DOCTORAL HOODING CEREMONY

THURSDAY, AUGUST 4, 2016
3:00 PM
BROOKS CENTER FOR THE PERFORMING ARTS

ORDER OF CEREMONIES

PROCESIONAL
(Please stand for the processional and the National Anthem)

NATIONAL ANTHEM

OPENING OF CEREMONY
University Marshal Deborah M. Switzer

REFLECTION
Society for the Advancement of Chicanos/Hispanics and Native Americans in Science
Clemson Chapter President
Andrea A Gil

WELCOME AND INTRODUCTIONS
Associate Provost and Dean of the Graduate School
Jason W Osborne
and
Executive Vice President for Academic Affairs and Provost
Robert H Jones

CONFERRING OF DEGREES, DELIVERY OF DIPLOMAS, AND HOODING
President James P Clements

ALMA MATER

RECESSIONAL
Music by the Clemson University Brass Quintet and vocalist Haleigh Marcolini
Selections and credits on page 19

Today’s ceremony is being streamed live with captioning at clemson.edu/graduate/hooding
Although there are too many to list, the graduate program coordinators, the administrative contacts, and the student services coordinators for each graduate degree program are essential to the success of graduate education at Clemson University. We hope you take great pride in seeing today’s graduates walk across the stage, because this would not have been possible without you. Thank you.
ASSOCIATE DEANS AND DEPARTMENT CHAIRS

College of Agriculture, Forestry and Life Sciences
Joseph D Culin
Associate Dean for Research and Graduate Studies
Ted Whitwell
Associate Dean for Undergraduate Studies
Patricia A Zungoli ................. Agricultural and Environmental Sciences
James R Strickland ............... Animal and Veterinary Sciences
Robert S Cohen ....................... Biological Sciences
E Jeffery Rhodehamel ............... Food, Nutrition, and Packaging Sciences
William R Marcotte, Jr .......... Genetics and Biochemistry
Greg K Yarrow .......... Forestry and Environmental Conservation

College of Architecture, Arts and Humanities
Constancio K Nakuma
Senior Associate Dean for Academic Affairs
James H Spencer
Acting Associate Dean for Research and Graduate Studies
Katherine L Schwenens ...... School of Architecture
Greg W Shelnutt ....................... Art
Bryan E Denham, interim .......... Communication Studies
Roger W Liska ...................... Construction Science and Management
Lee J Morrissey ....................... English
James M Burns ......................... History
Mary G Padua ......................... Landscape Architecture
Salvador A Oropesa ................... Languages
David J Hartmann ..................... Performing Arts
Charles Starkey, interim .......... Philosophy and Religion
James H Spencer ........ Planning, Development and Preservation

College of Business and Behavioral Science
Gregory M Pickett
Senior Associate Dean
Douglas “Kinly” Sturkie
Associate Dean for Academic Affairs
Jeffrey J McMillian, interim ........ School of Accountancy
Scott L Bier ......................... Economics
Angela G Morgan ..................... Finance
Charles Tonkin ......................... Graphic Communications
“Sri” V Sridharan ..................... Management
Gregory M Pickett, interim .......... Marketing
Gregory M Pickett ........ MBA and Greenville ONE
Jeffrey S Peake ....................... Political Science
Patrick H Raymark .................. Psychology
David J Eitle ......................... Sociology and Anthropology
Christopher R Mann ........ Aerospace Studies
Kenneth T Crawford ........ Military Leadership

College of Engineering and Science
Douglas E Hirt
Associate Dean for Research and Graduate Studies
Karen High
Associate Dean of Undergraduate Studies
Eileen T Kraemer ......................... School of Computing
Zoran S Filipi ......................... Automotive Engineering
Martine LaBerge ....................... Bioengineering
Douglas E Hirt ....................... Chemical and Biomolecular Engineering
R Karl Dieter ......................... Chemistry
James R Martin ....................... Civil Engineering
Daniel L Noneaker .......... Electrical and Computer Engineering
Cindy M Lee ......................... Engineering and Science Education
David L Freedman ........ Environmental Engineering and Earth Sciences
R Joe Watkins ....................... General Engineering
J Cole Smith ......................... Industrial Engineering
Rajendra “Raj” Bordia ........ Materials Science and Engineering
Christopher L Cox, interim .......... Mathematical Sciences
Melur “Ram” Ramasubramanian .......... Mechanical Engineering
Terry M Tritt, interim .......... Physics and Astronomy

College of Health, Education and Human Development
Eric R Muth
Associate Dean for Research and Graduate Studies
Margaret A Wetsel, interim ........ School of Nursing
Francis A McGuire, interim .......... Parks, Recreation and Tourism Management
Ronald W Gimbel ...................... Public Health Sciences
Mark A Small ....................... Youth, Family and Community Studies

Eugene T Moore School of Education
Kathy N Headley
Senior Associate Dean of the Division of Collaborative Academic Services
David E Barrett
Associate Dean of Academic Affairs and Research
Deborah M Switzer .......... Education and Human Development
Robert C Knoeppl .............. Educational and Organizational Leadership Development
Suzanne N Rosenblith .......... Teaching and Learning

The Graduate School
Bruce Ransom ....................... Policy Studies
In conceptualizing a “high seminary of learning” for South Carolina, Thomas Green Clemson knowingly set the stage for graduate education to emerge as an engine of economic development in the state. Graduate education quickly became synonymous with the application of theory to improving the practices of education and agriculture. The analysis of fertilizer, a contracted activity of the chemistry department that began in the late 1930s, would help restore depleted South Carolina soils, increase agricultural production, and spur a rapid development in opportunities for students at Clemson College to study beyond the baccalaureate degree.

Graduate coursework initially responded to the needs of veterans, and to the interests of teachers wanting to improve their classroom skills, but also, from its inception, attracted international students’ attention. On June 3, 1924, Patrick Hobson of Sandy Springs, South Carolina, earned the first master’s degree awarded at Clemson, and used his degree in vocational education to serve as high school principal and later as superintendent of schools in York County, South Carolina and Mitchell County, North Carolina. The third graduate degree, a master’s in textile industrial education awarded to Ko-Chia Li from Mukden, China, on June 1, 1926, initiated an enrollment trend that has catapulted China to its present status as the number-one sending country for international graduate students at Clemson. Mr. Li returned to China and taught as a professor of textile engineering at Peking University, and served as head of the construction department in LiaoBei Province.

From 1938 until 1945, all aspects of graduate education (courses, programs, policies, procedures, admission, and graduation) developed under the auspices of the Committee on Graduate Instruction, chaired by F. H. H. Calhoun, Dean of the School of Chemistry and Geology. Twice during these years the University’s attempts to formalize graduate education were thwarted because of the challenges to the Committee to maintain the necessary standards of quality. Clemson faculty recognized early that to establish a graduate program that enabled Clemson alumni to enroll would require strengthening the undergraduate curriculum and courses to prevent knowledge gaps “between the two.”

On March 14, 1945, President Poole received the Committee’s resolution requesting the appointment of a dean of the Graduate School. It had been ascertained by that time that 19 courses could be offered immediately by the schools of agriculture, chemistry, engineering, textiles, and arts and sciences. On July 27, 1946, the Board of Trustees approved the Committee’s proposed graduate program of study, and that fall, formally admitted the first class of students into “the Graduate School.” However, it would not be until June 15, 1951 that Herbert J. Webb, Chair of the Department of Chemistry and Toxicology, was appointed as the first Dean of the Graduate School.

Masterfully stewarded by President Poole himself, and modeled initially after several prestigious southern institutions, Clemson’s graduate programs grew cautiously but steadily, introducing the first doctoral degree, in plant pathology, in 1955. Today the Graduate School proudly enrolls 4,682 graduate students and, including today’s graduation, has awarded 36,356 master’s degrees, 498 education specialist degrees, and 4,534 doctoral degrees.


**Doctoral Hooding**

The doctoral hood is a symbolic honor of distinction bestowed upon scholars who have attained the highest level of formal education available in the world, representing a typical range of five to seven years of study beyond the bachelor’s degree. Clemson’s 46” long doctoral hood is draped over the shoulders by the faculty member who, as chair of the advisory committee, has formally mentored and guided the student’s successful research and education journey.
CANDIDATES FOR THE DOCTORAL DEGREE
Jason W Osborne, Dean, Graduate School

COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES
Doctor of Philosophy

Animal and Veterinary Sciences

Mariano Alende ................................................................. Toay, Argentina
B.S., M.S., National University of La Plata
Dissertation: Evaluation of High Sugar Ryegrass Varieties
Advisor: Dr. J Andrae

Gabriela Volpi Lagreca........................................................ Santa Rosa, Argentina
M.S., National University of La Plata
Dissertation: Ruminant Supplementation of Gluconeogenic Substrates via Drinking Water
Advisor: Dr. S Duckett

Entomology

Francesca Louise Stubbins...................................................... York, United Kingdom
B.A., University of Cambridge; M.Sc., London School of Hygiene and Tropical Medicine
Dissertation: Ecology of Megacopta cribraria (Hemiptera: Plataspidae) with Implications for Management on Soybean
Advisors: Dr. F Reay-Jones and Dr. J Greene
Francesca has two peer-reviewed publications and received the College of Agriculture, Forestry, and Life Sciences Outstanding Graduate Student Research Assistant Award in 2016.

Food Technology

Najla Ahmed Khateeb ........................................................... Anderson, SC
B.S., King Abdulaziz University; M.S., Clemson University
Dissertation: Examination of Infographics-Based Reusable Learning Objects (RLO) and Traditional Didactic Lectures (TDL) to Improve Consumer Knowledge and Perceptions About the Safe Use of Plastic Food Containers in a Microwave Oven
Advisor: Dr. K Cooksey

Genetics

Krystal A Cadle................................................................. Cuthbert, GA
B.S., University of West Georgia
Dissertation: The Role the N-terminal Domain Plays in Spidroin Assembly
Advisor: Dr. W Marcotte

Ning Yuan ................................................................. Chengdu, China
B.S., M.S., Southwest China Jiaotong University
Dissertation: Tackling Adverse Environment — Molecular Mechanism of Plant Stress Response and Biotechnology Tool Development
Advisor: Dr. H Luo
Ning has three peer-reviewed publications and one patent. Ning was awarded the Wade Stackhouse Graduate Fellowship based on outstanding academic achievement.
COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES
DOCTOR OF PHILOSOPHY

Rhetorics, Communication, and Information Design

S Andrew Stowe ............................................................................................................ Travelers Rest, SC
B.A., University of South Carolina; M.A., Clemson University
Dissertation: The Drive to Deceive: Lance Armstrong’s Image Repair and Maintenance
Advisor: Dr. D Blakesley
Drew has accepted a faculty position at Anderson University, and will serve as the writing center director.

COLLEGE OF BUSINESS AND BEHAVIORAL SCIENCE
DOCTOR OF PHILOSOPHY

Economics

Yucheng Jiang........................................................................................................... Yi Yang, China
B.A., Huazhong University of Science and Technology; L.L.B., Wuhan University;
M.A., Clemson University
Advisors: Dr. G Dwyer and Dr. R Tamura

Andrew L Swanson ........................................................................................................ Oberlin, OH
B.A., Oberlin College; M.A., Clemson University
Dissertation: Geographic Diversification and Commercial Bank Insolvency Risk and Essays on Crowdfunding and Subscription Games
Advisors: Dr. P Wilson and Dr. P Warren

Human Factors Psychology

Michael Lee Wilson ........................................................................................................ Pendleton, SC
B.S., Embry-Riddle Aeronautical University; M.S., Clemson University
Dissertation: The Effect of Varying Latency in a Head-Mounted Display on Task Performance and Motion Sickness
Advisor: Dr. E Muth
Mike is a retired U.S. Army officer and a Science, Math and Research Transformation scholarship recipient. He works at the Army’s Aeromedical Research Lab in Fort Rucker, AL.

Industrial/Organizational Psychology

Alice Michelle Brawley ................................................................................................... Keithville, LA
B.A., Louisiana Technical University; M.S., Clemson University
Dissertation: Performance Management in Family Microbusinesses
Advisor: Dr. C Pury
Alice has two peer-reviewed publications and has won multiple research and teaching awards. She has accepted a visiting faculty position at Michigan State University.
Crystal Mary Burnette ................................................................. Athens, TN
  B.S., Wofford College; M.S., Clemson University
  Dissertation: Burnout Among Pastors in Local Church Ministry in Relation to Pastor,
    Congregation Member, and Church Organizational Outcomes
  Advisor: Dr. R Sinclair
  Crystal was awarded the College's Graduate Teaching Assistant Excellence award in 2014. She
  is currently employed as an Associate Director of Healthy Campus at Clemson University.

Deanna Karol Burns ................................................................. Manorville, NY
  B.S., M.S., Clemson University
  Dissertation: What Work and Family Mean to You: An Investigation of Demographic
    Differences in Work-Family Conflict Using Qualitative and Quantitative Item Analysis
  Advisor: Dr. R Sinclair

Janelle Hiu Ngae Cheung ...................................................... Hong Kong, China
  B.A., M.S., Clemson University
  Dissertation: Employee Well-Being Profiles: A Person-Centered Approach to Understanding
    Multiple Dimensions of Psychosocial Well-Being
  Advisor: Dr. R Sinclair
  Janelle has 14 peer-reviewed publications, was named the Outstanding Graduate Researcher
  in 2015, and will be a postdoctoral researcher at Oregon Health and Science University.

Sarah DuBose Coldiron .......................................................... Hampton, VA
  B.S., Christopher Newport University; M.S., Clemson University
  Dissertation: Demand-Control Interactions in Older Workers: Health and Well-being
    as Outcome Measures
  Advisor: Dr. M Taylor

**EUGENE T. MOORE SCHOOL OF EDUCATION**
**DOCTOR OF PHILOSOPHY**
**Curriculum and Instruction**

Daniel M Alston ................................................................. Columbia, SC
  B.S., M.T., University of South Carolina
  Dissertation: The Initial Design and Validation of the Teacher’s Emotions, Appraisals, and
    Coping Habits when Facilitating Inquiry-Based Instruction (TEACH-FIBI) Instrument for
    Science Education
  Advisor: Dr. J Marshall
  Daniel has four peer-reviewed publications, was one of the School of Education’s Outstanding
  Graduate Researchers in 2015, and has accepted a faculty position at University of North
  Carolina–Charlotte.

Tracy Dawn Butler ............................................................. Redding, CA
  B.A., University of Minnesota; M.A., Furman University
  Dissertation: Middle School Subject Area Teachers’ Self-Efficacy with English Language
    Learners: A Mixed Methods Study
  Advisor: Dr. L Medford
  Tracy has two peer-reviewed publications.
Dennis Aminiel Kombe ................................................................. Kakamega, Kenya
B.Ed., Moi University; M.Ed., College of Charleston
Dissertation: An Examination of International Teachers’ Pedagogical Adaptation to U.S. Secondary Mathematics Classes
Advisor: Dr. M Che
A husband, a dad, and an educator, Dennis has two peer reviewed publications, and has accepted a faculty position with California State University at Monterey Bay.

Sang-ho Pang ................................................................................. Seoul, South Korea
B.S., M.S., Korea University
Dissertation: A National Survey of Literacy Faculty’s Practices, Beliefs and Attitudes Toward Online Courses
Advisor: Dr. D Reinking
Sang-ho has three peer-reviewed publications. He formerly taught high school in South Korea and has a keen interest in online education research.

Educational Leadership

Bridget Carver Briley ................................................................. Seneca, SC
B.S., Southern Wesleyan University; M.S., Capella University
Dissertation: Exploring the Effects of Network Dynamics on Student Test Scores in a Rural Middle School
Advisor: Dr. R Marion

Matthew Robert Burns ................................................................. Greenville, SC
B.A., Furman University; M.Ed., Clemson University
Dissertation: Ethical Decision-Making Examined in Greek Letter Organization Members: A Case Study
Advisor: Dr. P First
Matthew’s dissertation was selected for the 2015–2016 Paul T Begley Award to be presented at the CSLEE Values and Leadership Conference in October.

Caroline Wright Canty ................................................................. Indian Land, SC
B.S., Winthrop University; M.A., Hampton University; M.A., Columbia College
Dissertation: An Analysis of Three TRIO Student Support Services Projects at Public Two-Year Institutions in South Carolina
Advisor: Dr. J Satterfield
Caroline wrote two proposals in the last federal TRIO Student Support Services grant competition and now directs both projects: SSS Classic and SSS STEM/Health Science.

Steven Brian Joyce II ................................................................. Lexington, KY
B.A., Eastern Kentucky University; M.Ed., University of South Florida
Dissertation: Examining the Influence of Whiteness on the Group Socialization Process of College Men in the Traditionally White Fraternity System
Advisor: Dr. T Cawthon
Brian was awarded one of the Eugene T. Moore School of Education Outstanding Graduate Student awards in April 2016, and has accepted a position at Dartmouth College.

Forrest Murray Stuart ................................................................. Greenville, SC
B.A., Birmingham-Southern College; M.A., University of Alabama
Dissertation: Sustainable Enrollment Management: A Dynamic Network Analysis
Advisor: Dr. R Marion
College of Engineering and Science

Doctor of Philosophy

Automotive Engineering

Dee Wood Kivett ......................................................... Greenville, SC
B.S., Virginia Polytechnic Institute and State University; M.S., Rensselaer Polytechnic Institute; M.B.A., Clemson University
Dissertation: Clarity of View: An Analytic Hierarchy Process (AHP)-Based Multi-Factor Evaluation Framework for Driver Awareness Systems in Heavy Vehicles
Advisors: Dr. Z Filipi and Dr. D Smith
Dee plans to continue teaching in the CU-ICAR Automotive Engineering Department and running her successful consulting practice, NextGen Supply Chain Integrators in Greenville, SC.

Xueyu Zhang .............................................................. Hengshui, China
B.S., Huazhong University of Science and Technology
Dissertation: Supervisory Control Optimization for a Series Hybrid Electric Vehicle with Consideration of Battery Thermal Management and Aging
Advisor: Dr. Z Filipi

Bioengineering

Tigran Abramyan ........................................................ Moscow, Russia
M.Pharm., First Moscow State Medical University; M.Sc., University College London School of Pharmacy
Dissertation: Computational Studies of Molecular Mechanisms Mediating Protein Adsorption on Material Surfaces
Advisor: Dr. R Latour

Sarah Elizabeth Cisewski .............................................. Isle of Palms, SC
B.S., Clemson University
Dissertation: Nutrient Related Mechanisms of Intervertebral Disc Degeneration
Advisor: Dr. H Yao
A National Science Foundation Graduate Research Fellow, Sarah has seven peer-reviewed publications. She has accepted a postdoctoral position at the Medical University of South Carolina.

Nasim Nosoudi .......................................................... Clemson, SC
B.S., Iran University of Science and Technology; M.S., Amirkabir University of Technology
Dissertation: Targeted Nano-Therapeutics for the Reversal of Calcification and ECM Degradation in Abdominal Aortic Aneurysms
Advisor: Dr. N Vyavahare
Nasim has 15 peer-reviewed publications, was chosen as the bioengineering department’s Outstanding Graduate Researcher in 2016, and plans to work in academia.

Matthew C Rusin ........................................................ Dublin, OH
B.S., Rose-Hulman Institute of Technology; M.S., Clemson University
Dissertation: Impact of Ionizing Radiation Dose and Dose Rate on Adipose Stem Cell Function
Advisor: Dr. D Dean
Hobey Tam.................................................................Fishers, IN
B.S., Rose-Hulman Institute of Technology; M.S., Clemson University
Dissertation: Novel Chemical Crosslinking to Stabilize Extracellular Matrix for Bioprosthetic
Heart Valve Materials to Resist Calcification and Structural Degradation
Advisor: Dr. N Vyawahare

Michael Aaron Vaughn....................................................Anderson, SC
B.S., M.S., Clemson University
Dissertation: Development of Poroelastic Polyvinyl Alcohol Based Hydrogels as a Synthetic
Cartilage Substitute
Advisors: Dr. K Burg and Dr. J Corbett
Aaron completed his dissertation project in a program with Poly-Med, Inc. and Clemson’s
Department of Bioengineering. He plans on continuing his employment at Poly-Med, Inc.
after graduation.

Chemical Engineering

Juan Wang......................................................................Tianjin, China
B.S., Tianjin University
Dissertation: Development of a New Multimodal Membrane Adsorber and Its Application in
Chromatographic Bioseparations
Juan received an AIChE graduate research award in 2015 and a NAMS fellowship award
in 2016. She will work in a biopharmaceutical company.

Chemistry

Tingting Han .................................................................Jinan, China
B.S., Xi’an Jiaotong University
Dissertation: Molecular Mechanics Study of Protein Folding and Protein-Ligand Binding
Advisor: Dr. B Dominy

Daniel A Hercules..........................................................Clemson, SC
B.S., University of Costa Rica
Dissertation: Development of a Pilot-Scale Polymerization Facility and Monomer
Preparation for the Determination of Reactivity Ratios for Tetrafluoroethylene
(TFE)-Based Copolymers
Advisors: Dr. J Thrasher and Dr. D DesMarteau
Daniel has three first-author peer-reviewed publications and was awarded best poster awards
in 2012 and 2014 by the American Chemical Society Fluoropolymer Division.

Zhe Jia ........................................................................Tianjin, China
B.S., Tianjin University
Dissertation: Molecular Mechanics Studies of Protein Signaling and Conformation Change
Advisor: Dr. B Dominy

Liuwei Jiang.................................................................Wuhan, China
B.S., Guangdong Pharmaceutical University
Dissertation: Surface Modifications of Capillary-Channeled Polymer (C-CP) Fiber
Stationary Phases for Protein Separations
Advisor: Dr. K Marcus
Melissa Marie Rogalski .................................................. Phillipsburg, NJ  
B.S., Kutztown University  
Dissertation: Development of Position-Dependent Luminescent Sensors: Spectral Rulers and Chemical Sensing Through Tissue  
Advisor: Dr. J Anker  
Melissa received a MacDonald Fellowship in 2010, a graduate teaching assistant award in 2013, and has one patent. She has accepted a senior scientist position at Sealed Air.

Jamie Amanda Shetzline .................................................. Doylestown, PA  
B.S., Delaware Valley University  
Dissertation: Advanced Cathode Materials and Electroanalytical Techniques for Proton Exchange Membrane Hydrogen-Oxygen Fuel Cells  
Advisor: Dr. S Creager

Daniel R Willett ............................................................... Gilbertsville, KY  
B.S., Murray State University  
Dissertation: Synthesis and Applications of Highly Concentrated Silver Nanoparticles with an Ultra-Thin Silica Shell  
Advisor: Dr. G Chumanov

Civil Engineering

Nicole Maria Barclay ...................................................... Siparia, Trinidad and Tobago  
B.S., South Carolina State University; M.S., Clemson University  
Dissertation: The Role of Community Participation for Green Stormwater Infrastructure Development  
Advisor: Dr. L Klotz  
Nicole has accepted a faculty position at the University of North Carolina at Charlotte.

Kweku Tekyi Brown ........................................................... Cape Coast, Ghana  
B.S., Kwame Nkrumah University of Science and Technology; M.S., University of Connecticut  
Dissertation: A Safety Analysis of Spatial Phenomena About the Residences of Drivers Involved in Crashes  
Advisors: Dr. W Sarasua and Dr. J Ogle  
Kweku won the Outstanding Lab Assistant Award in the civil engineering department in 2014 and 2015. He won the Outstanding Paper at the 2016 AASHTO GIS-T. He will be joining faculty at The Citadel

Diana A Chen ................................................................. Cerritos, CA  
B.S., Harvey Mudd College; M.S., Clemson University  
Advisors: Dr. B Ross and Dr. L Klotz  
Diana has accepted a faculty position at the University of San Diego.

He Jin ................................................................. Yanji, China  
B.A., Yanbian University; M.S., Stevens Institute of Technology; M.S., Yonsei University  
Advisor: Dr. K Piratla  
He graduated in Civil Engineering department. He gives all glories to his Lord.
Srimaruthi Jonnalagadda ................................................................. Vijayawada, India
B.T., Nagarjuna University; M.T., Mangalore University
Dissertation: Artificial Neural Networks, Non Linear Auto Regression Networks (NARX) and
Causal Loop Diagram Approaches for Modelling Bridge Infrastructure Conditions
Advisor: Dr. B Ross
Sri thanks his wonderful wife, Sirisha, for her exemplary sacrifice and outstanding support as
he pursued his dream of a PhD.

Audra Ann Kiesling ........................................................................ Wall, TX
B.S., Texas Tech University; M.E., University of Florida
Dissertation: Public Perceptions of Individual Natural Hazard Resilience Related to the
Built Environment
Advisor: Dr. L Klotz

Frederick Eugene Paige .................................................................. Binghamton, NY
B.S., M.S., Clemson University
Dissertation: Learning Energy Literacy Concepts from Energy-Efficient Homes
Advisors: Dr. L Klotz and Dr. J Martin

Tao Ruan .......................................................................................... Zibo, China
B.S., Yantai University; M.S., Dalian University of Technology
Dissertation: Development of an Automated Electrical Impedance Tomography System and
Its Implementation in Cementitious Materials
Advisor: Dr. A Poursaei

Garrison Nicole Stevens ................................................................. Salisbury, NC
B.S., M.S., Clemson University
Dissertation: Experiment-based Validation and Uncertainty Quantification of Partitioned
Models: Improving Predictive Capability of Multi-scale Plasticity Models
Advisor: Dr. S Atamturktur
Garrison was named the Outstanding Woman Graduate Student in 2014. She has accepted
a postdoctoral position at Los Alamos National Laboratory.

Ali Tohidi .................................................................................... Tehran, Iran
B.S., Islamic Azad University; M.S., Sharif University of Technology
Dissertation: Experimental and Numerical Modeling of Wildfire Spread via Fire Spotting
Advisor: Dr. N Kaye

Computer Engineering

Liuhua Chen .................................................................................. Zhanjiang, China
B.S., M.S., Zhejiang University
Dissertation: Optimizing Virtual Resource Management in Cloud Datacenters
Advisor: Dr. H Shen

Yuhua Lin ..................................................................................... Yunfu, China
B.E., M.E., Sun Yat-Sen University
Dissertation: Effective and Economical Content Delivery and Storage Strategies for
Cloud Systems
Advisor: Dr. H Shen
Jinwei Liu ......................................................... Wuhan, China
M.S., University of Science and Technology of China; M.S., Clemson University
Dissertation: Towards an Efficient Cloud Computing System: Data Management, Resource Allocation and Job Scheduling
Advisor: Dr. H Shen

Electrical Engineering

Karthikeyan Balasubramaniam ..................................................... Chennai, India
B.E., Anna University; M.S., University of Vermont
Dissertation: Optimization Techniques for Modern Power Systems Planning, Operation and Control
Advisor: Dr. E Makram

Engineering and Science Education

Eliza Dargan Gallagher .......................................................... Brevard, NC
B.S., M.S., North Carolina State University
Dissertation: On Becoming a Graduate Student Teacher of Mathematics
Advisors: Dr. L Benson and Dr. G Potvin
Eliza has accepted a tenure-track faculty appointment at Clemson University.

Jennifer Elizabeth Van Dyken .............................................. Round Rock, TX
B.A., Southwestern University; M.S., Clemson University
Dissertation: The Effects of Mathematics Placement on Successful Completion of an Engineering Degree and How One Student Beat the Odds
Advisor: Dr. L Benson

Environmental Engineering and Science

April Renee Gillens ................................................................. Eutawville, SC
B.S., North Carolina Agricultural and Technical State University; M.S., Clemson University
Advisor: Dr. B Powell
April is the first African-American to earn a Ph.D. in Environmental Engineering and Science from Clemson University. She is also Clemson’s first Nuclear Forensics Graduate Fellow.

Adam R Mangel ................................................................. Cambria, NY
B.S., State University of New York; M.S., Clemson University
Dissertation: Advances in Monitoring Dynamic Hydrologic Conditions in the Vadose Zone Through Automated High-Resolution Ground-Penetrating Radar Imaging and Analysis
Advisor: Dr. S Moysey

Jolanta Barbara Niedźwiecka ................................................. Staszów, Poland
B.S., Cracow University of Technology
Dissertation: Combined Biological and Chemical Mechanisms for Degradation of Insensitive Munitions
Advisor: Dr. K Finneran
Jola won the Student Paper Competition for the Third International Symposium on Bioremediation and Sustainable Environmental Technologies in 2015.
Muriel Margaret Steele ................................................................. Jones, OK
B.S., Arizona State University; M.S., Clemson University
Dissertation: Quantifying Sustainability in Wastewater Treatment: Examples in Algaculture
Advisors: Dr. D Ladner and Dr. A Anctil

Yu Xie ........................................................................................................... Shenzhen, China
B.S., China University of Geosciences; M.S., Boston College
Dissertation: Understanding the Thermodynamics of Actinide Speciation at Solid and Water Interfaces Through Self-Consistent Surface Complexation Modeling (SCM)
Advisor: Dr. B Powell
Yu earned the Environmental Scholars Award in the Department of Environmental Engineering and Earth Sciences in 2015.

Industrial Engineering

Nadeepa Wickramage ................................................................. Kottawa, Sri Lanka
B.Sc., Moratuwa University; M.S., Clemson University
Dissertation: Time Based Modeling of Storage Facility Operations
Advisor: Dr. W Ferrell, Jr
Nadeepa was awarded the Material Handling Education Foundation, Inc. scholarship in 2014.

Nazanin Zinouri .................................................................................................... Tehran, Iran
B.S., Khajeh Nasir Toosi University of Technology; M.S., Northern Illinois University
Dissertation: Improving Healthcare Resource Management Through Demand Prediction and Staff Scheduling
Advisor: Dr. K Taaffe

Materials Science and Engineering

Xiaolin Liu ........................................................................................................... Zibo, China
B.S., Shandong University
Dissertation: Synthesis of Hydrofluorocarbon Ethers and New Amorphous Fluoropolymers with Cyclic Fluorocarbon Ether Units
Advisor: Dr. J Thrasher

Claire Kway Poh .................................................................................................. Charlotte, NC
B.S., High Point University
Dissertation: The Development of Polyurethane-based Solid to Solid Phase Change Materials
Advisors: Dr. P Brown and Dr. V Blouin

Bradley Matthew Schultz ................................................................. Glen Ellyn, IL
B.S., Purdue University
Dissertation: The Influence of Architecture and Composition on the Evolution of Thin Films During Sliding Contact
Advisor: Dr. M Kennedy
Brad was awarded two South Carolina Space Grant Consortium Fellowships, an OSSI summer research position at NASA’s Johnson Space Center, and worked in the CURF Tech Transfer Office.
Ying Yang ..................................................................Tangshan, China
B.S., Nankai University
Dissertation: Molecular Level Design of Self-Healing Polyurethanes
Advisor: Dr. M Urban
Ying has five publications and one patent, won Best Poster prize at the International
Symposium on Stimuli-Responsive Materials, and in 2015 was awarded a David Jennings
Fellowship.

Mathematical Sciences

Nathan Joseph Adelgren.............................................Jamestown, NY
B.S., State University of New York; M.S., Indiana University of Pennsylvania
Dissertation: Solution Techniques for Classes of Biobjective and Parametric Programs
Advisors: Dr. M Wiecek and Dr. A Gupte
Nathan has one peer-reviewed publication and was named an Outstanding Graduate
Researcher by the Department of Mathematical Sciences in 2016.

Qijun He ...............................................................Shenzhen, China
B.S., Zhejiang University; M.S., Clemson University
Dissertation: Algebraic Geometry Arising from Discrete Models of Gene Regulatory
Networks
Advisor: Dr. M Macauley

Jason Lee Joyner .......................................................Clover, SC
B.S., M.S., Clemson University
Dissertation: A New Look at Matrix Analytic Methods
Advisor: Dr. B Fralix

Anastasia Bridner Wilson .........................................Greenville, SC
B.S., North Greenville University; M.S., North Carolina State University
Dissertation: Modeling, Analysis, and Simulation of Adsorption in Functionalized Membranes
Advisor: Dr. L Jenkins
Anastasia interned at NASA Langley in 2015, was named the math department’s Outstanding
Graduate Researcher in 2016, and will be teaching at Augusta University in the fall.

Shuhan Xu ...............................................................Hefei, China
B.S., Donghua University; M.S., Clemson University
Advisor: Dr. H Lee
Shuhan has five publications, won a Michael Case Award for promise in graduate research
in 2013, and a SIAM SEAS Student Travel Award in 2015.

Mechanical Engineering

Ali Haitham Abdelfattah Alhadidi .........................Al Salt, Jordan
B.S., M.S., University of Jordan
Dissertation: Exploiting Stiffness Nonlinearities to Improve the Performance of Galloping
Flow Energy Harvesters
Advisor: Dr. M Daqaq
Ali has seven peer-reviewed publications and has accepted a faculty position at the
University of Jordan.
Wei Li ................................................................. Xiantao, China  
B.S., M.S., Huazhong University of Science and Technology  
Dissertation: Effects of Mean Shear and Scalar Initial Length Scale on Three-Scalar Mixing in Turbulent Coaxial Jets  
Advisor: Dr. C Tong

Xinyu Lu ............................................................... Kaifeng, China  
B.E., Huazhong University of Science and Technology  
Dissertation: Particle Transport Phenomena in Non-Newtonian Microfluidics  
Advisor: Dr. X Xuan  
Xinyu has 14 peer-reviewed papers, was named one of the Graduate School’s 2016 Outstanding Graduate Researchers, and received a Chinese government award for Outstanding Self-Financed Students Abroad.

Seyed Yasha Parvini Oskoui ................................................. Tabriz, Iran  
B.Sc., University of Tabriz; M.Sc., Sharif University of Technology  
Dissertation: Modeling, Hybridization, and Optimal Charging of Electrical Energy Storage Systems  
Advisor: Dr. A Vahidi  
Yasha has seven peer-reviewed publications and one patent. He was a mechanical engineering teaching fellow in 2015, and has accepted a faculty position at the University of Detroit–Mercy.

Hamed Saeidi ................................................................. Booshehr, Iran  
B.S., Shahrood University of Technology; M.S., Amirkabir University of Technology  
Dissertation: Trust-Based Control of (Semi)Autonomous Mobile Robotic Systems  
Advisor: Dr. Y Wang

Nianfeng Wan .............................................................. Zhengzhou, China  
B.S., Tianjin University; M.S., Shanghai Jiao Tong University  
Dissertation: Estimation and Control of Traffic Relying on Vehicular Connectivity  
Advisor: Dr. A Vahidi

Ying Yu ................................................................. Wuhan, China  
B.S., Wuhan University of Technology  
Dissertation: Thermomechanical Modelling for Phonon Transport and Damping Analysis of Silicon Nano-Structure  
Advisor: Dr. G Li

**Photonic Science and Technology**

Guancheng Gu .......................................................... Changsha, China  
B.S., Harbin Institute of Technology  
Dissertation: Advanced Specialty Fiber Designs for High Power Fiber Lasers  
Advisor: Dr. L Dong  
Guancheng has nine peer-reviewed journal publications and 32 conference proceedings.

**Physics**

Andrew Devon Kiene .................................................. Mobile, AL  
B.S., Auburn University  
Dissertation: Sounding Rocket Measurements of Vertically-Sheared F Region Neutral Winds at Sunset and Modeling of Their Effect on Spread F Development  
Advisor: Dr. M Larsen
Amber L. Porter  
B.S., Lycoming College  
Dissertation: Spectropolarimetry of Thermonuclear Supernovae  
Advisor: Dr. M. Leising  
Amber has one peer-reviewed publication and was named the physics department’s Outstanding Teaching Assistant in 2016. She has accepted a lecturer position at Clemson University.

Girish Sharma  
B.S., M.S., Sri Sathya Sai Institute of Higher Learning  
Dissertation: Topological Phenomena in Metals and Superconductors  
Advisor: Dr. S. Tewari  
Girish has six papers published in the peer-reviewed journal Physical Review B, and was named outstanding graduate researcher in both the physics department and the College of Engineering and Science.

Xiaoyu Zeng  
B.S., Wuhan University of Science and Technology  
Dissertation: The Defects Chemistry in La Filled CoSb3 Skutterudites Explored by Thermoelectric Study and Density Functional Theory Calculations  
Advisor: Dr. T. Tritt

College of Health, Education and Human Development  
Doctor of Philosophy  
Health Care Genetics

Scott Emory Moore  
B.A., Presbyterian College; B.S.N., University of South Carolina; M.S., Clemson University  
Dissertation: Exploring the Interface of Genetics, Genomics, and Older Adults  
Advisors: Dr. R. Pruitt and Dr. B. Holaday  
Scott was awarded the Oliver Kent and Bettye C. Cecil Fellowship in Geriatrics and Genetics and a John A. Hartford Foundation NHCGNE Patricia G. Archbold Pre-doctoral Scholarship.

International Family and Community Studies

Timothy Paul Hagen  
B.A., M.Ed., Valparaiso University  
Dissertation: Attitudes Toward Marriage Among Albanians: Establishing Baseline Attitudinal Clusters and Predictors from the 2008 European Values Study  
Advisor: Dr. M. Small

Dana Lee Varkis  
B.A., M.S.W., University of California  
Dissertation: The Impact of Marital Satisfaction on the Utilization of Mental Health Services Among Soldiers  
Advisors: Dr. M. Small and Dr. N. Sianko  
Dana is a career federal government employee. She was recently promoted to the rank of Commander in the United States Public Health Service.
GRADUATE SCHOOL
DOCTOR OF PHILOSOPHY
Policy Studies

George Patterson Apperson III................................................................. Greenville, SC
  B.S., University of the South; M.B.A., University of Edinburgh; M.S., Clemson University
  Dissertation: Agricultural Commodity Futures Price Volatility: A Market Regulatory
  Policy Study
  Advisor: Dr. W Bridges
  Pat received the J.S. Lyle Memorial Graduate Student Award in 2015 and 2016, and has
  accepted an agribusiness lecture position in the Department of Agricultural and
  Environmental Sciences.
Clemson Alma Mater

Farmer and McGarity/arr. Freeman

Where the Blue Ridge yawns its greatness,
    Where the Tigers play;
Here the sons of dear old Clemson
    Reign supreme alway.

Chorus

Dear old Clemson, we will triumph
    And with all our might,
That the Tiger’s roar may echo
    O’er the mountain height.

We will dream of greater conquests,
    For our past is grand,
And her sons have fought and conquered
    Every foreign land.

Where the mountains smile in grandeur
    O’er the hill and dale.
Here the Tiger lair is nestling
    Swept by storm and gale.

We are brothers strong in manhood,
    For we work and strive;
And our alma mater reigneth
    Ever in our lives.

Ceremonial Music

Haleigh Marcolini, Soloist
Clemson University Brass Quintet

Prelude
    Various Marches and Processionals

Processional
    Pomp and Circumstance — Sir Edward Elgar

National Anthem
    Words by Francis Scott Key
    Music attributed to John Stafford Smith

Closing
    Clemson University Alma Mater
    Words by A C Corcoran, Class of ’19
    Music by Hugh H McGarity and R Hawkins
    Arranged by J Butler

Recessional
    Rondeau from “Sinfonies de Fanfares” —
    Jean-Joseph Mouret
Candidates appearing in this program are not certified graduates. Likewise, academic honors designations are based upon performance prior to final grades. Both certification of graduation and honors designations must come from the Registrar of the University.