

SATURDAY, MAY TENTH



TWO THOUSAND FOURTEEN

The Graduate School

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2014

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DOCTORAL HOODING  
CEREMONY

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The University of North Carolina  
*at* Chapel Hill





The Graduate School

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2014

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DOCTORAL HOODING  
CEREMONY

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The University *of* North Carolina  
*at* Chapel Hill

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## MESSAGE *from the* CHANCELLOR

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Welcome to your Tar Heel hooding ceremony. Each of you has accomplished so much in your years at Carolina, and we treasure this opportunity to honor you and celebrate your achievements.

Families and friends of our doctoral students, no one could believe more in their capacity and character than you. On behalf of the Carolina faculty and staff, thank you for the support and encouragement you gave them and congratulations as you also make a life transition.

Doctoral students, you have made extraordinary contributions to the University community. You have contributed to our mission of teaching and service, in addition to your own studies, which have helped create new knowledge. In your time here, you have developed the personal and professional connections that will be a lasting part of your life and career. Carolina has been your home for a few years, but you will always be part of the Carolina family.

Please keep in touch and visit Chapel Hill. We will be here, eager to help and applaud your success. Congratulations!



CAROL L. FOLT



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## MESSAGE *from the* GRADUATE DEAN

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Congratulations, doctoral graduates! You made it and your efforts have paid off. Today, our university's graduate education community and your family and friends join in celebrating your truly remarkable achievement.

What you have accomplished in your years at Carolina will resonate for your entire lifetime. And it resonates within your university: Through the diligent pursuit of your research, you have advanced important new knowledge in your academic fields that benefits North Carolina and places far beyond.

In the process, you've also discovered new knowledge about your talents, your determination and your own personal capabilities that you likely could not have imagined when you began this journey.

Now, as doctoral alumni, you bring your innovative ideas to a world that truly needs them. I join the faculty members who have mentored you and collaborated with you in wishing you the very best of success as you go forward from this day.



STEVEN W. MATSON



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## ALMA MATER

The words of “Hark the Sound,” UNC–Chapel Hill’s alma mater, were written in 1897 by William Starr Myers, a graduating senior. The Glee Club director asked Myers to put words to the tune “Amici,” and the song was first performed on June 2, 1897, as part of the Glee Club’s Commencement performance in Gerrard Hall.

Soon the song was almost forgotten. When a University quartet tried a few years later to remember the words, they could recollect only the first verse and the chorus of Myers’ original version. Two members of the quartet, Charles S. Mangum and Charles T. Woollen, added two verses to the one they remembered. Mangum later became a professor in the School of Medicine, and Woollen worked as the University’s business manager and comptroller.

### HARK THE SOUND

*Hark, the sound of Tar Heel voices  
Ringing clear and true,  
Singing Carolina’s praises,  
Shouting N.C.U.!*

*Hail to the brightest star of all!  
Clear its radiance shine!  
Carolina, priceless gem,  
Receive all praises thine.*



### THE OLD WELL

At the heart of the campus stands the visual symbol of the University of North Carolina at Chapel Hill. For many years the Old Well served as the sole water supply for Old East and Old West dormitories. In 1897, the well was given its present decorative form at the direction of President Edwin A. Alderman, who described his beautification project as largely derived from the Temple of Love in the Garden of Versailles. In 1954, the well was given added beauty with brick walks, plantings and benches. Legend holds that students can bring good luck with a drink from the Old Well on the first day of classes.

## For Your Information



The Doctoral Hooding Ceremony will be captioned on video screens.\*

Every effort has been made to ensure the accuracy of this program’s content. Any omissions or errors are unintentional.

This Commencement program is printed prior to administering final examinations. Therefore, the inclusion of May degree candidates’ names in this program does not represent certification that candidates have satisfactorily completed degree requirements.

Doctoral degree graduates may receive their diplomas in a special departmental or school ceremony. Or they may pick up their diploma from the Office of the Registrar in the Student and Academic Services Buildings from 11:30 a.m. until 2 p.m. on Commencement Sunday. Remaining diplomas will be available in the Office of the Registrar through May 31, after which time they will be mailed to each graduate’s home address as listed in ConnectCarolina.

\*Captioning by Caption Perfect and MarchingOrders.

# *The* DOCTORAL HOODING PROGRAM

<i>Concert by the University Band</i>	Jeffrey W. Fuchs, Director
<i>Academic Procession</i>	The Faculty Marshal—Valerie Ashby, <i>Professor and Chair, Department of Chemistry</i> The Official Platform Party The Deans The Faculty The Candidates for the Degree of Doctor of Philosophy, Doctor of Education and Doctor of Public Health <b>GRADUATE MARSHALS WILL LEAD THE GROUPS TO THEIR SEATS.</b>
<i>Presiding</i>	Carol L. Folt, <i>Chancellor, The University of North Carolina at Chapel Hill</i>
<i>National Anthem</i>	John Wesley Miller, <i>Bachelor of Music</i>
<i>Remarks</i>	For the Board of Trustees of The University of North Carolina at Chapel Hill W. Lowry Caudill, <i>Chair</i>
<i>Introduction of the Commencement Speaker</i>	Kiran Bhardwaj, <i>President, Graduate and Professional Student Federation</i>
<i>Commencement Address</i>	Timothy Beatley, <i>Teresa Heinz Professor of Sustainable Communities, Department of Urban and Environmental Planning, School of Architecture, University of Virginia</i>
<i>Conferring of Doctoral Degrees</i>	Carol L. Folt, <i>Chancellor</i> James W. Dean Jr., <i>Executive Vice Chancellor and Provost</i> David Pfennig, <i>Caroline H. and Thomas S. Royster Distinguished Professor for Graduate Education, Biology</i> Steven W. Matson, <i>Dean of The Graduate School</i>
<i>Presentation of the Faculty Award for Excellence in Doctoral Mentoring</i>	Steven W. Matson, <i>Dean of The Graduate School</i>
<i>Chancellor's Charge to the Graduates</i>	Carol L. Folt, <i>Chancellor</i>
<i>Recessional</i>	<i>Hark the Sound</i> John Wesley Miller



# CAROL L. FOLT

## *Chancellor*



**C**arol L. Folt took office as Carolina's 11th chancellor and first woman leader on July 1, 2013.

An internationally recognized environmental scientist and award-winning teacher, Folt served as interim president of Dartmouth College during 2012-2013. She also was Dartmouth Professor of Biological Sciences at the prestigious Ivy League institution.

Folt was formally installed as chancellor on University Day, October 12th, which marked Carolina's 220th birthday. She says the transformative power of public higher education is flourishing at the University.

In her installation address, Folt laid out an ambitious agenda for the future. "I believe that Carolina can be the leader in shaping the path for the great public universities in America. By preserving excellence and innovation, access and affordability, and a deep commitment to the state, we can gather strength to innovate and meet new challenges."

An Akron, Ohio, native, Folt is a proud product of public higher education. Her parents were the first in their families to attend college. She worked her way through the University of California at Santa Barbara as a waitress, earning a bachelor's degree in aquatic biology in 1976 and a master's degree in biology two years later. She received her doctorate in ecology in 1982 from the University of California at Davis and did postdoctoral work at the W.K. Kellogg Biological Station of Michigan State University.

After joining the Dartmouth faculty in 1983, Folt rose steadily through the academic and administrative ranks. She was named

associate director of Dartmouth's Toxic Metals Research Program in 1998, and two years later became associate director of the Center for Environmental Health Sciences. In 2001, she was appointed dean of graduate studies and associate dean of the faculty for interdisciplinary programs. She was promoted to dean of the faculty in 2004, tapped as acting provost in 2009, and named provost in 2010.

As interim president, Folt helped identify opportunities for greater collaboration across schools to enhance academic quality and competitiveness, oversaw growth in global partnerships, and augmented support for faculty, student and community entrepreneurship and technological innovation. She spearheaded a year-long focus on the arts, co-education and the future of higher education. As provost, she led the first strategic planning process, engaging hundreds of faculty, staff and students. Following the economic downturn, she co-led efforts to resolve a \$100-million budget gap.

Folt's research has focused on the effects of dietary mercury and arsenic on human and ecosystem health, salmonid fisheries management and restoration, and global climate change. She and colleagues developed new technologies to assess mercury exposure and formed regional, national and international partnerships to shape public policy for safer waters. She is a fellow of the American Association for the Advancement of Science.

Folt is married to David Peart, a professor of biological sciences at Dartmouth. They have two adult children, Noah and Tessa.

# STEVEN W. MATSON

## *The Dean of The Graduate School*

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**S**teven W. Matson has served as dean of The Graduate School since 2008. He joined the UNC–Chapel Hill faculty in 1983.

Matson also is a professor in the Department of Biology in the College of Arts and Sciences, where he served as chair from 2002 to 2008. A biochemist by training, his research focuses on DNA repair, conjugative DNA transfer and the enzymatic mechanisms and biological roles of DNA helicases.

He is a recipient of the American Cancer Society Faculty Research Award and has served as a reviewer for the National Institutes of Health, the National Science Foundation and the American Cancer Society, in addition to a wide range of journals including the *Journal of Molecular Biology*, *Biochemistry*, *Proceedings of the National Academy of Sciences* and the *Journal of Biological Chemistry*, where he was an editorial board member from 2000 to 2005.

At Carolina, Matson has taught a variety of courses, including *Current Topics in Biology*, *Advanced Molecular Biology*, *Advanced Cell Biology* and honors sections of *Genetics and Molecular Biology*. A past recipient of the University’s Tanner Award for Excellence in Undergraduate Teaching, Matson has served on a number of campus committees.

On the national level, he serves on the Council of Graduate Schools (CGS) Board of Directors. Made up of more than 500 institutions of

higher education in the United States and Canada, the CGS’s mission is to improve and advance graduate education through advocacy in the federal policy arena, research and the development and dissemination of best practices. Matson also serves on the Board of Directors for the Graduate Record Exam.

As dean of The Graduate School, he has led interdisciplinary efforts focused on extending critical support to graduate students, including creation of a Summer Research Fellowship program, designation of five-year Chancellor’s Fellowships within the Royster Society of Fellows and the introduction of new professional development opportunities for graduate students. Matson works with the University’s administration, faculty, staff and students, as well as graduate alumni, to advance understanding of graduate education’s dynamic role at Carolina. An example of his leadership in this area is The Graduate School’s interactive Tar Heel Footprints “map” ([gradschool.unc.edu/footprints](http://gradschool.unc.edu/footprints)), which shows the impact of Carolina graduate alumni worldwide. In addition, Matson and his graduate dean colleagues across the state implemented Graduate Education Day at the Capitol in 2011.

A native of Coos Bay, Ore., Matson earned a bachelor’s degree in mathematics from Colgate University. His master’s and doctoral degrees are from the University of Rochester, both in biochemistry.

# TIMOTHY BEATLEY

## *The Doctoral Hooding Ceremony Speaker*

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**T**imothy Beatley, a pioneering researcher in the field of “green urbanism” and sustainability, is the Teresa Heinz Professor of Sustainable Communities in the Department of Urban and Environmental Planning within the University of Virginia’s School of Architecture.

A Carolina alumnus, Beatley received his doctorate in city and regional planning and his master’s degree in political science from UNC–Chapel Hill, his master’s degree in urban planning from the University of Oregon and his bachelor’s degree in city planning from UVA.

Beatley joined the UVA faculty in 1986. The State Council of Higher Education for Virginia presented him with a 2011 Outstanding Faculty Award for his teaching and research excellence.

He has written or co-written more than 15 books on topics as diverse as nature’s influence in sustaining a high quality of community life and workable approaches toward reducing the ecological “footprint” in cities and towns. The American Planning Association has recognized his book “Ethical Land Use” as one of its “100 Essential Books in Planning.”

His most recent book is “Biophilic Cities: Integrating Nature into Urban Design and Planning,” published in 2011. He begins his book by discussing that while young adults might not lack genuine interest in nature, for most of them “nature is fairly abstract and rather general.”

He goes on to write, “There are many reasons to worry about our loss of intimate contact with nature, and they come together to create a compelling argument for a new vision of what cities could be. ... A biophilic city is a city abundant with nature, a city that looks for opportunities to repair and restore and creatively insert nature wherever it can.”

Beatley also has collaborated on a documentary film, titled “The Nature of Cities,” about sustaining a vital connection to nature within city life, and that film has been shown on PBS stations nationwide.

“Tim Beatley continues to advance knowledge that is helping us navigate significant challenges in our increasingly urban world,” said Steven Matson, dean of The Graduate School at UNC–Chapel Hill. “With compassion and clear vision, he puts forward carefully considered ways to sustain quality of life in communities across our country and beyond.”

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# CANDIDATES *for* GRADUATE DEGREES

May 2014

*Degree candidates' names are followed by their area of major study, dissertation or project title and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Steven W. Matson

### DOCTOR OF PHILOSOPHY

- Michael A. Abel**, *Mathematics*, Virtual Crossings and Filtrations in Link Homology. Professor Lev Rozansky.
- Carlos Abreu Mendoza**, *Romance Languages and Literatures*, Sublime Peligro: Naturaleza, Sujeto y Nacion en Latinoamerica. Professor Juan Carlos Gonzalez Espitia.
- Elizabeth A. Adams**, *Psychology*, The Developmental Influence of Skin Tone on Psychosocial Outcomes Among African American Youth. Professor Beth E. Kurtz-Costes.
- Maria Merced Aleman**, *Pathology*, Cellular and Plasma Protein Cross-talk in Arterial and Venous Thrombosis. Professor Alisa Wolberg.
- Jena Abdullah Al-Fuhaid**, *English*, Feminine-Centered History and the "Good Cause" in Mary Shelley's Perkin Warbeck. Professor Jeanne Moskal.
- Deborah Dawn Hutchinson Allen**, *Nursing*, Exploring Cognitive Reserve and Compensatory Behaviors Used to Maintain Executive Control Function in Adults with Primary Brain Tumors. Professor Virginia J. Neelon.
- Justin Allman**, *Mathematics*, K-Classes of Quiver Cycles, Grothendieck Polynomials, and Iterated Residues. Professor Richard Rimanyi.
- Kate R. Allman**, *Education*, Reading the Middle East: A Critical Discourse Analysis of Classroom Literacy Events around Persepolis. Professor Julie E. Justice.
- Monique Ahinee Amamoo**, *Epidemiology*, Impact of Automatic Reporting of Estimated Glomerular Filtration on Chronic Kidney Disease Detection and Patient Care in a Hospital Setting. Professor Gerardo Heiss.
- Neil David Anderson**, *Romance Languages and Literatures*, Microgeographies: Galician Narratives of Place (2004–2012). Professor Samuel Amago.
- Sarah Andres**, *Cell and Molecular Physiology*, Expression Patterns and Roles of the Insulin Receptor in the Intestinal Epithelium. Professor P. Kay Lund.
- Mercedes Baillargeon**, *Romance Languages and Literatures*, Aesthetics and Politics of Contemporary Women's "Autofiction." Professor Dominique D. Fisher.
- Deepali Bang**, *Cell and Developmental Biology*, Oncogenic KRAS, GSK-3, NF-kappaB and TBK1: The Interplay and Consequences in Promoting Pancreatic and Lung Cancer. Professor Albert S. Baldwin.
- Sarah Ayako Barksdale**, *History*, Prelude to a Revolution: African American World War II Veterans, Double Consciousness, and Civil Rights 1940–1955. Professor Richard H. Kohn.
- Lisa Barnard**, *Mass Communication*, The Cost of Creepiness: How Online Behavioral Advertising Affects Consumer Purchase Intention. Professor Maria Leonora Comello.
- Rebecca Nancy Bauer**, *Toxicology*, The Role of the Inflammasome in the Respiratory Innate Immune Response to Viruses and Pollutants: Insights for Asthma Pathogenesis. Professor Ilona Jaspers.
- Janel Nikol Beckham**, *Communication Studies*, The Value of a Pint: A Cultural Economy of American Beer. Professor Lawrence Grossberg.
- Erik Arthur Bentsen**, *Education*, Utilizing Collaborative Reading Groups and Coaching as Social Skills Interventions for Students with Emotional/Behavioral Disabilities. Professor Karen Erickson.
- Russell Bither-Terry**, *Political Science*, Zero Hunger: The Politics of Anti-Hunger Policy in Brazil. Professor Evelyne Huber.
- Krysta Leigh Black**, *Art History*, Sacred History and Christian Kingship in the Leon Bible of 960. Professor Dorothy H. Verkerk.
- Amanda Kay Bock**, *Education*, Comprehensive Literacy Instruction in Self-Contained Special Education Classrooms: Epistemology and Practice. Professor Karen A. Erickson.
- Ashley Summer Boyd**, *Education*, Contradictions in Teaching: A Collective Case Study of Teachers' Social Justice Literacies in Middle and Secondary English Classrooms. Professors Jocelyn A. Glazier and Julie E. Justice.
- Friederike Bruhoefer**, *History*, Defining the West German Soldier: Military, Masculinity and Society in West Germany, 1945–1989. Professor Karen Hagemann.
- Raquel Alexandra Burger-Calderon**, *Microbiology and Immunology*, The BK Virus and HIV-Associated Salivary Gland Disease: Corroborating the Link. Professor Jennifer Webster-Cyriaque.
- Stephen James Bush**, *Bioinformatics and Computational Biology*, SNAPP, CRACLe, PoPP: Predicting Protein Interactions. Professor Alexander Tropsha.
- John Douglas Calaway**, *Genetics and Molecular Biology*, Genetic Regulation of Epigenetic Processes in Mouse: DNA Methylation and X Chromosome Inactivation. Professor Terry Magnuson.
- Colin Scott Campbell**, *Sociology*, Three Studies on the Determinants and Consequences of Poverty. Professor Arne L. Kalleberg.
- Jaime Nicole Campbell**, *Biochemistry and Biophysics*, The XMAP215 Family Drives Microtubule Polymerization Using a Structurally Diverse TOG Array. Professor Kevin C. Slep.
- Kasemsiri Chandarajoti**, *Pharmaceutical Sciences*, Utilizing a Chemoenzymatic Method for Synthetic Heparin Targeting Factor Xa and P-selectin. Professor Jian Liu.
- Ling-Yin Chang**, *Health Behavior*, Examining the Direct, Indirect and Moderated Effects of Neighborhood Characteristics on Trajectories of Dating Violence Perpetration. Professor Vangie A. Foshee.
- Marta Szmazinski Charpentier**, *Genetics and Molecular Biology*, Characterization of the CASZ1-Dependent Mechanisms Underlying Vertebrate Blood Vessel Development. Professor Frank L. Conlon.

## MUSIC

On Commencement weekend, graduates, families and friends will hear the University's beloved "Hark the Sound" and James Taylor's classic "Carolina in My Mind." These songs evoke the feelings of loyalty and friendship that students, alumni and true blue Tar Heels everywhere have for the University. But the orchestral marches that accompany the commencement processions are equally memorable for their power and splendor. They are truly fitting musical celebrations of the talent and achievements of UNC-Chapel Hill's visiting dignitaries, faculty and graduates.

During the Doctoral Hooding ceremony, members of the academic procession will be welcomed by the fanfare brass, woodwinds and drums of Nikolai Rimsky-Korsakov's "Procession of the Nobles" and Richard Strauss' "Konigsmarsch." Rimsky-Korsakov wrote his majestic march to open the second act of the opera-ballet "Mlada," which premiered in Saint Petersburg, Russia, in 1892. Strauss premiered the flourishing "Konigsmarsch" at a palace concert in Berlin in 1907.

The new graduates will exit the ceremony while hearing familiar Carolina melodies in "Tar Heel Rhapsody," a composition written specifically for the University that features its school songs.

- Chidsanuphong Chart-asa**, *Environmental Sciences and Engineering*, Quantifying Health Impacts of Traffic-Related Fine Particulate Air Pollution at the Urban Project Scale. Professor Jacqueline MacDonald Gibson.
- Morgan Chateau**, *Microbiology and Immunology*, Prevention of HIV Transmission. Professor Victor Garcia.
- Ritwik Chaudhuri**, *Statistics and Operations Research*, Non-Gaussian Semi-Stable Distributions and Their Statistical Applications. Professor Vlasdas Pipiras.
- Martha Ann Clark**, *Microbiology and Immunology*, Iron Deficiency and Iron Supplementation Conspire to Mediate Susceptibility to Erythrocytic Stage Plasmodium falciparum Infection. Professor Steven R. Meshnick.
- Lara-Jeane Croker Costa**, *Education*, The Relations among the Development of Written Language and Executive Functions in Elementary Aged Students. Professor Jeffrey A. Greene.
- Elicia Parker Cowins**, *Business Administration*, Does Hedge Accounting Reflect Firms' Risk Management Activities? Professor Wayne R. Landsman.
- Christopher J. Cronin**, *Economics*, Insurance-Induced Moral Hazard: A Dynamic Model of Within-Year Medical Care Decision Making under Uncertainty. Professor Donna B. Gilleskie.
- Jennifer Lynne Cronin**, *Communication Studies*, Speaking the Unspeakable: Adult Children's Revelations of Unwed Pregnancy to Parents. Professor Lawrence B. Rosenfeld.
- Sean Curtis**, *Computer Science*, Pedestrian Velocity Obstacles: Pedestrian Simulation Through Reasoning in Velocity Space. Professor Dinesh Manocha.
- Corey Leigh Cusack**, *Neurobiology*, The Molecular Intersection between Axon-Specific Pruning and Neuronal Apoptosis. Professor Mohanish Deshmukh.
- Sarah Dababnah**, *Social Work*, Pilot Trial of the Incredible Years for Parents of Preschool Children with Autism Spectrum Disorder. Professor Susan L. Parish.
- Elyse Cathleen Dankoski**, *Neurobiology*, Dynamic Modulation of In Vivo Serotonin Signaling. Professor R. Mark Wightman.
- Nicole Lane Davis**, *Epidemiology*, Adherence-Related Mechanisms of Breastmilk HIV-1 Transmission. Professor William C. Miller.
- Dinuka M. De Silva**, *Pathology*, Role of Androgen Receptor Co-Repressor SLIRP in Cell Cycle Regulation. Professor Young E. Whang.
- Nathan Dean**, *Political Science*, Balancing the Plurality of Liberal Values. Professor Jeff Spinner-Halev.
- Kari Moore Debbink**, *Microbiology and Immunology*, Mechanisms of GII.4 Norovirus Antigenic Variation and Evolution. Professor Ralph S. Baric.
- Finnur Dellsen**, *Philosophy*, The Epistemology of Science: Acceptance, Explanation, and Realism. Professor Marc B. Lange.
- John P. Didion**, *Bioinformatics and Computational Biology*, Genetic Analysis of Meiotic Drive Systems in the Mouse Using Genotyping Arrays. Professor Fernando Pardo-Manuel de Villena.
- Gauri Dixit**, *Biochemistry and Biophysics*, Regulation of Cell Morphogenesis by Targeted Noise Suppression and Trafficking of a G Protein Alpha Subunit. Professor Henrik G. Dohlman.
- Daniel I. Dominguez**, *Pharmacology*, Transcriptome Dynamics During the Mammalian Cell Cycle. Professor Zefeng Wang.
- Jonathan Macdougall Duncan**, *Geography*, Spatial and Temporal Scaling of Nitrogen Cycling and Export: Resolving Three Paradoxes for a Forested Piedmont Watershed. Professor Lawrence E. Band.
- Lindsay M. Dunn**, *Art History*, A Revolutionary Empress in the Age of Napoleon: Marie-Louise, Archduchess of Austria, Empress of the French, and Duchess of Parma, Piacenza, and Guastalla (1791–1847). Professor Mary D. Sheriff.
- Darin Sean Earnest**, *Education*, Calculating Item Discrimination Values Using Samples of Examinee Scores around Real and Anticipated Cut Scores: Effects on Item Discrimination, Item Selection, Examination Reliability and Classification Decision Consistency. Professor Gregory J. Cizek.
- Ryan Scott Ebright**, *Musicology*, Echoes of the Avant-Garde in American Minimalist Opera. Professor Mark Katz.
- Cihat Eldeniz**, *Biomedical Engineering*, Quantitative MR T1 Measurements with TOWERS: T-One with Enhanced Robustness and Speed. Professor Weili Lin.
- Emily A. Elstad**, *Health Behavior*, Cancer Screening Benefits and Harms: News Coverage and Provider Perceptions. Professor Noel T. Brewer.
- Justin Gregory English**, *Pharmacology*, Decoding the Yeast Stress Adaptation Circuit. Professor Henrik G. Dohlman.
- Leila Family**, *Epidemiology*, Associations Between Genetic Polymorphisms in DNA Bypass Polymerases and Base Excision Repair Genes with the Risk of Breast Cancer. Professor Andrew F. Olshan.
- Keturah R. Faurot**, *Epidemiology*, Botanical Dietary Supplement Use Among Hispanic/Latino Adults in the Hispanic Community Health Study/Study of Latinos: Comparison of a Diet-vs.-Medication-Based Survey. Professor Anna Maria Siega-Riz.



- Leslie C. Fox**, *Education*, Physical Activity and Adolescent Girls with ASD: Effects of an Individualized Exercise Program on Cognitive, Social and Physical Health Indicators. Professor Samuel L. Odom.
- Cynthia Michelle Fraga**, *Social Work*, The Coping Efforts of Intimate Partner Violence Survivors: Review of the Literature, Exploratory Inquiry and Scale Development. Professor Rebecca J. Macy.
- Eric Matthew Francisco**, *Biomedical Engineering*, Cortical Diagnostics: Measuring Brain Health Through Somatosensation. Professor Mark Tommerdahl.
- Matthew Martin Franke**, *Musicology*, The Impact of Jules Massenet's Operas in Milan, 1893–1903. Professor John L. Nadas.
- David T. Frazier**, *Economics*, Essays on Iterative and Two-Step Estimators with Applications to Financial Econometrics. Professor Eric Renault.
- John Douglas Gallemore**, *Business Administration*, Does Bank Opacity Enable Regulatory Forbearance? Professor Edward L. Maydew.
- George C. Gerolimos**, *History*, Structural Change and Democratization of Schleswig-Holstein's Agriculture, 1945–1973. Professor Christopher Browning.
- Yunchao Gong**, *Computer Science*, Large-Scale Image Retrieval Using Similarity Preserving Binary Codes. Professor Svetlana Lazebnik.
- Vincent Michael Gonzalez**, *Religious Studies*, Born Again Digital: Exploring Evangelical Video Game Worlds. Professor Yaakov Ariel.
- Rodrigo Javier Gonzalez**, *Microbiology and Immunology*, Dissemination of *Yersinia pestis* During Bubonic Plague. Professor Virginia L. Miller.
- Megan Goodwin**, *Religious Studies*, Good Fences: American Sexual Exceptionalism and Minority Religions. Professor Randall Styers.
- Kenneth Max Gorfkle**, *Romance Languages and Literatures*, The Intersection of Life and Death in David Rosenmann-Taub's Tetralogy *Cortejo y Epinicio*. Professor Rosa P. Perelmuter.
- Jean-Marc Grandjean**, *Chemistry*, Anti-Markovnikov Hydrofluorination, Hydroxysulfonylation and Hydration of Styrenes. Photoredox Catalytic Polar-Radical Crossover Cycloaddition of Olefins and Allylic Nucleophiles. Professor David A. Nicewicz.
- David Grawoig**, *Chemistry*, SAR by SHAPE: Towards Small Molecules that Target RNA. Professor Kevin M. Weeks.
- Jeffrey Earl Gray**, *Toxicology*, Decoding Mechanisms of Loss of Fertilization Ability of Cryopreserved Mouse Sperm. Professor Terry Magnuson.
- Nicole Gabrielle Griffin**, *Genetics and Molecular Biology*, Genetic Analysis of Complex and Mendelian Diseases. Professor Kirk C. Wilhelmsen.
- Laura Gutmann**, *Education*, How Teacher Evaluation Shapes Conceptions of Good Practice: Policy Intention, Implementation and Interpretation. Professor Jocelyn Glazier.
- Kathryn Esther Hacker**, *Genetics and Molecular Biology*, Investigating the role of SETD2 Mutations and H3K36me3 Loss in Clear Cell Renal Cell Carcinoma. Professor W. Kimryn Rathmell.
- Nicole Anne Hagan**, *Environmental Sciences and Engineering*, Residential Mercury Contamination and Exposure in Huancavelica, Peru. Professor Jason West.
- Aaron Todd Hale-Dorrell**, *History*, Khrushchev's Corn Crusade: The Industrial Ideal and Agricultural Practice in the Era of Post-Stalin Reform, 1953–1964. Professor Donald J. Raleigh.
- Matthew W. Halvorsen**, *Bioinformatics and Computational Biology*, Disease Associated Mutations and Functional Variants that Significantly Disrupt RNA Structure. Professor Alain Laederach.
- Daniel Elliott Harper**, *Psychology*, Psychophysical Examination of the Thermal Grill Illusion. Professor Mark Hollins.
- Scott C. Hauswirth**, *Environmental Sciences and Engineering*, Physicochemical Approaches for the Remediation of Manufactured Gas Plant Tar in Porous Media. Professor Cass T. Miller.
- Elizabeth A. Hennessy**, *Geography*, On the Backs of Tortoises: Conserving Evolution in the Galapagos Islands. Professor Wendy Wolford.
- Elizabeth Eve Hibberd**, *Human Movement Science*, Effect of Swim Training on Physical Characteristics and Pain in Competitive Adolescent Swimmers. Professor Joseph B. Myers.
- Philip John Homan**, *Chemistry*, High-Throughput Analysis of RNA Tertiary Structure and Interactions. Professor Kevin M. Weeks.
- Bethany Jablonski Horton**, *Biostatistics*, Test-Dependent Sampling Design and Semi-Parametric Inference for the ROC Curve. Professor Haibo Zhou.
- Carolyn Susan Huffman**, *Nursing*, The Meaning of Miscarriage: Measurement, Reproductive Factors, and Trajectories in Couple Dyads. Professor Kristen Swanson.
- Rachel M. Hynson**, *History*, Sex and State Making in Revolutionary Cuba, 1959–1968. Professor Kathryn J. Burns.
- Samantha Leigh Isenberg**, *Chemistry*, Improvements in Mass Spectrometric Analyses with Differential Ion Mobility Spectrometry. Professor Gary L. Glish.
- Sara Rubin Jacobs**, *Health Policy and Management*, Multilevel Predictors of Cancer Clinical Trial Enrollment among CCOP Physicians. Professor Bryan J. Weiner.
- Elizabeth T. Jensen**, *Epidemiology*, Pharmacologic Sex Hormone Use Before and in Early Pregnancy in Relation to Birth and Early Childhood Anthropometric Outcomes. Professor Julie Daniels.
- Kara L. Jensen**, *Microbiology and Immunology*, Characterization of a Novel Mycobacterium Tuberculosis-Simian Immunodeficiency Virus Vaccine to Prevent Oral Pediatric HIV Transmission. Professor Kristina Abel.
- Brian Donovan Johnson**, *Romance Languages and Literatures*, The Rhetorical Use of Animals in Early Modern French Literature. Professor Hassan Melehy.
- Monica Perez Jolles**, *Health Policy and Management*, Increasing Community and Family Participation in Child Welfare Agencies as a Way to Improve Families' Use of Health Services. Professor Rebecca Wells.

- Jordan D. Kern**, *Environmental Sciences and Engineering*, Dynamic Hydrologic and Economic Modeling of Tradeoffs in Hydroelectric Systems. Professor Gregory Characklis.
- Zachary Yukio Kerr**, *Epidemiology*, The Association of Concussion History and Mental Health in Former Collegiate Athletes. Professor Stephen W. Marshall.
- Jessica Rachel Keys**, *Epidemiology*, Minority Drug Resistant Variants of HIV-1 and Response to Early Combination Therapy. Professor Charlie Poole.
- Mona Kilany**, *Health Policy and Management*, Patient-Centered Medical Homes for Patients with Severe Mental Illness: Utilization and Quality of Care Variation in Rural Areas. Professor Joseph Morrissey.
- Changhyun Kim**, *Business Administration*, Governance Mechanisms and Shareholder Value. Professor Richard A. Bettis.
- Martha Elizabeth King**, *Anthropology*, Cultural Contexts of Health and Illness Among the Lancaster Amish. Professor Dorothy Holland.
- Hanna Kleider**, *Political Science*, Decentralization and the Welfare State: Territorial Disparities, Regional Governments and Political Parties. Professor John D. Stephens.
- Anna L. Krome-Lukens**, *History*, The Reform Imagination: Gender, Eugenics and the Welfare State in North Carolina, 1900–1940. Professor Jacquelyn D. Hall.
- Elizabeth Marie Holdsworth La**, *Health Policy and Management*, The Systemic Effects of a State Psychiatric Hospital Waitlist Policy on Mental Health Services Use. Professor Joseph Morrissey.
- Lance Elliot Lagroue**, *History*, Accounting and Auditing in Roman Society. Professor Richard Talbert.
- Christopher Andrew Lavender**, *Chemistry*, RNA Structure Prediction Using High-Throughput Chemical Modification Techniques. Professor Kevin M. Weeks.
- Daniel Mark Layman**, *Philosophy*, John Locke's Republicanism. Professor Gerald J. Postema.
- Kaitlin Christine Lenhart**, *Pathology*, The Rho-GAP GRAF1 Regulates Skeletal Muscle Maturation and Repair. Professor Joan M. Taylor.
- Yanjun Liu**, *Education*, Teachers' In-the-Moment Noticing of Students' Mathematical Thinking: A Case Study of Two Teachers. Professor Susan N. Friel.
- Belinda L. Locke**, *Education*, Modeling Relations Between Adolescents' Perceptions of the School's Social Context, Academic and Social Self-Concept of Ability Beliefs, and Student Engagement. Professor Judith Meece.
- Matthew Warren Lowder**, *Psychology*, Effects of Sentence Structure on Processing of Complex Semantic Expressions. Professor Peter C. Gordon.
- Derek Severi Lundberg**, *Genetics and Molecular Biology*, Root-Associated Bacterial Communities as an Extended Phenotype of the Plant. Professor Jeff L. Dangel.
- Kenneth MacCabe**, *Physics*, X-ray Scatter Tomography Using Coded Apertures. Professor Otto Zhou.
- Madisa Macon**, *Toxicology*, Mechanistic Pathways Underlying Low-Dose Perfluorooctanoic Acid (PFOA) Effects in Murine Mammary Tissues. Professor Suzanne E. Fenton.
- Margaret C. Martin**, *History*, Creating an American Way of Mobilization: The Federal System and Wartime Mobilization in North Carolina During the War of 1812. Professor Wayne E. Lee.
- Maria I. Martinez**, *Psychology*, Young Latino Children at Risk for Psychopathology: Effects of Maternal Depressive Symptoms on Child Behavior. Professor Eric A. Youngstrom.
- Lindsey Haynes Maslow**, *Health Policy and Management*, Access to Fruits and Vegetables for Low-Income Individuals: A Mixed Methods Study to Healthy Eating. Professor Pam Silberman.
- Catherine Massie**, *English*, Romantic Frames of Mind: Vision and Sympathy in British Novels of the 19th Century. Professor Joseph S. Viscomi.
- Bevin Laurel Maultsby**, *Mathematics*, The Geometry of Radial States in Nonlinear Elliptic Problems. Professor Christopher K.R.T. Jones.
- Ashley Michelle Mays**, *History*, A Past Still Living: The Grieving Process of Confederate Widows. Professor Joseph T. Glatthaar.
- Marta McCabe**, *Education*, Parental Experiences with Children's Heritage Language Maintenance and Loss: Cases of Eleven Czech and Slovak Transnational Immigrant Families in the Southeastern United States. Professor Xue Lan Rong.
- Jinghan Meng**, *Business Administration*, Skewness and Dispersion of Opinions and the Cross Section of Stock Returns. Professor Riccardo Colacito and Eric Ghysels.
- Louis Ari Merlin**, *City and Regional Planning*, Accessibility, Travel Behavior, and Urban Form Change. Professor Yan Song.
- Luke William Mills**, *English*, Religious Oaths in the Chaucerian Fabliaux. Professor Joseph S. Wittig.
- John Justin Milner**, *Nutrition*, The Immunological Consequences of Obesity on Primary and Secondary Immune Defenses to the 2009 Pandemic H1N1 Influenza Virus. Professor Melinda A. Beck.
- Warren Eugene Milteer**, *History*, The Complications of Liberty: Free People of Color in North Carolina from the Colonial Period Through Reconstruction. Professors Kathleen DuVal and Malinda Maynor Lowery.
- Estephan Jose Moana-Filho**, *Oral Biology*, Brain Micro- and Macro-Structural Characteristics Investigation in Fibromyalgia Using Multimodal Magnetic Resonance Imaging. Professor Richard H. Gracely.
- Amanda Jean Moffett**, *Physics and Astronomy*, Disk Regrowth in E/S0 Galaxies and Its Environmental Dependence. Professor Sheila Kannappan.
- Chad Henderson Morgan**, *Information and Library Science*, Craft and Job Satisfaction: North Carolina Library and Information Science Graduates. Professor Joanne G. Marshall.
- Meghan Lynn Morgan-Smith**, *Neurobiology*, GSK-3 Regulation of Migration and Morphogenesis in the Developing Cortex. Professor William D. Snider.
- Kajji Motegi**, *Economics*, Granger Causality in Mixed Frequency Time Series. Professor Eric Ghysels.
- Lee B. Mullin**, *Biomedical Engineering*, Ultrasound Mediated Nanoparticle Drug Delivery. Professor Paul A. Dayton.
- Rebecca L. Nesvet**, *English*, The Vanishing Voyager and the Emerging Outsider, 1818–1930. Professor Jeanne Moskal.
- Richard Hajime Nguyen**, *Biomedical Engineering*, Applications of Sensory Perceptual Metrics to Screen, to Track Changes In, and to Differentiate Clinical Populations. Professor Mark A. Tommerdahl.
- Tien Minh Nguyen**, *Chemistry*, Development of Two Organocatalytic Photoredox Transformers: The Enantioselective Cation Radical Diels-Alder Reaction and the Anti-Markovnikov Hydroamination of Alkenes. Professor David A. Nicewicz.
- Aaron Hugh Nile**, *Cell and Developmental Biology*, Chemical Inhibitors of Phosphatidylinositol Transfer Proteins Enable Highly Selective Interference with Specific Pathways of Phosphoinositide Signaling in Cells. Professor Vytas A. Bankaitis.



- Katherine E. Nolfi**, *Philosophy*, Understanding Epistemic Normativity. Professor Ram Neta.
- Theresa A. O'Meara**, *Environmental Sciences and Engineering*, Anthropogenic Effects on Estuarine Shoreline Primary Productivity and Nutrient Cycling. Professor Michael F. Piehler.
- Christopher Dennis Packey**, *Microbiology and Immunology*, Disruption of Complex Enteric Commensal Microbial Communities and Their Mutualistic Functions with the Host Contributes to the Severity of Common Intestinal Disorders and Serves as a Promising Therapeutic Target. Professor R. Balfour Sartor.
- Kyle Ann Palmquist**, *Ecology*, Community Assembly and Vegetation Patterns Across Space and Time in the Longleaf Pine Ecosystem. Professor Robert K. Peet.
- Monita Ramesh Patel**, *Epidemiology*, A Study of CD4-Stratified Timing of Antiretroviral Therapy Among Patients Receiving Integrated Tuberculosis and HIV Treatment in a Highly Resource-Limited Setting. Professor Annelies Van Rie.
- John Culver Pelton**, *Biology*, An aPKC $\delta$ -Dependent Two-Tip-Cell Topology Aids in Establishing Polarity of Angiogenic Sprouts. Professor Victoria L. Bautch.
- Lei Peng**, *Pharmaceutical Sciences*, Taxane Conjugate Nanoparticles for Improved Non-Small Cell Lung Cancer Treatment in a Novel Orthotopic Mouse Model. Professor Russell J. Mumper.
- Jessica Kadis Pepper**, *Health Behavior*, Electronic Cigarettes: Diffusion of a Controversial Innovation. Professor Noel T. Brewer.
- Jessica Leigh Petrick**, *Epidemiology*, Dietary Intake of Flavonoids, Barrett's Esophagus Development, and Esophageal and Gastric Cancer Incidence and Survival. Professor Marilie D. Gammon.
- Chelsea Jacqueline Phillips**, *Political Science*, The Role of Political Similarity in Romantic Relationships. Professor Thomas M. Carsey.
- Shabbar Ismailbhai Ranapurwala**, *Epidemiology*, Prevention of Scuba Diving Mishaps Using a Pre-dive Checklist: A Cluster Randomized Trial. Professor Steven B. Wing.
- Christopher Michael Reali**, *Musicology*, Making Music in Muscle Shoals. Professor Jocelyn R. Neal.
- Rachel L. Redler**, *Biochemistry and Biophysics*, The Impact of Post-Translational Modifications on Aggregation of Cu, Zn Superoxide Dismutase in Amyotrophic Lateral Sclerosis. Professor Nikolay V. Dokholyan.
- Ashley Kay Reed**, *English*, Gender, Race and Secular Agency in American Protestant Fiction, 1820–1870. Professor Jane F. Thrailkill.
- Cathleen Carolyn Reynolds**, *Education*, Multidimensional Literacy Development: Examining Child Behavior and Teacher Instruction. Professor Rune J. Simeonsson.
- Lorraine L. Richards**, *Information and Library Science*, Evidence-as-a-Service: State Recordkeeping in the Cloud. Professor Christopher A. Lee.
- Michelle Riener**, *Chemistry*, Synthesis of C<sub>2</sub> Symmetric Cyclobutanes and gamma-Butyrolactones via Photoinduced Electron Transfer. Professor David A. Nicewicz.
- Stephanie Adair Rispoli**, *English*, Anatomy, Vitality and The Romantic Body: Blake, Coleridge and the Hunter Circle, 1750–1840. Professors Reid Barbour and Paul B. Youngquist.
- Adam Berkley Roberts**, *Biochemistry and Biophysics*, Selective Modulation of the Microbiome: Efforts Towards a New Paradigm in Human Therapeutics. Professor Matthew R. Redinbo.
- Andrew Roberts**, *Mathematics*, Abrupt Changes and Intervening Oscillations in Conceptual Climate Models. Professor Christopher K.R.T. Jones.
- John Elliott Robinson**, *Neurobiology*, Translational Investigations of Rewarding Substances Using the Curve-Shift Method of Intracranial Self-Stimulation in Mice. Professor C. J. Malanga.
- Benjamin E. Rogerson**, *English*, Art/Work: White-Collar Creativity, 1960–1970. Professor Gregory Flaxman.
- Artur Romanchuk**, *Biology*, Defining the Constraints of Microbial Evolution via Horizontal Gene Transfer: Uncovering the Roles of Protein Complexity, Function and Divergence. Professor Corbin D. Jones.
- Shyanika W. Rose**, *Health Behavior*, Factors Influencing Support for Point-Of-Sale Provisions of the Tobacco Control Act: Retailer and Public Opinion. Professor Kurt M. Ribisl.
- Heather Ryan**, *Information and Library Science*, Who's Afraid of File Format Obsolescence? Evaluating File Format Endangerment Levels and Factors for the Creation of a File Format Endangerment Index. Professor Christopher A. Lee.
- Lauren Marie Sanford**, *Art History*, Littoral Crossings: Imagery of Women and Water in 19th-Century Britain. Professor Mary D. Sheriff.
- Mohona Sarkar**, *Chemistry*, Effects of Biomolecular Crowding on Protein Stability. Professor Gary J. Pielak.
- Pavak Kirit Shah**, *Biomedical Engineering*, Micropallet Arrays as an Integrated Platform for the Characterization and Manipulation of Single Cells. Professor Nancy L. Allbritton.
- Liang Shan**, *Computer Science*, Automatic Localized Analysis of Longitudinal Cartilage Changes. Professor Marc Niethammer.
- Laura Ann Sheble**, *Information and Library Science*, Diffusion of Meta-Analysis, Systematic Review, and Related Research Synthesis Methods: Patterns, Contexts and Impact. Professor Diane Kelly.
- Paul Steven Sheeran**, *Biomedical Engineering*, Optimizing the Performance of Phase-Change Contrast Agents for Medical Ultrasonography. Professor Paul A. Dayton.
- Sarah Elizabeth Sinnett**, *Neurobiology*, Identification of Novel Molecules that Bind and Regulate AMP-Activated Protein Kinase (AMPK). Professor Jay E. Brenman.
- Rebecca Kristen Sinnott**, *Pharmacology*, Mechanisms that Promote Liberation of Mitotic Stress-Induced Death. Professor Angélique Whitehurst.
- Christopher Thomas Smith**, *Neurobiology*, Neurocognitive Investigation of Immediate Reward Selection Bias, a Putative Intermediate Phenotype for Alcohol Use Disorders. Professor Charlotte A. Boettiger.
- Deirdre Gobeille Snyder**, *Business Administration*, Harnessing the Power of Loneliness: A Social Functional Approach to Loneliness at Work. Professor Alison R. Fragale.
- Alexander Soibelman**, *Mathematics*, The Very Good Property for Moduli of Parabolic Bundles and the Deligne-Simpson Problem. Professor Dima Arinkin.
- Stephen Peter Sojka**, *Biology*, Functional Analysis of a CASZ1/CHD5 Interaction in Cardiac Development and Disease. Professor Frank L. Conlon.
- Wendy Lunsford Staskiewicz**, *Education*, Seeking Spaces for Negotiation: Issues of Agency When Students Contribute to Decisions About Curriculum. Professor Jocelyn Glazier.

- Virginia Ruth Stewart**, *Business Administration*, Sense-Making and Strategy Development in Underperforming Teams. Professors David A. Hoffman and Benson Rosen.
- Florian Stoeckel**, *Political Science*, Solidarity Among Strangers? Citizenship, Identity, and Ambivalent Attitudes in Europe. Professor Liesbet Hooghe.
- Christa E. Sturdevant**, *Microbiology and Immunology*, Viral Characteristics Associated with Human Immunodeficiency Virus Type 1 Infection of the Central Nervous System Early Following Transmission. Professor Ronald Swanstrom.
- Katsuhiko Sueda**, *Pharmaceutical Sciences*, Orally Administered Penta-Ethyl Ester Prodrug of DTPA for the Decorporation of Americium-241. Professor Michael Jay.
- Benjamas Suksatit**, *Nursing*, Sleep in Community-Dwelling Older Adults: Issues of Measurement. Professor Virginia J. Neelon.
- David Charles Supp-Montgomerie**, *Communication Studies*, Speaking from the Heart: Mediation and Sincerity in U.S. Political Speech. Professor Christian Lundberg.
- Deirdre Catherine Tatomer**, *Biology*, Connecting Nuclear Organization and Gene Expression: The Role of the Histone Locus Body in Histone mRNA Biosynthesis. Professors William F. Marzluff and Robert J. Duronio.
- Micah Taylor**, *Computer Science*, Interactive Sound Propagation for Massive Multi-User and Dynamic Virtual Environments. Professor Dinesh Manocha.
- Nicholas Jay Taylor**, *Epidemiology*, Common Genetic Variation in Cell Cycle Regulatory Genes and Etiology of Intrinsic Breast Cancer: A Candidate Gene Approach. Professor Andrew F. Olshan.
- Tehseen Thaver**, *Religious Studies*, Ambiguity, Hermeneutics, and the Formation of Shi'i Identity in al-Sharif al-Radi's (d.1015CE) Qur'an Commentary. Professor Carl Ernst.
- Caitlin Elizabeth Tolbert**, *Cell and Developmental Biology*, Characterizing the Role of Actin Binding, Bundling and Tyrosine Phosphorylation in Modulating Vinculin Function. Professor Keith Burridge.
- Davin Townley-Tilson**, *Cell and Developmental Biology*, The Role of Ankyrin Repeat and SOCS BOX Containing Protein 4 (ASB4) in Trophoblast Differentiation. Professor Cam Patterson.
- Andrew Wallace Tucker**, *Biomedical Engineering*, Development of a Stationary Digital Breast Tomosynthesis System for Clinical Applications. Professors David Lalush and Otto Zhou.
- Martha B. van der Drift**, *Romance Languages and Literatures*, Leclezien Hybridity: Relations Across Genres, Histories and Cultures in Selected Works. Professor Dominique Fisher.
- Christopher Joseph Vargo**, *Mass Communication*, Brand Messages on Twitter: Predicting Diffusion with Textual Characteristics. Professor Joe B. Hester.
- Kristine Marie Wadosky**, *Pathology*, Cardiac Muscle RING Finger 1 Inhibits Adaptive Hypertrophic Remodeling Induced by IGF-1, Exercise and Thyroid Hormone. Professor Monte S. Willis.
- Laura R. Wagner**, *Anthropology*, Haiti is a Sliding Land: Displacement, Community, and Humanitarianism in Post-Earthquake Port-Au-Prince. Professor Peter Redfield.
- Michael Lyn Wallace**, *Neurobiology*, Circuit and Neuron Type-Specific Roles for UBE3A in the Visual Cortex. Professor Benjamin D. Philpot.
- Simi Wang**, *Mathematics*, Modeling Networks in Nanorod Composites and Power Grids. Professors Peter J. Mucha and M. Gregory Forest.
- Xuan Wang**, *Statistics and Operations Research*, Some Asymptotic Problems for Dynamical Random Graphs. Professors Shankar Bhamidi and Amarjit Budhiraja.
- Melea Anne Ward**, *Pharmaceutical Sciences*, A Comparative Effectiveness Analysis of Patients Newly Initiating Tyrosine Kinase Inhibitor Therapy for Chronic Myeloid Leukemia. Professor Susan J. Blalock.
- Susan Wei**, *Statistics and Operations Research*, Latent Supervised Learning and DiProPerm. Professors Michael R. Kosorok and James S. Marron.
- Christopher Jason Wells**, *Musicology*, "Go Harlem": Chick Webb and His Dancing Audience During the Great Depression. Professor David F. Garcia.
- Jacqueline M. White**, *Ecology*, The Impacts of Altered Floodplain Hydrology of the Lower Roanoke River on Tree Regeneration and Floodplain Forest. Professor Robert K. Peet.
- Jessica C. Wilkerson**, *History*, Where Movements Meet: From the War on Poverty to Grassroots Feminism in the Appalachian South. Professor Jacquelyn Hall.
- Rex Lee Williams**, *Genetics and Molecular Biology*, Allele-Specific Chromosome Conformation and Its Association with Allelic Expression Bias. Professor Terry R. Magnuson.
- Brandon Kyron Winford**, *History*, "The Battle for Freedom Begins Every Morning": John Hervey Wheeler, Civil Rights and New South Prosperity. Professor James L. Leloudis.
- Serena Suzette Witzke**, *Classics*, Reading Greek and Roman New Comedy Through Oscar Wilde's Society Plays. Professor Sharon L. James.
- Tiantian Yang**, *Sociology*, How Do Organizations Shape Entrepreneurship? Explaining Employee Entrepreneurs' Entry and Performance. Professor Howard E. Aldrich.
- Kyunghee Yang**, *Pharmaceutical Sciences*, Mechanisms of Drug-Induced Liver Injury: The Role of Hepatic Transport Proteins. Professor Kim L.R. Brouwer.
- Han Ye**, *Statistics and Operations Research*, Data-Driven Service Operations Management. Professor Haipeng Shen.
- Hengchin Yeh**, *Computer Science*, Adaptive Modeling of Details for Physically Based Sound Synthesis and Propagation. Professor Ming C. Lin.
- Sindhu M. Zagoren**, *Communication Studies*, Media Infrastructure: Access, Mobility and Social Formations. Professor Lawrence Grossberg.
- Jose Zavala Mendez**, *Environmental Sciences and Engineering*, Development of an Electrostatic Air Sampler as an Alternative Method for Aerosol In Vitro Exposure Studies. Professor J. Jason West.
- Lu Zhang**, *Oral Biology*, NLRC3 is a Negative Regulator of DNA-Induced Immune Response. Professor Jenny P.-Y. Ting.
- Zhuzhu Zhang**, *Bioinformatics and Computational Biology*, The Influence of Chromatin State on Pluripotency, Translocations and Gene Regulation in Human Cells. Professor Terrence S. Furey.
- Ni Zhao**, *Biostatistics*, Kernel Machine Methods for Analysis of Genomic Data from Different Sources. Professor Michael C. Wu.
- Yu Zheng**, *Computer Science*, Locomotion and Balance Control of Humanoid Robots with Dynamic and Kinematic Constraints. Professors Katsu Yamane and Ming C. Lin.

**Jing Zhou**, *Materials Science*, Lithography and Reversible Shape Memory. Professor Sergei Sheiko.

**Jing Zhou**, *Biostatistics*, Nonparametric Bayes Methods for High Dimensional Data and Group Sequential Design for Longitudinal Trials. Professor Amy H. Herring.

**Bharathi Jayanthi Zvara**, *Psychology*, A Study of Family Risk Contexts and Child Conduct Problems Among Rural, Low Income Families. Professor Martha J. Cox.

#### DOCTOR OF PUBLIC HEALTH

**Erica M. Haney**, *Maternal and Child Health*, Examining Measure of Instability, Sexual Debut, and Depression Screening Among Adolescents in Zimbabwe. Professor Kavita Singh.

**Jennifer A. Ludovic**, *Health Policy and Management*, The Patient Protection and Affordable Care Act: The Evolving Role of State Sexually Transmitted Disease Programs. Professor Sandra B. Greene.

**Katherine Fox Nagel**, *Health Policy and Management*, Local Implementation of Federal Strategic Plans: The Role of the Health Care for the Homeless Program in Opening Doors. Professor Thomas C. Ricketts.

**Deborah Paone**, *Health Policy and Management*, Implementation of Evidence-Based Practice in Two States: Lessons from the Chronic Disease Self-Management Program. Professor George Pink.

**Lilian Pedrosa Heffernan**, *Health Policy and Management*, Absorptive Capacity for Global Fund Grants: Lessons for the International Community. Professor Bryan Weiner.

**Patricia Marie Pozella**, *Health Policy and Management*, Strategies for Increasing EGFR Mutation Testing of Patients with Non-Small Cell Lung Cancer. Professors Sue Havala Hobbs and Edward Brooks.

**Lynne Scott Safrin**, *Health Policy and Management*, The Intersection of Academia and Industry: Avoiding Pitfalls and Navigating Successful Partnerships. Professor John E. Paul.

**Yunfei Wang**, *Biostatistics*, Dose-Finding Designs for Phase I Clinical Trials in Oncology and Use of Selective Phenotyping to Increase Power of Genetics Association Studies. Professors Anastasia Ivanova and Ethan M. Lange.

**Stephanie N. Watson-Grant**, *Health Policy and Management*, Measuring Country Ownership and Its Relationship to Health Outcomes: The Case of Liberia. Professor Sandra B. Greene.

**Mollie Melissa Williams**, *Health Policy and Management*, Formative Research for the Development of Strategies to Increase Dual Method Use Among Adolescents and Young Adults. Professor Suzanne Havala Hobbs.

**Amy Funk Wolkin**, *Health Policy and Management*, Reducing Public Health Risk During Disasters: Identifying Social Vulnerabilities. Professor Sandra B. Greene.

#### The School of Education

ESTABLISHED 1885

Dean G. Williamson McDiarmid

#### DOCTOR OF EDUCATION

**Dekel Jonte' Hill**, *Educational Leadership*, The Impact of PBIS on Black Students: Achievement and Behavior. Professor Kathleen Brown.

**Christopher Todd Lofrese**, *Educational Leadership*, A Case Analysis of a Suburban North Carolina Public School System's Elementary School Level Redistricting Outcomes. Professor Eric A. Houck.

# GRADUATE DEGREES

August 2013

*Graduates' names are followed by their area of major study, dissertation or project title and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Steven W. Matson

### DOCTOR OF PHILOSOPHY

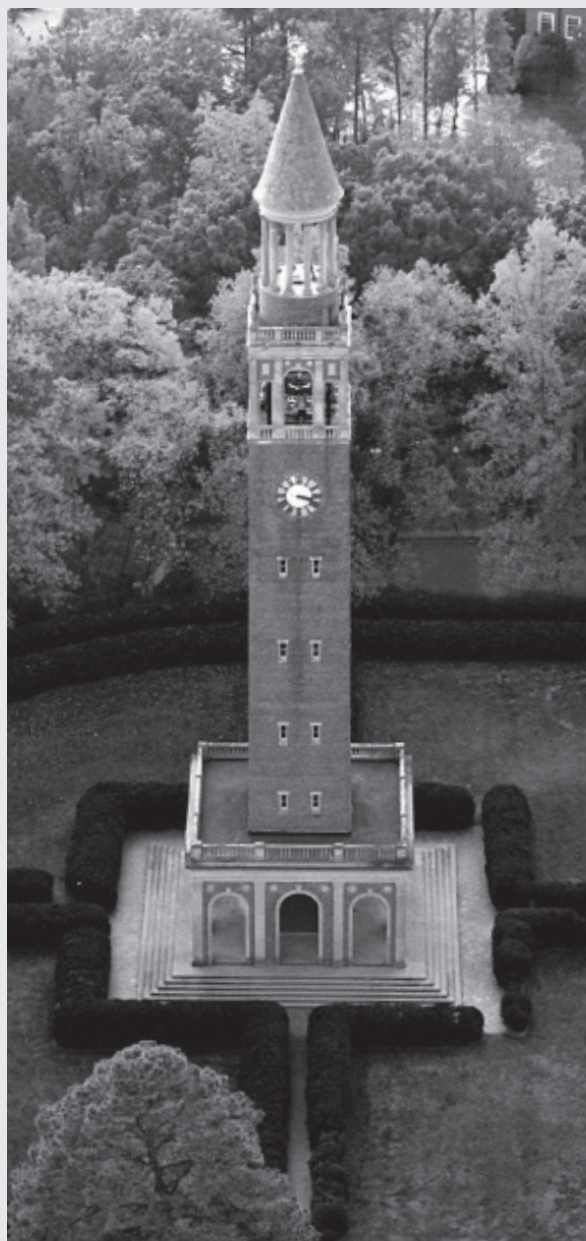
- Arnie Paul Aldridge**, *Economics*, Labor Market Outcomes of Individuals in Recovery from Addiction to Alcohol. Professor Donna B. Gilleskie.
- Lakulish Shailesh Antani**, *Computer Science*, Interactive Sound Propagation Using Precomputation and Statistical Approximations. Professor Dinesh Manocha.
- Andrea Anton Gamazo**, *Ecology*, Ecology and Evolution of the Lionfish Invasion of Caribbean Coral Reefs: Resistance, Adaptation and Impacts. Professor Charles H. Peterson.
- Rachael Ann Baker**, *Biochemistry and Biophysics*, Diverse Mechanisms of G Protein Regulation by Monoubiquitination. Professors Henrik Dohlman and Sharon Campbell.
- Kevin Kumar Banda**, *Political Science*, Candidate Strategy and Assessment During Election Campaigns. Professor Thomas M. Carsey.
- Lydia Marie Barrigan**, *Microbiology and Immunology*, Immune Evasion Strategies Utilized By Francisella Tularensis. Professor Jeffrey Frelinger.
- Jonathan Tabler Bartels**, *Education*, New Literacies Practices of Early Career English Teachers: From Digital Spaces to the Classroom. Professor Cheryl Mason Bolick.
- Kirston Mandy Lang Barton**, *Microbiology and Immunology*, Targeting the Class I HDACS to Disrupt Quiescent HIV-1 Proviruses. Professor David Margolis.
- Carolina Batis Ruvalcaba**, *Nutrition*, Dietary Pattern Trajectories Over Time and Diabetes Among Chinese Adults. Professor Barry Popkin.
- Keesha Lashon Benson**, *Social Work*, When and Where I Enter: Examining the Influence of Personal, Relational and Contextual Factors on Nonresidential African American Father Involvement. Professor Iris Carlton-LaNey.
- Matthew Edward Berginski**, *Biomedical Engineering*, Application of Bioimage Informatics to Quantification of Focal Adhesions and Invadopodia. Professor Shawn M. Gomez.
- Anne Karen Berler**, *History*, A Most Unpleasant Part of Your Duties: Military Occupation of Four Southern Cities, 1861–1865. Professor William L. Barney.
- Noah Chase Berman**, *Psychology*, Developmental Experiences in the Prediction of Thought Action Fusion: Contribution of Religious, Familial and Stress Factors. Professor Jonathan S. Abramowitz.
- Sara Boeding**, *Psychology*, Roles and Postpartum Distress: Relationship Adjustment as a Mediator. Professor Don Baucom.
- Meagan Bolles**, *Microbiology and Immunology*, Evaluations of Severe Acute Respiratory Syndrome Coronavirus Therapeutics and a Viral Capacity for Plasticity and Escape. Professor Ralph Baric.
- Kathleen Crawford Boyle**, *Romance Languages and Literatures*, From Iberian Innovation to Sardinian Appropriation: Breaking Down Giovanni Delogu Ibbas's Index libri vitae. Professor Edward D. Montgomery.
- Maggie Hood Bromberg**, *Psychology*, An Electronic Daily Diary Study of Sleep Quality, Pain, and Emotion Regulation in Children with Juvenile Idiopathic Arthritis. Professor Karen M. Gil.
- Andrew Thomas Brusoe**, *Chemistry*, Enantioselective [2+2+2] Cycloadditions of Ene-Allenenes and Allenenes. Professor Erik J. Alexanian.
- Laurel May Burk**, *Physics*, Development of a Carbon Nanotube-Based Micro-CT and Its Applications in Preclinical Research. Professor Otto Z. Zhou.
- Ezequiel Rodrigo Cabezon**, *Economics*, Essays on Monetary Policy in Open Economies. Professor Richard Froyen. Wendy Camelo Castillo, Epidemiology, Pharmacological Treatment of Gestational Diabetes and Association with Adverse Maternal and Neonatal Outcomes. Professor Michele Jonsson Funk.
- Luke Campagnola**, *Neurobiology*, Mapping the Functional Connectivity of the Mouse Anteroventral Cochlear Nucleus. Professor Paul Manis.
- Jordan Mcmilan Carpenter**, *Psychology*, Forewarning, Defensive Strategies, and Narrative Persuasion. Professor Melanie Green.
- Angelo Castagnino**, *Romance Languages and Literatures*, The Intellectual as a Detective: From Leonardo Sciascia to Roberto Saviano. Professor Federico Luisetti.
- Lahnna Isabel Catalino**, *Psychology*, Promoting Well-Being Through Prioritizing Positivity. Professor Barbara L. Fredrickson.
- Keri Chandler**, *Romance Languages and Literatures*, The Nature of Woman: Spanish Women Poets of the 18th and 19th Centuries. Professor Irene Gomez Castellano.
- Shengqian Chen**, *Mathematics*, Dynamics of Continuously Stratified and Two-Layer Incompressible Euler Fluids and Internal Waves. Professor Roberto Camassa.
- Chia-Yi Cheng**, *Biology*, The Role of Cytokinin in Female Gametophyte Development in Arabidopsis. Professor Joseph J. Kieber.
- Raghav Kumar Chhetri**, *Physics*, Polarization-Sensitive Optical Coherence Tomography to Study Diffusion of Plasmonic Gold Nanorods — A Novel Tool for Optical Bioimaging. Professor Amy L. Oldenburg.
- Laura L. Christopherson**, *Information and Library Science*, OMG! L2spell Online: The Creative Vocabulary of Cyberlanguage s(-\_&#x2013)b. Professor Stephanie W. Haas.
- Joseph R. Crosswell**, *Environmental Sciences and Engineering*, Air-Water CO<sub>2</sub> Fluxes in Estuaries: Sources, Sinks and Storms. Professor Hans Paerl.
- Nabarun Dasgupta**, *Epidemiology*, Opioid Analgesic Prescribing and Overdose Mortality in North Carolina. Professor Steve Marshall.
- Christopher Francis Dibble**, *Pharmacology*, Defining the Cerebral Cavernous Malformation Protein Signaling Network in Endothelial Cells. Professor Gary L. Johnson.
- Kristen Josie Dolan**, *History*, Isolating Nazism: Civilian Internment in American Occupied Germany, 1944–50. Professor Konrad H. Jarausch.
- Jennifer Donnally**, *History*, The Politics of Abortion and the Rise of the New Right. Professor Jacquelyn Hall.
- Michael Luca Durando**, *Pathology*, Novel Mechanisms Through Which Translesion Synthesis Protects Genome Integrity. Professor Cyrus Vaziri.

- Eric Jay Earley**, *Biology*, The Genetics of Adaptation in *Drosophila* *Sechellia*. Professor Corbin D. Jones.
- Joseph Michael Falkowski**, *Chemistry*, Metal-Organic Frameworks as Single-Site Asymmetric Catalysts. Professor Wenbin Lin.
- Anna Farennikova**, *Philosophy*, Seeing Absence. Professor William G. Lycan.
- Daniel Fovargue**, *Mathematics*, Multiscale and Multiphysics Computational Models of Processes in Shock Wave Lithotripsy. Professor Sorin M. Mitran.
- Andrew Justin Freeman**, *Psychology*, Age Effects in Manic Symptoms in Pediatric Bipolar Disorder. Professor Eric A. Youngstrom.
- Ashley Caroline Freuler**, *Occupational Science*, Facing Challenges on Two Fronts: Exploring the Process of Resilience for Military Families Raising a Child with Autism. Professor Grace T. Baranek.
- Meridith McGee Fry**, *Environmental Sciences and Engineering*, The Impacts of Short-Lived Ozone Precursors on Climate and Air Quality. Professor J. Jason West.
- Yilan Fu**, *Sociology*, Peer Relations: Peer Influence, Genetic Similarity Among Friends and Friendship Reciprocity. Professor Guang Guo.
- Emily Beth Furgang**, *Occupational Science*, Engagement of Students With Intellectual and Developmental Disabilities in Postsecondary Education. Professor Ruth Humphry.
- Felicia Anne Elizabeth Gibson**, *School Psychology*, An Analysis of Parenting Constructs in the National CLIO Study. Professor Barbara H. Wasik.
- Paul A. Gilbert**, *Health Behavior*, A Mixed-Methods Investigation of Alcohol Use Among Immigrant Sexual and Gender Minority Latinos in North Carolina. Professor Eugenia Eng.
- Raphael T. Ginsberg**, *Communication Studies*, Victims Deserve the Best: Victims' Rights and the Decline of the Liberal Consensus. Professor Lawrence Grossberg.
- Annelies M. Goger**, *Geography*, Managing Global Guilt and Local Norms: Governance in the Sri Lankan Clothing Industry. Professor John Pickles.
- Shelley D. Golden**, *Public Policy*, Employment Fluctuations and Tobacco: How Changing Employment Conditions Impact Smoking Behavior and Cigarette Tax Policy. Professor Krista M. Perreira.
- Raul Alexander Gonzalez**, *Environmental Sciences and Engineering*, Tools for Predicting Microbial Water Quality in Estuaries Used for Recreation and Shellfish Harvesting. Professor Rachel T. Noble.
- Euan Drew Griffiths**, *Comparative Literature*, Varieties in Translation: Adaptation and Translation Between French and English Arthurian Romance. Professor Edward D. Kennedy.
- Allison K. Groves**, *Health Behavior*, Prevalence and Trajectories of Intimate Partner Violence Among South African Women During Pregnancy and the Postpartum Period. Professor Suzanne Maman.
- Patrick C. Guley**, *Pharmaceutical Sciences*, Serum Albumin as a Carrier of Immunostimulatory Oligodeoxynucleotides for Cancer Therapy. Professor Moo J. Cho.
- Fatma Bursa Gunay**, *Economics*, Competition in Markets with Network Externalities. Professor Gary Biglaiser.
- Michael John Hadsell**, *Physics*, The Development and Characterization of a First Generation Carbon Nanotube X-Ray Based Microbeam Radiation Therapy System. Professor Otto Z. Zhou.
- Courtney Sara Mathews Hadsell**, *Physics*, Surface Science Studies on Titania for Solar Fuel Applications. Professor Yue Wu.
- Megan Beth Harney**, *Psychology*, The Influence of Fasting, Affect and Body Dissatisfaction on Set Shifting Ability. Professor Anna Bardone-Cone.
- Bridgid Elizabeth Hast**, *Cell and Developmental Biology*, Mechanisms Controlling the KEAP1-NRF2 Signaling Pathway in Lung Cancer. Professor Michael Benjamin Major.
- Cassidy E. Henegar**, *Epidemiology*, Maternal Response to Antiretroviral Therapy in Johannesburg, South Africa: Adherence and Drug Toxicities. Professor Annelies Van Rie.
- Gregory Joseph Herschlag**, *Mathematics*, Continuum-Atomistic Algorithms for Dendritic Formation. Professor Sorin Mitran.
- Isaac Blair Hilton**, *Genetics and Molecular Biology*, Small and Large-Scale Gene Regulation in Kaposi's Sarcoma-Associated Herpesvirus. Professor Dirk P. Dittmer.
- Carly Kaye Hoffend**, *School Psychology*, The Relationship Between the Proportion of Native American Adolescents in Schools and Socio-Emotional Functioning. Professor Barbara H. Wasik.
- April Latoya Holland**, *Chemistry*, Single-Channel Recording of Biological Targets Using Surface Modified Nanochannels. Professor John M. Ramsey.
- Steven John Holochwost**, *Psychology*, Cumulative Risk, Parenting Behaviors, and the Development of Executive Functions in Early Childhood: A Role for Physiological Self-Regulation? Professor Jean-Louis Gariépy.
- Thomas Merryfield Jarrett**, *Neurobiology*, Role of Rodent Vocalizations in Cocaine-Induced Maternal Neglect. Professor Josephine M. Johns.
- Melissa Mckeown Jenkins**, *Psychology*, Cognitive De-Biasing and the Assessment of Pediatric Bipolar Disorder. Professor Eric A. Youngstrom.
- Finith Ewin Jernigan**, *Chemistry*, Synthesis and Development of Proteasome and Kinase Fluorescent Assays for Quantitation of Enzyme Activity. Professor David S. Lawrence.
- Dari Jigjidsuren**, *Social Work*, School Readiness: Does It Matter If Parents and Caregivers Think Alike? Professor Kathleen Rounds.
- Jennifer Grace Job**, *Education*, Their World Cracked Open: Theorizing Shelter in 9/11 Curricula. Professor Lynda Stone.
- Jill E. Johnston**, *Environmental Sciences and Engineering*, Assessing Exposure to Chlorinated Solvents from the Subsurface to Indoor Air Pathway. Professor Jacqueline MacDonald-Gibson.
- Erin R. Kaltenbrun**, *Biology*, Molecular Determinants of Tbx20 Activity During Cardiac Development. Professor Frank Conlon.
- Gazi Ishak Kara**, *Economics*, Essays on International Financial Regulation. Professor Anusha Chari.
- David C. Kessler**, *Biostatistics*, Bayesian Nonparametric Methods for High-Dimensional Data. Professor Amy Herring.
- Julia Khanova**, *Information and Library Science*, Role of Online Teaching Experience in Pedagogical Innovation in LIS Education: An Activity-Theoretical Analysis. Professor Gary Marchionini.
- Soyoung Kim**, *Biostatistics*, More Efficient Estimators for Case-Cohort Studies With Univariate and Multivariate Failure Times. Professor Jianwen Cai.
- Amber Rose Knight**, *Political Science*, Disabling Political Theory: Essays at the Intersection of Political Theory and Disability Studies. Professors Michael Lienesch and Susan Bickford.
- Mary Elizabeth Kohn**, *Linguistics*, Adolescent Ethnolinguistic Stability and Change: A Longitudinal Study. Professor Elliott Moreton.
- Bo Ram Kwon**, *Political Science*, The Effectiveness of Sanctions Revisited: An Empirical Analysis Using a Bargaining and Enforcement Framework. Professor Navin A. Bapat.
- Kristen Elizabeth Lacefield**, *English*, Mary Shelley's Novels, the Guillotine, and Contemporary Horror Film. Professor Beverly Taylor.
- Wonyul Lee**, *Statistics and Operations Research*, New Statistical Learning Methods for Multiple High Dimensional Datasets. Professor Yufeng Liu.
- Patricia Marie Lenhart-Pendergrass**, *Cell and Molecular Physiology*, Adrenomedullin and Receptor Activity Modifying Protein 3 in Women's Health. Professor Kathleen M. Caron.
- Shannon M. Lewis**, *School Psychology*, A Comparative Study of School-Based Interventions for Students With Emotional Disabilities, Specific Learning Disabilities and Other Health Impairments. Professor Rune J. Simeonsson.
- Haohan Li**, *Computer Science*, Scheduling Mixed-Criticality Real-Time Systems. Professor Sanjoy K. Baruah.

- Ja-An Lin**, *Biostatistics*, Statistical Methods for Imaging Genetic Data, Professors Hongtu Zhu and Joseph G. Ibrahim.
- Cong Liu**, *Computer Science*, Efficient Design, Analysis, and Implementation of Complex Multiprocessor Real-Time Systems. Professor James H. Anderson.
- Dongyun Liu**, *Pharmaceutical Sciences*, Water-in-Oil Microemulsions and Hydrogel Nanoparticles in Water-in-Oil Microemulsions for Local Intestinal Delivery of Peptides and Proteins. Professor Russell J. Mumper.
- Yingchi Liu**, *Physics and Astronomy*, Optical Profile and Nanostructure Effects in the Charge Carrier Transport and Performance of Photovoltaic Devices. Professor Rene Lopez.
- Christina Defilippo Mack**, *Epidemiology*, Improving the Validity of Nonexperimental Comparative Effectiveness Research: The Impact of Calendar Time on Prescribing of Novel Chemotherapeutic Therapies for Stage III Colon Cancer. Professor Til Stürmer.
- Michael John Maher**, *Romance Languages and Literatures*, Luigi Pulci and Laurentian Florence: "Contra hypocritas tantum, pater, dissi". Professor Ennio I. Rao.
- Alyssa Julia Manning**, *Biology*, Regulation of Epithelial Morphogenesis by the Drosophila Folded Gastrulation Signaling Pathway. Professor Stephen L. Rogers.
- James D. Martindale**, *Mathematics*, A Soft-Magnetic Slender Body in a Highly Viscous Fluid. Professors Roberto Camassa and Richard McLaughlin.
- Leanna Rose Mcdonald**, *Biochemistry and Biophysics*, Towards Understanding the Mechanisms of Allostery: The Investigation of the Relationship Between Dynamics, Structure, and Function in the Model Allosteric Protein CheY. Professor Andrew L. Lee.
- Keith Russell Miller**, *Biochemistry and Biophysics*, Use of T Cell Receptor-Like Antibody Fragments for Imaging and Immunotherapy. Professor Edward J. Collins.
- Leonardo Fabio Morales Zurita**, *Economics*, Obesity and Health-Related Decisions: An Empirical Model of Weight Status for Young Adults in the U.S. Professor David Guilkey.
- Racha Moussa**, *Economics*, Essays in Sovereign Default and International Financial Liberalization. Professor Anusha Chari.
- Metello Mugnai**, *Romance Languages and Literatures*, Religion Reconsidered: The Gospel according to the Italian 20th Century. Professor Federico Luisetti.
- Carl Misha Najdek**, *Political Science*, Creating Democratic Culture: Identity, Political Renewal and Internationalism in Walt Whitman's Political Thought. Professor Michael Lienesch.
- Amanda Jane Natalizio**, *Genetics and Molecular Biology*, Identification and Characterization of Drosophila Snurportin Reveals a Role for the Import Receptor Moleskin/Importin7 in snRNP Biogenesis. Professor A. Gregory Matera.
- Lauren Michelle Neighbours**, *Microbiology and Immunology*, The Protective and Pathologic Roles of Toll-Like Receptors in Arthritogenic Alphavirus Infection. Professor Mark T. Heise.
- Michael Ryan Norris**, *Chemistry*, Making Molecules for Light-Driven Water Splitting. Professors Joseph L. Templeton and Thomas J. Meyer.
- Scott Christopher O'Brien**, *Political Science*, Alienation, Ambivalence, and Scorekeepers: Three Essays on Public Opinion Formation in American Politics. Professor Thomas M. Carsey.
- Harold Reed Ogrosky**, *Mathematics*, Modeling Liquid Film Flow Inside a Vertical Tube. Professors Roberto Camassa and Greg Forest.
- Kathryn Ann Ohle**, *Education*, Hearing Their Voices: Examining Teacher Perceptions During the Implementation of an Instructional Policy. Professor Lynne Vernon-Feagans.
- Emily Victoria Olson**, *Art History*, Contextualizing Roman Honorific Monuments: Statue Groups of the Imperial Family from Olympia, Ephesus and Leptis Magna. Professor Mary C. Sturgeon.
- Kennedy O. Onori**, *Nursing*, Nursing Diagnoses in the Care of Hospitalized Patients with Type 2 Diabetes Mellitus: Pattern Analysis and Correlates of Health Disparities. Professor Edward J. Halloran.
- Andrea Overbay**, *Mathematics*, Perturbative Expansion of the Colored Jones Polynomial. Professor Lev Rozansky.
- Semra Ozdemir**, *Environmental Sciences and Engineering*, Measuring the Economic Value of Government Programs: An Application to Early-Childhood Interventions. Professor Dale Whittington.
- Michael S. Parrott**, *Journalism and Mass Communication*, An Examination of the Use of Disparagement Humor in Online TV Comedy Clips and the Role of Audience Reaction in Its Effects. Professor Rhonda Gibson.
- Mehul D. Patel**, *Epidemiology*, Emergency Medical Services Capacity for Prehospital Care of Stroke Patients in North Carolina. Professor Wayne D. Rosamond.
- Sachin Patil**, *Computer Science*, Closed-Loop Planning and Control of Steerable Medical Needles. Professor Ron Alterovitz.
- Mackenzi Pergolotti**, *Occupational Science*, Older Adults with Cancer: Participation in Activity and the Utilization of Occupational Therapy. Professor Malcolm Cutchin.
- Eliza Jane Reader Peterson**, *Biochemistry and Biophysics*, Evolution and Prevention of Antibiotic Resistance: Small Molecule Inhibitors of Bacterial Recombination Enzymes. Professor Scott F. Singleton.
- Ryan Matthew Phillips**, *Pharmacology*, Development of a Novel Assay of Protein Tyrosine Phosphatase Activity in Single Cells Using Capillary Electrophoresis. Professor Nancy L. Allbritton.
- Laurie Marie Phillips**, *Journalism and Mass Communication*, A Multi-method Examination of Race, Class, Gender, Sexual Orientation and Motivations for Participation in the YouTube-Based "It Gets Better Project." Professor Daniel Riffe.
- Carmen M. Piernas Sanchez**, *Nutrition*, Low Calorie-and Caloric-Sweeteners: Diet Quality, Food Intake and Purchase Patterns of U.S. Household Consumers. Professor Barry M. Popkin.
- Emily Margot Pisetsky**, *Psychology*, Factors Associated with Suicide Attempts in Women with Eating Disorders. Professor Cynthia M. Bulik.
- Jessica Sarah Powell**, *Education*, "You Don't Just Stay in One Place": The Intergenerational Pedagogy of Two African American Families in the South. Professor George Noblit.
- Raju Yashasvi Prasad**, *Environmental Sciences and Engineering*, Effect of the Nano-Bio Interface on the Genotoxicity of Titanium Dioxide Nanoparticles and Associated Cellular Responses. Professor Rebecca C. Fry.
- Wayne A. Psek**, *Health Policy and Management*, Organizational Level Factors Affecting Health Care Outcomes in VA Emergency Departments: A Configurational Approach. Professor Bryan Weiner.
- Ashleigh Wells Raabe**, *Art History*, Image, Space, and Social Ritual: The 'Second Style' Decorations of the House of the Cryptoporticus at Pompeii. Professor Mary C. Sturgeon.
- Kristen Michelle Rappazzo**, *Epidemiology*, Exposure to Particulate Matter Mass and Species During Pregnancy and Risk of Birth At Preterm Gestational Ages. Professor Julie L. Daniels.
- Aaron Hugh Ratcliffe**, *Business Administration*, Operating on Quality, Access, and Cost: Managing Better Health Systems. Professors Ann Maruchek and Wendell Gilland.
- Allison B. Ratto**, *Psychology*, The Impact of Cultural Factors on the Diagnostic Process in Autism: A Comparison of Latina and European American Mothers. Professor J. Steven Reznick.
- Pamela Mullins Reaves**, *Religious Studies*, Gnosis, Witness, and Early Christian Identities: The "True" Martyr in Clement of Alexandria and Gnostic Traditions. Professor Bart D. Ehrman.
- Jeffrey William Richey**, *History*, Playing At Nation: Soccer Institutions, Racial Ideology, and National Integration in Argentina, 1912-1931. Professor John C. Chasteen.
- Erica Lynn Richman**, *Social Work*, The Academic Success of College Students with Attention Deficit Hyperactivity Disorder and Learning Disabilities. Professor Sheryl Zimmerman.
- Catharina Win Ringer**, *Education*, Learning to Assess and Assessing to Learn: A Descriptive Study of a District-Wide Mathematics Assessment Implementation. Professor Susan N. Friel.

## THE BELL TOWER

The Morehead-Patterson Memorial Bell Tower was given to the University in 1931 by John Motley Morehead III and Rufus Lenoir Patterson. Its 14-bell carillon rings both manually and electronically to call students to class, provide twilight music and serenade the dispersing crowd after football games. Rising 172 feet, the tower is surrounded by a hedge and lawn designed by William C. Coker, botany professor and creator of the campus Arboretum.



- Reid Austin Roberts**, *Microbiology and Immunology*, Harnessing What Lies Within: Programming Immunity With Biocompatible Devices to Treat Human Disease. Professors Jenny Ting and Joseph M. DeSimone.
- Sheila Serr Roszell**, *Nursing*, Measuring Lean Management Penetration on the Hospital Nursing Frontline: Instrument Development. Professor Mary R. Lynn.
- Jeremy Alan Sabourin**, *Statistics and Operations Research*, LASSO-Based Resample Model Averaging for Genetic Association Studies. Professors Andrew B. Nobel and William Valdar.
- Alison P. Sanders**, *Environmental Sciences and Engineering*, Environmental Metals and Birth Defects: New Approaches to Understanding the Role of Metals in Congenital Heart Defects. Professor Rebecca C. Fry.
- Robert Austin Sapp**, *Romance Languages and Literatures*, Family Narratives and the Transmission of Heritage in Transcultural Novels. Professor Dominique Fisher.
- Julianne Denice Schmidt**, *Human Movement Science*, The Influence of the Cervical Musculature, Visual Performance, and Anticipation on Head Impact Severity in High School and Collegiate Football. Professor Kevin M. Guskiewicz.
- Stephanie A. Schmitt**, *Public Policy*, Assessment and Rankings Efforts: The Effect on Institutional and Program-Level Change. Professor Maryann P. Feldman.
- Robert Nathaniel Schuck**, *Pharmaceutical Sciences*, Translational Characterization of Arachidonic Acid Metabolism in Vascular Inflammation and Cardiovascular Disease. Professor Craig R. Lee.
- Virginia Senkomago**, *Epidemiology*, The Role of Human Papillomavirus (HPV) Viral Load in Penile HPV Infection and Clearance Among Young Kenyan Men. Professor Jennifer S. Smith.
- John Thomas Sheridan**, *Cell and Molecular Physiology*, Characterizing Calcium-Activated Chloride Secretion: Implications for Sex-Linked Variations in Cystic Fibrosis. Professor Robert Tarran.
- Feng Shi**, *Mathematics*, Modeling Networks and Dynamics in Complex Systems: From Nano-Composites to Opinion Formation. Professors Peter J. Mucha and M. Gregory Forest.
- James Sias**, *Philosophy*, Emotion, Virtue and Moral Perception: A Defense of Moral Intuitions. Professor Robert M. Adams.
- Meredith Nicole Sinclair**, *Education*, Reading Experience: A Phenomenological Inquiry into Reading as "Not a Reader." Professor Madeleine Grumet.
- Ashley Rebecca Smyth**, *Marine Sciences*, Alterations in Nitrogen Cycling Resulting From Oyster Mediated Benthic-Pelagic Coupling. Professor Michael F. Piehler.
- Christopher D. Sproul**, *Toxicology*, Biological Responses to Ultraviolet Radiation and the Effect of Intra-S Checkpoint Inhibition on Ultraviolet Radiation-Induced Mutagenesis. Professor Marila Cordeiro-Stone.
- Anne P. Starling**, *Epidemiology*, Perfluoroalkyl Substances in Pregnancy and the Risk of Preeclampsia. Professor Stephanie M. Engel.
- Anne Steinberg**, *Romance Languages and Literatures*, Le Conte au 18e Siècle: Pour une Nouvelle Esthétique. Professor Philippe H. Barr.
- Blaire Janell Steinwand**, *Biology*, The Role of the FEI Receptor Kinases in the Regulation of Cell Wall Function in *Arabidopsis thaliana*. Professor Joseph J. Kieber.
- Deonni Pamela Stollendorf**, *Nursing*, The Sustainability of Innovations in Hospitals: A Look at Rapid Response Teams. Professor Cheryl B. Jones.
- Natasha Tiffany Strande**, *Biochemistry and Biophysics*, Characterizing Ku's Role as an AP lyase in Nonhomologous End Joining. Professor Dale A. Ramsden.
- Kelly Kathryn Strutz**, *Maternal and Child Health*, The Effects of Early Life Factors and Preconception Stress on Birth Weight in a National Sample of U.S. Women. Professor Jon M. Hussey.

- Jonathan Adam Sugam**, *Psychology*, The Role of Cellular and Chemical Signaling Within the Nucleus Accumbens in Value-Based Decision Making Behaviors. Professor Regina M. Carelli.
- Heather Anne Sullivan**, *Political Science*, Managing Dissent: State Capacity, Democracy, and Contentious Politics in Mexico. Professors Evelyne Huber and Graeme Robertson.
- Jennifer Supp-Montgomerie**, *Religious Studies*, Making a World for America: Electric Communication, Expansive Protestantism, and Globalization in the 19th Century. Professor Randall Styers.
- Amy Elizabeth Swain**, *Education*, Do We Want the Canary to Sing? Thinking Alternately About Alternative Education. Professor George W. Noblit.
- Carolyn Samuel Taylor**, *Business Administration*, Three Essays on Advertising, Customer Satisfaction and Customer Loyalty. Professor Katrijn Gielen.
- Kristina S. Ten Haagen**, *School Psychology*, Relationship Among Housing Quality, Food Insecurity, Social Service Needs, Domestic Violence, and Mental Health Needs of Children and Families. Professor Rune J. Simeonson.
- Khadija R. Turay**, *Maternal and Child Health*, Body Mass Index and Self-Perceived Weight: Are They Associated With Sexual and Relationship Health? Professor Carolyn T. Halpern.
- Jillian Tyrrell**, *Chemistry*, Effect of Macromolecular Crowding on the Structure and Function of a Riboswitch Aptamer in Cells and In Vitro. Professor Gary J. Pielak.
- Rycel Lim Uy**, *Chemistry*, Structure-Property Optimizations of Semiconducting Polymers for Organic Solar Cells. Professor Wei You.
- Tanya Vacharkulksemsuk**, *Psychology*, Stepping Toward Collective Mindsets: An Investigation of Group- and Leader-Based Synchrony in Work Teams. Professor Barbara L. Fredrickson.
- Anna Robinson Van Meter**, *Psychology*, Does a Sensitive Palate Beget Sensitive Mood? The Relation Between Supertasting and Disordered Mood. Professor Eric A. Youngstrom.
- Javier Velasco-Martin**, *Information and Library Science*, Exploring Self-Disclosure in Online Social Networks. Professor Gary Marchionini.
- Sherry Antoinette Venere**, *Romance Languages and Literatures*, Armas y Letras: Santillana and the Forging of a New Chivalric Ideal. Professor Frank Dominguez.
- Brandon Grant Wagner**, *Sociology*, Correlates and Contexts of Sexual Infidelity in American Adults. Professor Kathleen Harris.
- Pitchpatu Waiyachote**, *Journalism and Mass Communication*, A Comparison of Interactions on Facebook Brand Pages Between Global Brands and Publics in Individualistic and Collectivistic Countries. Professor Lois A. Boynton.
- Cheng Wang**, *Chemistry*, Framework Materials for Solar Energy Utilization. Professor Wenbin Lin.
- Tiffany Renee Washington**, *Social Work*, Older Adult Kidney Disease Self-Management Behaviors and Their Relationship to Depression, Self-Efficacy, Illness Perceptions and Social Support. Professor Sheryl Zimmerman.
- Lei Wei**, *Computer Science*, Privacy-Preserving Regular Expression Evaluation on Encrypted Data. Professor Michael Reiter.
- Charles Hamilton Weir**, *Environmental Sciences and Engineering*, Ambient Air Pollution, Allergic Sensitization, Respiratory Outcomes and Symptoms: Findings from the 2005–2006 National Health and Nutrition Examination Survey. Professor William Vizete.
- Brantley Andrew West**, *Physics*, Uncovering Molecular Relaxation Processes with Nonlinear Spectroscopies in the Deep UV. Professors Laurie E. McNeil and Andrew M. Moran.
- Michael G. Wheaton**, *Psychology*, Information Processing and Affective Responses in Hoarding Disorder. Professor Jonathan S. Abramowitz.
- Ahmed Whitt**, *Social Work*, Impact of the Built Environment on Urban Adolescent Depressive Symptoms. Professor Matthew O. Howard.
- Joseph L. Wiltberger**, *Anthropology*, Sueños Salvadoreños: Struggles to Build Other Futures in El Salvador's Migration Landscape. Professor Arturo Escobar.
- William Kindred Winecoff**, *Political Science*, A Complex Political Economy of the Global Banking System. Professor Thomas Oatley.
- Katie Jean Wolfe**, *Cell and Developmental Biology*, Chaperone Mediated Protective Protein Aggregation and Spatial Quality Control. Professor Douglas M. Cyr.
- Jianfeng Yao**, *Economics*, Maternal Employment Type, Maternal Care and Child Health in Rural China: Policy and Behavior. Professor John Akin.
- Yong Zhang**, *Pharmaceutical Sciences*, Transdermal Delivery of a DTPA Penta-ethyl Ester Prodrug for Continuous Decorporation of Transuranic Elements. Professor Michael Jay.
- Hang Zhang**, *Linguistics*, The Second Language Acquisition of Mandarin Chinese Tones by English, Japanese and Korean Speakers. Professor Jennifer L. Smith.
- Yang Zhou**, *Microbiology and Immunology*, Mechanisms of Antibody Mediated Neutralization of Dengue Virus. Professor Aravinda M. de Silva.
- Kris A. Zorogian**, *Education*, The Intersection Between Self-Determination and Motivation of Students With Disabilities: From Student and Teacher Perspectives. Professor Melissa Miller.
- Niha Zubair**, *Nutrition*, Novel Approach to Examine the Interactive Role of Dietary, Lifestyle, and Genetic Factors on Cardiometabolic Risk. Professor Linda S. Adair.

#### DOCTOR OF PUBLIC HEALTH

- Timothy David Neil King**, *Health Policy and Management*, Pharmaceutical Research and Development: A Key Informant Assessment of Whether an "Open-Science" Model Could Improve Clinical Research in Terms of Quality and Efficiency. Professor John E. Paul.
- Gregory M. Mayhew**, *Biostatistics*, Genotype-Phenotype Similarity Testing and Methods for Integrating Multiple Data Sources in Genetic Association. Professors Fred A. Wright and Fei Zou.
- Guochen Song**, *Biostatistics*, Enrollment and Stopping Rules for Managing Toxicity in Phase II Oncology Trials With Delayed Outcome. Professor Anastasia Ivanova.
- Yi Zhang**, *Biostatistics*, Statistical Methods for Evaluating the Diagnostic Accuracy of Incomplete Multiple Tests. Professors Donglin Zeng and Haitao Chu.



# GRADUATE DEGREES

December 2013

*Graduates' names are followed by their area of major study, dissertation or project title and the name of their doctoral advisor.*

## The Graduate School

ESTABLISHED 1903

Dean Steven W. Matson

### DOCTOR OF PHILOSOPHY

- Melissa Sue Anderson**, *Microbiology and Immunology*, Development of Sociomicrobial Communities: Contact Dependent Growth Inhibition in Burkholderia. Professor Peggy A. Cotter.
- Benjamin Christopher Bagley**, *Philosophy*, Improvisational Agency. Professor Susan Wolf.
- Anna Marie Belle**, *Chemistry*, Exploring Local Neuronal Circuitry with Controlled Iontophoresis. Professor R. Mark Wightman.
- Stephanie Elaine Bettis**, *Chemistry*, Utilizing Ultrafast Spectroscopy to Characterize Energy and Electron Transfer in Ru II Based Molecular Assemblies Designed for Solar Fuel Devices. Professor John Papanikolas.
- Lauren V. Biddle**, *Political Science*, Corruption in Democratic Brazil. Professor Jonathan Hartlyn.
- Will Boone**, *Musicology*, Hearing Faith: Musical Practice and Spirit-Filled Worship in a Contemporary African American Church. Professor Jocelyn R. Neal.
- Jason Lee Bremner**, *City and Regional Planning*, Population Mobility and Livelihood Diversification Among Indigenous Peoples of the Ecuadorian Amazon. Professor Richard E. Bilsborrow.
- Naomi Chana Brownstein**, *Biostatistics*, Analysis of Time-to-Event Data, Intermediate Phenotypes, and Sparse Factors in the OPERA Study. Professors Jianwen Cai and Eric Bair.
- Ryan Matthew Bullis**, *Pharmaceutical Sciences*, Investigating the Role of N-deacetylase/N-sulfotransferase 2 in Heparin Biosynthesis. Professor Jian Liu.
- Ryan C. Burk**, *Economics*, Technology Upgrading in Imperfectly Competitive Markets. Professor Brian McManus.
- Andrea Elizabeth Byrnes**, *Biostatistics*, Quantitative Methods for Evaluating Association Between Multiple Rare Genetic Variants and Complex Human Traits. Professor Yun Li.
- Ezequiel R. Cabezon**, *Economics*, Essays on Monetary Policy in Open Economies. Professor Richard Froyen.
- Luke Campagnola**, *Neurobiology*, Mapping the Functional Connectivity of the Mouse Anteroventral Cochlear Nucleus. Professor Paul B. Manis.
- Johanna Elaine Campbell**, *Education*, The Impacts of Using a Collaborative Evaluation Approach in Higher Education: A Case Study of Local YMCAs Providing College Access Services. Professor Rita O'Sullivan.
- Reginald Devon Cannady**, *Neurobiology*, Alcohol Self-Administration and Relapse-Like Behavior: A Functional Role for Enhanced Activity at AMPA Receptors. Professors Clyde W. Hodge and Joyce Besheer.
- Whitney P. Caron**, *Pharmaceutical Sciences*, The Mononuclear Phagocyte System as a Phenotypic Probe for Nanoparticle Pharmacokinetics and Pharmacodynamics in Preclinical and Clinical Systems. Professor William C. Zamboni.
- Avery Ted Cashion**, *Biomedical Engineering*, Instrumentation Approaches to Biological System Assessment, Guided MSC Differentiation, and Functional Tissue Engineering. Professor Robert G. Dennis.
- Kai Chen**, *Chemistry*, A Biomimetic Approach Toward Red Blood Cell Substitutes Based on Print Hydrogels. Professor Joseph M. DeSimone.
- Mary Elizabeth Basile Chopas**, *History*, Law, Security and Ethnic Profiling: Italians in the United States During World War II. Professor Wayne E. Lee.
- Chen-Rui Chou**, *Computer Science*, Regression Learning for 2D/3D Image Registration. Professor Stephen M. Pizer.
- Kevin Chu**, *Pharmaceutical Sciences*, PRINT® Nanoparticle Parameters to Improve Docetaxel PK/PD. Professor Joseph M. DeSimone.
- Pei-Hsuan Chu**, *Pharmacology*, Dissecting the Role of Kinase Isoforms Using New Tools for Activation and Inactivation of Kinases In Vivo. Professor Klaus M. Hahn.
- Wonil Chung**, *Biostatistics*, Bayesian Parametric and Nonparametric Methods for Multiple Quantitative Trait Loci (QTL) Mapping and SNP-Set Analysis. Professor Fei Zou.
- Jennifer J. Clark**, *Biostatistics*, Estimation and Hypothesis Testing with Additive Kernel Machines for High-Dimensional Data. Professor Michael Wu.
- Elizabeth Jane Cline**, *Chemistry*, Application of Dynamic Combinatorial Chemistry to Identify New Compounds that Bind to G-Quadruplex DNA. Professor Marcey L. Waters.
- Caitlin Collins**, *Cell and Molecular Physiology*, Understanding PECAM-1-Mediated Mechanotransduction: From The Protein to the Vessel. Professor Ellie Tzima.
- Jason Brian Cook**, *Neurobiology*, Ethanol Alters the GABAergic Neuroactive Steroid (3 $\alpha$ ,5 $\alpha$ )-3-Hydroxypregnan-20-One (3 $\alpha$ ,5 $\alpha$ -THP or Allopregnanolone) at Local Brain Sites: Significance of Local 3 $\alpha$ ,5 $\alpha$ -THP Increases in the Ventral Tegmental Area. Professor A. Leslie Morrow.
- Michael Thomas Corbett**, *Chemistry*, Complexity-Building Deracemization and Desymmetrization Methodologies. Professor Jeffrey S. Johnson.
- Evan Andrew Couzo**, *Environmental Sciences and Engineering*, Air Quality Models and Unusually Large Ozone Increases: Identifying Model Failures, Understanding Environmental Causes, and Improving Modeled Chemistry. Professor William Vizuete.
- Taoran Cui**, *Physics and Astronomy*, Structural and Physical Properties of Torsional Carbon Nanotube Devices by Electron Diffraction and Microscopy. Professors Sean Washburn and Lu-Chang Qin.
- Tianqu Cui**, *Environmental Sciences and Engineering*, Secondary Organic Aerosol Formation from Alpha-Pinene and Toluene: Laboratory Studies Examining the Role of Pre-Existing Particles, Relative Humidity and Oxidant Type. Professor Jason D. Surratt.
- Tim Cupery**, *Sociology*, Government Involvement in Religion: Causes and Effects of Open Religious Markets. Professor Kenneth A. Bollen.
- Matthew Kyle Daddysman**, *Chemistry*, Fluorescent Microscopy in the Nucleus: Investigating Protein Diffusion and Binding in Live Cells. Professor Christopher J. Fecko.
- Stephen Michael Daigle**, *Physics and Astronomy*, Low Energy Proton Capture Study of the  $^{14}\text{N}(\text{p}, \text{d})^{15}\text{O}$  Reaction. Professor Arthur E. Champagne.

- Bryan Shroyer Der**, *Biochemistry and Biophysics*, Computational Design of Zinc Binding Sites at Protein Interfaces and Enzyme Active Sites. Professor Brian Kuhlman.
- Nicholas Carl Dobes**, *Chemistry*, The Isolation of Primary Canine Satellite Cells Utilizing Microarray Technologies. Professor Nancy L. Allbritton.
- Darrell R. Dubose**, *Pharmacology*, P2Y Receptor Trafficking in Polarized Epithelial Cells. Professor Robert A. Nicholas.
- Shellie Dawn Ellis**, *Health Policy and Management*, Declining Overuse of Hormone Therapy for Localized Prostate Cancer: Predictors of Reimbursement Responsiveness and Emerging Patterns of Care. Professor William R. Carpenter.
- Joseph Erba**, *Journalism and Mass Communication*, "That's What They See on TV, That's How They View Our Culture." Exploring the Relationship Between Cultural Identification and Media Representations of Latina/os, and Latino Students' Experiences, Identity Development and Relationship With the University They Attend. Professor Lucila C. Vargas.
- Kiely Flanigan**, *Communication Studies*, Life as a Work of Art: The Becoming of Professional Management Consultants. Professor Steve May.
- Jacob Hershel Forstater**, *Physics and Astronomy*, Anomalous Protein Aggregation on Nanotubular Titanium Dioxide. Professor Yue Wu.
- Jacob Richard Fowler**, *Mathematics*, Rational Homology Disk Smoothing Components of Weighted Homogeneous Surface Singularities. Professor Jonathan Wahl.
- David Fragoso Gonzalez**, *Economics*, Essays on Applied Information Economics Theory. Professor Gary Biglaiser.
- Charles Brandon Frederick**, *Biomedical Engineering*, Segmenting the Male Pelvic Organs from Limited Angle Images with Application to ART. Professors David S. Lalush and Stephen M. Pizer.
- Lisa Ann Goble**, *Public Policy*, Evaluating the Influence of University Organizational Characteristics and Attributes on Technology Commercialization. Professor Maryann P. Feldman.
- Qi Gong**, *Statistics and Operations Research*, Three Stochastic Models for Order Book Dynamics. Professor Vidyadhar Kulkarni.
- Adam David Gracz**, *Cell and Molecular Physiology*, Intrinsic and Extrinsic Regulation of Potency in the Intestinal Stem Cell Niche. Professor Scott T. Magness.
- Beezly Sultana Groh**, *Biochemistry and Biophysics*, A Role for the CRL4-WDTC1 E3 Ligase in the Suppression of Adipogenesis. Professor Yue Xiong.
- Mahua Guha**, *Business Administration*, Dynamics of Organizational Routines in Declining Firms When Compared to Their Matched Survivors: In the U.S. Chemical and Allied Products Industry (SIC: 2800). Professor Hugh O'Neill.
- Min Jin Ha**, *Biostatistics*, Graphical Models for High Dimensional Genomic Data. Professor Sun Wei. E.
- Ashley Hall**, *English*, Emergent Design: Tracing and Studying Knowledge Transfer Through Composition Networks. Professor Daniel Anderson.
- Hye-Sung Han**, *City and Regional Planning*, A Longitudinal Analysis of the Linear and Nonlinear Impacts of Housing Abandonment on Neighborhood Property Values. Professor William M. Rohe.
- Katy Margaret Harper**, *Psychology*, An Investigation of the Relationship Between Therapist Characteristics and Alliance in Group Therapy for Individuals with Treatment-Resistant Auditory Hallucinations. Professor Davie L. Penn.
- Guy Aaron Hobbs**, *Biochemistry and Biophysics*, Regulation of Ras and Rho GTPases by Post-Translational Modification: Cysteine Oxidation and Ubiquitination. Professor Sharon L. Campbell.
- Jameson Holden**, *Biomedical Engineering*, Sensory Perceptual Metrics: Design and Application of Biologically Based Methods for the Assessment of Systemic Cortical Alterations. Professor Mark Tommerdahl.

## THE UNIVERSITY SEAL

The University seal typically appears on diplomas and graduation materials, grade transcripts and documents that indicate accomplishment in or on behalf of the University.



The first seal of the University of North Carolina, designed in 1790, showed the face of Apollo and his emblem, the rising sun, used to symbolize the dawn of higher education in the state. The words "SIGUL UNIVERSITAT CAROL SEPTENT" (Seal of the University of North Carolina) surrounded the drawing.

A modification in 1895 added lighted torches of learning beside Apollo's profile. Two years later another alteration replaced Apollo's head with a shield on which the words Lux (light) and Libertas (liberty), separated by a white band running from the upper right to the lower left of the shield, appeared.

In the 1940s, some observers mistakenly claimed the white stripe on the shield was a bend sinister, a heraldic code that was demeaning. In truth, the stripe was a bar sinister and merely denoted a second or later son. Still, the direction of the stripe was reversed, removing any question of stigma.

Today's seal is the same as the 1897 version, except the stripe runs from the upper left to the lower right.

- Patrick Emmet Horn**, *English*, Narrative Empathy for "the Other" in American Literature, 1845–1945. Professor Rebecca R. Fisher.
- Devlin Kerry Hubbard**, *Biomedical Engineering*, Electroceutical Technology: Anti-inflammatory Effects of 40-160 T/S Inductively Coupled Electrical Stimulation (ICES) in the Acute Inflammation Model. Professor Robert G. Dennis.
- Lauren Parker Huff**, *Pharmacology*, Impact of Subcellular Localization on Oncogenic Functions of the RhoGEF Ect2 and on Its Rho GTPase Targets. Professor Adrienne D. Cox.
- Danielle N. Johnson**, *English*, "I'm Glad I Gave All My Heart": The Fiction of Lee Smith. Professor Minrose C. Gwin.
- Adam W. Jordan**, *Education*, A Cluster-Analytic Approach to Understanding the Life Values of North Carolina Public Alternative School Teachers. Professor Melissa S. Miller.
- Zakaria S. Khondker**, *Biostatistics*, Bayesian Penalized Methods for High-Dimensional Data. Professors Joseph G. Ibrahim and Hongtu Zhu.
- David William Kikuchi**, *Biology*, Mechanisms of Adaptation in Coral Snake Mimicry. Professor David W. Pfennig.
- Justin Robert Kirschbrown**, *Materials Science*, Direct Imaging of Ultrafast Charge Carrier Dynamics in Semiconducting Nanowires Using Two-Photon Excitation and Spatially Separated Pump-Probe Microscopy. Professor John M. Papanikolas.
- Rachel Kitson**, *School Psychology*, An Examination of Variations of Verbal Memory Performance in a Population of Children Who Have Been Maltreated. Professor Steve E. Knotek.
- Pamela Whitney Klein**, *Epidemiology*, An Evaluation of an Expanded HIV Testing Program in North Carolina Sexually- Transmitted Disease Clinics. Professors William C. Miller and Peter A. Leone.
- Elizabeth R. Knight**, *Neurobiology*, Immune Molecules Regulate Medulloblastoma and Neuronal Apoptosis. Professor Mohanish Deshmukh.

- Ahyeon Koh**, *Chemistry*, Nitric Oxide-Releasing Polyurethane Membranes for Implantable Electrochemical Glucose Sensors. Professor Mark H. Schoenfish.
- Kimberly Noelle Kutz**, *History*, Lincoln's Ghosts: The Posthumous Career of an American Icon. Professor John F. Kasson.
- Hillary Anne Langley**, *Psychology*, The Socialization of Children's Memory: A Longitudinal Examination of Maternal Elaborative Conversational Style, Children's Autobiographical Memory, and Children's Deliberate Memory Performance. Professor Peter A. Ornstein.
- Rylan Scott Larsen**, *Cell and Molecular Physiology*, Subtype-Specific Roles for Presynaptic NMDA Receptors in Experience-Dependent Plasticity and Visual Cortical Development. Professor Benjamin D. Philpot.
- Hana Lee**, *Biostatistics*, Marginal Structural Cox Models with Case-Cohort Sampling. Professors Michael G. Hudgens and Jianwen Cai.
- Nelson Lee**, *Statistics and Operations Research*, Design and Control of Service Centers. Professor Vidyadhar G. Kulkarni.
- Jessica Kate Levy**, *Maternal and Child Health*, The Public and Private Sector Family Planning Supply Environments and Their Influence on Contraceptive Use in Urban Nigeria. Professor Sian L. Curtis.
- Jiang Li**, *Health Behavior*, Understanding Pathways to Weight Loss Among Employees and Organizations Enrolled in the WAY to Health Worksite-Based Weight Loss Study. Professor Laura Linnan.
- Rachael Marie Liesman**, *Microbiology and Immunology*, Impact of the Non-Structural 2 Protein on Respiratory Syncytial Virus Pathogenesis. Professor Raymond J. Pickles.
- Lauren Stone Ligon**, *Microbiology and Immunology*, Suppressor Analysis to Identify Proteins that Work with the Mycobacterium smegmatis SecA2 Protein Export System. Professor Miriam Braunstein.
- Ja-An Lin**, *Biostatistics*, Statistical Methods for Imaging Genetic Data. Professors Hongtu Zhu and Joseph G. Ibrahim.
- Gregory A. Lipton**, *Religious Studies*, Making Islam Fit: Ibn 'Arabi and the Idea of Sufism in the West. Professor Carl W. Ernst.
- Lan Liu**, *Biostatistics*, Causal Inference With Interference. Professor Michael G. Hudgens.
- Christian Loew**, *Philosophy*, Causation and Other Asymmetries in Time. Professor Laurie Paul.
- Yen Sia Low**, *Environmental Sciences and Engineering*, Toxicity Prediction Using Multi-disciplinary Data Integration and Novel Computational Approaches. Professors Alexander Tropsha and Ivan Ruysn.
- Shawn Michael Lyons**, *Biology*, Post-Transcriptional Regulation of Histone mRNAs at the Level of Decay and 3' End Processing. Professor William F. Marzluff.
- Brittain Lynn Mahaffey**, *Psychology*, Evaluating a Cognitive-Behavioral Model of Pathological Mirror Gazing: Implications for the Maintenance of Anxiety and Appearance Dissatisfaction in Body Dysmorphic Disorder. Professor Jonathan S. Abramowitz.
- Meredith Marie Malburne-Wade**, *English*, Revision as Resistance in 20th-Century American Drama. Professor Maria DeGuzman.
- Sarah Elizabeth Marsh**, *English*, The Regency Novel and the British Constitution: Austen, Brunton, Shelley and the Culture of Romantic Decline. Professor Jeanne Moskal.
- Eliza Mason**, *Microbiology and Immunology*, Virulence Gene Regulation in *Bordetella*. Professor Peggy A. Cotter.
- Emily Elizabeth Mckendry-Smith**, *Sociology*, Old Gods, New Religions and Modern Marriages in Nepal. Professor Lisa D. Pearce.
- Ian James Mcneil**, *Chemistry*, Investigation of Dispersive Kinetics in the Time-Dependent Photoluminescence of Dye-Sensitized Nanoparticle Films. Professor Christopher J. Fecko.
- Cheryl Naomi Miller**, *Microbiology and Immunology*, A Genetic and Biochemical Approach to Identify Function of Novel Proteins in *Francisella tularensis*. Professor Tom H. Kawula.
- Kylee Marie Miller**, *School Psychology*, Weighing in on the Relationship Between Macronutrient Intake, Weight Status, Cognitive Functioning, and Academic Performance in School-Aged Children. Professor Rune J. Simeonsson.
- Angela Marie Mitchell**, *Microbiology and Immunology*, Modulation of Adeno-Associated Virus Transduction by the Promyelocytic Leukemia Protein, Arsenic Trioxide, and Proteasome Inhibitors. Professor Richard Jude Samulski.
- Irina Mordukhovich**, *Epidemiology*, Vehicular Traffic Exposure to Polycyclic Aromatic Hydrocarbons and Breast Cancer Risk. Professor Marilie Gammon.
- Alane Elizabeth Murdock**, *Maternal and Child Health*, Breastfeeding and Contraceptive Use: Analysis of a Statewide Survey. Professor Miriam Labbok.
- Alison Colleen Neff**, *Communication Studies*, Generation "Fly to Fly": Urban Transformation, New Cosmopolitanism, and the Politics of Women's Voicing in Dakar, Senegal. Professors Christopher T. Nelson and Lawrence Grossberg.
- Jerrod Allen Nelms**, *Epidemiology*, Unemployment Change and Homicide: An Exploration of the National Violent Death Reporting System. Professor David Richardson.
- Myoung-Ryul Ok**, *Materials Science*, Soft Lithographic Patterned Architectures in Dye Sensitized Solar Cells. Professor Edward T. Samulski.
- Matthew James O'Meara**, *Computer Science*, A Features Analysis Tool for Assessing and Improving Computational Models in Structural Biology. Professor Jack S. Snoeyink.
- Erol James Ozmeral**, *Psychology*, The Effects of Hearing Impairment in the Ability to Glimpse Speech in a Spectro-Temporally Complex Noise. Professor Joseph W. Hall III.
- Walter Edward Palmer**, *Human Movement Science*, Changes in Physical Activity In Community-Dwelling Older Adults Associated With the Matter of Balance Volunteer Lay Leader Model Program. Professor Vicki S. Mercer.
- Jia Pan**, *Computer Science*, Efficient Configuration Space Construction and Optimization. Professor Dinesh Manocha.
- Timothy David Perry**, *Psychology*, Relationships Between Sub-Clinical Autistic Traits, Cognitive Substrates, And Social Functioning in a Typically Developing College Sample. Professor David L. Penn.
- Nathan D. Pfeifer**, *Pharmaceutical Sciences*, Impact of Hepatic Transporter Multiplicity and Loss-of-Function on Hepatocellular Distribution and Excretion of Drugs. Professor Kim Brouwer.
- Bradley David Proctor**, *History*, Whip, Pistol and Hood: Ku Klux Klan Violence in the Carolinas During Reconstruction. Professor W. Fitzhugh Brundage.
- Elizabeth Anne Proctor**, *Bioinformatics and Computational Biology*, Inhibiting the Formation of ALS-Relevant SOD1 Oligomers. Professor Nikolay V. Dokholyan.
- Chaitanya Prakash Puranik**, *Oral Biology*, Effect of Fluoride on Parathyroid Hormone Secretion. Professor Eric T. Everett.
- Tracy Michelle Raines**, *Biology*, Defining the Role of the Cytokinin Response Factors (CRFs) in *Arabidopsis thaliana*. Professor Joseph Kieber.
- Naim Ur Rashid**, *Biostatistics*, Model-Based Approaches for the Detection of Biologically Active Genomic Regions From Next Generation Sequencing Data. Professors Joseph G. Ibrahim and Wei Sun.
- Neal R. Rasmussen**, *Genetics and Molecular Biology*, Elucidating the Role of the Receptor Tyrosine Kinase Ror2 Within the Wnt Pathway And Its Contributions to Renal Cell Carcinoma Tumorigenesis. Professor W. Kimryn Rathmell.
- Sumita Rege**, *Occupational Science*, Looking Beyond: A Study of Blogging and What It Tells Us About Occupations. Professor Ruth Humphry.

- Bryan Timothy Richardson**, *Pharmacology*, Defining the Molecular Mechanisms of the Cerebral Cavous Malformation Proteins. Professor Gary L. Johnson.
- Ned Richardson-Little**, *History*, Between Dictatorship and Dissent: Ideology, Legitimacy, and Human Rights in East Germany, 1945–1990. Professor Konrad H. Jarausch.
- Joseph E. Rittiner**, *Pharmaceutical Sciences*, Extracellular and Intracellular Regulation of G Protein-Coupled Receptor Signaling. Professor Mark J. Zylka.
- Lindsay Faircloth Rizzardi**, *Genetics and Molecular Biology*, Epigenetic Factors are Dynamically Regulated Throughout the Cell Cycle and are Required for Efficient DNA Replication. Professor Jeanette G. Cook.
- Ryan Rogers**, *Mass Communication*, “I” Play: The Psychological Effects of Customized Feedback in Videogames. Professor Sriram Kalyanaraman.
- Jason Micah Roos**, *Sociology*, Knowledge, Science, and Religion in the United States: An Analysis of Factors That Contribute to Acceptance and Rejection of Contested Knowledge at the Intersection of Science and Religion. Professors Kenneth A. Bollen and Andrew J. Perrin.
- Virginia Senk Omago**, *Epidemiology*, The Role of Human Papillomavirus (HPV) Viral Load in Penile HPV Infection and Clearance in Young Kenyan Men. Professor Jennifer S. Smith.
- Julia Madeleine Shadur**, *Psychology*, Parent Emotion Socialization and Emotion Regulation in Substance Abusing Families. Professor Andrea M. Hussong.
- Jeremy Simon**, *Bioinformatics and Computational Biology*, Characterization of Chromatin Dysregulation in Cancer Through Analysis of Fresh and Archival Human Samples. Professor Ian J. Davis.
- Danielle Lynaé Slomberg**, *Chemistry*, Role of Nanomaterial Physicochemical Properties on Fate and Toxicity in Bacteria and Plants. Professor Mark H. Schoenfish.
- Elizabeth Parish Smith**, *History*, Southern Sirens: Disorderly Women and the Fight for Public Order in Reconstruction-Era New Orleans. Professor Jacquelyn D. Hall.
- Heidi Marie Soeters**, *Epidemiology*, The Effect of Tuberculosis Treatment at the Time of Combination Antiretroviral Therapy (cART) Initiation on Response to cART Among HIV-Infected Individuals. Professor Annelies Van Rie.
- Jessica A. Sorrentino**, *Toxicology*, The Effects of Chronic and Acute Toxicological Exposures on the Expression of the Tumor Suppressor p16INK4a. Professor Norman E. Sharpless.
- Erin Cathleen Steinbach**, *Microbiology and Immunology*, Macrophage Phosphoinositide 3-Kinase p110  $\delta$  Regulates Intestinal Homeostasis by Directing Adaptive Immunity and Enhancing Microbial Clearance. Professor Scott E. Plevy.
- Wesley Langdon Storm**, *Chemistry*, Combined Bactericidal/Bacterial Adhesion-Resistant Coatings Through Nitric Oxide Release. Professor Mark H. Schoenfish.
- Joseph Patrick Tighe**, *Computer Science*, Towards Open-Universe Image Parsing With Broad Coverage. Professor Svetlana Lazebnik.
- Michael August Tycon**, *Chemistry*, The Development and Implementation of Microscopy Strategies for Investigating Protein Diffusion and Chromatin Binding. Professor Christopher J. Fecko.
- Jolien Suzanne Tyler**, *Biology*, The Dynamic Chromatin Landscape in *Saccharomyces cerevisiae*. Professor Kerry S. Bloom.
- Eric Scott Ubil**, *Cell and Molecular Physiology*, p53 Mediated Mesenchymal-to-Endothelial Transition is a Novel Mechanism of Vasculogenesis After Ischemic Cardiac Injury. Professor Arjun Deb.
- Eugene Urrutia**, *Biostatistics*, The Statistical Analysis of Genetic Sequencing and Rare Variant Association Studies. Professor Michael C. Wu.
- Meagan Fluet Vaughn**, *Epidemiology*, Tick-Borne Diseases in North Carolina: Seroepidemiology of Spotted Fever Group Rickettsiae and Prevention of Tick Bites Among Outdoor Workers. Professor Steven R. Meshnick.
- Karthik Veeraswami Natarajan**, *Business Administration*, Managing Humanitarian Operations: The Impact of Amount, Schedules and Uncertainty in Funding. Professor Jayashankar M. Swaminathan.
- Mark Vitucci**, *Genetics and Molecular Biology*, Molecular Characterization of Murine Models of Astrocytoma. Professor C. Ryan Miller.
- Qian Wang**, *Computer Science*, Registration of Brain MR Images in Large-Scale Populations. Professor Dinggang Shen.
- Erica Jania Washington**, *Biology*, Characterization of the Role of *Pseudomonas syringae* Type III Effector HopAF1 in Virulence. Professor Jeff Dangl.
- Audrey Marie Wells**, *Psychology*, Intracellular Mechanisms of Cocaine-Memory Reconsolidation in the Basolateral Amygdala and Dorsal Hippocampus. Professor Rita A. Fuchs Lokensgard.
- Isaac Thomas Westfield**, *Marine Sciences*, Mineralization of Anthropogenic CO<sub>2</sub> Via Water-Gas-Rock Reaction. Professor Justin Ries.
- Martin Charles Whittle**, *Pharmacology*, Targeting the Triple-Negative Breast Cancer Kinome With Chemical Proteomics. Professor Gary L. Johnson.
- James Franklin Williamson**, *History*, Memory With “No Clear Answers.” Volkstrauertag, Opfer des Faschismus, and the Politics of Publicly Mourning the War Dead in Germany, 1945–1972. Professor Konrad H. Jarausch.
- Katie J. Wolfe**, *Cell and Developmental Biology*, Chaperone Mediated Protective Protein Aggregation and Spatial Quality Control. Professor Douglas M. Cyr.
- Brittany Danielle Wright**, *Pharmaceutical Sciences*, Lipid Kinase Regulation of Nociceptive Signaling and Sensitization: Implications for Analgesic Drug Development. Professor Mark J. Zylka.
- Jinghe Zhang**, *Computer Science*, Uncertainty-Driven Adaptive Estimation With Applications in Electrical Power Systems. Professor Gregory F. Welch.
- Jinsheng Zhou**, *Chemistry*, Single Molecule DNA Manipulation and Analysis Using Nanofluidic Circuits. Professor John M. Ramsey.
- Ruoqing Zhu**, *Biostatistics*, Tree-Based Methods for Survival Analysis and High-Dimensional Data. Professor Michael R. Kosorok.
- Baiming Zou**, *Biostatistics*, Robust and Efficient Statistical Inference for Clustered Observational Data in Comparative Effectiveness Research. Professor Haibo Zhou.

#### DOCTOR OF PUBLIC HEALTH

- Angeli Prakash Achrekar**, *Health Policy and Management*, Saving Mothers, Giving Life: An Assessment of a Partnership for Making Progress Toward Sustainable Reductions in Global Maternal Mortality. Professor Edward L. Baker Jr.
- Kerry Bruce**, *Health Policy and Management*, Use of Mobile Technology for Monitoring and Evaluation in International Health and Development Programs. Professor John E. Paul.
- Randi Ellen Kaufman**, *Health Policy and Management*, “Bend a Little to Move It Forward.” Pro-Social Rule Breaking in Public Health Practice. Professor Bruce Fried.

## ACADEMIC DRESS

The following information, based in part on An Academic Costume Code and Ceremony Guide (published by the American Council on Education), may be helpful in identifying academic attire worn during today's Doctoral Hooding ceremony.

**DEGREE CANDIDATES' REGALIA.** The hooded doctoral gown features three bars across each sleeve. The doctoral gown for Carolina graduates is Carolina blue, with facings and crossbars of dark blue outlined in white piping. The facings bear the shield of the University supported by the torches of learning. The hoods of master's and doctoral degree candidates vary in color according to the field of study (see list below).

**FACULTY REGALIA.** Faculty wear the regalia of the institution that conferred their highest degree. The doctoral gowns are usually faced with black velvet, although the color of the velvet may vary according to the field of study. Hoods, which differ in length according to the level of the degree held, are lined with official colors of the university or college that conferred the degree, usually with one color forming a chevron pattern over the other. Some colors you will see on faculty and administrators' robes are, for example, the crimson of Harvard, the maroon of Chicago, the

orange and black of Princeton, the dark blue of Yale, and the light blue and white of North Carolina. Like the hoods of master's and doctoral degree candidates, faculty hoods are edged and bound with velvet in the color appropriate to the field of study.

The colors in the hoods and gowns of faculty and administrators represent the following fields in which degrees were taken:

<b>APRICOT:</b> Nursing	<b>PEACOCK BLUE:</b> Public Administration
<b>BROWN:</b> Fine Arts	<b>PINK:</b> Music
<b>CITRON:</b> Social Work	<b>PURPLE:</b> Law
<b>CRIMSON:</b> Journalism	<b>SAGE GREEN:</b> Physical Education
<b>DARK BLUE:</b> Philosophy	<b>SALMON PINK:</b> Public Health
<b>GOLDEN YELLOW:</b> Science	<b>SCARLET:</b> Theology
<b>GREEN:</b> Medicine	<b>YELLOW BROWN:</b> Commerce, Business, Accountancy
<b>LEMON YELLOW:</b> Library Science	<b>WHITE:</b> Arts, Letters, Humanities
<b>LIGHT BLUE:</b> Education	
<b>LILAC:</b> Dentistry	
<b>OLIVE GREEN:</b> Pharmacy	
<b>ORANGE:</b> Engineering	

## Commencement Committee

Ronald P. Strauss, *Chair*  
Valerie Ashby  
Tiffany Bailey  
Bridget Baucom  
Kiran Bhardwaj  
Angelyn (Angie) S. Bitting  
Tony Botros  
Jeanette (Jan) Boxill

Anne K. Bryan  
Jill Hartman Crowder  
Christopher Derickson  
Douglas S. Dibbert  
Joseph S. Ferrell  
Jeffrey W. Fuchs  
George B. Hare  
Deborah L. Hawkins

Leslie S. Lerea  
Karen Moon  
Laura Hayes Morgan  
Jacob Morse  
Andrew Powell  
Valerie A. Price  
Jane C. Smith  
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