

We use cloud services in our daily life, knowingly or not knowingly, such as Google Drive, OneDrive, and Office 365. Such cloud services are subject to exploitation in the form of cyber attacks. As cyber security professionals, we need to work on protecting our resources in the cloud from such exploitation. A great deal of research, on the protection side, is important. The first step is simulating a particular service of cloud called software. The second step is security attack scenarios simulation, such as implementing firewall, introducing faults in the system, and introducing frauds in the client side and the provider side. In the third step the results will be presented as a conference/journal article. The graduate student researcher, Matthew Yaswinski, implemented a given idea from the instructor using the simulator CloudSim. Matthew became skillful in object-oriented design as well as gained hands-on experience of Java, which is vital for software industry jobs. Matthew got a thorough idea of cloud computing technology; he learned about cloud architecture along with software development in Java.



PROVOST'S COLLOQUIUM SERIES

The Provost's Colloquium Series finished its fifth consecutive year in spring 2021. Due to COVID-19, all presentations were conducted via Zoom.



EAST STROUDSBURG UNIVERSITY

FALL 2020

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.

Due to COVID-19, all presentations will be held via Zoom.

Presentations will be held from 5:30-7 p.m.

ACCESS THE ZOOM LINK HERE:

esu.edu/provost/colloquium-series.cfm



DESIGN THINKING IN PROBLEM SOLVING AND PRODUCT DEVELOPMENT

Wednesday, October 7

Xue Dong, M.I.D.,
Assistant Professor, Art + Design

RECLAIMING THE TOMBOY: The Body, Representation, and Identity

Wednesday, October 28



- Erica J. Dymond, Ph.D., Assistant Professor, English (left)
- Jennifer Harrison, Ph.D., Instructor, English (center)
- Holly Wells, Ph.D., Associate Professor, English (right)



OPPOSITIONAL MINDSET: Uncovering a Path to Success

Wednesday, November 4

Bonnie Green, Ph.D.,
Professor, Psychology

KIDS THESE DAYS:

Using College Student Development Theory to Strengthen Student Success

Wednesday, December 2



- Cornelia Sewell-Allen, D.Ed., Assistant Vice President for Inclusive Excellence (front left)
- Amy Freeman, D.S.W., Director, Health & Wellness (front center)
- Gene Kelly, Ph.D., Dean, Student Life (front right)
- Joseph Akob, Executive Director, Student Activity Association (back left)
- Santiago Solis, Ed.D., Vice President, Campus Life and Inclusive Excellence (back center)
- Curtis Dugar, Director, Residential & Dining Services (back right)

Notice of Non-Discrimination: East Stroudsburg University of Pennsylvania is committed to equal opportunity for its students, employees and applicants. The university is committed to providing equal educational and employment rights to all persons without regard to race, color, sex, religion, national origin, age, disability, sexual orientation, gender identity or veteran's status. Each member of the university community has a right to study and work in an environment free from any form of racial, ethnic, and gender discrimination including sexual harassment, sexual violence and sexual assault. (Further information, including contact information, can be found at esu.edu/titleix.)

In accordance with federal and state laws, the university will accept for consideration for admission and employment all qualified individuals, including those with disabilities, who are otherwise qualified to perform the essential functions of the job. (Further information, including contact information, can be found at esu.edu/titleix.)



SPRING 2021 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.

Due to COVID-19, all presentations will be held via Zoom.
Presentations will be held from 5:30-7 p.m.

ACCESS THE ZOOM
LINK HERE:
esu.edu/provost/colloquium-series.cfm

FREDERICK DOUGLASS INSTITUTE SPECIAL PRESENTATION

SISTERHOOD NOT CISTERHOOD: Dismantling Anti-Trans Ideologies of Black Womanhood

Wednesday, February 24
Victoria Thomas, Ph.D.
Instructor, Communication;
Frederick Douglass Scholar
in Residence



**BOMB CYCLONES, GLOBAL WARMING, AND
THE POLAR VORTEX**
Wednesday, February 3
Robert Cohen, Ph.D.
Professor, Physics

THEY CALLED A MATHEMATICIAN

Wednesday, March 3



Olivia Carducci, Ph.D.
Professor
Mathematics



Heidi Fareri
Executive Director
Meals on Wheels



Dylan Campagna
ESU Student
(Math Major)

UNDERSTANDING THE IMPORTANCE OF CREATING ACCESSIBLE CONTENT

Wednesday, March 24



Kim Roselli, M.Ed.
Coordinator
Assistive Technology



Jill Boyle, M.Ed.
Coordinator
OASIS



Sandy Shaika
Sign Language
Interpreter

OASIS: Accessible Services Individualized for Students



BUBBLES AND FOAMS:
On the Role of Chance and Change in
Scientific Fieldmaking
Wednesday, March 31
Christopher Dubbs, Ph.D.
Assistant Professor, Mathematics Education



MOVING BEYOND RHETORIC:
Are we really going to help?
Wednesday, April 7
R. Samantha Williams, LPC, CCTP, BC-TMH
Counselor/Instructor
Counseling and Psychological Services (CAPS)



FOCUSING THE GREEN BLUR:
Cultivating Knowledge and Awareness of Plants
Wednesday, April 28
Emily Rollinson, Ph.D.
Assistant Professor, Biological Sciences

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In accordance with federal and state laws, the university will not tolerate discrimination. This policy is placed in this document in accordance with state and federal laws including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Civil Rights Act of 1991 as well as all applicable federal and state executive orders.



For assistance or special accommodations, please contact ozgur@esu.edu or 570-422-7908. Accommodations may include, but are not limited to, services for physical, cognitive, visual or auditory assistance.

Joni Oye-Benintende

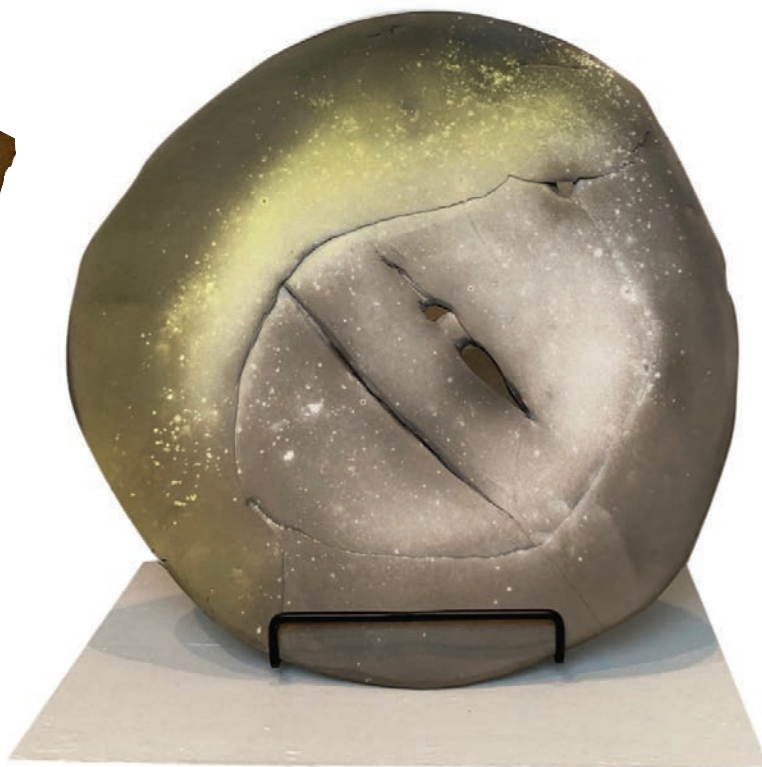
is Hopeful



Joni Oye-Benintende retired from ESU with her last semester in spring 2021 after completing 25 years of teaching and service at ESU. Fall 2021 was the first fall semester when she did not return to campus to teach. Oye-Benintende first came to ESU in 1996 as an adjunct faculty member working part time to teach ceramics. She later became full time in 1998.

Joni Maya Oye was born in Philadelphia. She graduated with a Bachelor of Fine Arts from Washington University in St. Louis School of Fine Arts and received her Master of Fine Arts from Tama Fine Art University in Tokyo, Japan where she learned the technique of raku, a method when glazed ceramics are taken from the kiln while still red hot and placed in sawdust or other material which creates interesting color and texture to the piece. Art had always been a part of her life; prior to teaching she crafted small ceramic goods and sold them at local fair shows for a living.

Pieces of art from Oye-Benintende's show 25 > in the Madelon Powers Art Gallery, which was a survey of her sculpture and pottery from her time since starting at ESU.



These days Oye-Benintende is still learning the technique of retirement. It takes time to learn the pace of a slower life, without deadlines or pressures of schedules and to-dos. Yet she is still creating her art and has plans to show in the future; creativity is something that endures. She is also interested in teaching in the form of workshops and short courses as she misses teaching very much.

She would like to travel more, taking advantage of her new freedom. She has applied for an artist-in-residence in Shikoku, Japan where she hopes to continue her Japanese language skills as well as her art. She would also like to travel more in Europe.

During her tenure at ESU, Oye-Benintende served on many committees providing service, including being one of the original founding members of the Provost's Colloquium Series, established in 2016. Her dedicated effort helped bring conceptual and technical support to the series to shape it to what it is today.

Though she has retired from ESU, she remains part of our community and will remain in the wider community of the Stroudsburg area and Monroe County, bringing her creativity and skill to a wider audience. She is hopeful for the future.

SPOTLIGHT ON EXTERNAL GRANTS: ESU UPWARD BOUND



*Largest external grant awarded for 2020-21
& ESU's Longest Running Sponsored Program*

Upward Bound

PROJECT DIRECTOR:

JANINE HYDE-BRODERICK

College of Education

ASSISTANT DIRECTOR: MARYANNE KASH

College of Education

Funder: U.S. Department of Education, Office of Postsecondary Education

Grant Amount: Total \$495,208

The mission of ESU Upward Bound is to promote intellectual curiosity and academic excellence among high school students in the Monroe County and Lehigh Valley target areas, providing them with the ability to academically engage, make prudent choices, and develop the technical skills necessary to succeed at the high school and university levels.

Upward Bound was founded by the Educational Opportunity Act of 1964 as part of President Lyndon B. Johnson's War on Poverty initiatives and provides fundamental support to participants in their preparation for college entrance. ESU became a host university to Project Upward Bound in 1974, and it is the longest running sponsored program at ESU. Upward Bound provides fundamental support to participants in their preparation for college entrance and serves high school students from low-income families and families in which neither parent holds a bachelor's degree (first generation students). The goal of Upward Bound is to increase the rate at which participants complete secondary education and enroll in and graduate from institutions of postsecondary education. The ESU program services include: a six-week summer residential component; 16 Saturday College sessions; bi-monthly individual high school conferences; tutoring, advising and assessment; cultural events and trips; financial advising; SAT prep; college tours; college application and selection assistance; plus scholastic advising.

100% of ESU Upward Bound 2021 graduates are now attending college!

Right: 2021 Upward Bound Alumni Party; current ESU students and their majors (left to right): John Santana (Political Science), Maryanne Kash (UB Assistant Director), Yadiel Aponte-Rosado (Physics), Zachary Lachowicz (Biology), Brooke Langan (Dean, College of Education), and Nailah Hardison (Psychology).



Far right: UB students at renaissance fair Mahx Baptiste, Christopher Catalano, and Brian Mendez



Right: 2021 UB Graduates and their current universities. Front row: Sakinah Davis (Spelman University) and Sarah Ramadan (Bloomsburg University). Back row: John Santana (ESU), George Kataw (ESU), Rosa Torres (University of Notre Dame), Stephanie Rodriguez-Solis (Emory University), Shalay Woodson (University of Scranton), Yadiel Aponte-Rosado (ESU), Gilberto Alvarado (Bucknell University), Lizbeth Pena-Morales (Denison University), Makayla Hernandez (Delaware Valley University), Adrianny Almonte-Acosta (Kutztown University), Katelyn Baez (Denison University).



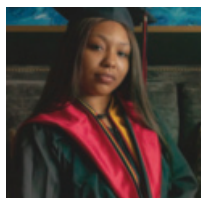
ESU CREATES!

ESU is proud to showcase the innovative programs that fuel the passion for learning and demonstrate the university's entrepreneurial mindset. ESU faculty, students and staff navigated through extraordinary challenges in FY 20-21. Faced with a global COVID-19 pandemic, pivoting from face-to-face classes to remote learning access, and juggling personal and professional responsibilities from home; the year demonstrated the resilience of the ESU Warrior family. It also showcased the influence of innovation that inspired the following Research, Scholarship and Creative Activity.

ENTREPRENEURSHIP AND INNOVATION

PA STATE SYSTEM OF HIGHER EDUCATION STARTUP CHALLENGE

The PA State System of Higher Education Student Startup Challenge went virtual in FY 20-21. The competition included students from the 14 State System universities. A total of six ESU students competed in the Startup Challenge. Two ESU students won \$500 each in the 1-minute pitch competition: Sierra McCown, a graduate student majoring in Management and Leadership, for her pitch on Lake Nevaeh, a company she co-founded that provides alkaline water and wellness products; and Ezra Rodriguez, a sophomore majoring in Digital Media Technologies, who won for his pitch on his company Plant Based Basics (PB Basics), a company that manufactures clothing entirely made from recycled plastic bottles. ESU also applied for and was awarded a two-year contract to serve as State Coordinator for the PA State System of Higher Education Startup Challenge for 2022 and 2023.



Sierra McCown



Ezra Rodriguez

Willis Sales and Consulting, LLC; Enhanced Ecomm; and Blossom and Buzz Beekeeping, LLC, bringing the total number of companies participating to 22. The Business Accelerator hosted three virtual workshops with average attendance by seven companies. In FY 20-21, eight companies participating in the Pocono Mountains Keystone Innovation Zone were awarded \$445,448 in tax credits.

BIZZY AWARDS: BEST NEW BUSINESS

Verde Mantis, LP, mantis3dprinter.com, a 3D manufacturing company participating in the ESU Business Accelerator, earned top honors in the Best New Business category during the Pocono Chamber of Commerce 2020 Bizzy Awards held on September 17 at Kalahari Resort Pocono. Verde Mantis, a premier 3D printer manufacturer in Pennsylvania, created the Mantis, the world's easiest to use 3D printer. The Mantis eliminates the 3D printing learning curve and allows anyone to 3D print in minutes. The company was founded in 2019 by Joseph Sinclair. Earlier this year, in response to the need for COVID-19 PPE, Verde Mantis leveraged its engineering expertise with the innovative design techniques from ESU's art + design department to create prototypes of face shields, stethoscopes, and respirators needed by the Pocono and Lehigh Valley medical community.



Pictured at the Bizzy Awards ceremony: Jamie Kizer, interim director of entrepreneurship, ESU; Joseph Sinclair, president, Verde Mantis; Kenneth Long, interim president, ESU; Wes Hart, marketing director, Verde Mantis; Mary Frances Postupack, vice president, economic development and entrepreneurship.

ENTREPRENEURIAL LEADERSHIP CENTER

The Entrepreneurial Leadership Center (ELC) continued the Entrepreneurial Leadership Series with six virtual workshops. The Entrepreneurship Club met virtually throughout the year and the second Global Entrepreneurship Week was held in November 2020. Hustles and Gigs was held virtually on November 10 with nine student vendors and over 20 shoppers/attendees. Dragon's Den also went virtual with three students participating. Hustles and Gigs and Dragon's Den were a collaborative effort with the

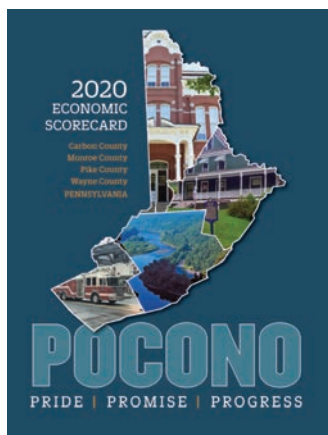
Student Activity Association, Career and Workforce Development, the Entrepreneurship Club and the National Council of Negro Women (NCNW) Club.

ESU BUSINESS ACCELERATOR

The Business Accelerator had a 76% occupancy rate and welcomed four new early-stage companies to the program: Mornstar Solutions;

BUILDING INFORMATION MODELING: GLOBAL COLLABORATION

The global partnership between ESU and Advenser Technology Services, Inc. was launched with the signing of the Memorandum of Agreement (MOA) on April 22, 2021 to provide a joint Certification Program in Building Information Modeling (BIM).



The BIM process provides a data-rich, intelligent, 3D representation of a project that is widely utilized in the architecture, engineering, design and construction (AEC) industries. ESU was introduced to Advenser through the PA Department of Community and Economic Development International Business Development Office. Advenser has offices in Pennsylvania; Victoria, Australia; Dubai, UAE; and an engineering excellence center located in the city of Cochin, State of Kerala, India. The company has more than 250 engineers serving more than 100 clients across the globe. Advenser will develop a BIM Training lab in the ESU Innovation Center with 20 terminals for training, and with the support of their Subject Matter Experts (SME) through a 'train the ESU trainers' program.



Kenneth Long, interim president, ESU; David Briel, deputy secretary, PA DCED Office of International Business Development; and Biju Mattamana, president, at Advenser.

DR JANE HUFFMAN WILDLIFE GENETICS INSTITUTE

The Tick Research Lab of Pennsylvania in partnership with ESU was proud to announce that it is the largest Tick Lab in the USA. During FY 20-21, the lab received an additional \$500,000 state grant from the PA Department of Health to continue offering free tick testing to residents of PA through the PA Tick Research Laboratory. This is the third consecutive year that ESU received

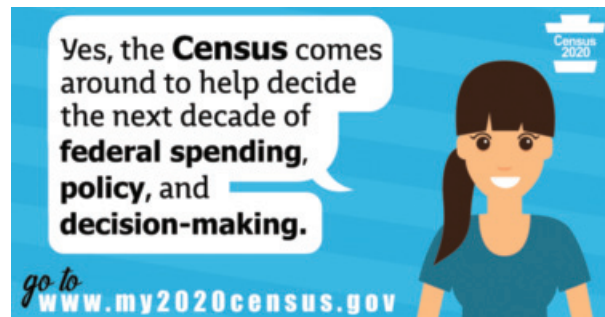


Destiny Sample, Sarah Schwartz, Nicole Chinnici, Samantha Marin, Jamie Delcane and Elizabeth Calvente

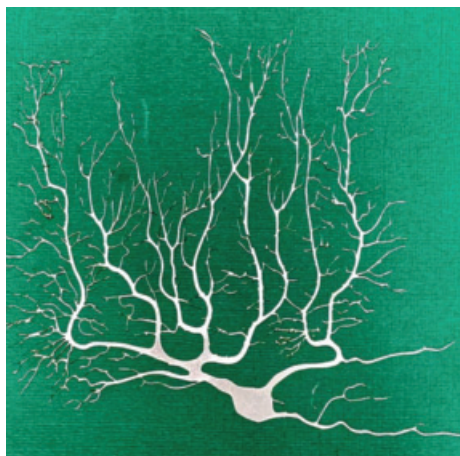
\$500,000 in state funding with \$1.5M in total grant funding received to date. During FY 20-21, the Lab experienced a 36.7% growth in revenue from tick testing and a 32.6% increase in revenue generated from forensic casework. Overall, total revenue for FY20-21 was \$697,069.64 which represents a 17.8% increase over FY19-20.

NEW MIND DESIGN

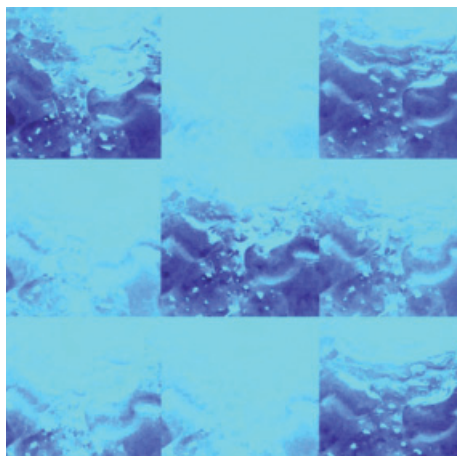
New Mind Design (NMD), the ESU Department of Art + Design student-run design agency, collaborated with the Monroe County Census Team to develop a social media campaign to encourage residents of Monroe County to register with the census. The initiative was part of a \$20,000 grant awarded to ESU by the PA Department of Community and Economic Development to increase census awareness. Jeffrey Ruth, professor of Modern Languages, Philosophy and Religion at ESU, assisted with the Spanish translation of the Census Campaign Ads.



CREATIVE EXHIBITS AND PERFORMANCES



Networks, Rivers, Neurons



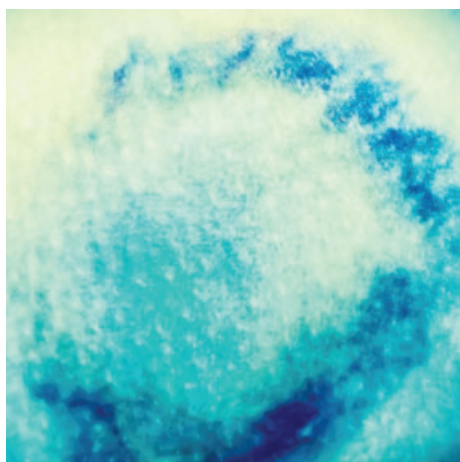
Video Still from a Glacier's Last Breath



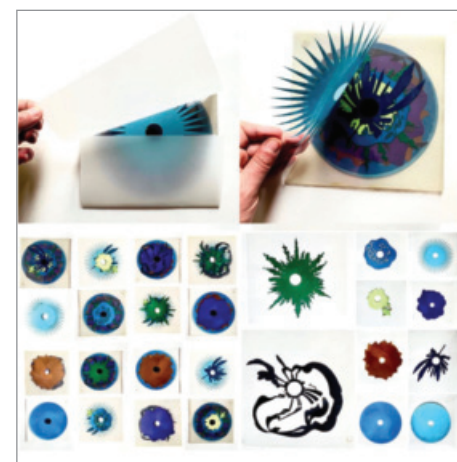
3D Printed Breast, Milk Ducts, and Tumor



Nine



Video Still from Blood Beneath the Ice



Earth's Eye: Layers of Landscapes and Time

DARLENE FARRIS-LABAR

Art + Design

Living with Worlds... As They End

*Virtual Online Exhibition -
August 11, 2020 – May 7, 2021*

This was an ongoing collaborative project that originated through the circulation of artwork between artists located in the United States and the United Kingdom. Due to COVID-19, the in-person exhibitions were cancelled as far as Brighton, England. A virtual exhibition was then established with a catalogue of the show. The exhibition is focused on one slow-moving catastrophe: sea-level rise and the concomitant threat of climate change and explores what it means to live in a world that is ending around us, with our full knowledge. The exhibition concluded during a time when the artists' long-simmering concern about climate change was meeting the acute flares of anger, panic, and grief that came with the COVID-19 pandemic, and the righteous protests that followed multiple high-profile murders of Black Americans by police.

STEPHANIE FRENCH

Theatre, Music, and Dance

Windows – a Film

Zoom – September 20, 2020 – December 6, 2020

The project was inspired by true events, the interweaving stories of a group of college students during the pandemic reveal what is really going on behind the zoom windows where they dwelled. Themes of racism, mental health, economic disparities in technology and education, sexual assault, and self-harm overlap and intersect. Germ-free, it defies social distancing to find many points of connection in a day in the life of students at a mid-sized university.



Windows – A Film by Stephanie French



(D)Th)ink displayed at the Earth Speaks VI exhibition

JONI OYE-BENINTENDE

Art + Design

Earth Speaks VI

Dunning Gallery, Northampton Community College, Monroe Campus – April 6 – May 29, 2020

“Invitation to (D)Th)ink” was selected for this juried exhibition which featured artists’ responses to climate change and environmental issues. The piece was inspired by the disposable clay chai cups of India. In an end to support a sustainable cycle, entire families of potters are supported by the production of these cups which are used to serve chai, ground up after disposal, and mixed into clay that will form the production of more cups.

Art of the State

State Museum of Pennsylvania, Harrisburg, Pennsylvania – September 13, 2020 – January 17, 2021

“Kamidana 4” was selected for this juried exhibition from artists statewide. It is one of a series of wall pieces inspired by the Shinto shrines found in many Japanese homes, martial arts studios and other businesses.



Kamidana Shinto Shrine by Joni Oye-Benintende

PUBLISHED BOOKS

BY MEMBERS OF THE ACADEMIC COMMUNITY

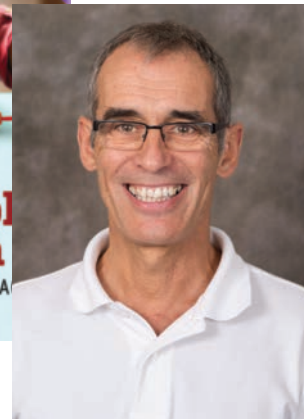
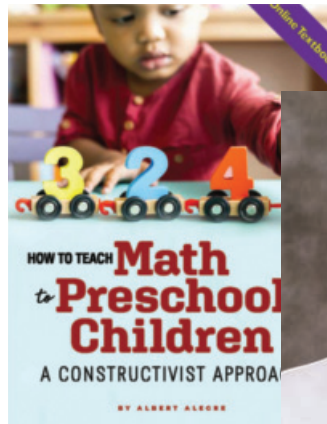
ALBERTO ALEGRE

College of Education/Early Childhood and Elementary Education

How to Teach Math to Preschool Children: A Constructivist Approach

Published by Sentia Publishing Company

This book is aimed at preschool teachers and education students. It explains how to teach preschool children math in a child-centered, hands-on, adventure-based, fun way. The book offers specific teaching methods for preschool teachers based on play, exploration, and facilitation by adults. It also provides a range of math activities grounded on the children's interests in games, stories, adventures, music and movement, arts and crafts, and explorations of natural phenomena. These methods use developmentally appropriate and scientifically based practices and increase children's attention, exploration, and elaboration.



CHRISTOPHER DUBBS

College of Arts and Sciences/Mathematics

Mathematics Education Atlas: Mapping the Field of Mathematics Education Research

Published by Crave Press

The field of mathematics education is the product of many people writing around some (disparate) ideas that have congealed into the semblance of a thing that looks solid, that looks fixed. The field is, however, a foam: a volatile substance made from many bubbles (foci) emerging, popping, merging, and splitting. Following in the genealogical tradition of Michel Foucault, Dubbs looks back at the emergence of this field called mathematics education research to trace the emergence of foci of study. By looking at those articles published between 1970 and 2019 in the *Journal for Research in Mathematics Education* (JRME), as well as those published since 2010 in for the learning of mathematics (flm) and Educational Studies in Mathematics (ESM), the results of this citation network analysis show that the foci of the field have not been fixed nor is there consensus around so-called proper foci today. This fluid and dissensual nature of the evolving field gives hope. What mathematics education research is today is not a natural inevitability, but the product of human action, the collision of incident, orthogonal, and/or opposite forces, and while its trajectory is tied to its origins, it is not tied to it deterministically. The field of mathematics education research, as it has been, limits what we can say is mathematics education research, see as counting as mathematics education research, think as mathematics education, and do in the name of mathematics education research. These limits on what can be seen, said, thought, and done in the name of mathematics education research, what is (non)sensical, constitute a distribution of the sensible. This book serves as an outline and perturbation of those sensible limits.



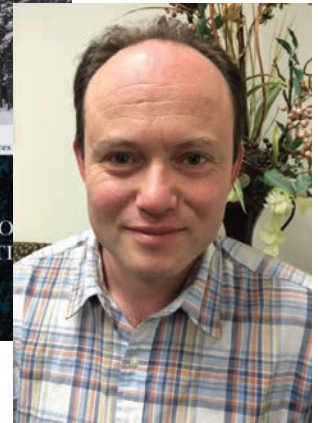
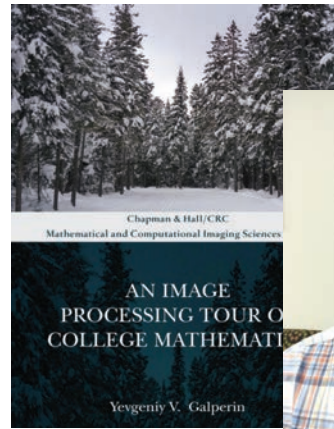
YEVGENIY GALPERIN

College of Arts and Sciences/Mathematics

An Image Processing Tour of College Mathematics

Published by Chapman and Hall/CRC Press

An Image Processing Tour of College Mathematics aims to provide meaningful context for reviewing key topics of the college mathematics curriculum, to help students gain confidence in using concepts and techniques of applied mathematics, to increase student awareness of recent developments in mathematical sciences, and to help students prepare for graduate studies. The topics covered include a library of elementary functions, basic concepts of descriptive statistics, probability distributions of functions of random variables, definitions and concepts behind first- and second-order derivatives, most concepts and techniques of traditional linear algebra courses, an introduction to Fourier analysis, and a variety of discrete wavelet transforms – all of that in the context of digital image processing.



MARGARET MULLAN

College of Arts and Sciences/Communication

Seeking Communion as Healing Dialogue: Gabriel Marcel's Philosophy for Today

Published by Lexington Books

Seeking Communion as Healing Dialogue: Gabriel Marcel's Philosophy for Today discusses society's problems with interpersonal communication, arguing that these issues are more deeply rooted in problems in being. Mullan draws on the work of Gabriel Marcel to explore the meaning of body, of being with, and of being at all in today's world, answering questions about why we are often unable to dialogue with the people around us, why we feel disconnected and alone even in an increasingly technological world, and how these changing technologies expose and sometimes exacerbate our weak connections to others. Engaging Marcel's reflective method and theory of communion, Mullan explores how we seek communion amid technology and proposes that Marcel's reflections are generative contributions to the understanding and study of communication, offering a way to seek healing dialogue in present day. Scholars of communication, philosophy, conflict studies, and media studies will find this book particularly useful.



Dr. Mullan was awarded a prestigious prize for her book - Top Single Authored Book of the Year award for the National Communication Association, Communication Ethics Division.



**WARREN E. '55 &
SANDRA HOFFNER
SCIENCE AND
TECHNOLOGY CENTER**

PUBLISHED BOOKS BY MEMBERS OF THE ACADEMIC COMMUNITY



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