State of the College of Sciences

What’s new; the path forward

August 28, 2018
Our Mission

Teaching

Undergraduate Research

Community Engagement

Research

Communication

Outreach

Teaching science
Doing science
Promoting scientific literacy
Promotion to Associate Professor with tenure

Xiaoxiao Hu
Psychology

Girish Neelakanta
Biological Sciences

Hameeda Sultana
Biological Sciences
Promotion to Professor

Michelle Weigle
Computer Science

Lisa Horth
Biological Sciences
Promotion to Senior and Master Lecturer

**Senior Lecturer**
- Robin Flanagan
  - Mathematics & Statistics
- Christina Steel
  - Biological Sciences

**Master Lecturer**
- Pinky McCoy
  - Chemistry & Biochemistry
- Robert Strozak
  - Mathematics & Statistics
Lauren Browning

Visiting Assistant Professor of Biological Sciences
- Immunology
- T-cell regulation
- Cancer research
Rohan Maddamsetti

Visiting Assistant Professor of Biological Sciences

- Evolutionary genetics
- Genomics of bacteria and their viruses
Lisa Shollenberger

Assistant Professor
of Biological Sciences

- Vaccine development
- Global health issues
Anna Tansik

Visiting Assistant Professor of Biological Sciences

- Marine biology
- Coral reef ecology
- Impact of climate change
Clayton Wright

Lecturer in Microbiology and Cell Biology

- Basic and advanced microbiology
- Molecular biology research methods
Silvina Pagola

Research Assistant Professor, and Adjunct Assistant Professor
Department of Chemistry & Biochemistry

- X-ray powder diffraction service at the COSMIC lab
- Undergraduate research using X-ray powder diffraction
- Direct-space methods and winPSSP software for crystal structure determination from powders
- Mechanochemical synthesis of organic co-crystals (pharmaceutical and charge transfer salts of tetrathiafulvalene) and study of their properties
David Courson

Lecturer in Chemistry and Biochemistry

- Focus on improving outcomes for first generation college students
- Live cell imaging of host-pathogen interaction between C. difficile and human gut cells
Assistant Professor of Computer Science

- Data Science
- Neuro-Information Retrieval, Data Science and Human-Computer Interaction
Assistant Professor of Computer Science

- Data Science in Medicine
- Machine Learning and Computational System Medicine

Jiangwen Sun
Jian Wu

Assistant Professor of Computer Science

- Data Science
- Research focus: text mining, scholarly big data, and search engines.
Susan Zehra

Lecturer in Computer Science

- Previously employed at Hampton University
- Embedded systems, vehicular networks, cyber-security, and information assurance.
Lisa Blum

Lecturer in Mathematics

- BA in Mathematics, May 1989, University of Dallas
- MS in Mathematics, May 1999, Northeastern Illinois University
Yet Nguyen

Assistant Professor of Data Science

- BS in Honor Program in Mathematics, June 2007
- MS in Statistics, Iowa State University, May 2013
- PhD in Statistics, Iowa State University, May 2018
- Research: Dependence and Relevant Covariates RNA-seq Data Analysis
- Data Science
Jeanette Shaw

Lecturer in Mathematics

- BA in Mathematics, May 1988, University of Virginia
- MS in Applied Mathematics, May 2015, Elizabeth City State University
Katie Rafferty

Lecturer in Mathematics

- BS in Mathematics (major - Statistics) December 13, ODU
- MS in Computational and Applied Mathematics (Statistics concentration) December 15, ODU
Victoria Hill

Visiting Assistant Professor of Ocean, Earth and Atmospheric Sciences

- Ocean Optics
- Impacts of changing ice conditions on light driven process in the upper Arctic Ocean.
- Remote sensing of marine environments, both pelagic and benthic.
Sophie Clayton

Assistant Professor of Ocean, Earth & Atmospheric Sciences

- Physical and biological oceanography
- Impacts of ocean eddies and fronts on plankton ecology
- Big data in ocean science
Stuart Henderson

Director of Jefferson Lab
Professor of Physics

- Appointed as Governor’s Distinguished CEBAF Professor
- Accelerator Science
- Previous leadership positions at Oak Ridge National Lab, Fermi Lab, Argonne National Lab
M. Perry Nerem

Lecturer in Physics

- Semi-classical periodic and quasi-periodic systems
- Developing lectures and practices for effective introductory physics courses.
- Constructing and displaying physics demonstrations for lectures and outreach events.
Abby Braitman

Assistant Professor of Psychology

- Health psychology
- Online interventions targeting college drinking
- Social and environmental factors affecting college drinking
Rachel Phillips

Visiting Assistant Professor of Psychology

- Human factors psychology
- Identifying facilitators of successful decision making with automated systems.
Elaine Murphy

Lecturer in Psychology

- ABD student in applied psychological sciences
- Developing quantitative models that help explain our understanding of partner violence
Darrin Duling

Associate Director of the Kaplan Orchid Conservatory, Dean’s Office

- Botanical field research
- Plant species preservation
Debbie Major

Associate Dean

- Research
- Graduate Students
- Faculty

- Eminent Scholar & Professor of Psychology
- Research focus on career barriers and underrepresentation in STEM
Cynthia Meca

Professional Advisor for The College of Sciences

- Previously employed with ODU’s Career Development Services.
- Focus: Student on-boarding, counsel, retention and persistence.
Donna Moore

Office Manager, Dean’s Office

- Over 30 years of experience at the University of Maryland, College Park
- Last assignment was in the Provost’s Office
Krystal Tang

Administrative Assistant
Ocean, Earth & Atmospheric Sciences

- MA Sociology and Interdisciplinary Studies, University College, London
- BA English and Women’s Studies, Old Dominion University
Dean’s Fellows

Undergraduate Research
Craig Bayse
Chemistry & Biochemistry

Outreach
Pinky McCoy
Chemistry & Biochemistry

Science Communication and Special Projects
Nora Noffke
OEAS

Space Utilization
Charles Sukenik
Physics
Scientists have become the bearers of the torch of discovery in our quest for knowledge.

~ Stephen Hawking
Research: Grant Activity

Expenditures holding steady at ~ $16 million
Awards are way up!

Grant activity does not tell the whole story, but it is a symptom of a healthy research environment.
Awards by Department

- $4.6 million PIRE grant to Carpenter and Barshis
- Large new NIH grant awarded to Sultana and Neelakanta,
- HHS funding to Gaff, Hynes, Gauthier
- Water quality work by Dauer and Egerton
Research Priorities

- Continue to hire excellent faculty
- Increase and support common use instrumentation
- Increase technical support
  - Machine Shop
  - Electronics technician
  - Equipment repair
- Communicate our outstanding science to the university, the public, and our scientific colleagues
- Increase recognition for our faculty
- Enable collaboration across departments and across colleges
Machine Shop

- We will hire a machinist in December! He/she will work in the College of Engineering machine shop, which will be open to jobs from our college.
- Thank you to Academic Affairs and the Office of Research
- For now we can pay by the hour for our jobs
Dean's Lecture Series – Paul Falkowski

Nov. 7, 2018 – Public Lecture
  Life’s Engines: How Microbes Made Earth Habitable
Nov. 8, 2018 – College Lecture
  TBA

Distinguished Professor, Bennett L. Smith Chair in Business and Natural Resources,
Departments of Earth and Planetary Sciences and Marine and Coastal Sciences
Rutgers University
Science Friday
September 21 4 – 6 pm, PSB 1100

Matt Judah, Psychology
What Brain Activity Reveals about Social Anxiety
Social anxiety is a prevalent, impairing, yet underappreciated, mental health problem. Brain activity suggests that social anxiety involves increased focus on one’s self and on signs that others may be rejecting. Insight into these features of social anxiety has important implications for developing interventions.

Sampath Jayarathna, Computer Science
The human Eye and the Brain: Peeking at the Future of Neuro-Information Retrieval (Neuro-IR)
Nero-IR is a novel area of research that apply cognitive psychology and neuro-physiological methods (eye tracking, EEG, EOG, and wearables) to understand information searchers and improve search experience. Neuro-IR is useful in investigating the search as a learning process and to employ these sensory data as assessment of reading, mind-wandering and in inferring learning disabilities.

Meet your colleagues from other departments over wine and cheese!

Join us for short science talks by two faculty from different departments

Nov. 2 is the next one
Institute for Coastal Adaptation and Resilience

Organizational Structure

This new institute will enable ODU to build on its existing strengths to address local and global challenges in a focused, interdisciplinary way.
Science is a way of thinking much more than it is a body of knowledge.
~ Carl Sagan
Teaching Innovation

We want to challenge our top students and prepare them for a career in science or the professions.

We want to motivate and assist all our students to achieve success in college and beyond.

We want to prepare students to think scientifically and engage with society.

Math, Chemistry, and Biology are implementing new ideas this fall. All departments have new things in the pipeline.

New Chemistry building will have tutoring space designed for maximum interaction between students and faculty.
Undergraduate Research

- MARC grant – preparing minority students for a career in biomedical sciences
- REU programs in Chemistry, OEAS, and Physics
- Undergraduate research as part of courses – Biology and Chemistry
Living Learning Community

The Sciences LLC for fall 2018 has 35 science majors who live together in Rogers Hall. We plan various activities and opportunities for these students to interact with faculty members.

- Meet & Greet with faculty and our LLC students
- Lunch with Faculty Members
- Cadaver Lab Tour
- Exam Jam in Residence Hall
- Field Trip to the research vessel - R/V Slover
Education Priorities

- Recruit excellent undergraduate and graduate students
- Continue and expand our efforts to improve student success
- Support and grow the Monarch Teach program
- Establish new degree programs
- Expand undergraduate research
- Provide new internship opportunities
- Expand on-line offerings
Outreach and Recruiting

Sciences knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world.

~Louis Pasteur
Communications

Our next goal is to hire a full time communications specialist.

We have revised our webpages – thanks to Tilghman Williams

We are on Facebook!

Kobe Gao is a student helping us with marketing and communications
Outreach

Machine learning and data science summer camp
Yaohang Li and Andy Ramlatchan (Computer Science)
Virginia Space Grant Consortium

30 high school students spent two weeks at ODU learning about data science
Recruiting and Outreach Priorities

- Hosting prospective students on 1st Fridays. Starts in October.
- Expand the number of student ambassadors and the scope of their activities
- Revise and improve our recruiting brochures
- Initiate a sustained recruiting effort in Puerto Rico with a trip there in October.
  - Thanks to Giovanna Genard for suggesting, organizing, and supporting this activity
  - Thanks to Admissions for helping us with this
- Bring local IB students to campus
- Host more science-related activities for the public
  - Dean’s lecture series
  - 50th anniversary of the Apollo moon landing – July 2019
Upcoming Events

August 30, 2018
New Faculty Reception

September 21, 2018
1st Wine & Cheese

September 27, 2018
Town Hall for COS Faculty

October 1, 2018
President and Provost Visit COS Faculty

October 3, 2018
COS Women Faculty Reception

October 30, 2018
Brown Bag with Dean Dodge

November 2, 2018
2nd Wine & Cheese

November 7, 2018
Dean’s Lecture - Public

November 8, 2018
Dean’s Lecture - College

November 15, 2018
Thanksgiving Celebration

December 10, 2018
Holiday Party

April 30, 2019
COS Awards Ceremony

July 20, 2019
50th Anniversary of the Apollo Moon Landing
Our new colleagues!