

FY 2018 and FY 2019



Office of Research & Sponsored Programs



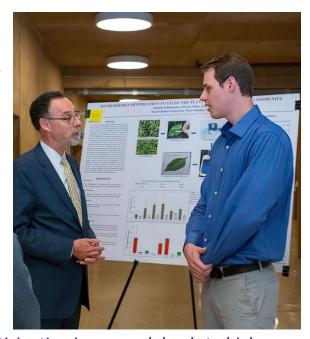


Office of Research and Sponsored Programs Ehinger Annex, Room 111 700 South Church Street West Chester, PA 19383

Message from the President

Christopher M. Fiorentino, Ph.D.

All of us at West Chester University share the common goal of developing graduates who succeed personally and professionally and contribute to the common good. Our mission statement recognizes that learning occurs not just in the classroom, but outside of it, as well. When students engage in scholarly and creative opportunities, such as by participating in the Summer Undergraduate Institute or fall and spring Research & Creative Activity Days, they are developing skills that are critical to success in the



workplace. We also know that student participation in research leads to higher retention and graduation rates.

I had the privilege of attending Fall Research Day 2019 and I was very impressed by the research and creative work presented by our student researchers in a range of academic disciplines, from biology to painting. I also was impressed by the dedication shown by their faculty advisors in guiding and encouraging these students.

This year's annual research report spotlights some of the work that our faculty and students are achieving in laboratories, concert halls, and studios. You also will learn about some of the new books our faculty have published in the past year. Our faculty and students are doing work that positively impacts the Commonwealth of Pennsylvania, the nation, and the world. On behalf of the entire University, I would like to thank the many government agencies and other organizations, as well as individuals, who support our scholarly and creative activities. Faculty and student research contributes greatly to the vibrant learning community that is West Chester University.

Recognizing the Rich Diversity of Scholarly Activity at WCU

Nicole S. Bennett, Ph.D.

WCU teacher/scholars from every academic unit hone their professional skills by keeping abreast of innovations in their disciplines and advance our mission for student success. The WCU Research and Creative Activity Report (FY 2018 and FY 2019) provides a snapshot of this thriving enterprise.

Our faculty are involved in a wealth of scholarly activities that are as diverse as they are. Whether writing manuscripts, doing fieldwork, composing new music, creating visual and performing arts, or collecting and analyzing data, WCU faculty members work tirelessly to create new knowledge and contribute to the good of the Commonwealth, the nation, and the world.

WCU ORSP Mission Statement

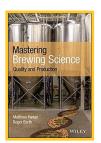
It is the mission of the West Chester University Office of Research and Sponsored Programs to facilitate, coordinate, and safeguard the institution's research and creative activity enterprise in the interest of supporting faculty as they train students to succeed personally and professionally and contribute to the common good.

We provide faculty the following:

- Resources and assistance with proposal development.
- Training and monitoring of research and creative activity compliance.
- Opportunities to form interdisciplinary teams.
- Opportunities to develop intellectual property.
- Opportunities to integrate research and creative activity into coursework.
- Opportunities to collaborate with undergraduates.

Celebrating Faculty Books

WCU Authors and Editors share their unique perspectives on matters that are of interest to the public and at the forefront of their disciplinary fields.



Barth, Roger

Department of Chemistry; CSM

Mastering Brewing Science

A comprehensive textbook for the brewing industry, covering processes, raw materials, packaging, and everything in between, including discussion of essential methods in quality control and assurance.



Buckelew, Mary & Ewing, Janice

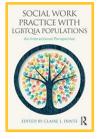
Department of English; CAH

Action Research for English Language Arts Teachers, 1st Edition
A guide for teachers to navigate the rapidly changing landscape of English
Language Arts education, providing a fresh perspective on what it means to be a
teacher researcher in ELA contexts.

"Mastering the science of raw materials and the process steps of beer production is essential to making quality beer."

Mastering Brewing Science





Dente, Claire L.

Department of Undergraduate Social Work; CESW Social Work Practice with LGBTQIA Populations

An overview of key practice issues for social workers interacting with LGBTQIAP+ clients. Each chapter considers the experiences and unique needs of these clients in diverse contexts and at multiple target levels of intervention.



Donkor, Martha

Department of Women's and Gender Studies; CAH

Child Rape in Ghana: Lifting the Veil

An analysis of the etiology of child rape in Ghana within the framework of rape culture and the application of feminist perspectives and psychological theories to laws in Ghana designed to protect children.



Hyers, Lauri L.

Department of Psychology; CSM

Diary Methods: Understanding Qualitative Research
An exploration of the use of qualitative diary research as a unique tool with strengths that set it apart from other research methods.



Leveille, John

Department of Anthropology and Sociology; CSM

Searching for Marx in the Occupy Movement

A critical, participant observation study of the Philadelphia branch of the Occupy

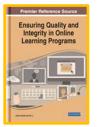
Wall Street movement.



"Sense of well-being is affected by the interacting effects of genetic heritage, economic circumstances, social relationships, emotional bonds, cultural values, personality traits, and spiritual beliefs."

— Ageing, Physical Activity, and Health



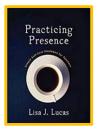


Li, Rui & Smidt, Esther

Office of Distance Education and Department of Languages & Cultures; Academic Affairs and CAH

Ensuring Quality and Integrity in Online Learning Programs

A reference that delves into the requirements and essential technologies needed to create and encourage effective and inclusive online educational programs.



Lucas, Lisa J.

Department of Early & Middle Grades Education; CESW *Practicing Presence: Simple Self-Care Strategies for Teacher.* 1st Ed. Ideas, exercises, checklists, personal anecdotes, and practices teachers can use to reframe and establish a mindset that will enhance their focus and engagement in the classroom.



Volkwein-Caplan, Karin & McConatha, Jasmin Tahmaseb

Department of Psychology and Department of Kinesiology; CHS

Ageing, Physical Activity and Health: International Perspectives

An examination of the challenges presented by an ageing global population, our varying expectations of healthy ageing, and the importance of exercise and physical activity for the elderly.

Continued on page 14.

Catalyzing Innovation

Provost's Research Grants (PRG) seed and sustain research and creative activity that promotes faculty development and has direct student impact.

PRGs Awarded in FY 2019.

Name (Department; College)	Project Title		
Amer, Mahmoud and Cabrera, Maria (Languages and Cultures; CAH)	Investigating the use of a new online communicative proficiency-based assessment tool for language placement		
Burris, Jade (Early & Middle Grades Education; CESW)	Learning the ABC's of STEM in Preschool by Applying the "E"		
Case, Constance; Studlien-Webb, Gretchen; and Urrutia, Maria (Theatre & Dance; CAH)	Carnival of Ruin		
Cena, Lorenzo (Health; CHS)	International Collaboration on Silica Exposure from Artificial Stone		
Chang, Janet (Psychology; CSM)	Expressive Helping in First-Generation College Students		
Condliffe, Simon and Saboe, Matthew (Economics & Finance; CBPM)	An Empirical Co-Investigation with Nemours A.I. DuPont Children's Hospital into the Patterns of Health Care Utilization and Expenditures of Children		
Gawrysiak, Michael (Psychology; CSM)	Improving Treatment for Opioid Addiction: A Pilot Mindfulness-Based Relapse Prevention (MBRP) Study		
Neale-McFall, Cheryl (Counselor Education; CESW)	Student-Parents Experiences at WCU: Shining a Light on an Invisible Population		
Ngo, Linh (Computer Sciences; CSM)	Enabling HumanIn-the-Loop Control for Large-Scale Detection Systems		
Ocean, Mia (Graduate Social Work; CESW)	Exploring the Black Graduate Social Work Student Experience with Cross Campus Comparison		
Owens, Eric (Counselor Education; CESW)	Early Intervention with Adverse Childhood Experiences: An Exploratory Study		
Pistos, Constantinos (Chemistry; CSM)	Toxicosurveillance and Description of Clinical Effects of Suspected Synthetic Cannabanoid Exposure		
Silverman, Adam (Music Theory, History & Composition; WSM)	Recording of "That Radiant Outburst"		
Tinago, Chiwoneso and Sankaran, Gopal (Health; CHS)	Developing a Scripted Educational Short Film for Sexual Reproductive Health in Uganda		
Yocom, Danielle (Nursing; CHS)	Digital Storytelling in Prelicensure Nursing Students: Learning to Care for Older Adults		
Zhu, Lei and Du, Wei (Economics & Finance; CBPM)	Technology Enthusiasm and International R&D Spillover: Evidence from Bitcoin		



Professional Recording of Original Compositions.

Adam Silverman (Music Theory, History, & Composition; WSM) has been supported by the PRG program to create and disseminate new works that explore the use of percussion instruments in concert. These include *Percussion Music, Vol. 2* and *The Radiant Outburst*, a composition for clarinet, cello, piano, and marimba. The international release of this music will help him to document his creative work and make it available to a broader audience.

PRGs Awarded in FY 2018.

Name (Department; College)	Project Title		
Antonio, Michael (Criminal Justice; CBPM)	Examining Interactions between Parole Agents and Community Supervised Offenders: Applying Recognized Techniques for Success into Practice		
Bratina, Michele (Criminal Justice; CBPM)	An Examination of the Crisis Intervention Team (CIT): Police and Community Behavioral Health Partnerships across Rural Pennsylvania		
Chandler, Jennifer (Biology; CSM)	Consequences of Age- vs. Size-based Harvest Criteria for Sustainability of the American Ginseng Trade		
Donkor, Martha (Women's & Gender Studies; CAH)	Old Age Poverty: A Case Study of Rural Women in Ghana		
Fowkes-Godek, Sandra (Sports Medicine; CHS)	Racial Differences in Resting Levels of Renin and Aldosterone, and Their Relationship to Sweat and Urine Electrolyte Losses During Exercise		
Fritschle, Joy (Geography & Planning; CBPM)	An Evaluation of Forest Restoration Efforts in the Brandywine Creek Watershed, Chester County, PA		
Goodson, Felix (Chemistry; CSM)	Fulvenes as an Entry Point to the Synthesis of Methylene Bridge and Bridgehead Substituted Diarylnorbonadiene Derivatives		
Hernandez, Gloria (Languages & Cultures; CAH)	Book Manuscript: Savoring God. A Theopoetic.		
Holt, Harry (Health; CHS)	Best Practices in the Delivery of Medication Assisted Treatment Services		
Park, Innhwa (Languages & Cultures; CAH)	Workplace Meeting Interactions		
Patterson, Dawn (Special Education; CESW)	Innovative Instruction for Grade-appropriate Academic Content to Students with Autism		
Roman, Aaron (Communication Sciences & Disorders; CHS)	The Impact of Audibility and Multimodal Cognitive Processing Measures		
Ruby, Tabassum (Women's & Gender Studies; CAH)	Religion and Globalization: The Silent Transformation in the Lives of Pakistani Women		
Sawyer, William (Physics; CSM)	Experimental and Theoretical Verification of a Critical New Method to Create Enhanced Ferroelectricity in Lead Free Perovskites		
Silverman, Adam (Music Theory, History, & Composition; WSM)	"Percussion Music, Vol 2" Compact Disc		
Staulters, Merry (Special Education; CESW)	The Impact of a Literacy Based Service-Learning Experience on Teacher Candidates and Justice Involved Youth		
Udell, Larry (Philosophy; CAH)	Taking Employment Seriously: On John Rawls and the Full Employment Principle		

Building Partnerships

Faculty Forums provide space for faculty to present the results of their work, share ideas, and discuss needs in the context of a research and creative activity theme that crosses several disciplines.

Participants are given the opportunity to begin conversations with colleagues who they have never met in the interest of igniting collaborations. Potential community partners are also invited to attend.

FY 2019 Faculty Forums covered a diversity of topics including Research on Distance Education, the YMCA of Greater Brandywine, the Opioid Crisis, Food and Water Security, and Community and Student Mental Health.

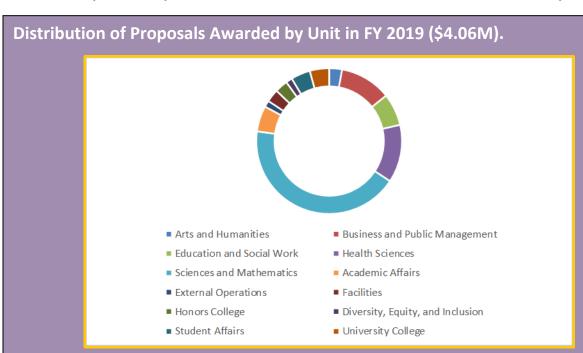
WCU College of Health Sciences and YMCA of Greater Brandywine.

After the Faculty Forum featuring the regional YMCA, Scott Heinerichs, Dean of the College of Health Sciences launched a call for proposals for Community Engaged Research to further encourage the creation of collaborations between WCU and the YMCA. As a result, Drs. Jeanie Subach and Sandy Sarcona (Department of Nutrition) implemented a 4-week nutrition and culinary education curriculum for 7th graders.



Highlighting External Grants

Federal, State, and Foundation Awards are submitted and earned by faculty and staff from all areas of the university.



University Unit	Number	Amount	
College of Arts and Humanities	2	\$6,000	
College of Business and Public	8	\$106,220	
Management			
College of Education and Social	5	\$563,230	
Work			
College of Health Sciences	9	\$72,780	
Honors College	2	\$9,600	
College of Sciences and	30	\$2,110,182	
Mathematics			
University College	3	\$723,267	
Academic Affairs	4	\$45,500	
Office of Diversity Equity and	1	\$16,507	
Inclusion			
External Operations	1	\$377,000	
Facilities	2	\$15,631	
Student Affairs	3	\$9,407	

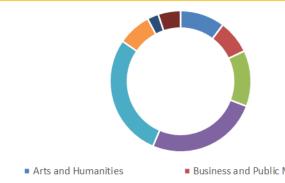
Peer Support for Adolescent Mothers in Zimbabwe.

Chiwoneso Tinago (Department of Health; CHS) was awarded a Bill and Melinda Gates Foundation Grand Challenges Exploration Grant to develop and test a community-based peer

support intervention for adolescent mothers in Harare, Zimbabwe. This project was performed in collaboration with faculty and research associates from the University of South Carolina and the University of Zimbabwe along with the non-profit organizations, SpeakUp! Pennsylvania and the Organization of Public Health Intervention and Development of Zimbabwe. WCU graduate students, Ashley Cifarelli, Shannon Fyalkowski, and Victoria Pauline assisted with data analysis and session plan curriculum development.



Distribution of Proposals Awarded by Unit in FY 2018 (\$2.45M).



- Education and Social Work
- Sciences and Mathematics
- Student Affairs
- Business and Public Management
- Health Sciences
- Academic Affairs
- University College

University Unit	Number	Amount
College of Arts and Humanities	4	\$38,500
College of Business and Public Management	3	\$119,152
College of Education and Social Work	4	\$809,870
College of Health Sciences	10	\$332,568
College of Sciences and Mathematics	11	\$554,468
University College	2	\$434,195
Academic Affairs	3	\$128,668
Student Affairs	1	\$29,996

Regenerative Electroless Etching.

Kurt Kolasinski (Department of Chemistry; CSM) works with students at WCU to improve a process that could make applications of nanostructured silicon in, e.g., water purification, drug delivery, nanomedicine and rechargeable batteries, more economical and versatile. This new process called ReEtching has been developed through



collaborative research based at WCU. ReEtching is an electrochemical process that produces materials with structural features of different length scales ranging from one billionth of a meter (nanometer) to several millionths of a meter (micrometer) scale.

Creating Awareness and Participation Opportunities for Persons with Disabilities in Educational Settings and Other Community-Based Activities.



With support from the Carnegie African
Diaspora Program, Beatrice Adera
(Department of Special Education;
CESW) collaborated with colleagues
from the Special Needs Education
Department at the Jaramogi Oginga
Odinga University of Kenya on

curriculum development to revise the Master's and Ph.D. programs. Beatrice also collaborated on a preliminary needs assessment for this research program and is pictured here with disability group leaders from the local community.

The Economic Impact of Pennsylvania's Rural Community College Campuses.

Matthew Saboe (Department of Economics and Finance; CBPM) has been supported by funds from the Center for Rural PA that will be used to generate a comprehensive description of rural community college locations in Pennsylvania and then measure the economic impact of these campuses on their local municipalities. This information will be used to make relevant recommendations to key community college stakeholders about current policy that impacts rural community college locations.



Act 101 Program.

John Craig (Academic Success Program; UC) has received funding from the PA Higher Education Assistance Agency to provide for selected students, who do not meet current admissions requirements but who still show the potential to succeed in college based on other indicators such as class rank and grades in core subject areas, the opportunity to attend West Chester University. The program assists students in developing basic academic skills in reading, writing, mathematics, and speaking. In addition, the program provides academic support for students through academic advising, tutoring, mentoring and academic monitoring, counseling, financial aid assistance, and cultural enrichment.





Assessing the impact of Spotted Lanternfly (*L. delicatula*) on forest species in the Mid-Atlantic.

Jennifer Chandler (Department of Biology; CSM) received an award from the USDA to work with students to improve the current knowledge base and response options for the proliferation of spotted lanternflies in northeastern forests. Her lab records several metrics including tree species composition, size, crown health, damage class, woody regeneration, and invasive species cover. Additionally, the lab is monitoring *L. delicatula* populations using sticky bands and assessing their feeding. This research will aid in the development of potential management options by providing a better understanding of the impacts on forest trees and future regeneration.

Shakespeare in The Park.

Charles DelMarcelle (Department of Theater and Dance; CAH) was funded by the West Chester Downtown Foundation to support the Summer Classics Festival, an outdoor performance of Shakespeare's plays. In 2019, students (pictured here) performed A Midsummer Night's Dream to a packed audience.





2019 Arches Topology Conference.

Jeremy Brazas (Department of Mathematics; CSM) received an NSF award for the second Arches Topology Conference, held in Springdale, UT in April 2019. This conference brought together international and domestic experts in algebraic topology and geometric group theory to share the state-of-the-art knowledge on the interactions between the fields of topological group theory and geometrical group theory. This award supported travel expenses for graduate students and early career researchers.

Real Achievement Matters (RAM) Initiative at WCU.

Monica Lepore (Department of Kinesiology; CHS) has created a program to bring small numbers of students with intellectual disabilities to WCU. These students concentrate in one of two areas of study, participate in internship experiences, and



attend co-curricular events and clubs. The project, which has been funded by the DREAM Partnership/ACES and the PA Inclusive Higher Education Consortium, currently supports 3 students and 30 peer mentors. Monica works with undergraduate and graduate research students to understand how students, faculty, mentors, and families feel about the quality of support.



State of Delaware Psychosis Services Evaluation and Richard Park Elementary

Stevie Grassetti (Department of Psychology; CSM) won two awards to support research collaborations with community partners who share her lab's investment in promoting evidence-based psychological care for underserved youth and families. The first project

is a 4-year evaluation of a state system of therapeutic care for youth and young adults who are classified as clinical high risk for psychosis. The second project evaluates the implementation of a universal psychological assessment protocol and tiered system of therapeutic services for trauma-exposed elementary students. WCU students serve key roles as research assistants, community collaborators, and clinicians-in-training.

Creating a More Sustainable Campus

Sustainability Grants support faculty, staff, and student collaborations that develop our community's ability to address one or more goals of the WCU Climate Action Plan.

Coutu, Gary

Department of Geography & Planning; CBPM

Collaborative WCU GIS

A shared WCU GIS was published for use in education, research, and outreach.

A CARLON CONTRACTOR OF THE CON

Pisciotta, John

Department of Biology; CSM

SAC Spotted Lanternflies

An interactive GIS-based map of the spotted lanternfly host tree population

was created and lanternflies detected on campus were mapped.

Kim, Yong Hoon

Department of Mathematics; CSM Application of a Numerical Model to Evaluate the Impact of Sea-Level Change

A National Weather Service model was used to evaluate the probability of inundation of coastal areas by the Delaware River, including Chester County due to hurricanes and surge.

Maresh, Jennifer

Department of Biology; CSM

Moving into Living Spaces, Not Landfills

WCU students were provided with an alternative to disposal of furniture, clothing, and household items during move-out, launching a new student group, Pack It Up Pass It On.

Holroyd, Maggie & Jones, Sandy

Off Campus & Commuter Services

Compostable Containers for Students

Biodegradable, certified compostable, natural plant fiber, clamshell containers were purchased to be used during campus events and at orientation.

Shah, Vishal

Department of Biology; CSM

Ammonia Oxidizing Microorganisms

Responsible for Nitrous Acid

Samples of soil collected from across the WCU campus were tested for high concentrations of ammonia oxidizing bacteria.

Welch, Joan

Department of Geography & Planning; CBPM West Chester Borough Streets Research students, pictured, developed a geodatabase and then inventoried and mapped the street trees in West Chester. PA.

Celebrating Faculty Books continued from p 4.



McGinley, Vicki A.

Department of Special Education; CESW

Parents and Families of Students with Special Needs: Collaborating Across the Age Span

Ensuring a child's success in the classroom through effective collaboration.



McLaughlin, James

Department of Mathematics; CSM

Topics and methods in Q-series

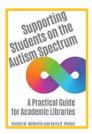
A comprehensive introduction to the many aspects of the subject of basic hypergeometric series.



"If librarians and library staff can make our academic libraries more welcoming for students on the spectrum, and provide them with a space where they feel understood and valued, then we are making a significant contribution to their success."

- Supporting Students on the Autism Spectrum





McMullin, Rachel M. & Walton, Kerry R.

WCU Libraries; Academic Affairs

Supporting Students on the Autism spectrum: A Practical Guide for Academic Libraries

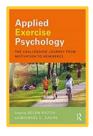
A resource for librarians who want to serve students on the autism spectrum.



Norris, Katherine, E. L.

Department of Early & Middle Grades Education; CESW Social Justice and Parent Partnerships in Multicultural Education Contexts

An exploration of cooperation to create support systems for student success.

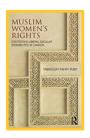


Razon, Selen

Department of Kinesiology; CHS

Applied Exercise Psychology

An application of research from exercise, health, clinical, and counseling psychology and exercise physiology for physical activity behavior change.



Ruby, Tabassum Fahim

Department of Women's and Gender Studies; CAH

Muslim Women's Rights: Contesting Liberal-secular Sensibilities in

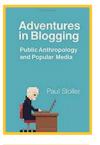
Canada

A feminist analysis of debates about proposed shari'ah tribunals in Canada.

"If my experience is indicative, the most important ramification of public blogging is that it makes you a better writer. Blogging, I think, has made my academic writing snappier, more concise, and more focused on the connections I want to make with readers."



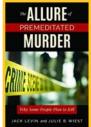
- Adventures in Blogging: Public Anthropology and Popular Media



Stoller, Paul

Department of Anthropology & Sociology; CSM

Adventures in Blogging: Public Anthropology and Popular Media
A presentation of 40 blogs published by the author between 2011 and 2017 in which he urges anthropologists seeking to influence the public to try blogging and other experimental and expressive genres.



Wiest, Julie B.

Department of Anthropology & Sociology; CSM

The Allure of Premeditated Murder: Why Some People Plan to Kill An examination of the worst kinds of premeditated homicide in which the perpetrator plans an attack over a period of days, weeks, or months, leaving behind massive carnage and unspeakable suffering.

"Premeditated murder is different...this type of murder is well thought out, prepared over time, and committed after rational consideration of the timing and method of taking a life."



- The Allure of Premeditated Murder: Why Some People Plan to Kill



Zalewski, Jacqueline M.

Department of Anthropology & Sociology; CSM

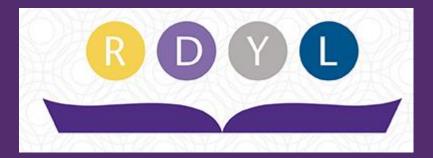
Working Lives and In-house Outsourcing: Chewed-up by Two Masters
A sociological account of the process by which companies instituted and continue to institute outsourcing in their organization.

Featuring Journal Editors

WCU Faculty Editors extend the reach of faculty research at our university and others by supervising the dissemination of work in their fields to an international audience.

Halko, Gabrielle, Founder and Editor; Department of English; CAH Research on Diversity in Youth Literature

An open-access journal that publishes "scholarship attending to issues of diversity, equity, social justice, inclusion, and intersectionality in youth literature, culture, and media."





Sorisio, Carolyn, Editor in Chief; Department of English; CAH COLLEGE LITERATURE: A Journal of Literary Studies

A journal "dedicated to publishing original and innovative scholarly research across various periods, intellectual fields, and geographical locations that comprise the changing discipline of Anglophone and comparative literary studies." This journal is published jointly with Johns Hopkins University Press.





Developing Professional Skills

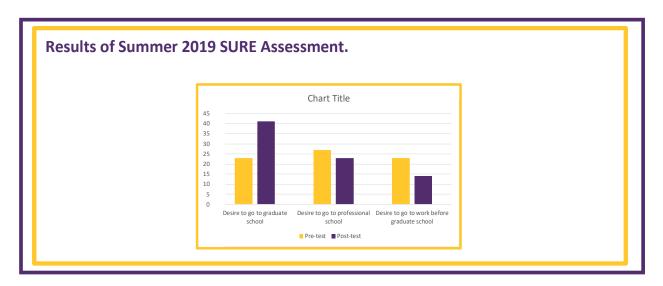
The Summer Undergraduate Research Institute (SURI) provides students with a 5 to 8-week opportunity to gain expertise in their disciplines.

In 2018 the SURI program sponsored 19 WCU students and 2 students from Southern University of New Orleans (SUNO). For 2019, SURI sponsored 22 WCU students, continued the partnership with SUNO, and expanded to include 2 international students from Ramnarain Ruia Autonomous College, India.

The purpose of SURI is to:

- Increase opportunities for undergraduate research in all disciplines.
- Promote faculty/student research and creative collaborations.
- Establish a community of undergraduate scholars.
- Develop students' basic skills in project development, research compliance (when appropriate), and dissemination.
- Promote critical and analytical thinking skills and prepare students for graduate-level studies and/or careers.

A Survey of Undergraduate Research Experience (SURE) assessment for the students in the 2019 cohort, shows that SURI students increased their desire to attend graduate school after the experience.





Office of Research and Sponsored Programs Ehinger Annex, Room 111 700 South Church Street West Chester, PA 19383