

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

MAY 10, 2018



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DOCTORAL HOODING CEREMONY

THURSDAY, MAY 10, 2018

7:00 PM

BROOKS CENTER FOR THE PERFORMING ARTS

ORDER OF CEREMONIES

PROCESSIONAL

(Please stand for the processional and the National Anthem)

NATIONAL ANTHEM

OPENING OF CEREMONY

University Marshal Robert J. Kosinski

REFLECTION

Jason A. Coral

Doctoral Candidate

Environmental Toxicology

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

RECOGNITION OF OUTSTANDING GRADUATE RESEARCHERS AND GRADUATE TEACHING ASSISTANTS

Fellowship and Awards Committee Chair

David S. Fleming

CONFERRING OF DEGREES, DELIVERY OF DIPLOMAS, AND HOODING

President James P. Clements

ALMA MATER

RECESSIONAL

Music by the Clemson University Brass Quintet

Selections and credits on page 20

Today's ceremony is being streamed live with captioning at tv.clemson.edu/live.

The recording will be posted at tv.clemson.edu/live/archive when available.

BOARD OF TRUSTEES

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DEANS

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Dean of Undergraduate Studies

Jason W. Osborne
Associate Provost and
Dean of the Graduate School

Timothy R. Boosinger, interim
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Life Sciences

Richard E. Goodstein
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Humanities

Brett A. Wright
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Health Sciences

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Dean of the College of Business

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Anand K. Gramopadhye
Dean of the College of Engineering, Computing and
Applied Sciences

Cynthia Y. Young
Dean of the College of Science

Joyce Garnett, interim
Dean of University Libraries

ADMINISTRATIVE OFFICERS

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Executive Secretary to the Board of Trustees

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Vice President of Development and Alumni Relations

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Vice President and Chief Information Officer

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Special Assistant to the President for Inclusive Excellence

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General Counsel

Emily Watrous
Chief Human Resources Officer

Dan Radakovich, Jr.
Director of Athletics

THE GRADUATE SCHOOL

Jason W. Osborne
Associate Provost and Dean of the Graduate School

William G. Ferrell
Associate Dean

David S. Fleming
Associate Dean

Brian N. Dominy
Associate Dean

Tia N. Dumas
Assistant Dean for Professional Development and
Inclusive Excellence

GRADUATE STUDENT GOVERNMENT

Courtney Allen, President

Aury Kangelos, Vice President

Nikhil Punneri Madathil, Vice President, Greenville

ASSOCIATE DEANS AND DEPARTMENT CHAIRS

COLLEGE OF AGRICULTURE, FORESTRY & LIFE SCIENCES

Paula Agudelo, interim
Associate Dean for Research and Graduate Studies
Jean Bertrand
Associate Dean for Academic Affairs
Charles Privette, interim..... Agricultural Sciences
James R. Strickland..... Animal and Veterinary Sciences
E. Jeffery Rhodehamel..... Food, Nutrition, and
Packaging Sciences
Greg K. Yarrow..... Forestry and Environmental Conservation
Matt Turnbull & Jeffrey Adelberg, interims Plant and
Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS & HUMANITIES

Constancio K. Nakuma
Senior Associate Dean for Academic Affairs and
Undergraduate Studies
James H. Spencer
Associate Dean for Research and Graduate Studies
Katherine L. Schwennsen School of Architecture
Valerie A. Zimany, interim Art
John A. Gaber..... City Planning and Real Estate
Development
N. Mike Jackson..... Construction Science and Management
Susanna M. Ashton English
James M. Burns..... History
Salvador A. Oropesa..... Languages
David J. Hartmann Performing Arts
Richard A. Amesbury Philosophy and Religion

COLLEGE OF BEHAVIORAL, SOCIAL & HEALTH SCIENCES

Eric R. Muth
Associate Dean for Research and Graduate Studies
Denise M. Anderson
Associate Dean for Undergraduate Studies
Kathy N. Headley
Senior Associate Dean of the Division of
Collaborative Academic Services
Kathleen L. Valentine..... School of Nursing
Bryan E. Denham Communication
Wayne A. Freimund..... Parks, Recreation and
Tourism Management
Jeffrey S. Peake..... Political Science
Patrick H. Raymark..... Psychology
Ronald W. Gimbel..... Public Health Sciences
Katherine E. Weisensee, interim Sociology, Anthropology
and Criminal Justice
Mark A. Small..... Youth, Family and Community Studies

COLLEGE OF BUSINESS

Gregory M. Pickett
Senior Associate Dean and Director of MBA Programs
Carl W. Hollingsworth, interim
Associate Dean for Academic Affairs
Sally K. Widener..... School of Accountancy
Scott L. Baier..... Economics
Angela G. Morgan Finance
Charles "Chip" Tonkin Graphic Communications

"Sri" V. Sridharan Management
Jesse N. Moore, interim Marketing

COLLEGE OF EDUCATION

Kathy N. Headley
Senior Associate Dean of the Division of
Collaborative Academic Services
David E. Barrett
Associate Dean for Academic Affairs and Research
Michelle P. Cook, interim
Associate Dean for Undergraduate Programs
Debi M. Switzer Education and Human Development
Robert C. Knoepfel..... Educational and Organizational
Leadership Development
Jeff C. Marshall..... Teaching and Learning

COLLEGE OF ENGINEERING, COMPUTING & APPLIED SCIENCES

Douglas E. Hirt
Associate Dean for Research and Graduate Studies
Bradley J. Putman
Associate Dean for Undergraduate Studies
Zoran S. Filipi Automotive Engineering
Martine LaBerge Bioengineering
David A. Bruce Chemical and Biomolecular
Engineering
James R. Martin Civil Engineering
Larry F. Hodges, interim..... School of Computing
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
Richard Figliola, interim..... Mechanical Engineering

COLLEGE OF SCIENCE

Julia Frugoli, interim
Associate Dean for Inclusive Excellence
and Graduate Education
Calvin Williams
Associate Dean for Undergraduate Excellence
and Community Engagement
Apparao Rao
Associate Dean for Discovery
Robert S. Cohen Biological Sciences
William T. Pennington Chemistry
William R. Marcotte, Jr. Genetics and Biochemistry
Christopher L. Cox..... Mathematical Sciences
Terry M. Tritt Physics and Astronomy

Special Thanks to Graduate Program Directors & Staff

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.

A BRIEF HISTORY OF GRADUATE EDUCATION AND THE GRADUATE SCHOOL AT CLEMSON UNIVERSITY

[Clemson's faculty] would engage in original and important research, by which knowledge would be increased, whilst the immediate objects... would be the diffusion of facts on all scientific subjects. It would be vain to attempt to fix a limit to the benefits that would thus be conferred upon mankind and their effects upon society...
— THOMAS GREEN CLEMSON¹

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. He used his degree in vocational education to serve as a 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.”²

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 approximately 5,000 graduate students and is committed to continued growth at both the master's and doctoral levels.

1. Holmes, A. and G. R. Sherrill. *Thomas Green Clemson: His Life and Work*. 1937, p. 129.

2. Clemson University Library System archives. *Minutes of the Committee on Graduate Instruction*, 1945–1953, p. 7.

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-inch-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.

OUTSTANDING GRADUATE RESEARCHER AWARD

Maxime Cavillon
Materials Science and Engineering

Yenhui Peng
Physics and Astronomy

OUTSTANDING GRADUATE TEACHING ASSISTANT AWARD

Huixi Li
Mathematical Sciences

Markus Miller
Animal and Veterinary Sciences

THE FRANKIE O. FELDER GRADUATE STUDENT AWARD OF EXCELLENCE

Deborah Wingler
Planning, Design, and the Built Environment

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

Sean Price Nolan Seneca, SC

B.S., Clemson University

Dissertation: Impacts of Two Temporal Rotations from a Nontoxic Bait to a Cholecalciferol
Rodenticide on Wild House Mouse *Mus musculus* L. Consumption, Bait Station
Interaction, and Movements

Advisor: Dr. Peter Skewes

Sean has authored a book chapter and has a peer reviewed publication. He received an award
for his poster at the ninth International IPM Symposium.

Food Technology

Muthu Poruthotage Dharmasena Kurunegala, Sri Lanka

B.S., University of Kelaniya; M.S., Clemson University

Dissertation: Evaluation of Animal Manure-Based Compost as an Environmental Source of
Clostridium difficile

Advisor: Dr. Xiuping Jiang

Julie C. Rice Poland, OH

B.S., Westminster College

Dissertation: A Practical Guide to Eye Tracking Using Quantitative and Qualitative Means

Advisor: Dr. Rupert Hurley

Julie has eight peer-reviewed publications. She was awarded a Wade Stackhouse fellowship
for the 2017–2018 year and has accepted a position at Package Insight in Greenville, SC.

Forestry and Environmental Conservation

Cope, Michael Patrick.....Brevard, NC
B.S., Brevard College
Dissertation: Application of Cloud-Based Geospatial Technologies to Flowering Phenology
and Environmental Education
Advisor: Dr. Elena Mikhailova

Plant and Environmental Sciences

Philip James Brown.....Kingston upon Hull, UK
B.Sc., University of Bradford; M.S., Clemson University
Dissertation: The Dynamics of Water Movement in Porous Media in Relation to Golf Courses
and Sports Fields
Advisor: Dr. Bert McCarty

Madeline Elizabeth DowlingEasley, SC
B.S., Bob Jones University; M.S., Clemson University
Dissertation: Detection and Characterization of the Newly Described Species *Botrytis fragariae*
Causing Gray Mold on Strawberries in the United States
Advisor: Dr. Guido Schnabel
Madeline has authored eight peer-reviewed publications, was named Clemson's outstanding
graduate researcher in 2017, and won second place in Clemson's 3-Minute Thesis competition
in 2017.

Wildlife and Fisheries Biology

Snehal Subhash Mhatre.....Mumbai, India
B.S., University of Mumbai; M.S., University of Pune
Dissertation: Water-Electricity Nexus: Assessing Impacts of Habitat Loss on Freshwater Mussel
Assemblages in the Savannah Basin, South Carolina
Advisor: Dr. Alan Johnson

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES DOCTOR OF PHILOSOPHY

Planning, Design, and the Built Environment

Mostafa Waleed Hashem AlaniBaghdad, Iraq
B.Sc., University of Technology; M.Sc., University of Science, Malaysia
Dissertation: Computational Investigation of the Morphological Design Dimensions of
Historic Hexagonal-Based Islamic Geometric Patterns
Advisor: Dr. M. Carlos Barrios Kleiss

Rhetorics, Communication, and Information Design

Eda OzyesilpinarKarsiyaka, Turkey
B.S., Ege University; M.A., Texas A&M University-Corpus Christi
Dissertation: Dis/Orienting 'Middle East': A Carto-Rhetorical Rhizomatic Mapping
Advisor: Dr. Cynthia Haynes
Eda has two upcoming peer-reviewed publications in addition to her creative work, and has
accepted a visiting assistant professor position at the University of Texas-El Paso.

Eric James Stephens.....Finksburg, MD
B.A., Brigham Young University; M.A., Utah State University
Dissertation: Prisons, Genres, and Big Data: Understanding the Language of Corrections
in America’s Prisons
Advisor: Dr. Victor Vitanza

Joshua Alvino Adame Wood Dallas, TX
B.A., University of Texas; M.A., University of North Texas
Dissertation: Affective Gaming: At the Intersection of Rhetoric, Affect, and Video Games
Advisor: Dr. David Blakesley
Josh has two peer-reviewed articles and received a fellowship from the Humanities, Arts,
Science, and Technology Alliance Collaboratory.

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES
DOCTOR OF PHILOSOPHY

Applied Health Research and Evaluation

Julie Summey Bedi.....Sunset, SC
B.S., Southern Wesleyan University; M.A.T., M.S., Clemson University; Ed.D.,
Bob Jones University
Dissertation: Elucidating the Endocrine Therapy Experiences of South Carolina Breast
Cancer Survivors
Advisor: Dr. Rachel Mayo
Julie has ten peer-reviewed publications, has been recognized for outstanding contributions
to health research, and will continue using her analytic and teaching skills in future work.

Healthcare Genetics

Katie Annette Edwards.....Taylors, SC
B.S., Bob Jones University; B.S.N., University of South Carolina
Dissertation: Peripheral Biomarkers of Inflammation Following Blast Exposure in a
Clinical Population
Advisors: Dr. Kathleen Valentine and Dr. Jessica Gill
Katie completed her dissertation research in collaboration with the Graduate Partnership
Program at the National Institutes of Health.

Human Factors Psychology

Leah Suzanne Hartman Lynchburg, VA
B.S., James Madison University; M.S., Clemson University
Dissertation: Perception–Action System Calibration in the Presence of Stable and Unstable
Perceptual Perturbations
Advisor: Dr. Christopher Pagano
Leah has four peer-reviewed publications. She was named outstanding master’s student in
psychology (HF) in 2014 and outstanding Ph.D. student in psychology (HF) in 2016.

Amelia Jean Kinsella Dayton, OH
B.S., Miami University; M.S., Clemson University
Dissertation: Adaptation to Base Latency in a Head-Mounted Display Using a Performance
Task to Facilitate Adaptation
Advisor: Dr. Eric Muth
Amelia has four peer reviewed publications and numerous conference presentations.
She received the Rear Admiral Fred Lewis Post-Graduate Scholarship in 2015.

Madison Elizabeth Sauls..... Hood Swamp, NC
B.A., North Carolina State University; M.A., University of North Carolina
Dissertation: Perceived Credibility of Information on Internet Health Forums
Advisor: Dr. Laura Whitlock
In January, Madison began her career as a user experience researcher at BB&T Digital Services in Raleigh, NC.

International Family and Community Studies

Nancy Suzanne Falconer..... Mauldin, SC
B.S., University of Minnesota; M.A.T., Rockford University
Dissertation: Factors that Protect Children from Violence: Findings from a Community-Based Sample of South African Children
Advisors: Dr. Susan Limber and Dr. Martha Thompson
As a trauma specialist serving vulnerable children in global locations, Suzanne developed a tool to better understand the children under care to sustain programs of excellence.

Matthew David Hudson-FlegeGreenville, SC
B.A., Eckerd College; M.N.M., Regis University
Dissertation: Getting Things Done for Life: Long-Term Impact of AmeriCorps Service for Diverse Groups of Members
Advisor: Dr. Susan Limber
Matt has five peer-reviewed publications and won first place in Clemson's 3-Minute Thesis competition in 2017. He has accepted a faculty position at Clemson University.

Parks, Recreation and Tourism Management

Brandon S. Harris.....Lake City, FL
B.S., Flagler College; M.B.A., University of North Carolina
Dissertation: The Invisible Walls of The 606: An Examination of the Relationship Between an Urban Greenway and Community Change
Advisor: Dr. Dorothy Schmalz
Brandon's work in Chicago has resulted in peer-reviewed publications and has been featured in a number of news outlets. He has accepted a faculty position at the University of Arizona.

Katherine Ann JordanWilkesboro, NC
B.S., Appalachian State University; M.A., University of Georgia
Dissertation: An Exploration of Employed College Student Experiences in Work and Leisure
Advisor: Dr. Denise Anderson

Gyunghoon Kim.....Jeju, Korea
B.S., M.S., Chung-Ang University
Dissertation: Resident Perspectives of the Resident-Tourist Relationship: Examining Tourist Attractiveness and Social Determinants Affecting Jeju Residents' Satisfaction and Commitment towards Chinese Tourists
Advisor: Dr. Lauren Duffy

Edwin SabuhoroKigali, Rwanda
L.L.B., National University of Rwanda; M.Sc., University of Kent
Dissertation: An Exploratory Study of Community Conservation Enterprises as a Model
for Improving Community Livelihoods and Conservation of Mountain Gorillas Across
the Greater Virunga Transboundary Landscape
Advisor: Dr. Brett Wright
Edwin won the 2008 IUCN-IRF Young Conservationist Award, a 2015 Ian Anderson
Conservation Award from GRASP, and was selected as a 2015 CNN Hero. His work was
featured on CNN's *African Voices* in 2015.

Garrett A. StoneDixon, CA
B.S., M.S., Brigham Young University
Dissertation: Return with Honor: An Investigation of the Reentry Experiences and Discourses
of Returning Missionaries in the Church of Jesus Christ of Latter-Day Saints
Advisor: Dr. Lauren Duffy
Garrett has 13 peer-reviewed publications and 21 refereed conference presentations. He
received the department's outstanding graduate student and excellence in teaching awards.

Policy Studies

Sonya Rae Albury-CrandallClemson, SC
B.S., Taylor University; M.S.W., Florida International University
Dissertation: Rural Economic Development Policy Making: Effecting Change through
Community Voices
Advisors: Dr. Catherine Mobley and Dr. Lori Dickes

Serife Elif Can SenerAnkara, Turkey
B.A., Galatasaray University; M.A., Catholic University of Louvain
Dissertation: Factors of Renewable Energy Deployment and Empirical Studies of United States
Wind Energy
Advisors: Dr. Julia Sharp and Dr. Annick Anctil
Elif served as the President of Sustainability, a GSG Senator, and president of the Turkish
Student Association at Clemson University. She is now a faculty member at the University
of Yalova.

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Business Administration

Remi CharpinMarin, France
B.S., Mercure Academy; M.S., Winthrop University
Dissertation: Essays on Political Risk in Supply Chain and Operations Management
Practices
Advisor: Dr. Aleda Roth

Economics

Yuekai ChengBeijing, China
B.S., M.S., Zhejiang University
Dissertation: Three Essays on an Emerging Financial Market
Advisor: Dr. Gerald Dwyer, Jr.

Maria DrojanovaTiraspol, Moldova
B.A., American University; M.S., Duke University
Dissertation: Women’s Career in the U.S. Federal Government: Wage, Promotion, Leave
and Fertility
Advisors: Dr. Patrick Warren and Dr. Chungsang Lam

Qiwei HeChangsha, China
B.S., University of Bradford; M.S., University of Exeter
Dissertation: Health Insurance on Social Welfare
Advisors: Dr. Patrick Warren and Dr. Scott Barkowski

Yiheng Huang Shenzhen, China
B.S., Shenzhen University; Ph.D., Shanghai University of Finance and Economics
Dissertation: Essays on Skill-Biased Technological Change and Labor Market Inequality
Advisor: Dr. Kevin Tsui
This is Yiheng’s second Ph.D. degree. He earned his first doctorate from Shanghai
University of Finance and Economics, China.

Changshuai Li..... Guilin, China
B.S., Guilin University of Electronic Technology; M.A., University of Shanghai for Science
and Technology
Dissertation: Essays on Growth, Finance and Inequality
Advisor: Dr. Gerald Dwyer, Jr.

Richard Alan Sessa West Palm Beach, FL
B.S., M.S., Florida State University
Dissertation: Three Essays on Sectoral Change and Unemployment
Advisor: Dr. Curtis Simon
Richard won the economics department’s award for best third-year paper. He has begun
work as a researcher at a private equity consulting firm in Boston, MA.

Zhiqi Zhao.....Shanghai, China
B.E., East China Normal University
Dissertation: Three Essays on Human Capital and the Distribution of Income
Advisor: Dr. William Dougan

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Curriculum and Instruction

Andrea Miller EmersonNashville, TN
B.S., University of Alabama; M.S., Auburn University
Dissertation: Cultivating Head Start Children’s Approaches to Learning by Promoting
In-Home Play: A Reason to Squeeze in Some Play
Advisor: Dr. Sandra Linder
Andrea has accepted a tenure-track faculty position in early childhood education at Western
Oregon University.

Anastasia Evangeline Homer.....Binghamton, NY
B.S., M.A., State University of New York
Dissertation: The Use and Value of Reading Recovery® Teachers' Lesson Records
Advisors: Dr. Celeste Bates and Dr. Linda Gambrell
Anastasia is currently completing her third year as assistant professor at Anderson University, where she plans to continue working in the College of Education.

Candice Vanette Moore.....Greenville, SC
B.S., Trevecca Nazarene University; M.Ed., Converse College
Dissertation: Exploring First-Year Teacher Support Within a Support Team Structure in an Alternative Certification Program: A Multi-Case Study
Advisor: Dr. Mindy Spearman
Candice has a peer-reviewed publication and plans to continue working in her current role with Greenville County Schools.

Educational Leadership

Ryan Michael Heil San Mateo, CA
B.S., Lewis-Clark State College; M.Ed., Clemson University
Dissertation: Exploring Organizational Culture in College Athletics: Comparing the Athletic Director and Employee Perceptions of Present and Preferred Cultures
Advisor: Dr. Tony Cawthon
Ryan is a past president of Clemson Graduate Student Government.

Walter Anton LeeEutawville, SC
B.A., Claflin University; Ed.S., Clemson University
Dissertation: Self Concept Is a Thing: Exploring Title I Middle School Teachers' Alignment to Self-Concept Enhancement Pedagogy for African American Students
Advisor: Dr. Robert Knoeppel

Denise Savidge West Chester, PA
B.A., Bloomsburg University of Pennsylvania; M.Ed., West Chester University
Dissertation: Exploring the Intersection of Adolescents and Adults on the Autism Spectrum
Enrolled in an Outdoor Behavioral Health Program
Advisor: Dr. Robert Knoeppel

Chelsea Lynn Waugaman New Wilmington, PA
B.A., Baldwin Wallace University; M.A., The University of Maryland
Dissertation: A Phenomenological Exploration of the Pre-Tenure Track Faculty Experience at Comprehensive Universities
Advisor: Dr. Pamela Havice
Chelsea has six peer-reviewed publications and has presented at national and international conferences. She earned a College of Education 2017 Graduate Student Award of Excellence.

Learning Sciences

Aamena Bilal Saleh.....Greenville, SC
B.A., University of South Florida; M.Ed., Wayne State University
Dissertation: Who Am I? Refugee Adolescents' Transformation and Negotiation of Identities at the Cultural Borders
Advisor: Dr. Phillip Wilder

Erratum: Chelsea Lynn Waugaman's entry appeared incompletely in the original program.

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Brandt James Ruszkiewicz.....Gibsonia, PA

B.S., Pennsylvania State University

Dissertation: Evaluation of Thermal Mechanisms to Predict the Transient Electroplastic Effect in Aluminum and an Investigation of Electrically Assisted Drilling

Advisor: Dr. Laine Mears

Brandt is the department's Ph.D. of the year, has 20 peer-reviewed publications, and holds fellowships from the National Science Foundation, Hitachi, and Clemson. He will join Semblex as lead development engineer.

Bioengineering

Sarah Marie HelmsMarvin, NC

B.A., M.S., Clemson University

Dissertation: Surface Modification of Orthopaedic Fracture Fixation Implants for Infection Prevention and Improved Limb Salvage Outcomes

Advisor: Dr. John DesJardins

Sarah won the 2018 Austin T. Moore Graduate Award for Leadership in her department and will continue her work in orthopaedic infection therapies at the U.S. Army Institute of Surgical Research.

Gregory Walter Kubacki Hamilton, NJ

B.S., Virginia Polytechnical Institute and State College

Dissertation: Simulated Inflammation by Hypochlorous Acid and the Corrosion and Tribocorrosion of Orthopedic Alloys: Feedback Between Corrosion and Inflammation

Advisor: Dr. Jeremy Gilbert

Feng WeiHubei, China

B.S., Wuhan University of Science and Technology; M.S., Huazhong University of Science and Technology

Dissertation: Behavioral, Functional, and Shape Assessment for Temporomandibular Joint

Advisor: Dr. Hai Yao

Chemical Engineering

Brittany Nicole Glatz Raleigh, NC

B.S., North Carolina State University

Dissertation: Role of Surface Factors on Heterogeneous Ice Nucleation

Advisor: Dr. Sapna Sarupria

Roque Francisco Rafael Góchez Campos..... Santa Tecla, El Salvador

B.S., Central American University

Dissertation: Kinetic Modeling, Reinforcement and Water Stability Enhancement of Magnesium Oxychloride Cement for Sustainable Building Applications

Advisor: Dr. Christopher Kitchens

Roque has four peer-reviewed publications, is in the process of filing two patents, and has accepted a position with Dow Chemical's performance silicones group.

Mingzhe Jiang Yueyang, China
B.S., M.S., Zhejiang University
Dissertation: Effects of Surface Chemistry on Cellulose Nanocrystal Phase Behavior,
Microstructure Self-Assembly and Its Film Processing for Functional Composite
Application
Advisor: Dr. Christopher Kitchens

Steven Thomas Weinman.....Kingsport, TN
B.S., University of Kentucky
Dissertation: Development of Anti-Fouling Membranes for Water Treatment
Advisor: Dr. Scott Husson
Steven has received numerous awards including the North American Membrane Society
student fellowship award. He will join the chemical engineering faculty at the University
of Alabama.

Civil Engineering

Marcos Javier Martínez Andino..... Tegucigalpa, Honduras
B.S., National Autonomous University of Honduras; M.S., Central American
Technological University
Dissertation: Assessment of the Structural and Thermal Behavior of Concrete Masonry
Construction via Experimentally Informed Numerical Models
Advisor: Dr. Sez Atamturktur
Marcos has four peer-reviewed publications and earned five honors and awards during
his doctoral studies.

Computer Engineering

Oluwakemi Oluwayemisi Hambolu Kogi, Nigeria
B.Eng., Ahmadu Bello University; M.S., Clemson University
Dissertation: Maintaining Anonymity and Trust: Applications of Innovative Data
Structures
Advisor: Dr. Richard Brooks
Kemi has three conference proceedings, two journal publications, one book chapter, and is
currently working for Dell Inc.

Computer Science

Xuebo Song.....Shenyang, China
B.S., University of Science and Technology of China
Dissertation: Ontology-Based Domain-Specific Semantic Similarity Analysis and
Applications
Advisor: Dr. Zijun James Wang

Electrical Engineering

Jongtae AhnSeoul, Korea
B.S., M.S., Seoul National University
Dissertation: Electromagnetic Compatibility Research in Wire Harnesses and CAN
Transceivers
Advisors: Dr. Pingshan Wang and Dr. Todd Huebing

Guneet Bedi..... New Delhi, India
B.E., University of Pune; M.S., Clemson University
Dissertation: Internet of Things and Intelligent Technologies for Efficient Energy
Management in a Smart Building Environment
Advisors: Dr. G. Kumar Venayagamoorthy and Dr. Rajendra Singh
Guneet has 12 peer-reviewed publications and has won several awards for outstanding
scholarship, leadership, teaching, and service. He will work as an engineer with Duke Energy.

Ryan Stephen MattfeldGreenville, SC
B.S., M.S., Clemson University
Dissertation: Evaluation of Pedometer Performance Across Multiple Gait Types Using
Video for Ground Truth
Advisor: Dr. Adam Hoover
Ryan has five peer-reviewed publications and earned a Brooks Sports Science Institute grant.
He has accepted a faculty position at Elon University.

Yang Song..... Hangzhou, China
B.S., Hefei University of Technology
Dissertation: 3D Micromachining of Optical Devices on Transparent Material by
Ultrafast Laser
Advisor: Dr. Hai Xiao
Yang has 14 peer-reviewed publications.

Wenge Zhu.....Zhoushan, China
B.S., Ningbo University; M.S., Zhejiang University
Dissertation: All-Digital Sensors – Principle and Applications
Advisor: Dr. Hai Xiao
Wenge has more than ten peer-reviewed publications and is a design engineer at Itron, Inc.

Environmental Engineering and Science

Mary Kayla Kilgo..... Northport, AL
B.S., M.S., University of Alabama
Dissertation: Environmental Impact Predictions for Disposal of Emerging Energy
Technologies in Solid Waste Landfills: Application to Lithium Ion Batteries and
Photovoltaic Modules
Advisors: Dr. Brian Powell and Dr. Annick Anctil

Industrial Engineering

Hadi KarimiTabriz, Iran
B.Sc., Kar Higher Education Institute; M.Sc., Amirkabir University of Technology
Dissertation: Optimization Models for Sustainable Design and Management of Biopower
Supply Chains
Advisor: Dr. Sandra Eksioglu
Hadi has four peer-reviewed publications, was named the industrial engineering department's
outstanding graduate researcher in 2016, and plans to work in the railway industry.

Russell William Krenek Alpharetta, GA
B.S., Georgia Institute of Technology; M.S., Clemson University
Dissertation: Accounting for Uncertainty in Process Optimization Initiatives with Statistical
Convolutions and Stochastic Programming Techniques
Advisor: Dr. Byung Rae Cho

Kathryn Kennedy PeguesClemson, SC
B.S., The United States Military Academy; M.S., The Naval Postgraduate School
Dissertation: Precision Medicine: Viable Pathways to Address Existing Research Gaps
Advisor: Dr. Byung Rae Cho

Materials Science and Engineering

Maxime Cavillon.....Clermont-Ferrand, France
M.S., University of Burgundy
Dissertation: Molten Core Fabrication of Intrinsically Low Nonlinearity Glass Optical Fibers
Advisor: Dr. John Ballato
Maxime has coauthored 17 scientific papers and received the American Ceramic Society's Norbert J. Kreidl Award recognizing research excellence in glass science.

Benoit Claude Jacques Faugas Bordeaux, France
B.S., M.S., University of Bordeaux; M.S., Clemson University
Dissertation: Molten Core Fabrication of Bismuth-Containing Optical Fibers
Advisor: Dr. John Ballato
Benoit has three peer-reviewed publications and plans to work in the glass or optical fiber industry.

Oleksandr Klep Lviv, Ukraine
B.S., M.S., Lviv Polytechnic National University
Dissertation: Programming of Retention Capacity and Release Capabilities of Propargyl Acrylate Nanoparticles Decorated with Poloxamer Copolymer
Advisor: Dr. Stephen Foulger
Oleksandr received leadership awards in 2014 and 2016 from the Materials Research Society.

Ryan Roeder..... Waterloo, Canada
B.S., Lander University
Dissertation: Synthetic Routes to the Surface Functionalization of Core-Shell Nanoparticles through the Copper(I)-Catalyzed Azide-Alkyne Cycloaddition
Advisor: Dr. Stephen Foulger

Artem Aleksandrovich Trofimov Odintsovo, Russia
B.S., M.S., Russian State University of Aviation Technology; M.S., Clemson University
Dissertation: Microstructure, Luminescence, and Performance of Garnet Polycrystalline Ceramic Scintillators
Advisor: Dr. Luiz Jacobsohn
Artem has nine peer-reviewed publications and received five awards and grants for his Ph.D. work. He has accepted a postdoctoral position at the Oak Ridge National Laboratory.

Mechanical Engineering

Steven Andrew FredericksMissoula, MT
B.S., Washington State University
Dissertation: Investigation of Single Drop Particle Scavenging Using an Ultrasonically Levitated Drop
Advisor: Dr. John Saylor
Steven has two peer-reviewed publications and another currently in review. He was awarded his department's doctoral scholastic achievement award for this year.

Jixuan Gong.....Qingdao, China
B.S., Peking University
Dissertation: Quasi-Continuum Non-Local Plate and Shell Models of Carbon-Based
2D Nanomaterials
Advisor: Dr. Gang Li

Monsur Islam.....Durgapur, India
B.E., Bengal Engineering and Science University
Dissertation: Advanced Manufacturing of Lightweight Porous Carbide Shapes Using
Renewable Resources
Advisor: Dr. Rodrigo Martínez-Duarte
Monsur received the Hitachi High Technologies Fellowship in 2016 and departmental doctoral
scholastic award in 2017. He will begin postdoctoral work in Germany in May 2018.

**COLLEGE OF SCIENCE
DOCTOR OF PHILOSOPHY**

Biochemistry and Molecular Biology

Yijian Qiu Yiyang, China
B.S., Yangzhou University; M.S., Chinese Academy of Sciences
Dissertation: Glucose Sensing in *Trypanosoma brucei*
Advisor: Dr. James Morris

Biological Sciences

Ramiya KumarChennai, India
B.Tech., Anna University
Dissertation: Are Cyp2b and Cyp3a Important in Hepatic Lipid Metabolism?
Advisor: Dr. William Baldwin
Ramiya won second place in GRADS 2017 and received two prestigious awards from the
Society of Toxicology for her doctoral research on mechanistic toxicology in the liver.

Christopher James MayerlColorado Springs, CO
B.S., Humboldt State University; M.S., Vrije Universiteit Brussels
Dissertation: The Functional Significance of Structural Novelty in the Locomotor Apparatus
of Turtles
Advisor: Dr. Richard Blob
Christopher has eight peer-reviewed publications, won the university's outstanding graduate
teaching assistant award in spring 2015, and has accepted a postdoctoral research post.

Xi Yang..... Changzhou, China
B.S., Nanjing Medical University; M.S., Clemson University
Dissertation: Novel Fusion Protein IL-12/FasTI for Cancer Immunogene Therapy
Advisor: Dr. Yanzhang Wei
Xi has six peer-reviewed publications and has accepted a postdoctoral research fellow position
at the Stanford School of Medicine.

Chemistry

Gregory Ethan Lecroy..... Walhalla, SC

B.S., Clemson University

Dissertation: Carbon Dots: Synthesis, Characterization, and Investigation of Optical Properties

Advisor: Dr. Ya-Ping Sun

Ethan has five first-author and 13 coauthor publications in peer-reviewed journals with 760 citations. He has accepted a research chemist position at Edwards Air Force Base.

Yamin Liu..... Xiaogan, China

B.S., Central Institute of Nationalities; M.S., Beijing University

Dissertation: Study on Optical Properties of Carbon Dots and Their Composites

Advisor: Dr. Ya-Ping Sun

Yamin has ten peer-reviewed publications and plans to work in Jordi Labs.

Junyan Ma Puyang, China

B.S., University of Science and Technology

Dissertation: High Precision FRET to Study Bimolecular Dynamics with High Temporal Resolution

Advisor: Dr. Hugo Sanabria

Charles Voyton III Nanticoke, PA

B.S., Indiana University of Pennsylvania

Dissertation: Novel Methods for Monitoring Glucose Metabolism in *Trypanosoma brucei* Using Fluorescent Biosensors

Advisors: Dr. George Chumanov and Dr. Kenneth Christensen

Wang Wan Jiujiang, China

B.S., Heilongjiang University

Dissertation: Main Group Element-Containing Chromophores and Polyelectrolytes: Sulfur, Phosphorus and Gallium

Advisor: Dr. Rhett Smith

Wang has six peer-reviewed publications and plans to continue research in organic and polymer chemistry.

Fan Yang..... Urumqi, China

B.S., Zhejiang University

Dissertation: Preparation and Studies of Carbon Dots

Advisor: Dr. Ya-Ping Sun

Environmental Toxicology

Jason A. Coral..... West Chester, PA

B.S., West Virginia University

Dissertation: Measuring and Predicting Hydroxyl Radical Generation from Irradiated TiO₂ Nanoparticles Under Simulated Environmental Conditions and Correlations to *Daphnia magna* Toxicity

Advisor: Dr. Christopher Kitchens

Katherine Anne Johnson-Couch.....Goldsboro, NC
B.S., University of North Carolina; M.S., Clemson University
Dissertation: The Chronic Toxicity of Ion Mixtures to Freshwater Organisms:
Ceriodaphnia dubia and *Pimephales promelas* (fathead minnow)
Advisor: Dr. Peter van den Hurk

Genetics

Sophie Altamirano..... Albuquerque, NM
B.S., Rhodes College
Dissertation: Mechanisms of Fluconazole-Based Aneuploidy in *Cryptococcus neoformans*
Advisor: Dr. Lukasz Kozubowski

Brian L. Gudenas.....Colorado Springs, CO
B.S., University of Colorado
Dissertation: Genomic Data Mining for Functional Annotation of Human Long
Noncoding RNAs
Advisor: Dr. Liangjiang Wang
Brian has three peer-reviewed publications with a fourth currently under review, and plans
to work in the bioinformatics industry.

Mathematical Sciences

Garrett Michael Dranichak..... Dublin, OH
B.S., Pfeiffer University; M.S., Clemson University
Dissertation: Robust Solutions to Uncertain Multiobjective Programs
Advisor: Dr. Margaret Wiecek
Garrett received the 2018 Outstanding Graduate in Engagement and 2015 Excellence in
Graduate Teaching awards from the Department of Mathematical Sciences.

Kara Aileen StasikelisGreenville, SC
B.S., Wingate University; M.A., Wake Forest University
Dissertation: Properties of Some Markov Chains on Linear Extensions of Posets
Advisor: Dr. Svetlana Poznanovic

April L. Thomas..... Anderson, SC
B.S., M.S., Clemson University
Dissertation: Estimating Animal Abundance by Employing an External Experiment
to Account for Detection and Count Bias with an Application to Wintering Ducks
in the Mississippi Alluvial Valley
Advisors: Dr. Patrick Gerard and Dr. Brook Russell

Yibo XuWuhan, China
B.S., Nankai University; M.S., University of Nevada
Dissertation: Convex Hulls, Relaxations, and Approximations of General Monomials
and Multilinear Functions
Advisor: Dr. Warren Adams

Physics

Anthony St. Clair Childress Virginia Beach, VA

B.S., Old Dominion University

Dissertation: Graphene Foam and Helically Coiled Carbon Nanotubes as Electrodes in Energy Storage Devices

Advisors: Dr. Apparao Rao and Dr. Ramakrishna Podila

Yongchang Dong.....Jinan, China

B.S., Shandong University; M.Phys., University of Manchester

Dissertation: Nonlinear Optical Phenomena in Emerging Low-Dimensional Materials

Advisors: Dr. Apparao Rao and Dr. Ramakrishna Podila

Yongchang has more than ten peer-reviewed publications and two patents.

Xinwei GeXi'an, China

B.S., University of Science and Technology

Dissertation: IAPP Amyloid Aggregation and IAPP-Associated Toxicity Mitigation

Advisor: Dr. Feng Ding

Sai Sunil Kumar Mallineni.....Clemson, SC

B.Sc., M.Sc., Sri Saithya Sai University; M.Tech., Indian Institute of Technology

Dissertation: Two-Dimensional Nanomaterials for Renewable Energy Generation and Sensing Applications

Advisors: Dr. Apparao Rao and Dr. Ramakrishna Podila

Roshani SilwalCentral, SC

B.Sc., M.Sc., Tribhuwan University

Dissertation: Extreme Ultraviolet Spectra of Highly Charged Y and Xe Ions: Line Identification, Diagnostic Potential, and Isotope Shift

Advisor: Dr. Endre Takacs

Roshani was named the physics department's outstanding graduate researcher in April 2018.

She also received a Clemson University Doctoral Dissertation Grant.

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 always.

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

Clemson University Brass Quintet

Prelude

Various marches and processions

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.

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U N I V E R S I T Y