

# RESEARCH WEEK 2016

125 Years

of Teaching, Research,  
and Community Outreach

*Making ECSU a valuable resource for developing the intellectual capital  
of the state and the nation and for addressing the environmentally  
sensitive economic needs of Northeastern North Carolina*



ELIZABETH CITY  
STATE UNIVERSITY



APRIL 11-15, 2016

<http://nia.ecsu.edu/ur/1516/rw16/>



## *Schedule of Events*

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### **Monday April 11, 2016**

**\* Department Displays**

9:00 – 1:30pm, Lobby Jenkins Science Center  
Presiding: Tarsha Rogers and Dana Poole

**\* Opening Session**

10:00 – 10:50am Room 138 Jenkins Science Center  
Presiding: Dr. Alonzo DeCarlo, *Academic Affairs &*  
Dr. Jeanette Morris

Welcome: Dr. Vann Newkirk, *Vice Chancellor for Academic Affairs*  
Research Week Social Media Presence : CERSER Team  
The Occasion : Dr. Eyualem Abebe, “The Importance of  
Research Activities at ECSU”

**\* Reception** 11:00 -12:30pm, Lobby Jenkins Science Center

**\* Internship Roundtable I**

3:00 – 3:50pm, Room 138 Jenkins Science Center  
Presiding: Dr. Lloyd Mitchell and Reshema Combs  
Presenters: Makitta Whitehurst-McLean, *Career Development*  
“Internships Make a Difference”  
Christin Smith, *Intern NC Dept of Transportation*

**\* Department of Homeland Security Seminar**

6:00 – 7:00pm, Room 204 Gilchrist Education Building  
Presiding: Dr. Lloyd Mitchell  
Presenters: Joseph Shore, Joel Davies, Andrew Register,  
Joel Gonzalez-Santiago

Refreshments

**\* Senior Art Show ArtiSix**

6:00 – 8:00pm, KE White University Gallery

**\* Incorporating Technology into the STEM classroom**

6:30 – 8:00pm, Room 204 Gilchrist Education Building  
Presiding: Dr. Farrah Ward  
Presenting: Dr. Denise Johnson, WSSU Representatives  
Refreshments

### **Tuesday April 12, 2016**

**\* Supporting Faculty Research (For Staff)**

11:30 – 12:30pm, Room 104 McLendon Hall  
Refreshments  
Presiding: Kenya Hinton and Lila Gonzales  
Presenter : Dr. Sheryl Bradford & Sponsored Programs Staff

**\* Using Computational Thinking to Solve Real World Problems**

2:00 – 3:30pm Room 138 Lane Hall  
Presiding: Dr. Kenneth L. Jones  
Presenter: Dr. Denise Johnson, WSSU Representatives

**\* Reception** 1:00 - 2:00pm, Room 216 Ridley Student Center

**\* Wilkins/Basnigh Endowed Chair Lecture Series**

Time 2:00 – 3:20pm, Ridley Student Center  
Presiding: Dr. Claudie Mackey  
Presenters: Jedidiah Gist-Anderson, Joshua Mallory,  
James Futrell and Carl Seward

**\* Business and Economics: UNC Businesswide Competition**

Time 2:00 – 3:20pm, Room 114 Williams Hall  
Presiding: Dr. Ngozi Oriaku and Dr. Ebere Oriaku  
Presenter: Dr. Kingsley Nwala and Dr. Kungpo Tao  
Presenting: Brian Hyman, Camaria Flowers, Sergio Fletes

**\* 6th Annual Jazz Festival**

7:30 – 9:00pm Burmin Fine Arts Center  
Presiding: Professor Clarence Goss  
Featuring Trombonist Michael Dease

### **Wednesday April 13, 2016**

**\* Science Bowl Competition**

9:00 -11:30am, Room 138 Jenkins Science Center  
Presiding: Dr. Leon Pringle, Dr. Gloria Payne,  
Dr. Gary Harmon

**\* Reception** Noon, Lobby Jenkins Science Center

**\* Internship Roundtable II**

1:00 - 1:50pm, Room 138 Lane Hall  
Presiding: Dr. Darnell Johnson  
Presenters: ECSU Students

**\* NSF’s Hubs and Spokes for Advanced Big Data Applications**

2:00 - 4:00pm, Chancellor’s Boardroom  
Presiding: Dr. Linda Hayden  
Presenters: Dr. Francine Alkisswani, *NTIA BroadbandUSA*  
Joyce Shaw, “ECSU BTOP Update”  
Suresh Murugan, *ECSU Chief Information Officer*  
Future Vision: Dr. Vann Newkirk, *Vice Chancellor*

**\* Faculty Research Seminar**

5:00 - 5:50pm, Room 104 Lane Hall  
Presiding: Dr. Dipendra Sengupta  
Presenters: Dr. Jinchun Yuan, Dr. Anthony Emekalam,  
Dr. Edmond Koker

### **Thursday April 14, 2016**

**\* African American Scientists**

9:30 - 10:50pm Room 229 Dixon-Patterson Hall  
Presiding: Orestes Gooden and Dr. Jeanette Morris  
Presenters: Dr. Johnny Houston, *Professor Emeritus*  
Dr. Hirendranath Banerjee

**\* Tour of CERSER lab and Aviation Department**

11:00 – 12:20pm Room 229 Dixon Hall  
Presiding: Robin R. Mangham and Dr. Lloyd Mitchell

**\* The Beauty of Language, Literature, & Communication**

2:00 – 3:20pm Johnson Hall 2nd Floor Room 220  
Presiding: Dr. Michael Jasper  
Presenters: Dr. Michael Jasper, Dr. Melvin Williams,  
Dr. Amber Stamper

**\* Libraries and the History of Lynching in North Carolina**

3:30 – 5:00pm G.R. Little Library  
Presiding: Dr. Juanita Midgett  
Presenting: Dr. Vann Newkirk, *Vice Chancellor*

**\* Reception – Free IEEE-GRSS membership for attendees**

4:00 – 5:00pm Room 229 Dixon-Patterson Hall

**\* Coastal Hazards Workshop**

5:00 – 6:20pm Room 229 Dixon-Patterson Hall  
Presiding: Dr. Linda Hayden and Usha Kulkarni  
Welcome and Comments: Dr. Harry Bass  
Presenting: Dr. Robert George, *CERSER Research Associate*  
Andrew Brumfield and Kevin Jones

### **Friday April 15, 2016 - NASA Day**

Presiding: Dr. Darnell Johnson, Ridley Student Center  
9:00am – Noon Department Displays  
9:00 – 11:00am NASA Sessions & Demonstrations  
9:00 – 11:00am ECSU Student Poster Session  
11:00 – Noon NASA Seminar for ECSU students/faculty  
**\* 12:15 - 1:00pm Moore Hall Auditorium**  
Distinguished Lecture Assembly  
Dr. Erica J. Alston, *NASA Langley Research Center*

## Greetings!

Welcome to the Annual Research Week at Elizabeth City State University. Today is special in that it is set aside to recognize the hard work and outstanding achievements of our students engaged in STEM research and other activities. Not only are we highly encouraged in our administrative capacities, but we also take great delight in each of our students who will present their undergraduate research results, senior projects, and class projects. This occasion constitutes a clear indication of the hard work and aspirations of our students and their faculty mentors within each discipline.



A substantial number of today's presenters are preparing to graduate, leave the University, and ultimately join an increasingly competitive workforce. We hope that the analytical skills and specific knowledge and strong work ethic acquired at Elizabeth City State University will serve them as solid milestones in their future professional careers. We hope and strongly believe that they will become outstanding researchers, entrepreneurs, inventors, and strong advocates for their respective disciplines in every region of our nation and even of the world.

My very best wishes are extended to all who participate in the competitions. My hope is that each of you will be inspired in your efforts to become the best among your presenting peers.

Vann R. Newkirk, Ph.D.  
Provost and Vice Chancellor for Academic Affairs

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## RESEARCH WEEK COMMITTEE

Linda Hayden, Chair..... Math & Computer Science  
Jeanette Morris, Co-Chair .....Language, Literature, & Comm  
Darius Eure ..... Admissions & Recruitment  
Orestes Gooden .....Aviation Science  
Confidence Amadi.....Business & Economics  
Debjani Kanjilal.....Business & Economics  
Yan Jin .....Business & Economics  
Delbert Garnes..... Education & Psychology  
Natasha Spellman..... Education & Psychology  
Kenneth E. Jones..... Honors Program  
Michael B. Jasper.....Language, Literature, & Comm  
Farrah Ward..... Math & Computer Science  
Kenneth L. Jones ..... Math & Computer Science  
Gloria Payne .....Math, Science, & Technology  
Anthony Emekalam..... Natural Sciences  
Eyuaem Abebe ..... Natural Sciences  
Margaret Young..... Natural Sciences  
Boung Jin Kang .....Physical Education & Health  
Darnell Johnson..... PiMERS (NASA/ECSU)  
Charles Reed .....Social & Behavioral Sciences  
Shyamal Das .....Social & Behavioral Sciences  
Harry Bass .....Sponsored Programs  
Clarence Goss ..... Visual & Performing Arts

## Research Week is on Twitter!! #ECSURW16

Follow this weeks Research Week on Twitter and win some great prizes!! Different criteria for each day can be found below so join in and tweet your fellow students about the sessions you are attending! Winners will be announced each day and prizes will be awarded on Friday during the poster student session!

### Criteria of Each Days Giveaway:

Disclaimer: Tweets must use the #ECSURW16 and follow the twitter account. All tweets must be between the beginning session and the end of the last session of the day.

**Monday** - Most tweets that Day (using the hashtag)

**Tuesday** - Potential Randomizer (i.e. Interactive) for people who tweet and use the #ECSURW16

**Wednesday** - Best Picture a.k.a “Your Favorite Event” and caption (with research week in it, i.e. picture with presenter of perspective session) and in the caption have a substantial “why”

**Thursday** - “Guess The Image” -> this contest will be going on throughout the week leading up to thursday. Will post a part of a picture each day in random order (including thursday). Allow users to post their guesses and whoever is first to guess right, wins the contest on Thursday

**Friday** - Most pictures of poster session on Friday with an interesting thing about poster (have to take picture with poster and presenter and the caption for the picture has to be an interesting thing about the research as well as using the hashtag #ECSURW16) minimum: 15 words

### ONLY ONE PRIZE PER PERSON!!

\*If students have questions about the contest throughout the week, they can follow the twitter account as well as use the #ECSURW16



<< Scan and Tweet!!!

## ***Friday, April 15, 2016 - 9 - 11:00 am, Ridley Student Complex***

Amber Henderson :: *Starbucks and Social Media*

Divine Bembury :: *The Power of Demographics*

Shevonna Brinkley :: *What Makes Them Bark? and Location, Location, Location*

Sonia Whitehurst :: *McDonald's Marketing Blend*

Natasha Maurer :: *Michael Kors Planned Retail Locations*

Shakir Jones and Deneal Banks :: *Market Segmentation Used by Nordstrom*

Dandrea Ray and Diamonte Sanders :: *Walmart Competitive Advantage against Intertype and Intratype Competitors*

Nikeya Welch :: *Saks 5th Avenue*

Natify Power, Jennifer Mitchell, and Janeeka Harris :: *Beer Game: A Simulation of Bullwhip Effect in a Supply Chain*

Essence Bradley :: *Where Dreams Come True – Walt Disney World*

Aleeza Bryant and Shelyn Infinger :: *Preliminary Studies on Cytotoxic Properties of Artemisinin and Mitoxantrone on Prostate Cancer Cell Line*

Derek Morris :: *Analyzing the Security Infrastructure of the Android Operating System*

Tatyana Matthews :: *Investigating the Security Risks and Vulnerabilities of an Android System*

Jefferson Ridgeway :: *Regression Testing Selection for Android Applications*

Nigel Pugh :: *Exploration of Mobile Testing through Automatic Test Case Generation*

Tori Wilbon :: *Exploring Learning Algorithms for Layer Identification*

Cornelius Holness :: *Remote Sensing Archaeological Sites through Unmanned Aerial Vehicle Imaging*

Joshua Hollowell and Akyah Atkinson :: *Color Contrast Versus Monochromatic Color on Visual Displays*

Ciara Spence :: *Integrating Reverse Engineering and 3D Printing for Manufacturing Process*

Shunafrica White :: *Influence of Chain Extenders on Tensile Mechanical Properties of Polymers*

Tyrrel Jones, Shauran Mouzonoe, Danielle Hill, Angel Lassiter, R J Bond :: *Viking Physical Activity*

Keshara Wiley :: *The Synthesis and Characterization of Metal Complexes with Acetyl Acetone by NMR*

Angela Whitehurst :: *Exercise and quality of Life Among Elderly Adults in Different Living Environments*

Shanice Stephenson :: *The Effect of Font Size, Type and Presentation Medium on Reading Comprehension*

Taquez Willis and Narendra Banerjee :: *Heavy Metal Levels and Chemico-physical Characteristics of Various Water Bodies in Pasquotank County, NC*

Mariah Andrade :: *Women in the Workforce: Cases of USA, Ethiopia, and India*

Charday White :: *Non-Marital Child Bearing: Cases of USA, France, and China*

Joshua Ruffin :: *The African American Struggle in the Child Support System*

Joshiah Sampson :: *Homelessness in the USA*

Miltonia Cherry :: *The Incarceration of the African American Males*

Tyrrel Ruffin :: *Unequal Access to Employment by Race & Gender in the USA*

Dwayne Ponton :: *Poverty Rates and Crime Rates in North Eastern North Carolina*

Shelby Infinger :: *Anti-Asian Racism and Violence: A Historical Sketch*

Bianca Knight :: *Higher Education and Race: A Comparative Analysis of Graduation Rates between HBCUs and PWIs*

Summer Tyson :: *Teen Pregnancy Rates Among Blacks & Whites*

Shaquita Walker :: *Effects of Race on Homicide Rates*

Mia Jackson :: *Learning Racism*

Kiana Rivers :: *Effects of Minority Family Income on Crime Rates*

Bryana Ballard :: *Effects of Race on Drug Use*

Rodnika Jones :: *Life After Prison: Effects of Incarceration*

Tinisha Pearson :: *Effects of Race on Crime Rates*

Sh'Nautica Battle :: *Domestic Violence in African American Families*

Tiffani Bogue :: *Changing Immigration in the USA, Belgium, and Germany*

Robert Black :: *Violence in the African American Community*

Paris Rankins :: *Socialization and Race Consciousness: The Doll Test*

Tiphonie Mason :: *Fertility Rates in Cuba, Nigeria, and Egypt*

Jasmine Arthur :: *Effects of African American Incarceration on their Employment*

Joshua Moss :: *Environmental Racism in a Small Town in North Carolina*

Cecilia Hathaway :: *The Impact of Key Legislation on the African Americans*

Jensen Price :: *Intimate Partner Violence Victimization and Its Effects on African American Women*

Melissa Borum :: *Effects of Economic Dependency on Intimate Partner Violence*

DeVonna Lee :: *The Understatement of the African American Income and Wealth*

