

STEM 2017

RESEARCH WEEK

Pathways to STEM Success



IMAGINE, ASK, PLAN, EXECUTE

#ECSURW17

FEBRUARY 6-10, 2017



[HTTP://NIA.ECSU.EDU/UR/1617/RW17/](http://nia.ecsu.edu/ur/1617/rw17/)

NASA MUREP NNX16AC89A

Schedule of Events 2017

Monday February 6, 2017

*10:00 am-11:00 pm, Room 138 Jenkins Science Center

Opening Session

Overview of STEM Research Week Events

Welcome and Remarks - Dr. Vann Newkirk

Vice Chancellor for Academic Affairs

Social Media Contest Instructions

Preparing for Graduate School: Dr. Jeffrey Rousch

Presiding: Dr. Gloria Payne, Dr. Mehran Elahi

Reception 11:15 am, Lobby Jenkins Science Center

* 2:00-3:00 pm, Room 206 Ridley Student Center

Panel: Internship Opportunities for Undergraduates

MARC Student Panel: Leon Williams, Rayshawn Walker,

Eduardo Santos, Sasha Hodge,

Alia Wofford, I'ran James, Brianna Morris

Presiding: Antonio Rook, Moses McDaniel

* 4:00-5:00 pm, Room 104 Pharmacy Building

Panel: African Americans in STEM I

Presenting:

Dr. Arnold Banerji, Pharmacy

Dr. Anthony Emekalam, Pharmacy

Dr. Gary Harmon, Natural Sciences

Presiding: Dr. Dolapo Adedeji, Dr. Edmund Koker



Tuesday February 7, 2017

* 9:00-10:30 am, Room 323 Pharmacy Building

Registration for the Amazing STEM Race

Sheryl Bradford, Moses McDaniel

* 11:00-12:20 pm, Room 104 Pharmacy Building

Trichome Hairs – Miniature Chemical Factories in Plants

Dr. David Danehower, *AVOCA Farms*

AVOCA Inc.

Dr. James Johnson, *AVOCA Farms*

Presiding: Dr. Tesfaye Serbessa, Dr. Mohammed Talukder

* 2:00-3:00 pm, Room 105 McLendon Hall (for Faculty)

Virtual Meeting Dr. Stacey Williams & Edward Lee, *US Air*

Force Office of Scientific Research

Presiding: Dr. Harry Bass, Mike Rice

* 3:30-5:00 pm, Lobby of Pharmacy Building

The Amazing STEM Race

Presiding: Moses McDaniel Sheryl Bradford, Reta Blair

* 5 :00-7:00 pm, Room 229 Dixon-Patterson Hall

Dr. Robert George, NSF South Big Data Spokes Seminar,

Presiding: Dr. Malcolm Dcosta, Dr. Linda Hayden

Refreshments

* 7:30 pm, Burnim Fine Arts Center

Benefit Concert for the Town of Princeville, NC - \$10

Wednesday February 8, 2017

* 10:00-11:00 am, Room 114 Dixon-Patterson Hall

3-D Modeling Seminar – Additive Manufacturing

Presiding: Dr. Kuldeep Rawat, Dr. Akbar Eslami

* 1:00-2:00 pm Room 104 Lane Hall

Faculty Research Panel: Dr. Eyuaem Abebe, Dr. Victor

Adedeji, Dr. Lin Chen, Dr. Hirendranath Banerjee

Presiding: Dr. Dipendra Sengupta, Dr. Krishna Kulkarni

* 3-4:00pm and 6:30-7:30pm, Room 105, Lane Hall

Models of Collective Action in Insect Societies

Dr. Oyita Udiani, *National Institute for Mathematical and Biological*
Synthetics (NIMBios) University of Tennessee, Knoxville

Introduction of Speaker: Dr. Kenneth Jones

Presiding: Dr. Shirin Siddiqui, Dr. Jharna Sengupta

* 5:00-6:20 pm, Room 138 Jenkins Science Center

Graduate Student Research Seminar

William Kahan, Andrew Brumfield

Presiding: Dr. Gloria Payne, Dr. Hirendranath Banerjee

Thursday February 9, 2017

* 11:00-Noon, Room 105 McLendon Hall (for Faculty)

Meeting with Funding Program Officer

Mark Phillips, *NC Biotech*

Presiding: Dr. Harry Bass, Mike Rice

* 12:30-1:50 pm, Room 104 Lane Hall

Chrystal Harden, *Morehead Planetarium & Science Center*

A STEM Change Agent: Morehead Planetarium and Science
Center; Changing the Look of Diversity and Inclusion

Presiding: Dr. Kenneth Jones, Orestes Gooden

* 2:00-3:20 pm, Room 104 Lane Hall

African Americans in STEM II

Presenting: Dr. Ellis Lawrence, Dr. Johnny Houston

Moderator: Dr. Mohammed Talukder

* 3:30-5:00 pm, Room 229, Dixon-Patterson Hall

Panel: Internship Opportunities for Undergraduates II

APPLE and NASA Program Interns

Delores Gee, *NASA OSSI*

Jobi Cook, *NC Space Grant*

Presiding: Orestes Gooden, Dr. Margaret Young

Friday February 10, 2017 - NASA Day

* 10:00 am-11:30 pm, Vaughn Center Gym

Student Poster Session

Presiding: Dr. Margaret Young, Robin Mangham

* 10:00 am-11:30 pm, Vaughn Center Gym

Department Displays

Presiding: Ms. Kenya Hinton, Robin Mangham

* 9:00 am-11:30 pm, Ridley Center, Jenkins SC, Pharmacy

Precollege Hands on Workshops

Presiding: Dr. Darnell Johnson, Dr. Gary Harmon

* 12:00-1:30 pm, Burnim Fine Arts Center

Ms. Iisha Scott, *Meteorologist, WVEC TV-Channel 13*

Presiding: Dr. Farrah Ward, Dr. Darnell Johnson



Greetings!

Welcome to the 2017 STEM Research Week at Elizabeth City State University. This week is special in that it is set aside to recognize the hard work and outstanding achievements of our faculty and students engaged in STEM research and training. 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. We hope that you will enjoy learning about their Pathways to STEM Success: IMAGINE, ASK, PLAN, EXECUTE.



A substantial number of today's presenters are preparing to graduate, leave the University, and ultimately join an increasingly competitive workforce. We know 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 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



RESEARCH WEEK COMMITTEE

Dr. Linda Hayden, Chair..... Math & Computer Science
 Dr. Farrah Ward..... Academic Affairs
 Dr. Darnell Johnson, Co-Chair..... PIMERS (NASA/ECSU)
 Mr. Michael RiceSponsored Programs
 Mr. Orestes GoodenAviation Science
 Dr. Gloria PayneMath, Science, & Technology
 Ms. Sheryl Bradford Natural Sciences
 Ms. Kenya Hinton Math & Computer Science
 Dr. Dolapo Adedeji..... Natural Sciences
 Dr. Robert George..... CERSER
 Dr. Margaret Young..... Natural Sciences

Iisha Scott

Iisha Scott was born and raised in Norfolk and forecasts/live reports Saturday and Sunday evenings and during the week on 13News Now at Daybreak. Iisha graduated with a Bachelor of Science in Mass Communications from Norfolk State University. She also holds a Bachelor of Science in Geosciences/Broadcast



Meteorology from Mississippi State University. Iisha is a member of a number of organizations, including the National Weather Association, American Meteorological Society, National Association of Black Journalists, and Alpha Kappa Alpha Sorority, Inc.



Dr. David Danehower

Professor of Crop Science, North Carolina State University

David A. Danehower, Professor of Crop Science, holds a Ph.D. degree in Organic Chemistry from NCSU. His research interests are in the area of plant natural products chemistry including the role these compounds play in defending plants against other plants, insects, and diseases (allelochemistry), and the potential for utilizing plant natural products as a renewable biochemical resource.



Dr. James Johnson

Director of Process Chemistry at Avoca Inc.

Dr. James Johnson is the Director of Process Chemistry at Avoca Inc. (Merry Hill, NC) and has been with the company since June 2006. While at Avoca, Dr. Johnson has lead the R&D group in investigating and evaluating new processes for the preparation and purification of a variety of naturally occurring compounds used in the nutraceutical, food and beverage, and flavor and fragrance industries. His group is also responsible for analytical method development supporting these processes. Dr. Johnson received a B.S. in Chemistry from Fayetteville State University in 1993 and a Ph.D. in Medicinal Chemistry from the University of Florida in 1998 where his work focused on the isolation, identification, and testing of naturally occurring compounds. He is originally from Fayetteville, NC and currently lives in Edenton, NC with his wife and son.

Friday, Feb 10, 2017 - 10 - 11:30 am, Ridley Student Complex

Joselyn Hathaway :: Mathematics :: Sophomore
The Impact of STEM Outreach in Schools and Communities

Tangee Beverly :: Computer Science :: Sophomore
Game Development with Big Data

Kevin Benton :: Computer Science/Mathematics :: Junior
A Continuing Study of the Water Quality in the Pasquotank Watershed in Northeastern North Carolina

Joel Gonzales-Santiago :: Business Administration :: Junior
Temporal Changes of Surface Elevation and Velocity of the Juneau Icefield

Derek Morris :: Mathematics :: Graduate Student
Analyzing Long-Term Drought Effects on Land Surface Temperature and Vegetation Using National Oceanic Atmospheric Administration Satellite's Data

Hagen Hodgkins :: Computer Science :: Junior
Deploying Big Data and Development Environments Using Ansible

Tori Wilbon :: Computer Science :: Senior
Multidimensional Data Dube Data Visualization

Jessica Hathaway :: Mathematics :: Senior
Digital Learning Network in the NASA Langley Research Center Office of Education

Nigel Pugh :: Computer Science/Mathematics :: Senior
Continuing Faces: A Computer Vision and Privacy Application for the Visually Impaired Person

Dwayne Ponton :: Criminal Justice :: Senior
Analyzing Unusual Peaks in Particulate Organic Carbon, Particulate Inorganic Carbon, and Chlorophyll a levels in the Gulf of Mexico during 2009-2010

Leon Williams :: Sociology :: Senior
The effects of demographic factors and socioeconomic status on obesity in the USA

Rayshawn Walker :: Computer Science :: Junior
A study to investigate the differential expression of noncoding miRNA and their target genes in the transcriptome of prostate cancer derived from African American and Caucasian patients

Eduardo Santos :: Biology :: Senior
Understanding the relationship between APC and LRP6

Anneisha Lynch :: Psychology :: Senior
Colorectal cancer prevention: A change through college students

Sasha Hodge :: Biology :: Senior
A study of in vitro and in vivo effects of novel rhenium compounds on prostate cancer

Alia Wofford :: Biology :: Senior
How does dense molecular gas contribute to star formation in the starburst galaxy NGC 2146?

I'ran James :: Computer Science :: Junior
Data sharing - enabling advancement of science

Brianna Morris :: Biology :: Senior
Targeting Gli2 in Chondrosarcoma Cells

Research Week is on Twitter!! #ECSURW17

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 #ECSURW17 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 #ECSURW17

Wednesday - Capture your "Favorite Event" of the day and tweet why it was your favorite. One winner will be selected at random from the tweets we receive

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 - Poster Session Randomizer -> for the poster session tweet of a picture of your favorite poster and a short note of what you liked about it or what you learned. A winner will be chosen at random from the tweets we receive

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 #ECSURW17



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< Tweet!!!
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