

Faculty Mentors

(Research Mentors)



INDEX

Sr. No.	Instrument Name	Department	Page No.
1	April DeLaurier	Department of Biological, Environmental and Earth Sciences	6
2	Allen Dennis		7
3	Andrew Dyer		8
4	Kelly Gibson		9
5	C. Nathan Hancock		10
6	Michele Harmon		11
7	William Jackson		12
8	Mary Katherine Mills		13
9	Kristina Ramstad		14
10	Virginia Shervette		15
11	Jessica Sullivan		16
12	Michelle Vieyra		17
13	Derek Zelmer		18
14	Bryan Borders	Department of Chemistry and Physics	20
15	Nicholas Marshall		21
16	Scott McKay		22
17	Neil E. Miller		23
18	Kenneth Roberts		24
19	Gerard T. Rowe		25
20	Sonia Tariq		26

21	Douglas W. White		27
22	Hani Abu-Salem	Department of Computer Science, Engineering, and Mathematics	29
23	Ahmed Ahmed		30
24	Ali AlSabeh		31
25	Hala Strohmier Berry		32
26	Tieling Chen		33
27	Bethany Fralick		34
28	Mohammad Hailat		35
29	Reginald Koo		36
30	Rao Li		37
31	Zhenheng Li		38
32	Mahmoud Omari		40
33	Titan Paul		41
35	Yilian Zhang		42
37	Jami Craps	Department of Exercise Science	44
38	Patrick Gélinas		45
39	George Grieve		46
40	Andrew Hatchett		47
41	Brian Parr		48
42	Maureen Carrigan	Department of Psychology	50
43	Bridget Cho		51
44	Brianne R. Coulombe		52
45	Alexandra Roach		53
46	Adam Pazda		54
47	Mary Moussa Rogers		55

49	Jane Stafford		56
50	Laura Jelsone-Swain		57

Department of Biological, Environmental and Earth Sciences



April DeLaurier, Ph.D. (2003)

- **Ph.D. University:** Biochemistry, University College London
- **Research Area:** Developmental biology focusing on skeletal formation in zebrafish through genetic manipulation and live imaging.
- **Courses Taught:**
 - Biological Science I (BIOL 121)
 - Comparative Vertebrate Anatomy (BIOL 315)
- **Contact Email:** AprilD@usca.edu



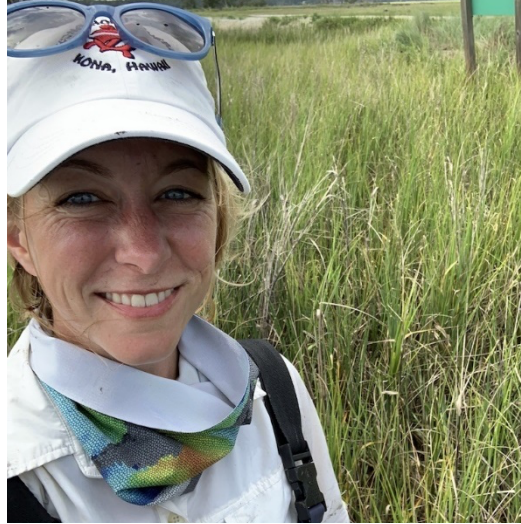
Allen Dennis, Ph.D. (1989)

- **Ph.D. University:** Geology, University of South Carolina
- **Research Area:** Mountain building processes.
- **Courses Taught:**
 - Physical Geology (101)
 - Historical Geology (102)
 - Southern Appalachian Geology (431).
- **Contact Email:** AllenD@usca.edu



Andrew Dyer, Ph.D. (1996)

- **Ph.D. University:** Plant Ecology, University of California, Davis
- **Research Area:** Population and community ecology, invasive species ecology, habitat restoration, focusing on invasive grasses.
- **Courses Taught:**
 - Biological Science II (122)
 - Botany (320)
 - Ecology and Evolution (370)
 - Principles of Ecology (570).
- **Contact Email:** AndyD@usca.edu



Kelly Gibson, Ph.D. (2012)

- **Ph.D. University:** Marine Geology and Geophysics, University of Miami
- **Research Area:** Reconstructing records of recent and past oceanographic, climate, and environmental change using the geochemistry of marine sediments and microfossils in the tropical and coastal oceans.
- **Courses Taught:** Environmental Earth Science (103), Integrated Earth Science (201), Physical Geology (101), Environmental Earth Science (103), Oceanography (301), Paleontology (311), Global Biogeochemical Cycles (405)
- **Contact Email:** KellyGi@usca.edu



C. Nathan Hancock, Ph.D. (2005)

- **Ph.D. University:** Biochemistry, University of Missouri-Columbia
- **Research Area:** Agronomic trait genes using transposable elements from rice.
- **Courses Taught:**
 - Biological Science (121)
 - Plant Physiology (325)
 - Biochemistry (541)
- **Contact Email:** NathanH@usca.edu



Michele Harmon, Ph.D. (2003)

- **Ph.D. University:** Environmental Health Sciences, University of South Carolina
- **Research Area:** Aquatic toxicology, environmental fate and transport of metals, wetland biochemistry.
- **Courses Taught:**
 - Environmental Life Science (106)
 - Environmental Science and Human Health (390)
 - Topics in Environmental Science (576).
- **Contact Email:** MicheleH@usca.edu



William Jackson, Ph.D. (1995)

- **Ph.D. University:** Immunology, Medical College of Georgia
- **Research Area:** Viral vectors for therapeutic genes, HIV gene expression and viral infection control.
- **Courses Taught:**
 - Virology (340)
 - Genetics (350)
 - Immunology (550)
 - Advanced Cell/Molecular Biology (502)
- **Contact Email:** BillJ@usca.edu



Mary Katherine Mills, Ph.D. (2017)

- **Ph.D. University:** Biology, Kansas State University
- **Courses Taught:**
 - Biological Science (121)
 - Fundamentals of Microbiology (330)
 - Applied Biology Research Design (499)
- **Contact Email:** MaryMi@usca.edu



Kristina Ramstad, Ph.D. (2006)

- **Ph.D. University:** Organismal Biology and Ecology, University of Montana, Missoula
- **Research Area:** Evolution, ecology, and demography of at-risk species, impacts of genetic bottlenecks, mating systems, and conservation management.
- **Courses Taught:**
 - Biological Sciences II (122)
 - Vertebrate Zoology (316)
- **Contact Email:** KristinaR@usca.edu



Virginia Shervette, Ph.D. (2006)

- **Ph.D. University:** Wildlife and Fisheries Sciences, Texas A&M University
- **Research Area:** Ecosystem, community, and species responses to anthropogenic impacts in aquatic systems, human dimensions of fisheries management.
- **Courses Taught:**
 - Biological Science II (122)
 - Biology of Fishes (336)
 - Topics in Environmental Science (576)
- **Contact Email:** VirginiaS@usca.edu



Jessica Sullivan, Ph.D. (2015)

- **Ph.D. University:** Geological Science, University of South Carolina
- **Research Area:** Process-form feedback in rivers, floodplains, and coastal wetlands.
- **Courses Taught:**
 - Environmental Earth Science (103)
 - GIS in the Sciences (363)
 - Environmental Geomorphology (401)
- **Contact Email:** JessicaSu@usca.edu



Michelle Vieyra, Ph.D. (2006)

- **Ph.D. University:** Biology, University of South Carolina
- **Research Area:** Olfaction, olfactory receptor genes, herpetology, brain anatomy/physiology, animal behavior, sensory systems.
- **Courses Taught:**
 - Anatomy (232)
 - Physiology (242)
 - Animal Nutrition (365)
 - Animal Behavior (366)
 - Neurobiology (367)
- **Contact Email:** MichelleV@usca.edu



Derek Zelmer, Ph.D. (1998)

- **Ph.D. University:** Biology, Wake Forest University
- **Research Area:** Population and community processes in aquatic systems, parasite community structure, transmission dynamics of parasites.
- **Courses Taught:**
 - Biological Science (122),
 - Ecology and Evolution (370)
 - Parasitology (531)
 - Aquatic Biology (560).
- **Contact Email:** DerekZ@usca.edu

Department of Chemistry and Physics



Bryan Borders, Ph.D. (2017)

- **Ph.D. University:** Materials Science and Engineering, Washington State University
- **Research Area:** Raman and fluorescence spectroscopy, sensors for heavy water contamination, 3D printing for teaching aids.
- **Courses Taught:** General Chemistry (CHEM A111 and A112), Physical Chemistry (CHEM A541/541L and A542/A542L), honors classes.
- **Contact Email:** Bryan.Borders@usca.edu
- **ORCID:** <https://orcid.org/0000-0002-2304-2268>



Nicholas Marshall, Ph.D. (2010)

- **Ph.D. University:** University of Georgia
- **Research Area:** Organic, polymer, and materials chemistry, functionalized surfaces, conjugated polymers, stimuli-responsive materials.
- **Contact Email:** nicholasm@usca.edu
- **ORCID:** <https://ORCID.org/0000-0001-8048-0857>



Scott McKay, Ph.D. (1995)

- **Ph.D. University:** Florida Institute of Technology
- **Research Area:** Crystal engineering, computational chemistry, alternative energy, molecular wires.
- **Contact Email:** Scott.mckay@usca.edu



Neil E. Miller, M.S. (1993)

- **Ph.D. University:** Astrophysics, Clemson University
- **Research Area:** Radio astronomy, VLF transmissions, meteor detection, galactic hydrogen distribution, pulsars.
- **Courses Taught:** General Physics I & II (PHYS 201 & 202), Introduction to Astronomy (ASTR 111), Radiation in the Universe (ASTR 310).
- **Contact Email:** NeilM@usca.edu



Kenneth Roberts, Ph.D. (2009)

- **Ph.D. University:** Biochemistry, Washington State University
- **Research Area:** Chemical reactions of enzymes, carbon-carbon cleavage reactions.
- **Courses Taught:** Introduction to Chemistry (CHEM A101), General Chemistry (CHEM A111 and A112), Principles of Biochemistry (BIOL A541), Advanced Biochemistry (BIOL A542/CHEM A550).
- **Contact Email:** KenR@usca.edu
- **ORCID:** <https://ORCID.org/0000-0001-7389-0559>



Gerard T. Rowe, Ph.D. (2008)

- **Ph.D. University:** Inorganic Chemistry, Boston University
- **Research Area:** Structure, spectroscopic properties, and reactivity of metal-containing compounds, multiscale modeling.
- **Courses Taught:** Introductory Chemistry (CHEM A101), General Chemistry (CHEM A111/112), Inorganic Chemistry (CHEM A311/511).
- **Contact Email:** GerardR@usca.edu
- **ORCID:** <https://ORCID.org/0000-0002-7935-8034>



Sonia Tariq, Ph.D. (2015)

- **Ph.D. University:** Analytical Chemistry, University of East Anglia U.K.
- **Research Area:** Colorimetric chemical sensors, shelf life of meat, bioplastic sensors, heavy metals quantification, marine sediment pH profiles.
- **Courses Taught:** General Chemistry (Chem-111 and Chem-101), Quantitative Analysis (Chem-321 and Chem 321L), Instrumental Analysis (Chem-522).
- **Contact Email:** Sonia.Tariq@usca.edu
- **ORCID:** <https://ORCID.org/0000-0001-7070-0449>



Douglas W. White, Ph.D. (2010)

- **Ph.D. University:** Physics, University of Alabama at Birmingham
- **Research Area:** Simulating ices on outer planetary moons, radiative transfer, molecular gas interactions, ice formation.
- **Courses Taught:**
 - Introduction to Physics I & II (PHYS 221/222)
 - Classical Mechanics (PHYS 301)
 - Electromagnetism (PHYS 302)
 - Quantum Mechanics (PHYS 401).
- **Contact Email:** Doug.White@usca.edu

Department of Computer Science, Engineering, and Mathematics



Hani Abu-Salem, Ph.D. (1992)

- **Ph.D. University:** Computer Science, Illinois Institute of Technology
- **Research Area:** Information Retrieval (IR), Natural Language Processing (NLP), multilingual IR systems, Arabic-English Cross-Language Information Retrieval (CLIR), machine learning, deep learning for Arabic content representation
- **Contact Email:** HaniA@usca.edu



Ahmed Ahmed

- **Ph.D. University:** Electrical and Computer Engineering, Tennessee Technological University
- **Research Area:** Cybersecurity in smart grids, cybersecurity and privacy preservation, cryptography, network security, 5G and beyond wireless networks
- **Courses Taught:**
 - Introduction to Computer Science
 - Secure Software Engineering
- **Contact Email:** AhmedA@usca.edu



Ali AlSabeH

- **Ph.D. University:** Informatics, University of South Carolina, Columbia
- **Research Area:** Cybersecurity applications for high-speed networks, malware analysis, fingerprinting encrypted DNS traffic
- **Courses Taught:**
 - Network Security
 - Ethical Hacking
 - Introduction to Information Security
- **Contact Email:** AliA@usca.edu



Hala Strohmier Berry

- **Ph.D. University:** George Washington University
- **Research Area:** Cybersecurity and Engineering Management
- **Courses Taught:**
 - Introduction to Information Security
 - Capstone Seminar I - WI
 - Capstone Seminar II - WI
 - Survey of Information Technology
- **Google Scholar Link:** [Dr. Hala Strohmier Berry](#)
- **Contact Email:** HalaS@usca.edu



Tieling Chen, Ph.D. (2001)

- **Ph.D. University:** Mathematics, The University of Western Ontario
- **Research Area:** Color model theory, digital color image processing, elementary number theory, integral inequalities
- **Contact Email:** TielingC@usca.edu



Bethany Fralick, Ph.D. (2013)

- **Ph.D. University:** Mechanical Engineering, University of South Carolina
- **Research Area:** Curriculum design, course alignment, student assessment, continuous improvement for ABET reaccreditation
- **Contact Email:** BethanyF@usca.edu



Mohammad Hailat, Ph.D. (1983)

- **Ph.D. University:** Mathematics, University of Michigan
- **Research Area:** Finite-dimensional Lie algebras, root system classification, graph theory, friendship theory
- **Contact Email:** MohammadH@usca.edu



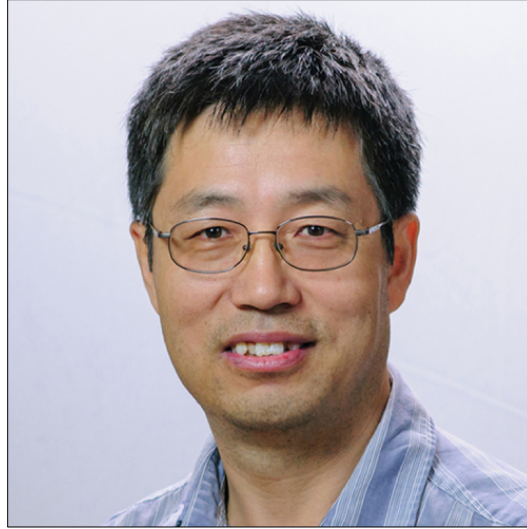
Reginald Koo, Ph.D. (1986)

- **Ph.D. University:** Mathematics, University of South Carolina
- **Research Area:** Real analysis, complex analysis, functional analysis
- **Contact Email:** RegK@usca.edu



Rao Li, Ph.D. (1999)

- **Ph.D. University:** Mathematics (Graph Theory), University of Memphis
- **Research Area:** Graph theory, machine learning applications, database, cryptography, algorithm design, Hamiltonian graphs
- **Contact Email:** RaoL@usca.edu



Zhenheng Li

- **Ph.D. University:** University of Western Ontario, Canada
- **Research Area:** Kac-Moody Lie Theory, Algebraic Groups and Monoids
- **Courses Taught:** MATH A108 - College Algebra, MATH A111 - Precalculus Mathematics I, MATH A141 - Calculus I, MATH A174 - Discrete Mathematics for Computer Science, MATH A344 - Linear Algebra for Computer Science and Engineering, CSCI A145 - Introduction to Algorithmic Design I, CSCI A220 - Data Structures

and Algorithms, CSCI A240 - Introduction to
Software Engineering, CSCI A360 - Software
Engineering

- **Contact Email:** zhenhengl@usca.edu



Mahmoud Omari

- **Ph.D. University:** Computer Science, Illinois Institute of Technology
- **Research Area:** Computer science education, software engineering
- **Courses Taught:**
 - Introduction to Algorithmic Design I
 - Operating Systems
 - Advanced Programming Concepts

Contact Email: MahmoudO@usca.edu



Titan Paul, Ph.D. (2014)

- **Ph.D. University:** Mechanical Engineering, University of South Carolina
- **Research Area:** Energy storage for solar technologies, heat transfer, phase change materials, thermal management of microelectronics
- **Contact Email:** TitanP@usca.edu



Yilian Zhang, Ph.D. (2002)

- **Ph.D. University:** Mathematics, University of Rochester
- **Research Area:** Inverse scattering problem, dynamic systems, computer science education, heterogeneous and parallel computing, machine learning
- **Contact Email:** YilianZ@usca.edu

Department of Exercise Science



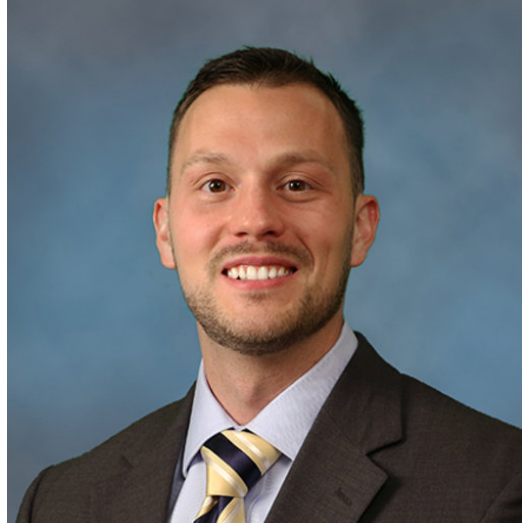
Jami Craps, M.S.

- **Ph.D. University:** Athletic Training, University of South Carolina
- **Courses Taught:** Introduction to Exercise Science (EXSC A101), Foundations of Health and Fitness (EXSC A102), Applied Anatomy (EXSC A107), Physical Activity and Health (EXSC A190), Athletic Training Clinical (EXSC A198), Exercise and Sports Nutrition (EXSC A225), Senior Seminar in Exercise Science (EXSC A439), Fitness Assessment and Prescription (EXSC A441).
- **Contact Email:** JamiC@usca.edu



Patrick G  linas, M.S. (2008)

- **Ph.D. University:** Kinesiology and Applied Physiology, University of Colorado
- **Research Area:** Functional fitness programming and assessment for health, performance, and longevity; high- and HIIT training
- **Courses Taught:** Introduction to Exercise Science (EXSC A101), Foundations of Health and Fitness (EXSC A102), Strength and Conditioning (EXSC A106), Applied Anatomy (EXSC A107), Functional Anatomy (EXSC A211), Motor Behavior (EXSC A239), Exercise Testing and Prescription (EXSC A311), Exercise Physiology I Lab (EXSC A323L), Senior Seminar in Exercise Science (EXSC A426).
- **Contact Email:** PatrickG@usca.edu



George Grieve, Ph.D. (2018)

- **Ph.D. University:** Exercise Science, University of South Carolina
- **Research Area:** Effects of exercise mode and intensity on physical activity, energy balance, sleep, post-exercise recovery protocols, injury prevention in tactical athletes
- **Courses Taught:** Exercise Physiology I (EXSC A201), Applied Kinesiology (EXSC A321), Exercise Testing and Prescription Lab (EXSC A423L), Senior Seminar in Exercise Science (EXSC A426).
- **Contact Email:** GeorgeG@usca.edu



Andrew Hatchett, Ph.D. (2008)

- **Ph.D. University:** Exercise Science, University of Mississippi
- **Research Area:** Efficiency of movement and training adaptations; anthropomorphic characteristics and movement patterns related to physical performance in adults
- **Courses Taught:** Anatomical and Biomechanical Kinesiology (EXSC A321), Fundamentals of Human Functional Anatomy (EXSC A221), Health Behavior Change (EXSC A337), Exercise Prescription (EXSC A424), Fitness Performance Coaching (EXSC A426), Exercise and Sports Science (EXSC A458),
- **Contact Email:** AndrewHat@usca.edu



Brian Parr, Ph.D. (2001)

- **Ph.D. University:** Exercise Physiology, University of Tennessee
- **Research Area:** Obesity, functional limitations, weight loss, exercise, physical activity and the built environment, active transportation, youth physical activity programs
- **Courses Taught:** Exercise Physiology I (EXSC A323), Electrocardiography (EXSC A328), Clinical Exercise Physiology (EXSC A425), Exercise Testing and Prescription (EXSC A423).
- **Contact Email:** BrianP@usca.edu

Department of Psychology



Maureen Carrigan, PhD 1998

- **PhD University:** Clinical Psychology, Binghamton University
- **Research Area:** Health, addictive behaviors, coping
- **Courses Taught:** Abnormal Psychology (320), Behavior Modification (420), Health Psychology (480), Ethics and Professional Issues (600), Assessment and Treatment of Substance Use Disorders (710), Group Therapy and Counseling (725), Practicum I and II (791, 793)



Bridget Cho, Ph.D. (2020)

- **Ph.D. University:** Clinical Child Psychology, University of Kansas
- **Research Area:** Childhood mental health, trauma and adversity, parenting behavior and parent-child relationships, and psychological intervention effectiveness)
- **Courses Taught:** Developmental psychology (310), Childhood psychopathology (425), Psychopathology (620), Cognitive Assessment (680), Child and Family Therapy (700), Trauma Psychology (700), Practicum I and II (791, 791)
- **Contact:** bridget.cho@usca.edu



Brianne R. Coulombe, PhD 2021

- **PhD University:** Developmental Psychology, University of California, Riverside
- **Research Area:** Attachment and relationships (i.e., parents, peers, teachers), social behavior, resilience
- **Courses Taught:**
 - Developmental Psychology (310/610)
 - Infant and Child Psychology (405)
 - Psychology of Prosocial Behavior and Community Engagement (385)
 - Psychological Statistics (325)
 - Psychological Statistics Lab (326)
 - Method and Design (328)



Alexandra Roach, PhD (2014)

- **PhD University:** Cognitive Neuroscience, University of California Davis
- **Research Area:** cognitive control/executive function, stress & pain, neuromodulation, noninvasive brain stimulation, psychophysiology of stress & pain, cognitive aging
- **Courses Taught:** Cognitive Processes (360), Neurobiology of Stress (375), Neuroscience (470), Psychopharmacology (475), Senior Reflective Capstone (499), Applied Neuroscience for Mental Health Professionals (760)
- **Contact:** alexandraro@usca.edu



Adam Pazda, Ph.D. (2015)

- **PhD University:** Social-Personality Psychology, University of Rochester, NY
- **Research Area:** Motivation, emotion, impression formation, person-perception
- **Courses Taught:**
 - Social psychology (340)
 - Motivation (380)
 - Close relationships (430)
 - Judgment and decision-making (435)
 - Human sexuality (490)
- **Contact:** adamp@usca.edu



Mary Moussa Rogers, Ph.D. (2021)

- **Ph.D. University:** Psychology, Applied Clinical, Mississippi State University
- **Research Area:** Culture, personality, family, prevention measures for health risk behavior, sexual behavior, and substance use
- **Courses Taught:**
 - Systems and Theories of Psychotherapy (A701)
 - Therapy in a Multicultural Context (A702)
 - Community Psychology (A345)
 - Intro to Clinical Psychology (A460)
 - Intro to Psychology (A101)
- **Contact Email:** Mary.rogers@usca.edu



Jane Stafford, PhD 2002

- **PhD University:** Clinical Psychology, Binghamton University
- **Research Area:** Trauma and PTSD; sexual and military trauma; mindfulness
- **Courses Taught:**
 - Personality and Pathology Assessment (780)
 - Career and Lifestyle Development (630)
 - Psychopathology (620)
 - Cognitive Assessment (680)
 - Practicum I and II (791, 793)
 - Psychological Statistics (325)



Laura Jelsone-Swain, PhD (2008)

- **Ph.D. University:** Experimental Psychology - Cognitive Neuroscience, University of South Carolina (Columbia)
- **Research Area:** motor network involvement in social cognition, executive functioning, EEG
- **Courses Taught:** Introduction to Psychology (101), Cognitive Neuroscience lecture and lab (370 and 371), Sensation and Perception lecture and lab (450 and 451), Senior Reflective Capstone (499), Brain Trauma, Disease, and Disorders (500), Independent research (398, 498, 598), Graduate Research Methods (624)
- **Contact email:** laurasw@usca.edu