

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

DECEMBER 20, 2017



(blank)

DOCTORAL HOODING CEREMONY

WEDNESDAY, DECEMBER 20, 2017

3:00 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

Deborah M. Wingler

Doctoral Candidate

Planning, Design, and the Built Environment

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

Selections and credits on page 15

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

E. Smyth McKissick III, Chair..... Greenville, SC
Ronald D. Lee, Vice Chair Aiken, SC
David E. DukesColumbia, SC
Louis B. Lynn.....Columbia, SC
Patricia H. McAbee..... Greenville, SC
John N. McCarter, Jr Columbia, SC
Robert L. PeelerLexington, SC
Cheri M. PhyferBay Village, OH
Mark S. RichardsonCharlotte, NC
William C. Smith, Jr.....Columbia, SC
Joseph D. Swann..... Greenville, SC
Kim A. Wilkerson.....Cayce, SC
David H. Wilkins..... Greenville, SC

Trustees Emeriti

Louis P. Batson, Jr..... Greenville, SC
John J. Britton..... Sumter, SC
Fletcher C. Derrick, Jr..... Charleston, SC
Leon J. Hendrix, Jr..... Kiawah Island, SC
Harold D. KingsmoreClemson, SC
Thomas B. McTeer, Jr.Columbia, SC
Allen P. Wood..... Florence, SC

DEANS

John D. Griffin
Associate Provost and
Dean of Undergraduate Studies

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

George R. Askew, Jr.
Dean of the College of Agriculture, Forestry and
Life Sciences

Richard E. Goodstein
Dean of the College of Architecture, Arts and
Humanities

Brett A. Wright
Dean of the College of Behavioral, Social and
Health Sciences

Robert E. McCormick
Dean of the College of Business

George J. Petersen
Dean of the College of Education

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

EXECUTIVE LEADERSHIP TEAM

James P. Clements
President

Maxwell Allen
Vice President and Chief of Staff

Robert H. Jones
Executive Vice President for Academic Affairs and Provost

Brett A. Dalton
Executive Vice President for Finance and Operations

George R. Askew, Jr.
Vice President for Public Service and Agriculture

Almeda R. Jacks
Vice President for Student Affairs

Tanju Karanfil
Vice President for Research

Mark D. Land
Vice President for University Relations

Angie Leiding
Vice President for External Affairs and
Executive Secretary to the Board of Trustees

Brian O'Rourke
Vice President for Development and Alumni Relations

Russell Kaurlo
Vice President and Chief Information Officer

Lee A. Gill
Chief Diversity Officer and
Special Assistant to the President for Inclusive Excellence

W.C. Hood, Jr.
General Counsel

Dan Radakovich, Jr.
Director of Athletics

Theresa M. Singletary
Director of Operations

THE GRADUATE SCHOOL

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

William G. Ferrell
Associate Dean

David S. Fleming
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

Joseph D. Culin
Associate Dean for Research and Graduate Studies

Jean Bertrand
Associate Dean for Undergraduate Studies

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
Greg Reighard, interim..... Plant and Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS & HUMANITIES

Constancio K. Nakuma
Senior Associate Dean for Academic Affairs

James H. Spencer
Associate Dean for Research and Graduate Studies

Katherine L. Schwensen..... 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

Eric R. Muth
Interim Associate Dean for Research
Douglas “Kinly” Sturkie
Associate Dean for Academic Affairs

Jeffrey J. McMillan..... 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 of Academic Affairs and Research

Michelle P. Cook
Interim Associate Dean for Undergraduate Programs

Debi M. Switzer Education and Human Development
Robert C. Knoeppel..... 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 of Undergraduate Studies

Zoran S. Filipi Automotive Engineering
Martine LaBerge Bioengineering
David A. Bruce Chemical and Biomolecular
Engineering
James R. Martin..... Civil Engineering
Eileen T. Kraemer..... 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

Brian N. Dominy
Interim Associate Dean for Academic Affairs

Lesly A. Temesvari
Interim Associate Dean for Research

Robert S. Cohen..... Biological Sciences
William T. Pennington Chemistry
William R. Marcotte, Jr. Genetics and Biochemistry
Christopher L. Cox..... Mathematical Sciences
Terry M. Tritt, interim..... 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 5,012 graduate students and has awarded 37,731 master's degrees, 535 education specialist degrees, and 4,762 doctoral degrees.

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.

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

Brandon Michael Koch..... Lincoln, NE

B.S., University of Nebraska; M.S., West Texas A&M University
Dissertation: Impacts of Exposure to a High Concentrate Based Diet on Marbling
Development in Beef Cattle
Advisor: Dr. Susan Duckett

Louisa Elaine Koch..... Morgantown, WV

B.S., West Virginia University; M.S., West Texas A&M University
Dissertation: Interrelationships Between Carbohydrate Fractions, Starch Degradability,
and Unsaturated Fatty Acids in the Rumen and the Effects on Milk Fat Depressing
Conditions
Advisor: Dr. Gustavo Lascano

Entomology

Hamilton Ross Allen Johnston, SC

B.S., Norfolk State University; M.S., Virginia Tech
Dissertation: Biology and Behavior of the Asian Needle Ant, *Brachyponera chinensis*
Advisors: Dr. Patricia Zungoli and Dr. Eric Benson
Hamilton served as vice president of Graduate Student Government in 2014 and is
currently the technical and training director for Senske Services, located in Kennewick,
Washington.

Food Technology

Lina Wang..... Suihua, China

B.S., M.S., Henan University of Technology
Dissertation: Characterization of Volatile and Non-Volatile Compounds and Classification
of Different Cultivars of Chinese *Ziziphus jujuba* Mill. Fruits
Advisor: Dr. Feng Chen
Lina has one peer-reviewed publication and two articles under review.

Plant and Environmental Sciences

Wei Li..... Baoding, China

B.S., Nanjing Agriculture University; M.S., Clemson University
Dissertation: Upland Cotton (*Gossypium hirsutum*) Root Responses to Reniform Nematode
(*Rotylenchulus reniformis*) Infection
Advisors: Dr. Paula Agudelo and Dr. Christina Wells

Wildlife and Fisheries Biology

Alyssa Jean CalomeniAlbany, NY

B.S., Lafayette College; M.S., Clemson University

Dissertation: Modeling Pulse Exposures from Copper Algaecides and Effects on Target and Non-Target Species

Advisor: Dr. John Rodgers, Jr.

Alyssa has twenty peer-reviewed publications, has presented at seventeen conferences, and received the outstanding graduate student research assistant award in 2017.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

DOCTOR OF PHILOSOPHY

Planning, Design and the Built Environment

Maryam HamidpourShiraz, Iran

B.Arch., Shiraz Azad University; M.Arch., Tehran Azad University

Dissertation: Development and Evaluation of a Comparison-Based Control Strategy of Electrochromic Glazing for Managing Visual Comfort and Energy Efficiency

Advisor: Dr. Vincent Blouin

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

DOCTOR OF PHILOSOPHY

Industrial and Organizational Psychology

Janet DonnellyGarden City, NY

B.A., M.A., Hofstra University

Dissertation: Examination of Objective and Subjective Financial Factors in Predicting Financial and Retirement Satisfaction in Male Retirees

Advisor: Dr. Mary Anne Taylor

Skye K. Gillispie.....Wooster, OH

B.A., College of Wooster; M.S., Clemson University

Dissertation: Putting Your Best Face Forward: The Influence of Facial Cosmetics on Structured Employment Interview Ratings

Advisor: Dr. Robert Sinclair

Ashley Lauren McIntyreAustin, TX

B.S., University of Florida; M.S., Angelo State University

Dissertation: Situational and Psychological Predictors of Career and Financial Success

Advisor: Dr. Patrick Rosopa

International Family and Community Studies

Janelle Semoy Marie Williams.....Atlanta, GA

B.S., B.A., Florida Memorial University; M.P.A., University of Georgia
Dissertation: A Descriptive Exploratory Study: Neighborhood Factors Related to Black
Business Density

Advisor: Dr. Susan Limber

Janelle received an outstanding graduate student award and was named an Association
of Black Foundation Executives Fellow. She is a Senior Associate at the Annie E. Casey
Foundation.

Parks, Recreation and Tourism Management

Yahya Akasheh Alzghoul.....Ajloun, Jordan

B.A., Hashemite University; M.S., Yarmouk University
Dissertation: The Role of Corporate Social Responsibility in the Decision-Making Process
of Festival-Goers: Findings from a Survey-Embedded Experiment

Advisor: Dr. William Norman

Policy Studies

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

Asvisors: Dr. Julia Sharp and Dr. Annick Anctil

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Economics

Ali KuruFethiye, Turkey

B.A., Dokuz Eylül University; M.A., Clemson University
Dissertation: Consumer Valuation of Improvements in Fuel Economy and Reductions in
Emissions of Vehicles in Turkey

Advisor: Dr. Scott Templeton

Ghanshyam Sharma.....Meerut, India

B.A., University of Delhi; M.A., Gokhale Institute of Politics and Economics; M.A.,
Clemson University

Dissertation: Essays on Insurance Regulation

Advisors: Dr. Robert Tollison and Dr. Patrick Warren

Mahjuja M. Taznin.....Chittagong, Bangladesh

B.S.S., M.S.S., University of Dhaka; M.A., Clemson University
Dissertation: Essays on Human Capital and Social Network Effects
Advisor: Dr. Chungsang Lam

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Educational Leadership

Angela Wendella Cox.....Belton, SC

B.A., Southern Wesleyan University; M.A., Strayer University; Ed.S., Clemson University
Dissertation: Preparing Education Leaders to Meet Diverse School Needs: A Cross-Case
Analysis of Principal Preparation Programs
Advisor: Dr. Robert Knoeppel

Edward Barry De Iulio.....Clemson, SC

B.S., M.S., Georgia Institute of Technology
Dissertation: A Business School Living Learning Community: A Complexity Theory Study
of Collaborative Engagement Using Network Analysis
Advisor: Dr. Russell Marion

Julie Kelly Desmangles..... Greer, SC

B.A., Hunter College; M.S.T., Pace University; Ed.S., Clemson University
Dissertation: An Analysis of the Readiness Perceptions of Head Start Parents, Teachers,
and Center Leaders in Early Childhood Education
Advisor: Dr. Hans Klar

Jason Robert FairFletcher, NC

B.S., B.A., M.A.Ed., Western Carolina University
Dissertation: Factors Contributing to the Elimination of NCAA Division I Intercollegiate
Wrestling Programs
Advisor: Dr. William Havice

Elizabeth Demastes Haun..... Greer, SC

B.S., Lander University; M.S., Converse College
Dissertation: Getting Connected: Understanding How Digital Tools Support the
Collaborative Practices of Elementary Teachers
Advisor: Dr. Russell Marion

Elizabeth is currently the principal at Anderson Mill Elementary School in Spartanburg
School District Six. She plans to pursue a position in district-level administration.

Jennifer Lynne Raasch Seneca, SC

B.S., University of Akron; M.S., Ithaca College; M.L.I.S., Kent State University
Dissertation: Survey of Self-Determination Constructs in Higher Education Students with
Disabilities and Campus Service Improvements
Advisor: Dr. Pamela Havice

Jacqueline Y. Taylor..... Charleston, SC

B.A., Clemson University; M.Ed., Southern Wesleyan University
Dissertation: Breaking Invisibility: Transforming Working Conditions of Adjunct Faculty
in Technical Colleges through Critical Advocacy Inquiry
Advisors: Dr. Pamela Havice and Dr. Leslie Gonzales

Jacqueline is a member of Phi Kappa Phi and Alpha Epsilon Lambda honor societies. She
is the department chair for Public Service Programs at Greenville Technical College.

Learning Sciences

Lorraine Ann Jacques Pendleton, SC

B.A., Central Connecticut State University; M.S., Rensselaer Polytechnic Institute
Dissertation: Using App Inventor to Explore Low-Achieving Students' Understanding of
Fractions

Advisor: Dr. Danielle Herro

Literacy, Language and Culture

Rachael Laine Ross Hamilton, OH

B.S., Lee University; M.Ed., Louisiana State University
Dissertation: Exploring Teachers' Read-Aloud Book Selections: What Drives the Decision
Advisor: Dr. Jacquelynn Malloy

Rachael has seven peer-reviewed publications and was awarded the Graduate Student
Scholarship for her solo presentation at the national conference of the American Reading
Forum.

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Harikesh Arunachalam Hyderabad, India

B.E., Birla Institute of Technology & Science; M.S., University of California
Dissertation: A New Multiscale Modeling Framework for Lithium-Ion Battery Dynamics:
Theory, Experiments, and Comparative Study with the Doyle-Fuller-Newman Model
Advisor: Dr. Simona Onori

Harikesh has six peer-reviewed publications. He received the best student paper award at
the first IEEE Conference on Control Technology and Applications in 2017.

Andreas M. Kasprzok Altenkirchen, Germany

B.S., Clemson University
Dissertation: Ant-Inspired Interaction Networks for Decentralized Vehicular Traffic
Congestion Control

Advisor: Dr. Beshah Ayalew

Qian Wang Shaoguan, China

B.S., M.S., South China University of Technology
Dissertation: Predictive Maneuver Planning and Control of an Autonomous Vehicle in
Multi-Vehicle Traffic with Observation Uncertainty

Advisor: Dr. Beshah Ayalew

Qian has ten peer-reviewed publications and currently works as an R&D engineer at
Delphi.

Bin Xu Miluo, China

B.S., Hunan University
Dissertation: Plant Modeling, Model Reduction and Power Optimization for an Organic
Rankine Cycle Waste Heat Recovery System in Heavy Duty Diesel Engine Applications

Advisors: Dr. Simona Onori and Dr. Zoran Filipi

Bioengineering

Jayesh Vinodkumar Betala.....Bagalkot, India

B.E., Bangalore College of Engineering; M.S., Clemson University
Dissertation: Inhibition of Restenosis Using Sirolimus-Heparin Loaded Polymeric Micelles
in Simulated Clinical Conditions
Advisors: Dr. Martine LaBerge and Dr. Jeoung Soo Lee

Laura Christine Bowman Chapel Hill, NC

B.S., Rose-Hulman Institute of Technology; M.S., Clemson University
Dissertation: Whole Body Irradiation and Degradation of Structural and Functional
Properties of Mouse Bone: X-rays, Protons, and Heavy Ions
Advisors: Dr. Delphine Dean and Dr. Ted Bateman

Varun Chawla New Delhi, India

B.Eng., MD India University; M.S., Clemson University
Dissertation: In Vitro Diabetic-Hypertensive Cellular-Response Evaluation Model for
In-Stent Restenosis
Advisors: Dr. Martine LaBerge and Dr. Agneta Simionescu

Dmitry GilMoscow, Russia

B.S., M.S., Lomonosov Moscow State University
Dissertation: Naturally Derived Anti-Inflammatory and Antibacterial Coatings for Surgical
Implants
Advisor: Dr. Alexey Vertegel
Dmitry has 15 peer-reviewed publications and one pending patent. He has accepted a
postdoctoral position at the Massachusetts General Hospital-Harvard Medical School.

Richard Glenn HepferColumbia, SC

B.S., Washington University
Dissertation: Transport, Structure, and Chemical Changes in the Corneal Stroma
Extracellular Matrix Following Collagen Cross-Linking
Advisors: Dr. Hai Yao and Dr. George Waring IV
Glenn has eight peer-reviewed publications and plans to continue his career in academia as
a postdoctoral fellow.

Astha Khanna New Delhi, India

B.E., Maharishi Dayanand University
Dissertation: Fabrication of Human Serum Albumin Film for Enhanced
Hemocompatibility and Mitigation of Intimal Hyperplasia Under Physiologically
Relevant Flow Shear Conditions
Advisor: Dr. Martine LaBerge

Siyu MaBeijing, China

B.S., Tianjin University; M.S., Clemson University
Dissertation: Flow Assessment Using Optical Coherence Microscopy Based Particle Image
Velocimetry
Advisor: Dr. Bruce Gao

Graham MacKenzie Temples Irmo, SC
B.S., Clemson University
Dissertation: Multifunctional Polymeric Micelles for Drug Resistant Breast Cancer:
Self-Assembling Poly(Lactide-Co-Glycolide)-Graft-Polyethylenimine
Advisor: Dr. Jeoung Soo Lee

Chemical Engineering

Murtaza Shabbir Hussain Colombo, Sri Lanka
B.S., B.A., University of Wyoming
Dissertation: Expanding the Genetic Toolbox to Improve Metabolic Engineering in the
Industrial Oleaginous Yeast, *Yarrowia lipolytica*
Advisor: Dr. Mark Blenner

Civil Engineering

Xiaoyu Hu Nanchang, China
B.E., Huazhong University; M.S., Syracuse University
Dissertation: A Comprehensive Framework for White-Box Damage Detection in Structural
Systems Based on Extended Constitutive Relation Error Method
Advisor: Dr. Sez Atamturktur

Mahdi Rajabi Tehran, Iran
B.S., Zanjan University; M.S., International Institute of Earthquake Engineering and
Seismology
Dissertation: Assessing the Predictability of Highway Safety Manual Crash Prediction
Models in the State of South Carolina
Advisor: Dr. Jennifer Ogle

Electrical Engineering

Vahid Dargahi Clemson, SC
M.S., Iran University of Science and Technology
Dissertation: Innovative Control and Modulation Methods Exploiting Logic-Equations for
Novel Multilevel Converter Topologies
Advisors: Dr. Johan Enslin and Dr. Keith Corzine

James Hunter Hayes Greer, SC
B.S., Clemson University
Dissertation: Modeling and Tracking Degradation in Electronic Components
Advisor: Dr. Pingshan Wang

Liwei Hua Chongqing, China
B.S., M.S., Nanjing University of Science and Technology
Dissertation: Microwave Photonics for Distributed Sensing
Advisor: Dr. Hai Xiao
Liwei has authored and coauthored seven high-impact journal papers and three conference
proceedings during her graduate study.

Jie Liu Shaan Xi, China
B.S., Beihang University; M.S., Beijing University of Technology
Dissertation: Micro-Cantilever Based Fiber Optic Hydrophone
Advisor: Dr. Hai Xiao
Jie authored and coauthored six journal papers and six conference proceedings during her graduate study.

Madhabi Manandhar Kathmandu, Nepal
B.E., Tribhuvan University; M.S., Clemson University
Dissertation: Acceleration of High-Fidelity Wireless Network Simulations
Advisors: Dr. Daniel Noneaker and Dr. Harlan Russell

Environmental Engineering and Science

Nathan Alec Conroy Seattle, WA
B.S., Whitman; M.S., Clemson University
Dissertation: Trace Plutonium Geochemistry in Hydrogeological Systems Containing Natural Organic Matter
Advisor: Dr. Brian Powell
Nate has two peer-reviewed publications and has received the South Carolina Environmental Scholar Award, Ray Abernathy Award, and William R. Heatley Jr. Fellowship.

Mahmut Selim Ersan Kahramanmaras, Turkey
B.S., Cukurova University; M.S., Istanbul University
Dissertation: The Formation and Control of Selected Unregulated Disinfection By-Products (DBPs) in Water Treatment
Advisor: Dr. Tanju Karanfil
Mahmut has 11 peer-reviewed publications, won the first-place poster award at the SC Environmental Conference in 2016, and received the A. Ray Abernathy Fellowship in 2017.

Human Centered Computing

Elham Ebrahimi Gonbade Kavous, Iran
B.Sc., Shahrood University of Technology; M.Sc., K. N. Toosi University of Technology
Dissertation: Investigating Embodied Interaction in Near-Field Perception-Action Re-Calibration on Performance in Immersive Virtual Environments
Advisor: Dr. Sabarish Babu
Elham has three journal publications and three peer-reviewed conference papers, was named the School of Computing's outstanding PhD student (2015) and teaching assistant (2016), and has accepted a faculty position at the University of North Carolina Wilmington.

Materials Science and Engineering

Nikolay S. Borodinov Moscow, Russia
B.S., M.S., Moscow State University
Dissertation: Synthesis and Characterization of Glycidyl Methacrylate-Based Graft Copolymer Functional Interfaces
Advisor: Dr. Igor Luzinov

COLLEGE OF SCIENCE

DOCTOR OF PHILOSOPHY

Biochemistry and Molecular Biology

Jing Li..... Weinan, China

B.S., Northwest A & F University; M.S., Sun Yat-sen University
Dissertation: The Evolutionary Diversity of Uracil DNA Glycosylase Superfamily
Advisor: Dr. Weiguo Cao
Jing has six peer-reviewed publications.

Stephen Robert Nowak.....Tucson, AZ

B.S., The University of Arizona
Dissertation: Interplay Between the RHF Family of Arabinosyltransferases and CLE
Signaling Peptides Affects Nodule Regulation in *Medicago truncatula* and Lateral Root
Formation in *Arabidopsis thaliana* and *Medicago truncatula*
Advisor: Dr. Julia Frugoli

Peipei Wu.....Rugao, China

B.S., Yangzhou University
Dissertation: Towards a Better Understanding of the Molecular Mechanisms Underlying
Plant Development and Stress Response
Advisor: Dr. Hong Luo

Biological Sciences

Kathryn Adrian Elliott.....Clemson, SC

B.S., M.S., Clemson University
Dissertation: A Comprehensive Model and Modulation of Cellular Signaling Involved in
Early Mammary Development and Aggressive Cancer Using a Novel Recombinant
Protein of the G3 Domain of Laminin-5
Advisor: Dr. Thomas Scott

Chemistry

Kyle Raymond Fulle..... Mill River, NC

B.S., Western Carolina University
Dissertation: Exploratory Hydrothermal Synthesis and Crystal Growth of Refractory
Rare-Earth Oxides with Tetravalent and Pentavalent Metal Oxide Building Blocks
Advisor: Dr. Joseph Kolis

Longyu HuJi'an, China

B.S., Donghua University
Dissertation: Modulation of Photonic Mode Density in Silver Nanodisks and Far Field
Focusing of Light by Coupled Plasmonic Nanorings
Advisor: Dr. Apparao Rao

Yifei Jiang.....Wuhan, China

B.S., University of Science and Technology of China
Dissertation: Polaron Dynamics in Conjugated Polymer Nanoparticles and Applications in
Superresolution Imaging
Advisor: Dr. Jason McNeill

Yimei Wen Jilin, China
B.S., Xiamen University
Dissertation: Synthesis, Application and Protein Nanomaterial Interactions of Selected
Nanofiber, Nanoparticle and Nanoarray
Advisor: Dr. George Chumanov

Environmental Toxicology

Erica N. Linard Camarillo, CA
B.S., University of California; M.S., Clemson University
Dissertation: Characterizing the Adsorption-Bioavailability Relationship of PAHs Adsorbed
to Carbon Nanomaterials in the Aquatic Environment
Advisor: Dr. Peter van den Hurk
Erica has three peer-reviewed publications, won a Foster Mayer doctoral student
presentation award in 2014, and continues to promote environmental stewardship via
educational outreach.

Genetics

José Andres Guevara Coto San José, Costa Rica
B.S., Costa Rica Institute of Technology
Dissertation: Development of New Bioinformatic Approaches for Human Genetic Studies
Advisor: Dr. Liangjiang Wang
José has two peer-reviewed publications and will join the University of Costa Rica as acting
professor in spring 2018.

Mathematical Sciences

Aarón Ernesto Ramírez Flores San Salvador, El Salvador
M.S., Clemson University
Dissertation: Localization of Generalized Frames in Hilbert Spaces: Asymptotic Behavior
of Concentration and Toeplitz Operators, Sampling and Interpolation, and Density
Results
Advisor: Dr. Mishko Mitkovski
Aaron is currently working as a professor at the University of El Salvador, and as a mentor
at the Youth Talented Program of El Salvador.

Physics

Yufei Liu Anqing, China
B.S., University of Science and Technology of China
Dissertation: On the Ground State and Evolution of Structural and Transport Properties
of Tin Selenide
Advisor: Dr. Jian He

Hengjia Wang Xuchang, China
B.S., Sun Yat-Sen University
Dissertation: Study of the Anharmonicity of Vibrational Modes in Carbon Nano-Materials
Using a Moments-Based Approach
Advisor: Dr. Murray Daw

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 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

CLEMSON®

GRADUATE SCHOOL

TRANSFORMATION BEGINS HERE

Clemson is a Carnegie Tier 1 Research University

IN 2016, Clemson was classified as one of the nation's most active research institutions (Carnegie Basic Classification R1 – Highest Research Activity). R1 universities are economic engines that create prosperity in entire regions, and their national and international reputations add significant value to the degrees they award.

Graduate students make up 20% of Clemson's student body

Yes — **1 OF EVERY 5** Clemson students is a grad student! Master's degrees awarded annually between 2006 and 2016 increased by **71%**, while PhDs saw an **84%** increase.

The doctoral hooding ceremony, established in 2015, has become a tradition of celebration honoring Clemson University's newest PhDs.



Clemson Theses and Dissertations circle the globe

The University Libraries report that **7,573** Clemson University Graduate School theses and dissertations — the oldest dating back to 1942 — have been archived digitally since 2006.

Thanks to open-access electronic publishing, **2,728** master's theses and **1,999** doctoral dissertations are readily available to researchers worldwide via TigerPrints. In the past year alone, researchers have accessed Clemson graduates students' works a total of **462,737** times:

Theses: **288,188** downloads Dissertations: **174,549** downloads

GRADUATE ENROLLMENT IN 2017

1,521 Doctoral level
3,080 Master's level
411 Non-degree

5,012 total

Clemson University is proud to offer

128 graduate degree programs

hosted by

7 academic colleges,

and the array of degrees and programs is growing.

TEACHING & RESEARCH

Each week our graduate students put in

4,600

hours as teachers of record;

11,000

hours as teaching assistants;

21,800

hours as research & program assistants;

37,600

weekly hours total. That's the equivalent of more than 1,000 full-time staff members.

DIVERSITY

14% of our U.S. resident graduate students belong to a racial or ethnic community historically underrepresented in higher education.

Surpassing the national average: **17%** of our new PhD students and **13.3%** of our new master's students identify within an under-represented racial or ethnic community, versus **11.9%** across RU/VH institutions nationally.

LEADERSHIP

1 in 5 Creative Inquiry teams is led or co-led by a graduate student.

INNOVATION

40% of the named inventors on patents issued to Clemson researchers between 2006 and 2016 were graduate students.

Candidates appearing in this program may not be 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.

CLEMSON[®]
U N I V E R S I T Y

