



ELIZABETH CITY STATE UNIVERSITY

FOUNDED 1891

RESEARCH MAGAZINE

FALL 2017



Fall 2017

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CHANCELLOR'S MESSAGE

Welcome to Elizabeth City State University!



Dr. Thomas E.H. Conway, Jr.
Sixth Chancellor of
Elizabeth City State University

Since 1891, Elizabeth City State University has proudly served students from around the country, across the state, and most notably from northeastern North Carolina. ECSU's commitment to providing access to an intellectually stimulating, high-quality, affordable education in an ideal campus setting will continue to serve as its hallmark.

Consistently, ECSU has earned top rankings in college guides and national publications. Our latest rankings – #1 in Washington Monthly's Best Baccalaureate Colleges (2015) and #2 in U.S. News and World Report's (2016) Top Public Schools (Regional Colleges in the South) – are noteworthy accomplishments. Moreover, our recent recognition on the list of the 2017 Military Friendly® Schools and Best Bet for Vets brings deserved attention to ECSU's keen focus on distinctive approaches to providing college access to a broad community of learners.

With 28 undergraduate degree offerings and four graduate degree programs, flexible study options and research opportunities are limitless. Students' participation in honor societies, creative endeavors, musical ensembles, CIAA sports, clubs, and student life activities all enhance their personal growth and leadership development. New technology-enhanced learning initiatives also give ECSU students a competitive advantage in the 21st century marketplace.

We invite you to visit our beautiful 222-acre campus. You'll find that our dedicated faculty, staff, students, alumni, and community partners make ECSU a great university.



PROVOST & VICE CHANCELLOR OF ACADEMIC AFFAIRS' MESSAGE

Welcome

Dr. Vann Newkirk
Provost and Vice Chancellor
for Academic Affairs

Elizabeth City State University has been and is an important academic and research institution and cultural center for northeast North Carolina and the region. A constituent institution of the University of North Carolina system, ECSU is committed to fulfilling our mission of serving as a valuable resource for building the state's intellectual capital through teaching, research and community outreach.

We are proud of our strong academic programs. ECSU offers twenty-eight baccalaureate degrees and four master's degrees in ten academic departments-Business & Economics; Dr. Helen M. Caldwell Department of Education, Psychology & Health; Language, Literature & Communication; Mathematics & Computer Science; Dr. Herman G. Cooke Department of Natural Sciences, Pharmacy & Health Professions; Social & Behavioral Sciences; Technology and Visual & Performing Arts. The University has programs that appeal to various interests and fields of study, including the honors program, military science, study abroad and Viking Fellows for education majors.

Our students are exposed to exciting research opportunities that extend their learning beyond textbooks and classrooms. Learning is enhanced by innovative instructional and informational technology. Students may also take advantage of specialized academic support programs. Several of our academic and research initiatives such as the Drug Information Center afford students opportunities for community service.

In this inaugural issue of our ECSU Research Magazine, you will discover our diverse research and student-based initiatives. From aviation to entrepreneurship labs, our faculty are engaged in a broad-array of research activities supported by agencies such as the National Science Foundation, the Department of Defense, and the National Institute of Justice.

MISSION STATEMENT: Elizabeth City State University (ECSU) offers baccalaureate, professional, and master's degrees for a diverse student body. Our mission is to promote economic, social, and environmental progress for the people of northeastern North Carolina, the state, and the nation. We achieve our commitment to the highest quality education by maintaining a rigorous focus on academic excellence through liberal arts programs and using innovative and flexible technology-based instruction models to enhance our signature areas: integrating technology with education, improving human health and wellness, and advancing the natural and aviation sciences.



Willie and Jacqueline Gilchrist Education and Psychology Complex

Our Core Goals:

Accountability-Being responsible for our actions is part of the ECSU ethos. Administration, faculty, staff and students endeavor to continue to expand on the quality already in existence at the university;

Diversity -Diversity of viewpoints, experiences, and backgrounds are critical tools of a quality education in our global marketplace;

Excellence-Excellence is the measure for teaching, learning, and service to the university community; and preparing students holistically -the full measure of personal, professional, and social development of our students, faculty, and staff is an integral part of the ECSU philosophy: "to live is to learn."

Core Competencies:

STEM Education & Training

Natural Sciences, Pharmacy and Health Professions

- Marine and Coastal Research
- Synthetic Biology
- Health Disparities & Minorities Research
- Cell & Molecular Biology (Animal & Plant)
- Microbiology
- Parasitology, Biochemistry, Histology, Enzyme purification
- Antiviral Studies, Organic & Medicinal Chemistry
- Micro and Nano-electronics for Harsh Environment Application

Technology

- Aviation Science –Human Factors, Air Traffic Management
- UAS Integration in National Airspace System Testing
- Computer-aided Design and Computer-aided Engineering
- Instrumentation, Control, and Data Acquisition Systems
- Embedded System Design & Sensor Fusion
- Reverse Engineering and Finite Element Analysis
- Design Optimization

Math & Computer Sciences

- Remote Sensing
- Geographical Information Systems (GIS)
- Mathematical Modeling & Computational Methods

Past Performance:

- Fabrication and Characterization of Contacts on Wide Band Gap Semiconductors for High Temperature Applications (NSF)
- Young Faculty Exchange & Student Mentoring in Coastal Hazards & Maritime Environment Security (U.S. Dept. of Homeland Security)

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Accreditations:

- AACSB - Association to Advance Collegiate Schools of Business
- ABET - Accreditation Board for Engineering and Technology
- CSWE - Council on Social Work Education
- NASM - National Association of Schools of Music
- NCATE - North Council for Accreditation of Teacher Education
- NCDPI - North Carolina Department of Public Instruction
- Southern Association of Schools Commission on Colleges (SACSCOC)

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ECSU's Kenya Project Takes Flight Over the African Continent



ECSU received a \$956,204 grant from the National Institute of Justice (NIJ) to research aviation options to help the African nation of Kenya combat illegal poaching in its parks and reserves. The project extends the university's aviation science reach internationally and helps Kenya in its counter-poaching mission. The project aligns with the Presidential Executive Order on Combating Wildlife Trafficking, issued by President Obama July 1, 2013, that called for upping efforts in the U.S. to increase assistance



to foreign nations in building capacity to combat wildlife trafficking. The project is led by Dr. Kuldeep Rawat, director of the aviation science program at ECSU and the project's principal investigator.

“Kenya has 59 parks and reserves spread over an area of 225,830 square miles – about size of Texas – adequate surveillance on the ground is next to impossible,” said Rawat. ECSU's project team is working with NIJ and Kenya Wildlife Services (KWS) to research a range of aviation options including low cost aircraft and surveillance technologies. The project will be completed in three phases: Needs Assessment, Technology Acquisition, and Operational Evaluation. The project team members Orestes Gooden and Ellis Lawrence traveled to Kenya and met with the KWS staff to conduct a comprehensive needs assessment. Team members carried some small equipment to help upgrade some of the KWS existing planes. “We spoke with wardens and rangers of these parks to get a feel for their mission,” said Gooden. “Exactly which aircraft will be purchased for the project will be determined after the needs assessment phase is complete”, according to Rawat. Acquisition of aircraft and technology will be followed by operational evaluation in Kenya, he said.

New Aviation Science Laboratory Opens

RESEARCH HIGHLIGHTS



Elizabeth City State University Aviation Science students, staff and faculty celebrated the opening of a new, two-sector, aviation laboratory in McDonald Dixon and Bishop M. Patterson Hall in November of 2016. One side of the room is a NASA Aerospace Education laboratory (AEL) while the other is an Unmanned Aerial Systems (UAS) laboratory. This laboratory resulted from \$347,000 in funding ECSU received from NASA (2015) and \$1.1 million from the Golden LEAF Foundation (2014) for enhancing Aerospace/Aviation Science education in the northeast North Carolina (NENC) region. Additional funding was provided by a Department of Education-SAFRA grant.

The NASA AEL sector houses multiple desktop flight simulator stations, renewable energy station (solar panels, wind turbines), hand-held data loggers, aircraft/rocket design stations, wind tunnel, flow-visualization tunnel, weather stations, 3D printers, mobile robotic stations (ground and aerial), and experimental setups to cover various course topics related to STEM education.

“The new NASA AEL and UAS Lab marks another important step for ECSU’s Aviation Science program in bringing the most advanced K-12 STEM education and UAS training capabilities to the NENC region,” says Kuldeep Rawat, Technology Department Endowed Chair and Site Director of NASA Aerospace Academy program at ECSU. Over the course of three months, the former Machine Shop Technology lab was rehabilitated into a bright, spacious, and clean laboratory, ideal for hands-on STEM learning, at both the K-12 and college levels.

The Unmanned Aerial Systems sector of the laboratory currently houses DJI Phantom Vision 2+, DJI Inspire 1, DragonFlyer X-4, senseFly eXom, senseFly eBee Ag, Robo Flight 70, Aeromapper EV2, and QBall-X4, an aerial vehicle platform for advanced research.

In addition to conducting Unmanned Aerial Systems (UAS) applications research for private and public partners, the new laboratory supports five new UAS courses within the university’s Aviation Science program. Courses include: Introduction to Unmanned Aerial Systems; UAS and NAS: Laws and Regulations; UAS Sensors and Payload; UAS Lab 1: Design and Construction; and, UAS Lab 2: Applications. The UAS option gives graduates the expertise they need for employment as operators, observers, sensor operators, and operations managers of unmanned aircraft systems. Skills covered in these courses will include flight planning, mission execution, data management and analysis, sensor and payload integration, and an overview of national airspace system restrictions and rules. Students will also be given the chance to build and fly their own aerial vehicle.

“We are also developing UAS-themed outreach programs for middle and high school students in conjunction with the NASA Aerospace Academy program,” said Rawat. Over 600 K-12 northeast North Carolina students will be directly impacted through 40 hours of STEM learning activities available at the AEL sector of the laboratory and many more through year-round informal educational activities.

ECSU aviation major and retired USCG C-130 navigator/former U.S. Navy UAS Mission Pilot, Aron Bechioni, who assisted Rawat adds, “The state-of-the-art lab facility will provide students and professionals with the basic skills and knowledge needed to achieve FAA certification and operate small unmanned aircraft systems safely and effectively in performing civilian missions and commercial operations.”



RESEARCH HIGHLIGHTS

Dr. Linda Hayden Named to National Research Team

Elizabeth City State University (ECSU) faculty can always be found working on national research projects so it should come as no surprise to learn that Dr. Linda Hayden is once again working with the national scientific community.



Working as part of a collaborative effort, Hayden is one of five researchers on a team that received a five year, \$15 million grant from the National Science Foundation in July of 2016. The grant established the Science Gateways Community Institute, or SGCI, a multi-institutional group that focuses on expanding the capabilities, number and sustainability of science gateways. The team is based at the San Diego Supercomputer Center at the University of California San Diego.

Science gateways are user-friendly web portals that allow scientists of all levels to access research tools like supercomputers. The portal is designed to make advanced research tools accessible to all users.

According to a press release from UC San Diego, the goal of the Science Gateways Community Institute is, "to increase the number, ease of use and effective application of gateways for the greater research and engineering community, resulting in broader gateway use and more widespread engagement in science by professionals, citizen scientists, students and more."

ECSU, represented by Hayden, joined Indiana University, University of Notre Dame, Purdue University, the Texas Advanced Computer Center at the University of Texas-Austin, and the University of Michigan at Ann Arbor in this effort. Hayden and ECSU are working on a Workforce Development project, designed to increase the number of gateway developers with a variety of training programs.

According to a press release from UC San Diego, the goal of the Science Gateways Community Institute is, "to increase the number, ease of use and effective application of gateways for the greater research and engineering community, resulting in broader gateway use and more widespread engagement in science by professionals, citizen scientists, students and more." ECSU, represented by Hayden, joined Indiana University, University of Notre Dame, Purdue University, the Texas Advanced Computer Center at the University of Texas-Austin, and the University of Michigan at Ann Arbor in this effort. Hayden and ECSU are working on a Workforce Development project, designed to increase the number of gateway developers with a variety of training programs. Through its Center of Excellence in Remote Sensing Education and Research (CERSER), ECSU has also partnered in a trio of National Science Foundation projects related to remote sensing of ice sheets and cyber infrastructure.

The Center for Remote Sensing of Ice Sheets (CReSIS) is a partnership with the University of Kansas as part of a Science and Technology Center (STC) that develops models and technology to achieve a better understanding of the mass balance of polar ice sheets and its impact on the rising sea level observed by glaciologists.

The NSF Polar Grid project is a partnership with Indiana University which acquires and deploys the computing infrastructure needed to investigate the urgent problems in glacial melting. The NSF CI-Team, where ECSU is the lead institution, aggressively engages computer science and engineering students from five minority universities in the Grid, remote sensing, and CReSIS training, seminars, workshops and classes.

The goal of CERSER is to develop and implement innovative and relevant research collaborations focused on ice sheet, coastal, ocean, and marine research. Through CERSER, ECSU was the first Minority Serving Institution (MSI) to house a ~600-node cluster capable of acceptance into the national TeraGrid Project.

Department of Homeland Security Grant Supports 6 Student Researchers

RESEARCH HIGHLIGHTS



Six ECSU students assisted Dr. Jinchun Yuan, a professor in ECSU's Natural Sciences Department, with his presentation at a Department of Homeland Security (DHS) workshop held March 29-31, 2016 in Washington D.C.

The students included: Ryan Onley, Ashley Larson, Shevon Valenski, Joel Gonzalez-Santiago, Dwayne Ponton, and Shavon Smith. They traveled to the nation's capital for a workshop that drew 15 minority serving institutions (MSI) which showcased research projects, accomplishments, and curricula that have been developed through the support of the DHS Science and Technology Office of University Programs.

In 2013, Dr. Yuan received a grant from the Department of Homeland Security in the amount of \$749,984 to conduct a series of remote sensing projects.

The grant also supported scholarships that benefited several ECSU students majoring in the natural sciences. The grant allows students to complete a minor in GIS Remote Sensing. In exchange for their satisfactory participation in research projects, the students received tuition (in the form of a scholarship and a monthly stipend) to assist them with the cost of attending college.

Dr. Yuan and his students have been tracking particulate organic carbon via satellite in the Gulf of Mexico. Yuan, who has been observing the Gulf of Mexico over a decade, said the satellite indicated enormously high particulate organic carbon after the BP oil spill (2010). Studies like this one permit students to apply lessons learned in GIS Remote Sensing courses to various bodies of water like the Gulf of Mexico.

A second research project that Dr. Yuan oversaw included their study of the early blooming of flowers and trees in northeast North Carolina. Students were trying to determine if those changes are related to El Nino. A third student research project Yuan oversaw explored the distribution of a naturally occurring sea grass, sargassum, in the Atlantic Ocean.

Students also tried to determine if it is affected by El Nino. Participating students are required to have a minimum grade point average of 3.3. The Department of Homeland Security funds remote sensing research projects so students can learn how to use satellite-tracking technology. Yuan's DHS grant has permitted 16 students to conduct one or more semesters of research since 2012. Some will continue participating in this type of research until 2018.

The Department of Homeland Security hopes to attract students into DHS-related careers in the future. These research projects are exceptional opportunities for undergraduat research in the Department of Natural Sciences.

Department of Homeland Security (DHS) – "DHS Exchange and student Mentoring in Coastal Hazards and Maritime Environment Security at ECSU" cluster capable of acceptance into the national TeraGrid Project.

Student Training Through Research and Mentorship



Originally from Ethiopia, Dr. Eyuaem Abebe's research interest is in the fundamental issues of interdependence of life, life processes and living things and addresses these using nematodes (round worms) as models. He aspires to contribute towards answering questions in relation to species delimitation, impacting factors of species composition such as human disturbance, and interdependence of

species. These are relevant to how we can exploit nature to the benefit of humans. Furthermore, Dr. Abebe explores the implementation of effective academic interventions to help disadvantaged college students realize their fullest potential.

Why research on nematodes? Nematodes are largely microscopic and invisible to the naked eye. Dr. Abebe studies them because they are the most numerous organisms on earth — one in five multicellular animals is a nematode, and they are diverse with a conservative estimate of close to a million species — currently known is 30,000. Knowledge on biodiversity and community

Under the supervision and guidance of Dr. Abebe, for 6 years ECSU students have investigated the structure and biodiversity of nematode and microbial communities of various environments locally, such as Lake Phelps, NC, coastal sites in the Outer Banks, and the Elizabeth City Coast Guard Phytoremediation Site. Findings on these sites are essential to our better understanding, and the modeling and management of environmental health. As part of these investigations, in 2013 two ECSU students discovered two nematode species new to science in Lake Phelps, NC. Their discovery of new species and various other findings were disseminated to the scientific community in the form four papers in professional, scientific journals where ECSU students served as the main author or co-authors. One of those two new species was named by ECSU students in honor of the state of North Carolina (*Chronogaster caroliniensis*). Other findings of ECSU students are in the process of being prepared for dissemination. His current focus is on understanding nematode-bacterial associations.



management and restoration ecology, and nematode communities can serve as indicators of environmental disturbance. Unfortunately, we know very little about free-living nematodes in the US; our understanding of soil and sediment processes at best is largely incomplete. Dr. Abebe is determined to contribute to the field.

Recent advances in DNA sequencing, especially the next generation sequencing tools, have allowed Dr. Abebe to overcome problems previously were insurmountable to this kind of research. These methods enable Dr. Abebe detect and identify

the kinds of bacteria that are associated with those individual microscopic nematodes. With this, he investigates if these microscopic animals are selective in their association, either as food or in permanent partnership with microbes and how these associations impact nutrient cycling in nature. As the two groups are most diverse and numerous in sediment, the implication of understanding how the interaction works cannot be overemphasized.



UNC President Margaret Spellings talks to students.

An example of such an association is that of insect-pathogenic nematodes. These nematodes carry deadly bacteria inside their body to kill insects. As a result, they are proven useful in the control of agricultural pest insects. Most intensive agriculture uses chemicals to control pest insects but chemicals tend to affect non-target organisms, including humans. As a result, US EPA continues to ban harmful chemicals. A biological mechanism of control, such as nematodes, would be an ideal alternative. Northeastern North Carolina is literally an unexplored region in terms of these useful nematodes. Dr. Abebe's research is to find such worms for the eventual benefit of local agriculture.

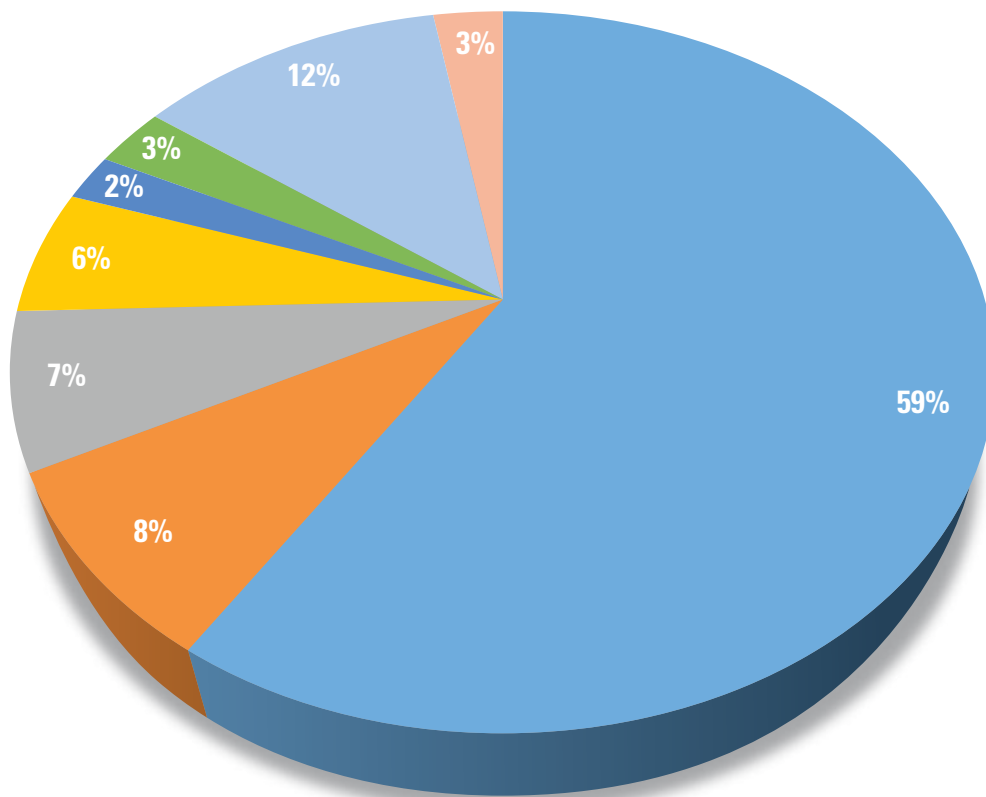
Since 2012 Dr. Abebe has added a research area of focus — educational disparities and minority student success. His research (Application of Lessons from Model Institutions for Excellence - ALEMIE), supported by the Historically Black Colleges and Universities Undergraduate Program at the National Science Foundation, is focused on reducing attrition in gateway STEM courses at ECSU and enhancing retention and ultimately graduation of African American students. Through this educational research project, he implemented at ECSU a set of tested interventions. The results of the implementation of those interventions for 3 years resulted in better in course grade in both gateway and sophomore level courses, a higher GPA, and overall a higher retention.



It was encouraging to see three of those 25 ALEMIE students walk across the podium to receive their degrees on May 13, 2017. Dr. Abebe's findings point to the general fact that institutions such as ECSU need to provide support, such as that provided by ALEMIE, to students from the beginning preferably through a precollege bridge experience. Dr. Abebe is currently applying for funding to expand support to future ECSU students.

National Science Foundation (NSF) – “Targeted Infusion Project Grant: Application of Lessons from Model Institutions for Excellence (ALEMIE): A Comprehensive Support for Minority Students at Elizabeth City State University.”

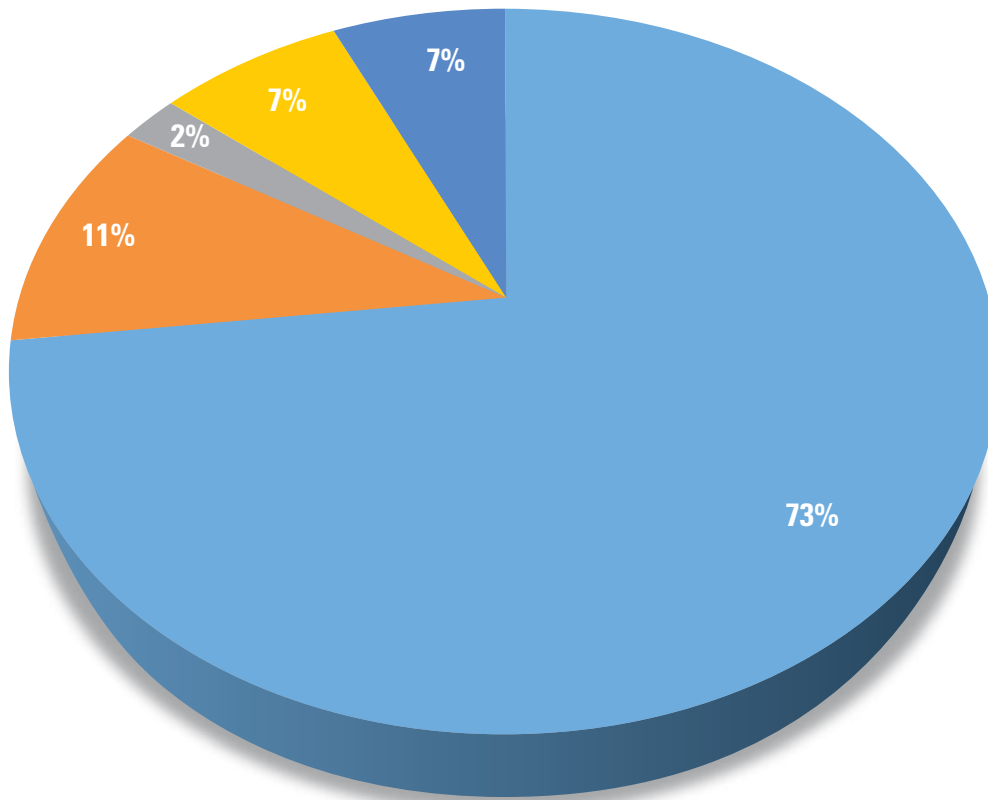
2016-2017 PROPOSAL SUBMISSIONS



- Department of Education
- Other Federal Agencies/Subawards
- DOD
- NIH
- NSF
- State and Local
- DHS
- Foundations/Private Organizations

2016 -2017 Proposal Submissions	
Agency	Amount
Department of Education	\$26,567,848
National Science Foundation	\$3,707,523
Other Federal Agencies-Subawards	\$3,188,366
State and Local Government	\$2,526,725
Department of Defense	\$1,024,136
Department of Homeland Security	\$1,199,993
National Institutes of Health	\$5,481,111
Foundations/Private Organizations	\$1,188,312
TOTAL	\$44,884,014

2016-2017 AWARDS RECEIVED



- Department of Education
- NSF
- Other Federal Agencies
- State and Local Government
- Foundations/Private Organizations

2016 -2017 Awards Received	
Agency	Amount
Department of Education	\$5,583,704
National Science Foundation	\$801,985
Other Federal Agencies-Subawards	\$168,370
State and Local	\$555,332
Foundations/Private	\$526,105
TOTAL	\$7,635,496

SUMMER AVIATION CAMP



Professor of Aviation Science Orestes Gooden sits in his Elizabeth City State University (ECSU) office surrounded by models and photos of aircraft, tools of his trade. They are a part of Gooden's efforts for a NASA aviation summer program that brings students from across the state and nation to the northeast North Carolina campus.

ECSU is one of nine sites in the nation chosen by NASA for the Aerospace Academy program. As part of its Minority University Research and Education Program, or MUREP, NASA and ECSU aim to give students the opportunity to experience the many facets of aviation science, learn more about future careers in the sciences, and gain hands-on experience while living on campus or attending one of several day camps throughout the region. The residential camp is for high school students. The day camps are aimed at middle school stu-

dents. The camps are free and are funded by a \$347,000 NASA grant.

Gooden says "the program works in concert with the university's Aviation Career Education (ACE) program, launched in 2008." It is a weeklong event that, Gooden says, promotes the college experience in addition to the sciences.

"Students get interested in college life," says Gooden. "When they see what it is like to live on campus, we've had several students enroll in the aviation program." But more to the point of the camp, students experience aviation science through hands-on projects such as building rockets, says Aviation Science director and Science director and technology Endowed Chair, Dr. Kuldeep Rawat. Rawat points out that while students learn about a variety of science-related subjects while attending



secondary schools throughout the year, at ECSU's camps, they begin to see what they have learned unfold before them.

"They may have learned about rockets and theory," explains Rawat, "but here they will build a rocket, design the rocket, and launch the rocket."

Students also have the opportunity to build robots and compete with them. They go out into the field to conduct research and bring that information back to campus to aid them in their work. And they also have opportunities to work with Unmanned Aerial Vehicles (UAV), commonly known as drones.

In addition to the residential camp, Rawat says there are several weeklong camps held at regional schools throughout the summer.

Each participating school hosts a camp concentrating on a theme. For example, in Warren County, students had a chance to learn about "A Mission to Mars." During the camp, the focus of their projects related to aspects of the red planet Mars as well as how people might travel to our celestial neighbor.

"They came up with ways to establish life on Mars," says Rawat.

The program covers five regional counties in northeastern North Carolina: Pasquotank, Perquimans, Chowan, Martin and Warren. There are two, weeklong residential camps at ECSU and four, weeklong day camps at four different locations.

North Carolina Department of Transportation (NCDOT) – "2017 Aviation Career Education (ACE) Academy Program at ECSU"

**ONGOING
PROJECTS**

Area Students Get First Look at New ECSU NASA Mobile STEM Lab



On January 31, 2017, students from the Northeast Academy of Aerospace and Advanced Technologies (NEAAT) joined members of the Elizabeth City State University (ECSU) Aviation Science program as Chancellor Thomas Conway unveiled the ECSU NASA Mobile STEM Lab for the first time.

Measuring 40-feet long, the lab consists of at least 10 stations, each designed to offer students the opportunity to experience cutting edge technology firsthand. The stations cover aviation, technology, robotics, and more.

“This mobile lab is critically important to what we as a university intend to do,” said Chancellor Conway during the unveiling ceremony. “Education should be fun and interactive and that is what we are going to do.”

After Northeast Academy of Aerospace and Advanced Technologies (NEAAT) students had the opportunity to tour the mobile lab, it was driven first to nearby River Road Middle School, and then later to Elizabeth City Middle School. Students at both of these Elizabeth City-area middle schools were able to tour the lab and find out what is in store for them.

Since the mobile science lab was first announced through social media late last year, a number of regional school districts have called ECSU, hoping to schedule a visit from the lab, according to Chancellor Conway.

The mobile lab offers regional schools the opportunity to present science to students who might not otherwise have resources for advanced technology.

Schools are encouraged to contact the university’s Aviation Science Program to schedule a time for a mobile lab visit.

“We are on the road,” said Chancellor Conway. “ECSU is going to be there for you.”

Golden LEAF Foundation (\$1.1 Million)
NASA (\$347,384)

Golden LEAF Foundation, and NASA – “Strengthening Aviation Education and Workforce Development in Northeastern NC”

ECSU'S MATHEMATICS, SCIENCE, EDUCATION NETWORK

ONGOING
PROJECTS



Saturday morning is prime time for assembling mobile robots and designing roller coasters.

That's the conclusion area middle and high school students reached when they began working on select math and science projects on February 12, 2016. Over the course of the next three years, they will learn to program robots to perform specified tasks and learn to build rocket prototypes, solar vehicles, and hand-held gliders. The middle school students came from schools in Bertie, Hertford, Pasquotank, Camden and Gates counties to participate in the state Mathematics Science Education Network Program (MSEN). Coordinators of that program partnered with faculty and staff from ECSU's technology department who are conducting the Saturday math and sciences sessions. NASA's Minority University Research and Education Program (MUREP), a federally funded, grant-awarding program designed to help faculty at minority institutions assist youths with STEM research activities, is one sponsor for the Saturday sessions. Additional funding comes from the Golden LEAF Foundation, a state foundation that supports projects that provide educational opportunities and increase economic vitality.

On March 12, 2016, ECSU hosted 96 of these local area students in the campus Pharmacy Complex for

a morning of assembling and testing robots. Teams of students worked four hours to determine which robots could function properly. All but two teams successfully reached that goal. Dr. Ellis Lawrence, a professor in ECSU's technology department, Kerry Krauss, a lab technician at ECSU, and Aron Bechiom, an aviation science major, assisted Dr. Kuldeep Rawat in conducting the session.

"The students have responded well to the challenges related to programming and assembling the robots. We are very grateful for the support from our sponsors that will help these students perform well here and in their school math and science courses," said Rawat, principal investigator and site director for NASA's Aerospace Academy. "For some students, math and science courses are very challenging. The exercises we complete here on Saturday, give them additional opportunities to excel and best of all to prepare for college courses."



TRANSPORTATION INSTITUTE PREPS STUDENTS FOR STEM CAREERS



Summertime on the campus of Elizabeth City State University is deceptively quiet. While the buzz of college students roaming the grounds and halls of the university has quieted, learning and exploring new worlds is happening every day, giving the region's middle and high school students an opportunity to immerse themselves in the world of Science Technology Engineering and Math, or STEM.

Inside Dixon Hall, in the computer lab, Dr. Ellis Lawrence is directing a group of 12 high school students. This is the annual National Summer Transportation Institute, taking place on campuses across the country.

At ECSU, the institute is giving the region's rising high school juniors and seniors an opportunity to focus on career awareness in the transportation industry. The students will spend the next four weeks in hands-on activities, as well as guest lectures, and field trips. The program is an initiative of the Federal Highway Administration. It was created to address the needs of the future transportation workforce by advancing well-trained, qualified young men and women toward a STEM career. Students enrolling in this summer program, according to information provided by Dr. Lawrence, must have a cumulative GPA of 3.0 or higher, have an interest in a technology-related career, provide at least two letters of recommendation, provide standardized test scores, and write an essay explaining why he or she would like to participate in the program.

The program participants are then reviewed by a selection team. And all of this adds up to students who are able to handle what will be a solid Monday-through-Friday curriculum.

The students will begin their day working on engineering problems. Before lunch, they will work on trigonometry challenges, followed by electronics, robotics, and computer programming after lunch. Fridays are set aside for field trips.

Students participating in this year's program are coming from high schools across the region, including Pasquotank County, Gates County, Camden County, and the Northeast Academy of Advance Aerospace Technology.

North Carolina Department of Transportation (NCDOT) - "Fiscal Year 2017 National Summer Transportation Institute" (award amount \$55,000)



ONGOING PROJECTS

Aviation Students Win Top Honors in National Competition

Elizabeth City State University's Aviation Program students have the right stuff and they proved that fact at the National Intercollegiate Flying Association (NIFA) Region-X SAFECON competition, which was held November 2-5, 2016. The ECSU students, led by aviation professor and team coach Orestes Gooden, took third place in the flight competition and fourth place overall.

The competition happened in Franklin, Virginia and included a competitive group of schools including the United States Naval Academy. Trophies, certificates and presentations were awarded to the event's top performers during a banquet.

Gooden was also recognized for his flying skills when he competed against other coaches. According to Gooden, the ECSU Aviation Team members are excited to have participated. He says they are looking forward to further training and next year's competition.

"We will train and fly to win, and next year the top trophy will belong to ECSU," said team member and aviation student Kemarie Jeffers. The NIFA was founded after World War I introduced powered flight to warfare. Young aviators returning from the war continued their college studies but were looking to expand their flight training and experience.

The first competition, according to the NIFA website, took place on May 7, 1920. Nine schools participated and Yale University took first place.

As the only four-year collegiate aviation education program in North Carolina, the mission of the ECSU Aviation Science Program is to provide quality aviation education to a diverse group of students, especially those who have been underrepresented in the aviation and aerospace industries.

The program offers a Bachelor of Science degree in Aviation Science with minors in the areas of Aviation Management, Electronics, Aviation Computer Science, Avionics, Public Administration, Flight Education, and Space Science. The aviation degree program is designed to prepare students for the rigorous employment demands of the highly competitive aviation and aerospace industries.

"This gives them the focus and the mentorship to create their own business plan," said Dr. Smith.

The lab consists of computer terminals with programs designed to enhance business planning skills, and workstations designed to enhance creativity. During the ribbon cutting ceremony, Powell could be seen working in the creativity station.

And there is guidance from faculty. Dr. Confidence Amadi, a professor of business administration, is overseeing the lab activities. Students such as Powell can seek his guidance as they develop their business strategies.

"She's one of my gems," says Dr. Amadi of Powell.

Powell's journey toward entrepreneurship actually began with her parents, who met as students at ECSU. Her mother, Adria Gibbs, actually began a business called The Lion's Den: The House of Cultural Vibes a number of years ago, and that will be the name of Powell's venture. With family living in Ghana, and

a father who is a native of Jamaica, Powell has the resources to create a multi-cultural business that will provide not only fashion and hair styling, but inspiration to a community she is certain will embrace the business, Elizabeth City.

The experience Powell is gaining as a student, she says, is preparing her for all of the intricacies of running a business. From budgeting and marketing, to leadership skills, Powell says the ECSU Business and Economics department and her studies relating to entrepreneurship, are setting her off on a path that she hopes will begin to see a great deal of progress after she graduates this May.

"By the time I graduate in May, I'll have a business plan," says Powell.

And that plan will be developed, in large part, due to the creation of the entrepreneur lab, and the guidance of professors such as Dr. Smith and Dr. Amadi.

"I'm getting what I need to be an entrepreneur," Powell said.



DR. EYUALEM ABEBE

Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- STEM Pipeline Retention Using the Model Institutions for Excellence Program: the case of Elizabeth City State University, NC. NC Bridging the Gap 2016 strengthen K-16 STEM education throughout North Carolina. Raleigh, NC. 2016
- Applications of Lessons from Model Institutions of Excellence. The 8th Annual Conference on Understanding interventions that Broaden Participation in Science Careers. Philadelphia. 2016
- Applications of Lessons from Model Institutions of Excellence. Annual HBCU-UP PI meetings (Washington DC) 2017.
- ALEMIE – Application of Lessons from Model Institutions of Excellence. ECSU Research Week. 2017.

FACULTY PUBLICATIONS

- Eisendle, U., Decraemer, F., Abebe, E., De Ley P. 2017 April 26, World checklist of freshwater Nematoda species. World Wide Web electronic publication. Available online at <http://fada.biodiversity.be/group/show/6>
- Ursula Eisendle-Flöckner, Wilfrida Decraemer and Eyuaelem Abebe. 2017. Phylum Nematoda. In: Thorp and Rogers, Freshwater Invertebrates, Volume IV. Keys to Australian Fauna, Elsevier Publishers. In Press.
- Wilfrida Decraemer, Ursula Eisendle-Flöckner and Eyuaelem Abebe. 2017. Phylum Nematoda. In: Thorp and Rogers, Freshwater Invertebrates, Volume IV. Keys to Neotropical and Antarctic Fauna, Elsevier Publishers. In Press.

GRANTS FUNDED

- “Exploration of Nematode-bacterial associations” As supplemental fund for a period of one year (National Science Foundation \$59,927). September 01, 2016-Augst 31, 2017

DR. ADETAYO VICTOR ADEDEJI

Associate Professor, Natural Sciences (Chemistry)

FACULTY PRESENTATIONS

- T. Patel*, A. D. Agyapong* and A. V. Adedeji; Influence of Macro-Confinement on the Thermo-chromic Transition Temperature of VO₂ Thin Films, AVS pacsurf 2016, Poster Presentation Dec. 11 – 15, 2016, Hapuna Beach Prince Hotel, Hawaii. (* undergraduate student)

FACULTY PUBLICATIONS

- Wendy S. Wolbach, Joanne P. Ballard, Paul A. Mayewski, Andrew C. Parnell, Niamh Cahill, Victor Adedeji, Ted E. Bunch, Gabriela Dominguez-Vázquez, Jon M. Eerlandson, Richard B. Firestone, Timothy A. French, George Howard, Isabel Israde Alcántara, John R. Johnson, David Kimbel, Charles R. Kinzie, Andrei Kurbatov, Gunther K. Kletetschka, Malcolm A. LeCompte, William C. Mahaney, Adrian L. Melott, Siddhartha Mitra, Christopher R. Moore, William M. Napier, Jennifer

Parlier, Kenneth B. Tankersley, James H. Wittke, Allen West, James P. Kennett, Largest biomass-burning episode of last 120,000 years triggered by cosmic impact at onset of Younger Dryas cooling (12.8 ka), *Journal of Geology*, (submitted).

- Book Chapter 8: Brief Overview of the Younger Dryas Cosmic Impact Datum Layer, 12,800 years ago: Archeological Utility and Implications, Malcolm A. LeCompte, A. Victor Adedeji, James P. Kennett, Ted E. Bunch, Wendy S. Wolbach, and Allen West, Book chapter for 71st Southeastern Archaeological Conference, November 12-15, 2014 University Press of Florida, (accepted).
- Christopher R. Moore, Allen West, Malcolm A. LeCompte, Mark J. Brooks, I. Randolph Daniel, Jr., Albert C. Goodyear, Terry A. Ferguson, Andrew H. Ivester, James K. Feathers, James P. Kennett, Kenneth B. Tankersley, A. Victor Adedeji, and Ted E. Bunch. Widespread platinum anomaly documented at the Younger Dryas onset in North America Sedimentary Sequences, *Science Report* 2017; 7: 44031

GRANTS FUNDED

- Acquisition of Instruments to Develop and Characterize Patterned Micron-Sizes Thermo-chromic Vanadium Dioxide to Study the Size and Edge Effect on Semiconductor-to-Metal Transition Characteristics (\$311,430.00)

DR. DOLAPO ADEDEJI

Assistant Professor, Natural Sciences (Chemistry)

FACULTY PRESENTATIONS

- Brittney Hinton, Dolapo Adedeji, Gloria Payne: “In vitro Antiproliferative Analysis of Metformin Hydrochloride in Androgen-sensitive (LNCaP) And Androgen-insensitive (PC-3) Human Prostate Cancer Cell Lines”. Poster presentation at the American Society for Pharmacology and Experimental Therapeutics (ASPET). April 22-26, 2017. Chicago, IL

FACULTY PUBLICATIONS

- Brittney Hinton, Dolapo Adedeji, Gloria Payne: “In vitro Antiproliferative Analysis of Metformin Hydrochloride in Androgen-sensitive (LNCaP) And Androgen-insensitive (PC-3) Human Prostate Cancer Cell Lines”. Poster presentation at the American Society for Pharmacology and Experimental Therapeutics (ASPET). April 22-26, 2017. Chicago, IL

DR. HIRENDRANATH BANERJEE

Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- Effects of MicroRNA 146a and Let7c in Tumor Microenvironment”, European Cancer Congress, Lisbon, Portugal (July 17-19, 2017)
- “Role of Noncoding RNAs in Prostate Cancer”, 10th Global Annual Oncologists Meeting, (July 11-13, 2016), Cologne, Germany

FACULTY PUBLICATIONS

- Banerjee, H., Bazemore, B., Barfield, A., Crummit, Y.

D., Krauss, C., Payne, G., Rousch, J., Manglik, V. (2016). A study to Investigate the Role of GULP / CED 6 Gene in “Eat Me” Signaling in Cellular Efferocytosis and Immunosurveillance. *Immunological Disorders & Immunotherapy* 1(3)

- Banerjee H, Joyner, J, Stevenson M, Kaha W, Krauss C, Hodges S, Santos E, Worthington M, Rousch J, Payne G, Manglik V, Banerjee, Morris B, Bell D, Mandal S. Short Communication: Studying the Role of Smart Flare Gold Nano Particles in Studying Micro RNA and Oncogene Differential Expression in Prostate Cancer Cell Lines. *Journal of Cancer Research Updates*. 2017; 6(2):25-28. Doi: 10.6000/1929-2279.2017.06.02.1Epub 2017 Jun Core Canonical Pathways Involved in Developing Human Glioblastoma Multiforme (GBM). *Int J Sci Res Sci Eng Technol*. 2017 Feb; 3(1):458-465. Epub2017 Feb 1. PMID: 28523289 Free PMC Article
- Ghosh S, Dutta S, Thorne G, Boston A, Barfield A, Banerjee N, Walker R, Banerjee HN. Core Canonical Pathways Involved in Developing Human Glioblastoma Multiforme (GBM). *Int J Sci Res Sci Eng Technol*. 2017 Feb; 3(1):458-465. Epub2017 Feb 1. PMID: 28523289 Free PMC Article

- Banerjee HN, Boston A, Barfield A, Stevenson M, Sarkar FH, Giri E, Winstead A, Krause JA, Mandal SK. A Study of the Effects of Novel Rhenium Compounds on Pancreatic and Prostate Cancer Cell Lines. *Int J Sci Res (Ahmedabad)*. 2016 Jul; 5(7). Pii:10501. PMID: 27617235 Free PMC Article

- Banerjee HN, Krauss C, Smith V, Mahaffey K, Boston A. Synthesizing a Cellulase like Chimeric Protein by Recombinant Molecular Biology Techniques. *J Bioprocess Biotech*. 2016 Jun; 6(6). Pii:285. Epub2016 Jun 30. PMID: 27468362 Free PMC Article

- Banerjee, Hirendranath, Unprecedented anticancer activity of organorhenium sulfonate and carboxylate complexes against hormone-dependent MCF-7 and hormone-independent triplenegative MDA-MB-231 breast cancer cells. Manuscript Draft Number: MCB1-D-17-00506R1

GRANTS FUNDED

- Dr. Kuldeep Rawat and Dr. H. Banerjee – Expanding Aerospace Education (North Carolina Space Grant) Expanding Aerospace Education (\$10,000)
- E-MARC ECSU Minority Access to Research Careers U*STAR (NIH \$244,000), 2016
- E-MARC CSU Minority Access to Research Careers U*STAR (NIH, \$72,000), 2017

DR. HARRY BASS

Professor, Natural Sciences (Biology)

GRANTS FUNDED

- Dr. Gloria Payne (PI) and Dr. Harry Bass (Co-PI) – Digitalization of Planetarium (Department of Defense, \$597,283) – The following individuals provided some assistance with technical aspects: Dr. Kuldeep Rawat, Dr. Jinchun Yuan, Dr. S. Khan

DR. RONALD BLACKMAN

Senior Research Professor, Natural Sciences (Biology)

FACULTY PUBLICATIONS

- R. Blackmon, S. Perry, M. McDaniel & G. Harmon (2017) Altered Development in Apterous Drosophila: A Project-Based Learning Module, *International Journal of Education and Science Research Review*, vol. 4 (2): 1 – 12.
- R. Blackmon, M. Bell, M. McDaniel & G. Harmon (2016) Sodium Butyrate Induces Superoxide Dismutase in Rapid-Cycling Brassica rapa, *International Journal of New Technologies in Science and Engineering*, vol. 3 (10): 1 – 13.

GRANTS FUNDED

- Dr. R. Blackmon and Dr. G. Harmon are co-PIs; MSEIP grant (Using Synthetic Biology to Enhance Minority Student Achievement in Science and Technology--\$711,645) [U.S. Dept. of Education, continuation]

DR. ANTHONY U. EMEKALAM

Associate Professor, Natural Sciences (Pharmacy)

FACULTY PRESENTATIONS

- "I am my family community health support" Xavier University of Louisiana College of Pharmacy 10th Anniversary Health Disparities Conference March 16-17, 2017 New Orleans, Louisiana

FACULTY PUBLICATIONS

- Anthony U. Emekalam, Latasha Wade, Shirley Brown. Enabling Engagement in Provider-Recommended Physical Activity, *International Journal of Prevention and Treatment*, Vol. 6 No. 1, 2017, pp. 12-18.

DR. GARY HARMON

Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- What is Synthetic Biology? Port Discover Adult Science Café presentation at Sidney's Bistro. November 2016.

FACULTY PUBLICATIONS

- R. Blackmon, S. Perry, M. McDaniel & G. Harmon (2017) Altered Development in Apterous Drosophila: A Project-Based Learning Module, *International Journal of Education and Science Research Review*, vol. 4 (2): 1 – 12.
- R. Blackmon, M. Bell, M. McDaniel & G. Harmon (2016) Sodium Butyrate Induces Superoxide Dismutase in Rapid-Cycling Brassica rapa, *International Journal of New Technologies in Science and Engineering*, vol. 3 (10): 1 – 13.

GRANTS FUNDED

- Dr. R. Blackmon and Dr. G. Harmon are co-PIs; MSEIP grant (Using Synthetic Biology to Enhance Minority Student Achievement in Science and Technology--\$711,645) [U.S. Dept. of Education, continuation]

DR. ALI KHAN

Professor, Natural Sciences (Pharmacy)

GRANTS FUNDED

- Dr. Gloria Payne (PI) and Dr. Ali Khan (Co-PI) - The VESTEM Innovation and Collaboration (VESTEMic) Model (NSF, \$350,000)

DR. GLORIA E. PAYNE

Rausch Endowed Distinguished Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- "Graduate Research Preparation Fellowship Program", Twenty-fourth International Conference on Learning, University of Hawaii at Manoa, Honolulu (July 19-21, 2017)

FACULTY PUBLICATIONS

- Banerjee, H., Bazemore, B., Barfield, A., Crummit, D., Krauss, C., Payne, G., Rousch, J., Manglik, V. (2016). A study to Investigate the Role of GULP / CED 6 Gene in "Eat Me" Signaling in Cellular Efferocytosis and Immunosurveillance. *Immunological Disorders & Immunotherapy* 1(3)
- Banerjee H, Joyner, J, Stevenson M, Kaha W, Krauss C, Hodges S, Santos E, Worthington M, Rousch J, Payne G, Manglik V, Banerjee, Morris B, Bell D, Mandal S. Short Communication: Studying the Role of Smart Flare Gold Nano Particles in Studying Micro RNA and Oncogene Differential Expression in Prostate Cancer Cell Lines. *Journal of Cancer Research Updates*. 2017; 6(2):25-28. Doi: 10.6000/1929-2279.2017.06.02.1Epub 2017 Jun
- Brittney Hinton, Dolapo Adedeji, Gloria Payne: "In vitro Antiproliferative Analysis of Metformin Hydrochloride in Androgen-sensitive (LNCaP) And Androgen-insensitive (PC-3) Human Prostate Cancer Cell Lines". *Pharmacology & Pharmacy* (2017), 8, 85-89. DOI: 10.4236/pp.2017.84008

GRANTS FUNDED

- Dr. Gloria Payne (PI) and Dr. Ali Khan (Co-PI) - The VESTEM Innovation and Collaboration (VESTEMic) Model (NSF, \$350,000)
- Dr. Gloria Payne (PI) and Dr. Harry Bass (Co-PI) – Digitalization of Planetarium (Department of Defense, \$597,283) –

DR. JEFFREY ROUSCH

Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- Walker, D., Buckman, T., Rousch, J. (2017). Rapid Cell Counting Method and Physiological Characterization of *Synechococcus* sp. Isolated in Northeast North Carolina. 10th Annual VA-NC LSAMP Alliance Research Symposium, St. Augustine University, Raleigh, NC

FACULTY PUBLICATIONS

- Banerjee H, Joyner, J, Stevenson M, Kaha W, Krauss C, Hodges S, Santos E, Worthington M, Rousch J, Payne G, Manglik V, Banerjee, Morris B, Bell D, Mandal S. Short Communication: Studying the Role of Smart Flare Gold Nano Particles in Studying Micro RNA and Oncogene Differential Expression in Prostate Cancer Cell Lines. *Journal of Cancer Research Updates*. 2017; 6(2):25-28. Doi: 10.6000/1929-2279.2017.06.02.1Epub 2017 Jun 14.
- Banerjee, H., Bazemore, B., Barfield, A., Crummit, D., Krauss, C., Payne, G., Rousch, J., Manglik, V. (2016). A study to Investigate the Role of GULP / CED 6 Gene in "Eat Me" Signaling in Cellular Efferocytosis and Immunosurveillance. *Immunological Disorders & Immunotherapy* 1(3)
- Habtamu, T., Serbessa, T., Bekele, A., Rousch, J. (2016). The Composition of Perineal Gland Secretion (Musk) from the African Civet *Civettictis civetta* (Schreber, 1776). *International Journal of Current Research* 8(03):27787-27794

DR. TESHAYE SERBESSA

Associate Professor, Natural Sciences

FACULTY PUBLICATIONS

- Habtamu, T., Serbessa, T., Bekele, A., Rousch, J. (2016). The Composition of Perineal Gland Secretion (Musk) from the African Civet *Civettictis civetta* (Schreber, 1776). *International Journal of Current Research* 8(03):27787-27794

DR. MARGARET YOUNG

Associate Professor, Natural Sciences (Biology)

FACULTY PRESENTATIONS

- Society for In Vitro Biology - Local Organization Committee for Conference in Raleigh, NC (2016 – 2017)
- Dr. Margaret Young - Moderator – Interactive Poster Session "Metabolic engineering". SIVB National Conference, Raleigh, NC. June 13, 2017
- C. Merricks and Dr. Margaret Young (2017). Student Poster Presentation: "Tissue culture of the kenaf (*Hibiscus cannabinus*) cultivar Whitten". ECSU Undergraduate Research Week, April 2017

DR. JINCHUN YUAN

Professor, Natural Sciences (Biology)

GRANTS FUNDED

- "An integrated and Holistic environmental and ecological assessment of the Gulf Stream current environment off the coast of Cape Hatteras, NC." UNC Coastal Studies Institute, \$6,302.00.
- Dr. Yuan, Dr. Hasan and Dr. Anderson, "Young Faculty Exchange and Student Mentoring in Coastal Hazards and Maritime Environment Security at ECSU" received \$1,499,984 from the Department of Homeland Security (DHS) (Continuation Award)

DR. MEHRAN ELAHI

Professor, Technology (Technology)

FACULTY PRESENTATIONS

- Turner, J. Smith, M. Elahi, "A Hybrid Renewable Energy System: Wind and Solar," 2017 LSAMP Symposium, Saint Augustine's Univ., Mar. 31 – Apr. 2 in Raleigh, NC.
- M. Elahi, "Electricity Generation using Photovoltaic Solar Technology," Presentation and workshop to seventy students from the NEAAAT academy, ECSU, Feb. 10, 2017.
- M. Elahi, "Electricity Generation using Wind Turbine Technology," Presentation and workshop to seventy students from the NEAAAT academy, ECSU, Oct. 7, 2016.
- M. Elahi, and O. Mohammad, "A Comprehensive Wind Energy Resource Assessment Using Remote Sensing Technology at Elizabeth City North Carolina," was accepted for presentation at the 2016 ATMAE Annual Conference: Entering the Future this November 2-4 in Orlando, Florida.

GRANTS FUNDED

- M. Elahi (ECSU PI), J. Rousch (Co-PI) "Eastern North Carolina Collaborative Renewable Energy Assessment", Educational Research Project (\$56,433) 2013-2016.

DR. AKBAR ESLAMI

Professor, Technology (Technology)

FACULTY PRESENTATIONS

- American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2016, New Orleans, "Real-Time Data Acquisition and Structural Health Monitoring System."
- Research poster to ECSU 6TH chancellor Dr. T. Conway as a mark of Tribute in honor of his installation ceremony on 3/9/2017, ECSU, "Mechanical Design of Coronagraph CubeSat."
- Design Optimization research to army scientists at Army Research Lab at Aberdeen, MD 2017.
- Feb 8, 2017 and April 4, 2017 on STEM research week and university research week, Title of presentation: "Additive Manufacturing and 3D printing."

FACULTY PUBLICATIONS

- Eslami, A., Graham Harrison (student), Mark Long (student), "Real-Time Data Acquisition and Structural Health Monitoring System," Proceedings of the 2016 American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2016, New Orleans.
- J. Luttagmaguzi, A. Eslami, M. Brooks (student), E. Sheybani, G. Javidi, P. Gabriel, "Using Simulations and Computational Analyses to Study a Frequency-Modulated Continuous-Wave Radar," International Journal of Interdisciplinary Telecommunications and Networking (IJITN), V9. Issue 1, Jan-Mar.2017.

DR. ORESTES D. GOODEN

Professor, Technology (Aviation Science)

FACULTY PUBLICATIONS

- Co-authored "Mobile Aerospace Education Lab (m-AEL): A NASA Supported K-12 "Roadshow-In-A-Box" Initiative To Advance Aviation/Aerospace Education In Underserved Counties was accepted by the American Society For Engineering Education (ASEE)
- Rawat, K. S., Mangham, R. R., Gooden, O. D. (2016). Implementation and Evaluation of an Engineering-Focused Outreach Program to Improve STEM Literacy (Evaluation). American Society for Engineering Education.

GRANTS FUNDED

- Co-Investigator for NASA MUREP Aerospace Academy of North Carolina Grant (\$347,000)
- Co-investigator for DOJ/NIJ Cost Effective Aviation Technologies and Research to Support Counter-Poaching Operations and Rural Law Enforcement Grant (\$956,204)

Ms. ROBIN MANGHAM

Lecturer, Technology, (Aviation Science)

FACULTY PUBLICATIONS

- Rawat, K. S., Mangham, R. R., Gooden, O. D. (2016). Implementation and Evaluation of an Engineering-Focused Outreach Program to Improve STEM Literacy (Evaluation). American Society for Engineering Education.

GRANTS FUNDED

- Co-Investigator: Cost-Effective Aviation Solutions to Support Counter-Poaching and Rural Law Enforcement Operations – Agency: National Institute of Justice (NIJ)/ Office of Justice Programs \$956,204 (OJP), (2015 – 2018).

Dr. KULDEEP RAWAT

Professor, Technology (Director of Aviation Science)

FACULTY PRESENTATIONS

- Rawat, K.S. "NASA K-12 Aerospace Academy Program: Advancing STEM Literacy in Rural and Underserved Regions," Presentation at 5th Annual Bridging the Gap Conference, October 25 – 26, 2016, Raleigh, NC.
- Rawat, K.S., "Unmanned Aircraft System (UAS) Technology: The Future of Modern Agricultural Industry," Presentation at 2016 ATMAE Annual Conference, November 2 – 5, 2016, Orlando, FL.

FACULTY PUBLICATIONS

- Rawat, K.S., Mangham, R., and Gooden, O.D. "Implementation and Evaluation of an Engineering-Focused Outreach Program to Improve STEM Literacy," in Proceedings of American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 25-28, 2017, Columbus, OH.
- Rawat, K.S., Lawrence, E.E., and Gooden, O.D. "Mobile Aerospace Education Lab (m-AEL): A NASA Supported K-12 "Roadshow-In-A-Box" Initiative to Advance

Aviation/Aerospace Education in Underserved Counties," in Proceedings of American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 25-28, 2017, Columbus, OH. (Selected as one of the top 5 papers on Diversity)

- Rawat, K.S. "Mobile STEM Learning Lab Initiative to Expand Engineering Education to Rural Counties," in Proceedings of American Society for Engineering Education (ASEE) Zone 2 Conference, March 2-5, 2017, San Juan, PR.
- Rawat, K.S. "K-12 Aerospace Academy Program at ECSU: Implementation and Evaluation," in Proceedings of American Society for Engineering Education (ASEE) Zone 2 Conference, March 2-5, 2017, San Juan, PR.

GRANTS FUNDED

- Faculty Start-up Package to Strengthen Materials Research at ECSU (Co-PI) – DoD/Navy, Funded Award: \$99,904 (2017-2019).
- College and Career Pathways to Aerospace/Aviation through Authentic and Experiential STEM Learning Activities (PD) – Burroughs Wellcome Fund (BWF), Funded Award:\$171,087 (2016 – 2019).
- Expand Aerospace Science Education in Northeastern NC (EASENNC), North Carolina Grant Affiliate Program – NASA/NC Space Grant Consortium Funding, (PI), Funded Award: \$10,000 (2016-2017).
- National Summer Transport Institute at ECSU (Co-PD), Source: Federal Highway Administration/NC Department of Transportation (NC DOT), Funded Award: \$55,000 (Summer 2017).
- Aviation Career Education Academy (PI), Source: FAA/ NC Division of Aviation, Funded Award: \$6,000 (Summer 2017).
- Cost-Effective Aviation Solutions to Support Counter-Poaching and Rural Law Enforcement Operations (PI) – Agency: National Institute of Justice (NIJ)/Office of Justice Programs (OJP), Funded Award: \$956,204 (2015 – 2018).
- NASA MUREP Aerospace Academy (MAA) of Northeastern North Carolina (PI) –NASA, Funded Award: \$347,384 (2015 – 2018).
- Strengthening Aviation Education and Workforce in Northeastern NC (PD) – Golden LEAF Foundation, Funded Award: \$1.1 Million (2015 – 2018).

Department of Mathematics

FACULTY

RESEARCH

DR. LIN CHEN

Assistant Professor, Mathematics & Computer Science (Computer Science)

FACULTY PRESENTATIONS

- "Optimized Machine Learning for Human Agent Teaming". At the Army Research Laboratories (August 5, 2017) and Thurgood Marshall College Fund (TMCFF) and Army Research Laboratories, Summer Faculty Research Fellowship.

DR. MALCOLM DCOSTA

Professor, Mathematics & Computer Science (Computer Science)

FACULTY PUBLICATIONS

- 2016 "Evaluating NeuroSky's Single-Channel EEG Sensor for Drowsiness Detection," International Conference of Human Computer Interaction, 243-250, Springer, Cham
- 2016 "Dissecting Driver Behaviors Under Cognitive, Emotional, Sensorimotor, and Mixed Stressors," Scientific Reports 6, Article number: 25651.

DR. LINDA HAYDEN

Professor, Mathematics & Computer Science (Mathematics)

FACULTY PRESENTATIONS

- Mentoring the Next Generation of Science Gateway Developers and Users May 13-24, 2017, Athens, Greece.
- 11th International Conference of the African Association of Remote Sensing of the Environment, Kampala, Uganda.

GRANTS FUNDED

- REU Site: Science Gateways Research Experience for Undergraduates (SG-REU), National Science Foundation, Amount: \$479,964.

DR. ANTONIO ROOK

Lecturer, Mathematics & Computer Science (Computer Science)

GRANTS FUNDED

- ECSU NC-MSEN NSTI-Middle School, FHWA, Amount: \$52,193

Dr. DIPENDRA SENGUPTA

Professor, Mathematics & Computer Science (Mathematics)

FACULTY PUBLICATIONS

- 2016 Application of Graph Entropy in CRISPR and Repeats Detection in DNA Sequences. Computational Molecular Bioscience, 6, 41-51.
- 2016 "Prime Difference Champion" Arxiv.

DR. JHARNA D. SENGUPTA

Professor, Mathematics & Computer Science (Mathematics)

FACULTY PRESENTATIONS

2016 Application of Graph Entropy in CRISPR and Repeats Detection in DNA Sequences. Computational Molecular Bioscience, 6, 41-51.

- 2016 "Prime Difference Champion" Arxiv.

Department of Education, Psychology & Health

DR. KIMBERLY FITCHETT-BAZEMORE

Associate Professor, Education, Psychology & Health (Special Education)

FACULTY PRESENTATIONS

- Fitchett-Bazemore, K., & McPherson, K. (2016). Assistive Technology? It's in Their Pockets! Presentation presented at the 66th Conference on Exceptional Children, Greensboro, NC.

DR. SCOTT BRADSHAW

Professor, Education, Psychology & Health (Psychology)

GRANTS FUNDED

- \$5,000 grant from the Appalachian State Energy Summit for Reflection/Zen Zone Development to create natural areas that will facilitate relaxation, encourage students to be outside, and to generally beautify the campus.
- Grant Writing & Research Collaboration 2017

Appalachian State Energy Summit grant funded (\$5,000)

- Included as Project Evaluator on two grants submitted by Dr. Mackey (PI)
- Included as Project Evaluator on the E-MARC grant renewal by Dr. Banerjee (PI)

DR. KACEY DIGIACINTO

Associate Professor, Education, Psychology & Health (Kinesiology)

FACULTY PRESENTATIONS

- Culp, B. DiGiacinto, K. & Hersman, B. (2017). Of most worth? Uncovering critical public pedagogy in movement spaces. AIESEP Conference in Guadeloupe.
- Burt, D.J. & DiGiacinto, K. (2017). The splitting of Kinesiology, purpose and housing. NAKHE Conference in Orlando, FL.
- DiGiacinto, K. & Culp, B. (2016). So? Kinesiology student impressions on the value of cultural studies. AIESEP International Conference in Laramie, WY.

- DiGiacinto, K. & Hersman, B. (2016). Don't be afraid of ICT: Modeling effective technology use for best practice. AIESEP International Conference in Laramie, WY.
- Burt, D., Culp, B. & DiGiacinto, K. (2016). Stewardship in doctoral students. NAKHE Conference in San Diego, CA.
- Hersman, B., DiGiacinto, K., Langdon, J. & James-Hassan, M. (2016). Practicing what we preach: How to improve YOUR teaching effectiveness in increase student learning. NAKHE Conference in San Diego, CA.

FACULTY PUBLICATIONS

- DiGiacinto, K.L., Bulger, S., & Wayda, V. (2017). Rethinking PETE program admissions to include teacher candidate dispositions. The Physical Educator. 74(1). 63-84.
- DiGiacinto, K.L. (2016). PE followed me home today: Effects of an Activity Challenge on youth summer physical activity. North Carolina Association of

DIGIACINTO (continued)

Athletics, Health, Physical Education, Recreation, Dance, and Sport Management Journal. Fall 2016, 34-51.

- Bulger, S., Braga, L., DiGiacinto, K. & Jones, E. (2016). Student recruitment and retention efforts in PETE: Cloudy skies or silver linings. *Journal of Physical Education, Recreation & Dance*. 87 (8), 34-41.
- DiGiacinto, K. (2017). Chronic Diseases In D. Burt (Ed.), *A life of wellness: Health and fitness for young adults*. San Diego, CA: Cognella.

DISTINGUISHED SERVICE

- Recognized for Distinguished Service as the North Carolina Student Majors' Association Advisor for the North Carolina Alliance for Athletics, Health, Physical Education, Recreation, Dance, and Sport Management, Winston-Salem, NC, November 2016.

DR. GERALDINE HILL

Assistant Professor, Education, Psychology & Health (Education)

GRANTS FUNDED

- "IGNITE Next Generation of New Teachers" Proposal Sponsor: Kellogg Foundation, Total Funds Requested: \$300,000, Dr. G. Williams, Principal Investigator Dr. G. Hill Co- Principal Investigator & Dr. J. Brown Co-Principal Investigator.

DR. BOUNG KANG

Assistant Professor, Education, Psychology & Health (Kinesiology)

FACULTY PRESENTATIONS

- Kang, B. J. & Back, J. H. (2017, March). "Exploring Pre-service Taekwondo Masters' Occupational Socialization process through International Internship." Society of Health and Physical Educators (SHAPE), Boston, MA.
- Back, J. H., Kang, B. J. & Kim, H.Y. (2017, March). "The Perspectives of Parents on the Effect of Taekwondo Training." Society of Health and Physical Educators (SHAPE), Boston, MA.
- Garza, C. E., Martinez, D. A., Park, K. S., Solis, L., & Kang, B. J. (2016, May). "Changes in Total Antioxidant Status and 8-OXO-Guanosine After Exercise in Smokers Following Two Hour Cessation." American College of Sport Medicine (ACSM), Boston, MA
- Martinez, D. A., Garza, C. E., Kang, B. J., Solis, L., & Park, K. S. (2016, May). "Changes in BMI and Physical Fitness in Female High School Students Following Summer School Program." American College of Sport Medicine (ACSM), Boston, MA

FACULTY PUBLICATIONS

- Oh, Y., Kang, B. J., Yoo, S., Lopez, A. (2016). Overweight and obese college students' perceived barriers and motivators for a healthy lifestyle. *European Journal of Educational Sciences*, 3, 17-26

DR. KULWINDER KAUR-WALKER

Professor, Education, Psychology & Health (Psychology)

FACULTY PRESENTATIONS

- "Academic Careers in Psychology" at NCPF Undergraduate Annual Psychology Conference at NC A&T, Greensboro in November 2016
- "Mental Health Issues at ECSU" with a group of students during ECSU Research Day Presentations
- Advised one Undergraduate Honors Thesis by Anneisha Lynch, "Colorectal Cancer Prevention: A Change through College Students" and advised at (8) individual senior student empirical research projects in Psychology

GRANTS FUNDED

- Dr. Kulwinder Kaur-Walker and Dr. Anthony Emekalam as Co-PI, "Mental Health Capacity Building and Workforce Development" a mini grant was funded by Morehouse School of Medicine – HBCU CFE in October 2016 in the amount of \$7500. The project has given opportunity to students to have hands on experience in mental health issues, get some stipend money and motivation to prepare for mental health professions that we need desperately.

DR. GWENDOLYN WILLIAMS

Distinguished Professor, Education, Psychology & Health (Education)

FACULTY PRESENTATIONS

- "Diverse Students, Diverse Opportunities: Necessary Insights & Possibilities". "A Distinctly American Opportunity: Crossing Linguistic Boundaries by Exploring Non-Standardized Englishes in Policy and Practice", National Council of Teachers of English, Annual Conference, Atlanta, GA, November 2016.
- Graduation Keynote Address to Students of North East Academy, Aerospace, Advanced Technologies.
- Growing the 2 + 2 Partnership to Promote Home Grown Teachers – Presentation to Districts and Partners- Halifax County, May 2017.
- Reading and Writing One Week Professional Development Institute, 3 hour Professional Development Summer 2017
- "Harnessing the Power of the Research Agenda" In celebration of the 125th Anniversary in Scholarly Dialogues
- Framing the Collaboration with Department of Education, Psychology and Health @ ECSU. Presentation to Rotary Foundation, March 2017.
- Project Based Learning- An Investigative Way of Teaching and Learning- Presentation to New Faculty, On Boarding Series, Elizabeth City State University April 2017.

- Building Strong Partnerships with the Northeastern North Carolina's 21 Counties- Presentation to Area Superintendents—The Pines, Elizabeth City, NC, October 2016.

FACULTY PUBLICATIONS

- Towards Transculturalism in Tackling Diversity for Literacy Teacher Education, Patriann Smith, S. Joel Warrican and Gwendolyn Williams, In *Literacy Lives in Transcultural Times*; edited by Rahat Zaidi and Jennifer Rowsell, 2017.
- Scholarly Publication Boards
- Editorial Advisory Board- Navigating Micro Aggressions Toward Women in Higher Education- IGI Global.

GRANTS FUNDED

- Northeast Academy for Aerospace and Advanced Technologies Get REAL: Reinventing Education to Accelerate Learning (\$200,000)
- Project Based Learning Proposal Sponsor: Golden Leaf, Total Funds Requested: \$200,000, A. Harris, Principal Investigator, G. Williams Co- Principal Investigator
- "IGNITE Next Generation of New Teachers" Proposal Sponsor: Kellogg Foundation, Dr. G. Williams, Principal Investigator Dr. G. Hill Co- Principal Investigator & Dr. J. Brown Co- Principal Investigator. (\$300,000)
- Strengthening the Teacher Education Program (SAFRA) \$136,145

Department of Social and Behavioral Sciences **FACULTY RESEARCH**

DR. GLEN BOWMAN

Professor, Social and Behavioral Sciences (History)

FACULTY PUBLICATIONS

- G. Bowman (2015) History of Elizabeth City State University, 1891-2016: The Continuity of a Historical Legacy of Excellence and Resilience. (Donning Press, 2015).
- G. Bowman (Book Review of Edward Blum, Reforming the White Republic: Race, Religion, and American Nationalism, 1865-1898, in Anglican and Episcopal History).
- "Bishop Patterson spearheaded Weekend College," Daily Advance, May 22, 2016.
- "Students follow art instructor's lead in making mark," Daily Advance, May 29, 2016.
- "Minister was unsung hero of civil rights movement," Daily Advance, June 5, 2016.
- "Remembering the HEW lawsuit," Daily Advance, June 12, 2016.
- "EC police chiefs' soft answer' averted violence," Daily Advance, June 19, 2016.
- "Mitchell one of first African-Americans to serve on board," Daily Advance, June 26, 2016
- "Pasquotank-born oil tycoon donated heavily," Daily Advance, July 3, 2016
- "College president began career at Elizabeth City State," Daily Advance, July 10, 2016
- "College president passed through EC State," Daily Advance, July 17, 2016
- "General Education Board shaped education in the South," Daily Advance, July 24, 2016
- "Graduate Center named after education supporter," July 31, 2016
- "Daniels was closest thing ECSU had to a professional lobbyist," Daily Advance, August 7, 2016
- "Holley helped ECSU adjust to rapid change from desegregation," August 14, 2016
- "Witherspoon known as peacemaker on Pasquotank County board," Daily Advance, August 21, 2016
- "Caldwell led golden decade of Viking football," Daily Advance, August 28, 2016
- "Woman behind ECSU coaching legend made mark," Daily Advance, September 4, 2016
- "Jones among most prominent doctors of his time," Daily Advance, September 11, 2016
- "Football stadium named after EC State dean," Daily Advance, September 18, 2016
- "1978 Vikings-Rams football game was aired on ABC," Daily Advance, September 25, 2016
- "Franklin wrote and lived history during Civil Rights Movement," Daily Advance, October 2, 2016
- "Ehringhaus backed sales tax to fund schools during Great Depression, October 9, 2016"

- Gov. Scott helped break color barriers in northeast NC," Daily Advance, October 16, 2016.

DR. MELODY BRACKETT

Associate Professor, Social and Behavioral Sciences (Social Work)

FACULTY PRESENTATIONS

- M. Brackett, M. Rochelle, Wright, M. (2017). "Adopting A Financial Capability and Asset-Building Curriculum at Historically Black Colleges and Universities", Journal of Human Behavior in the Social Environment.
- M. Brackett & K. Downing (2017). Criminalization of Violence Against Women and Laws Against Domestic Violence: A Comparative Study of the United States and South Asia (Pakistan and Bangladesh) in Crime, Criminal Justice, and the Evolving Science of Criminology in South Asia. Publisher: Palgrave and Macmillian.

OTHER FACULTY ACCOMPLISHMENTS

- Dr. Charles Reed and Dr. Brackett assisted with implementing the Interdisciplinary Program at ECSU.

DR. MARGERY COULSON-CLARK

Associate Professor, Social and Behavioral Sciences (Political Science)

FACULTY PRESENTATIONS

- Conference proposal "Mentoring Guide to College Faculty and Administrators in Culturally Diverse Settings" was Accepted and Presented at the July Symposium in Fayetteville.

FACULTY PUBLICATIONS

- M. Coulson Clark (2017). Mentoring Guide to College Faculty and Administrators in Culturally Diverse Settings", Journal of Research Initiatives International.

DR. CHYNA CRAWFORD

Assistant Professor, Social and Behavioral Sciences (Criminal Justice)

GRANTS FUNDED

- Dr. Chyna Crawford- UNC-Enhancing Course Formats to Serve Partway Home & Non-Traditional Students For Criminal Justice Students. (\$10,000)

DR. KIM DOWNING

Associate Professor, Social and Behavioral Sciences (Social Work)

FACULTY PRESENTATIONS

- M. Brackett & K. Downing (2017). Criminalization of Violence Against Women and Laws Against Domestic Violence: A Comparative Study of the United States and South Asia (Pakistan and Bangladesh) in Crime, Criminal Justice, and the Evolving Science of Criminology in South Asia. Publisher: Palgrave and Macmillian.

Grants Funded

- Kim Downing- UNC-Enhancing Course Formats to Serve Partway Home & Non-Traditional UNC-Enhancing Course Formats to Serve Partway Home & Non-Traditional Students For Social Work Students

DR. ROBERT FREELAND

Assistant Professor, Social and Behavioral Sciences (Sociology)

FACULTY PRESENTATIONS

- Modeling Social Interactions: New Directions in Affect Control Theory Conference, June 22, Hanover, New Hampshire. Topic- "Modeling Occupational Status Using Affect Control Theory.
- Modeling Social Interactions: New Directions in Affect Control Theory Conference, June 22, Hanover, New Hampshire. - Freeland, Robert and Catherine Harnois. 2017. "A Multidimensional Model of Occupational Gender Stratification.

FACULTY PRESENTATIONS

- R. Freeland, Krieger, Clark, Heise, Abdul-Mageed, Robinson, Rogers, and Smith-Lovin. Forthcoming. "A Multi-level Investigation of Arabic-language Impression Change." International Journal of Sociology. (Forthcoming).

DR. DOROTHY KERSHA-AERGA

Associate Professor, Social and Behavioral Sciences (Criminal Justice)

FACULTY PRESENTATIONS

- Kersha-Aerga, D. Hanson, D, and White-Lewis, E. (2017). The End of an Era. Journal of Criminal Justice and Law Review (Pending Publication).
- Kersha-Aerga, D., Elechi, O., & Okoye, E. I. (2017). Recidivism. In "The Use and Abuse of Police Power in America: Historical Milestones and Current Controversies" by G. Robertiello (ed.). Santa Barbara, CA.: ABC-CLIO/Greenwood/Praeger.
- Okoye, E. I., Elechi, O., & Aerga, D. (2017). Police Corruption. In "The Use and Abuse of Police Power in America: Historical Milestones and Current Controversies" by G. Robertiello (ed.). Santa Barbara, CA.: ABC-CLIO/Greenwood/Praeger

DR. KEVIN KUPIETZ

Assistant Professor, Social and Behavioral Sciences (Emergency Management)

FACULTY PRESENTATIONS

- NCCCS Adult Education Conference – Integration of fire EMS Programs into Community College Programs

DR. CHARLES REED

Professor, Social and Behavioral Sciences (History)

FACULTY PRESENTATIONS

- Chair and Commentator. "Dressed for War: Gender, Fashion, and Empire in the British Military," Mid-Atlantic Conference on British Studies, College Park. April 2017.
- Organizer and Chair. "History at Minority-Serving Institutions: Strategies and Opportunities," American Historical Association Annual Meeting, Denver. January 2017.

(REED CONTINUED)

- C. Reed (2017). "Royalty, Loyalty, and Citizenship in the Late Nineteenth-Century British Settler Empire," in *Royals on Tour: Politics and Pageantry in Colonies and Metropolises*, ed. Robert Aldrich and Cindy McCreery (Manchester: Manchester University Press, forthcoming).
- C. Reed (2017). "Cooperation at its Limits: Re-Reading the British Constitution in South Africa," in *Cooperation and Empire: Local Realities of Global Processes*, ed. Tanja Bühner, Flavio Eichmann, Stig Förster and Benedikt Stuchtey. Oxford: Berghahn Books.

DR. MELISSA STUCKEY

Assistant Professor, Social and Behavioral Sciences (History)

FACULTY PRESENTATIONS

- Invited Lecture, "Boley, Indian Territory: Freedom and the Black Town," Clemson University, Clemson, SC, November 2016. (Also given at the Institute for African American Research, University of North Carolina at Chapel Hill, October 2016 and Career Diversity Speaker Series, Wayne State University, Detroit, MI, September 2016).
- Panelist, "Meet Me in Boley, Oklahoma: The Professional Historian, the Nonprofit Organization, and the Black Town," "Artifacts, Photographs, and Stories: Collaborating with Families and Communities to Create New Histories," Western History Association, October 2016.

- Panel Organizer and Chair, "Black Communities in the Far West," Western History Association, October 2016.
- Panelist, "Boley, Indian Territory: Freedom and the All-Black Town," African American Borderlands in the Long 19th Century, American Historical Association, January 2016.

FACULTY PRESENTATIONS

- M. Stuckey & A. Miller (2017). "Building a Foundation for the Future: 2016 Equity Award Winner: Department of History, University of Texas at El Paso," *Perspectives on History*.
- M. Stuckey (2016). "Understanding the Role of the CMH in the AHA," *Perspectives on History*.

MR. WAVERLY TILLAR

Lecturer, Social and Behavioral Sciences

FACULTY PRESENTATIONS

- NC HOUSE BILL 2, -LBGTQ- Panel Discussion-"Time To Think Differently"

DR. JINGBIN WANG

Associate Professor, Social and Behavioral Sciences

FACULTY PRESENTATIONS

- J. Wang . Legalism and the American Empire," *Review of Benjamin Allen Coates, Legalist Empire: International Law and American Foreign Relations in the Early Twentieth Century* (New York: Oxford University Press, 2016), H-Empire, H-Net Reviews.

Department of Business & Economics

Dr. CONFIDENCE W. AMADI

Professor, Business & Economics

FACULTY PUBLICATIONS

- Tao, K. and Jin, Y. (2017). "Cultural Impacts on Cognitive Dissonance and OM/eNWOM," *Communications of the IIMA* : Vol. 15: Iss. 1 , Article 4.

DR. W. LIN

Professor, Business & Economics

FACULTY PUBLICATIONS

- Yuan, X., Lin, W., and Oriaku, E. 2017. Executive compensation, financial performance and say on pay votes. *International Journal of Business*

and Economic Development, 5(1): 85-94.

DR. KINGSLEY NWALA

Professor, Business & Economics

FACULTY PRESENTATIONS

- Nwala, Kingsley. 2016. The determinants of economic growth: An empirical investigation of North Carolina"Presented at the International Atlantic Economic Conference, October 13-16, Washington DC

DR. EBERE ORIAKU

Professor, Business & Economics

FACULTY PUBLICATIONS

- Yuan, X., Lin, W., and Oriaku, E. 2017. Executive compensation, financial performance and say on pay votes. *International Journal of Business and Economic Development*, 5(1): 85-94.
- Oriaku, N. and Oriaku, E. 2016. The relationship between Currency Conversions and International Business Transactions: Small Businesses and Travelers, *The Economics and Finance Letters*, 3(4): 57-63.

DR. NGOZI ORIAKU

Professor, Business & Economics

FACULTY PUBLICATIONS

- Oriaku, N. and Oriaku, E. 2016. The relationship

Department of Business & Economics (continued)

FACULTY RESEARCH

between Currency Conversions and International Business Transactions: Small Businesses and Travelers, *The Economics and Finance Letters*, 3(4): 57-63.

DR. JOY TURNHEIM SMITH

Professor, Chairperson, Business and Economics

GRANTS FUNDED
(7/1/16-6/30/17)

- Smith, J. BUAD 360. UNC Course Redevelopment Grant (part of larger submission). Funding sought: \$2500 BUAD 360.

DR. KUNGPO TAO

Assistant Professor, Business & Economics

FACULTY PUBLICATIONS

- Tao, K. and Jin, Y. (2017). "Cultural Impacts on Cognitive Dissonance OM/eNWOM," *Communications of the IIMA* : Vol. 15: Iss. 1 , Article 4.
- Tao, K., and Fletes, S. (2016). Customers' Feedback and Sellers' Reputation: The Effect of Online Shopping Information. *World Journal of Management*, 7(2): 126-138.

DR. XIALOI YUAN

Professor, Business & Economics

FACULTY PUBLICATIONS

- Yuan, X., Lin, W., and Oriaku, E. 2017. Executive compensation, financial performance and say on pay votes. *International Journal of Business and Economic Development*, 5(1): 85-94.

Department of Language, Literature & Communication

DR. MARY-LYNN CHAMBERS

Associate Professor/Interim Director of International Studies, Language, Literature & Communication

FACULTY PRESENTATIONS

- "A Tempest is Brewing: Safety and Sorrow in an Island Setting" 16th and 17th Century British Literature Conference. April 1, 2017.
- "Using 21st Century Strategies to Inspire Online Learning Success in our Under Represented Student Populations." Oct. 28, 2016

FACULTY PUBLICATIONS

- "The Impact of the Harlem Renaissance on the Development of African American Voice within Literature." *Writing the Harlem Renaissance: Revisiting the Vision*. Lexington Books, 2017.
- *Pedagogy and Practice: A Multi-Modal Approach for a Multi-Ethnic Online Classroom*. Common Ground Publishing, 2016.
- "A Rhetorical Mandate: A Look at Multi-Ethnic/Multi-Modal Online Pedagogy." *Applied Pedagogies: Strategies for Online Writing*. University Press, 2016.
- "A Sneak Peek into College Writing: Conducting a Plagiarism Workshop for High School Students." *Crosspoll: A Journal of Transitions for High School & College Writing Teachers*, 2.1 (2016); co-authored with Abigail Scheg.
- "Theoretical Examination of Toni Cade Bambara's 'The Lesson.'" *Global Journal of English Language and*

Literature, 4.2 (2016).

- "Globalization and the Cultural Impact on Technical Communication." *European Scientific Journal* (2016).

MR. ROBERT CHAMBERS

Adjunct, Language, Literature and Communication

FACULTY PRESENTATIONS

- "Distinguishing the Important in Sacred Literature." Learning Theories Training Session. Orlando, FL. 14 October, 2016.
- "Language Transfer Issues." Translation for Educational Purposes Conference. Manchester, UK. 16 December, 2016.
- "Translation Principles." International Linguistics Conference. Tbilisi, Georgia. 16 February, 2017.
- "Matrix for Translation Quality Assurance." Language Transfer Conference. Tsq'neti, Georgia. 12 May, 2017

DR. MICHAEL JASPER

Associate Professor, Language, Literature, & Communication

FACULTY PUBLICATIONS/RESEARCH

- *Breeding-in-and-in: Darwin and the Degenerate Aristocrats.* *The Quint*. 8.3, June 2016, 8-28. (Peer Reviewed Journal)

- "Chapter VIII: The Great Migration, World War I, and the Origin of the Civil Rights Movement in Alabama." *The History of African Americans in Alabama*. Ed. by Vann R. Newkirk. McFarland Press. Forthcoming. Editor/Academic Advisor, Poetry Criticism, Gale Research, for the following entries:

- "Richard Crashaw"; "Don Juan," George Gordon, Lord Byron; "Bharavi"; "The Prelude," William Wordsworth; "Auld Lang Syne,"; Robert Burns; "G.K. Chesterton"; "Lyrics of a Lowly Life," Paul Laurence Dunbar; "Paul Revere's Ride," Henry Wadsworth Longfellow; "Evangeline," Henry Wadsworth Longfellow; "The Raven," Edgar Allan Poe; "Poems and Ballads," Algernon Charles Swinburne; "Philip Freneau"; "Phyllis Wheatley" Editor/Academic Advisor, Short Story Criticism, Gale Research, for the following entries:

- "Honore de Balzac"; "Ernest Hemingway"; "S.Y. Agnon"; "Roberto Bolano"; "Leonora Carrington"; "Emma Donoghue"; "Anton Chekhov"; "William H. Gass"; "Elie Wiesel"; "Adam Mickiewicz"

GRANTS FUNDED

- Dr. Michael and Dr. Amber Stamper, "Course Redesign Grant" (UNC-GA, \$10,500)
- Dr. Michael Jasper and Dr. Amber Stamper, "National Shooting Sports Foundation Student Activity Grant (National Shooting Sports Foundation, \$10,300)

DR. KENNETH ELVIS JONES

Hugh-Cale Distinguished Professor, Language, Literature, & Communication

FACULTY PUBLICATIONS

- Unpublished: "College Women's Attitudes about Imprisoned Women in Orange is the New Black and Real Life Women Prison Inmates," (2017) with student, Brandi Gray, Elizabeth City State University.

OTHER

- Led Honors Program debate team to fourth place finish and "Best Affirmative Research" award at the National African American Honors Programs (NAAHP) Conference, November 2016.
- Led quiz bowl team to second place finish in 10-team Honda Campus All-Star Challenge National Qualifying Tournament at Virginia Union University, Richmond, VA, Feb. 2017.
- Led quiz bowl team to a top-20 finish at the Honda Campus All-Star Challenge National Championship Tournament in Los Angeles, CA, April 2017.

Ms. JENNA MILLER

Lecturer, Language, Literature, & Communication (English)

FACULTY PRESENTATIONS

- Council of Writing Program Administrators (CWPA) 2016 Conference – "From Quality Enhancement Plan to First Year Writing Program: Using Assessment to Re-Envision Freshman Composition Courses and Writing Center Support" – July 16, 2016

DR. SHARON D. RAYNOR

Assistant Professor, Language, Literature, & Communication (English)

FACULTY PRESENTATIONS

- "Collaboration and Influence: How do conversations across disciplines and areas shape research and analysis in the Humanities?" Humanities at Large: Visiting Faculty Fellows Conference.
- Humanities Writ Large, Duke University, March 23-24, 2017. (co-presenter: Jason Cohen)

FACULTY PUBLICATIONS

- Co-producer, The Silence of War. Documentary Film Program, Wake Forest University. www.thesilenceofwar.org (enhanced eBook with embedded short documentary films), September 2016.
- ECSU HBCU Master's Degree Program, U.s. Department of Education, \$2.5 M

DR. AMBER STAMPER

Associate Professor, Language, Literature, & Communication (English)

FACULTY PRESENTATIONS

- Elizabeth City State University – "Advising Bootcamp" – September 12, 2017.

- Elizabeth City State University Research Week – "The Beauty of Language, Literature, and Communication" – "7 Poems" – April 14, 2016.

FACULTY PUBLICATIONS

- "A New Era: African Americans in Alabama 1970-1987." A History of African Americans in Alabama. Ed. Vann Newkirk. Tuscaloosa, AL: U of Alabama P. Forthcoming.
- "Evangelical Communities Reborn: LifeChurch.tv, Rhetorical Space, and the Impact of Persuasive Communities Online." Journal of Religion, Media and Digital Culture. Forthcoming Fall 2017.
- "Antagonism on YouTube: Metaphor in Online Discourse." Journal of Religion, Media and Digital Culture. 5.1(2016): 271-274.
- "The Graven Images of Social Media: A Visual Rhetorical Approach." Christian Research Journal 39.2(2016).
- "An Ethic of Instagram." Christian Research Journal (2016).
- "When the Day is Honed and All is Bright: A Review of Steve Scafid's The Cabinetmaker's Window." 32 Poems. 2016. Editor/Literary Advisor, Short Story Criticism Series, Layman Poupard Publishers, Gale Research:
- "Auguste Villiers"; "George Robert Gissing"; "Alberto Gerchunoff"; "Ann Beattie"; "Angela Carter"; "Jhumpa Lahiri"; "D. H. Lawrence – The Virgin and the Gipsy"; "Thomas Hardy – Wessex Tales"; "Thomas Hardy – Three Strangers"; "Shirley Jackson – The Lottery"; "Albert Camus"; "Donald Barthelme"; "Margaret Atwood."

DR. ERIC WEIL

Associate Professor, Language, Literature & Communication (English)

FACULTY PUBLICATIONS

- One-Act Plays Produced:
- "Welcome to Afterlife," Playwrights Round Table, Orlando, FL, January, 2017
- "A Match Made In . . .", Valencia Community College, Orlando, FL, April, 2017
- One-Act Play Accepted for Production:
- "Chicken or Meatloaf," Cone Man Running Theatre, Houston, TX. Forthcoming, Nov. 2017
- Poems Published:
- "Girl Escapes Kidnapers, Credits Prayer," Kakalak, 2016. Blind-judged annual anthology of NC and SC poetry and photography.
- "Another Gulf," Iodine Poetry Journal, 2016.
- "Memory's Postcard," Pinesong, 2017. Second place, Hayman Poetry of Love Award.
- "moonlit nut hulls," Pinesong, 2017. Second place, Bloodroot haiku Award.
- "When to Lift the Eye," Pinesong, 2017. Third place, Poetry of Courage Award.
- The Pinesong publications are blind-judged contests sponsored by the North Carolina Poetry Society.
- Public Poetry Readings:
- Pasquotank Public Library, April, 2017. National Poetry

Month program.

- Page After Page Bookstore, Elizabeth City, April, 2017. National Poetry Month program.
- Weymouth Center, Southern Pines, NC, May, 2017. Awards program for the North Carolina Poetry Society.
- The Third Place, Charlotte, NC, September, 2017. Invited featured poet at monthly reading.

Department of Visual & Performing Arts

FACULTY

RESEARCH

MRS. JULIET BOYKINS

Visiting Lecturer/Director of Bands, Visual and Performing Arts (Music)

FACULTY PRESENTATIONS

- Mrs. Juliet Boykins (Presenter) "Pyware Clinic" IC Norcom High School, Portsmouth VA, 2016.

MR. CLARENCE GOSS, JR.

Assistant Professor, Visual and Performing Arts (Graphic Design)

GRANTS FUNDED

- Mr. Clarence Goss – NC Problem Gambling Program, Fall 2016-Spring 2017 (\$5,000).

MR. DOUGLAS JACKSON

Assistant Professor, Visual and Performing Arts (Music)

FACULTY PRESENTATIONS

- "Introduction To Cuban Music" - Museum of the Albemarle, Elizabeth City, Nov. 2016.
- "Max Roach Jazz drummer and North Carolina native," Randolph County Library Asheboro, NC, NC Road Scholars Program, May 2017.
- "Max Roach, Jazz drummer and North Carolina native" Pittsboro County Library, Pittsboro, NC, NC Road Scholars Program, May 2017.

DR. GLORIA KNIGHT

Professor, Visual and Performing Arts (Music)

FACULTY PRESENTATIONS

- Dr. Gloria Knight (Moderator) - "Surviving in the World of STEM," Region 7, Presenters: Dr. Tayloe Harding, Dr. John Kieser, Dr. Wozencraft-Ornellas, Facilitator: Dr. John Henry. National Association of Schools of Music (NASM) Annual Conference. Dallas Texas, (November 21, 2016).

DR. CHRISTOPHER PALESTRANT

Professor, Visual and Performing Arts (Music)

FACULTY PRESENTATIONS

- "State of the Art," Rotary of Elizabeth City, August 29, 2016.
- "Science of Sound." Science Café series, Port Discover, Elizabeth City, October 12, 2016.
- "Early Baroque Music and Instrumentation," for performance by Tempesta di Mare, Chrysler Museum of Art, Norfolk, November 14, 2016.
- "Broadway: 100 Years in 100 Minutes," Evenings at Saint Patrick Series, Norfolk, February 09 2017.
- "Big Music at the Movies," Naro Theatre, Norfolk, February 25, 2017.
- "Chamber Music 101," (new presentation and related

research) – co-presented with Feldman Chamber Society and Evenings at Saint Patrick Series, Norfolk, March 02, 2017.

- "Structure of the Blues ", as part of the program Symphonic Blues, ECSU, May 01, 2017.
- "The Blues Had a Baby" combined 6-8th grade students, Saint Patrick School, May 11, 2017.

FACULTY PUBLICATIONS/SCHOLARLY CREATIVE WORKS

- (Original composition), Between the Stoney Points for String Quartet, and related research to Related background research of American 18th century Colonial and 19th century Appalachian folk music.
- (Three orchestral arrangements for ECSU-Albemarle Symphony concert), Kansas City- Leiber and Stoller, 1952; Way Down in the Hole- Tom Waits, 1987; C.O.D.- Leo Gooden, 1964.
- (Original Composition) Performances of The Tidewater March
- Four performances by 52-piece professional concert band. Freedom Forever
- Norfolk Collegiate Hackney Theater, Norfolk, VA, July 10, 2016
- Great Bridge Baptist Church, Chesapeake, VA, July 11, 2016
- Spring Branch Community Church, Virginia Beach, VA, July 12, 2016
- The 24th St. Stage, 24th Street and Atlantic, Virginia Beach oceanfront, July 13, 2016

ENSEMBLES/PERFORMANCES/ADJUDICATIONS

- Virginia Symphony Orchestra Chorus
- Ferguson Center for the Arts, Newport News, VA– Borodin: Polivitsian Dances, September 23, 2016
- Chrysler Hall, Norfolk, VA–Borodin: Polivitsian Dances, September 24, 2016
- Sandler Center for the Performing Arts, Virginia Beach– Borodin: Polivitsian Dances, September 25, 2016
- Sandler Center for the Performing Arts, Virginia Beach, VA–The Music of Harry Potter, October 29, 2016
- "Uphill" (four-piece blues band. 16, avg. 3 hours on keyboards, organ, vocals)
- with the ECSU-Albemarle Symphony Orchestra, Elizabeth City, NC, May 5, 2017

DR. WALTER SWAN

Associate Professor, Visual and Performing Arts (Music)

ENSEMBLES/PERFORMANCES/ADJUDICATIONS

- Dr. Walter Swan (Performing)
- Virginia Opera Chorus – 38 performances, 2016-2017
- Chorus for Handel's Messiah, Hampton, VA, December 2016
- Soloist at Shaw University's Benefit Concert in Raleigh, NC, 2016

MR. JEFFREY WHELAN

Associate Professor, Visual and Performing Arts (Graphic Design)

FACULTY PRESENTATIONS

- "Foundation Pedagogy for Social Awareness: Change by Design," College Art Association Annual Convention, New York City, February 2017

HISTORICAL HIGHLIGHTS

FOUNDING

On March 3, 1891, Hugh Cale, an African-American representative in the N.C. General Assembly from Pasquotank County, sponsored House Bill 383, which established a normal (teaching) school for “teaching and training teachers of the colored race to teach in the common schools of North Carolina.” The bill passed, and Elizabeth City State University was born.



TODAY

Academics. Currently, ECSU offers 24 baccalaureate degree programs through its ten departments in arts and sciences, selected professional and pre-professional areas, and four master’s degree programs in Biology, Elementary Education, Mathematics, and School Administration. As of May 2013, undergraduate and/or graduate degrees have been conferred upon more than 20,000 students.

Rankings. Over the years, the university fared well among publications that rank institutions. ECSU has earned

national acclaim for its advancements: In 2007, *Diverse Issues in Higher Education* ranked ECSU #1 among Historically Black Colleges and Universities for its black male student-athlete graduation rate. Between 1999 and 2015, ECSU repeatedly earned national acclaim in *U.S. News and World Report* magazine’s ranking of best colleges in the south. The *U.S. News and World Report* 2016 edition of *Best Colleges* ranked ECSU #2 in the category of Top Public Schools (Regional Colleges in the South) and #18 among Historically Black Colleges and Universities. For the fourth consecutive year, *Washington Monthly* ranked ECSU #1 among baccalaureate colleges (2012-2015). ECSU was also named on the 2015 and 2016 *Military Friendly® Schools* lists. The *Military Times* has also ranked ECSU 17th in the nation for Best Bet for Vets among 175 universities. In 2016, ECSU was ranked #20, according to *BestColleges.com*, for the best HBCUs in the country. Also, *Money* magazine in cooperation with *Essence* ranked Elizabeth City State University as one of the top 15 HBCUs in the nation, and one of the top 50 best universities for African-American students.

The Campus. Since 2003, ECSU has built a Physical Education/Field House, University Suites, the Walter N. and Henrietta B. Ridley Student Complex, Viking Village, and Viking Tower. In 2010, the Pharmacy Complex opened, and the Willie and Jacqueline Gilchrist Education and Psychology Complex was completed in 2011.

In January 2016, Dr. Thomas E.H. Conway became Elizabeth City State University’s 11th chief executive officer and sixth chancellor. He was officially installed during a ceremony March 10, 2017.







Credits

Editor: Robert Kelly-Goss

Stories: *ECSU's Kenya Project Takes Flight Over the African Continent*
ECSU's Kenya Project Takes Flight Over the African Continent

Writer: Kesha Williams

Stories: *New Aviation Science Laboratory Opens*
ECSU's Kenya Project Takes Flight Over the African Continent
Homeland Security Grant Supports 6 Student Researchers
Area Youths Develop Math and Science Skills at ECSU

ECSU Office of Sponsored Programs, Contracts and Grants

History

From a normal school of teachers in 1891 to joining the University of North Carolina system in 1971, ECSU is a place where the smartest minds from all over the country come together to discover, learn and cultivate the foundations of their future.

Today

Currently, ECSU offers 28 baccalaureate degree programs through its ten departments in arts and sciences, selected professional and pre-professional areas and, four master's degree programs in Biology, Elementary Education, Mathematics, and School Administration. As of May 2013, undergraduate and/or graduate degrees have been conferred upon more than 20,000 students.



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ELIZABETH CITY STATE UNIVERSITY

FOUNDED 1891

**A constituent institution of the
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