
THE GRADUATE SCHOOL

2015

DOCTORAL HOODING CEREMONY



THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Saturday, May Ninth • Two Thousand Fifteen

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MESSAGE *from the* CHANCELLOR

Welcome to your Tar Heel hooding ceremony. Each of you has accomplished so much in your years at Carolina, and nothing could be finer than to celebrate your commencement today.

Families and friends of our doctoral students, no one could believe more in their capacity and character than you. On behalf of 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, thank you for the extraordinary contributions you have made to the University community during your time here. You have contributed to our mission of teaching and service, in addition to your own studies, which have helped create new knowledge. You depart with 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



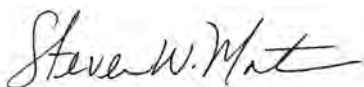
MESSAGE *from the* GRADUATE DEAN

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 Commencement ceremony will be captioned on the 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 degree candidates’ names in this program does not represent certification that candidates have satisfactorily completed degree requirements.

Diplomas for undergraduate, master of science and master of arts degrees will be printed after Commencement and mailed to graduates. Graduates with professional, doctoral and master’s degrees that contain an area of study in the degree, such as Master of Accounting, may receive their diplomas in a special departmental or school ceremony. Or they may pick up a diploma from the Office of the Registrar in the Student and Academic Services building from 11:30 a.m. until 2 p.m. on Commencement Sunday. Remaining diplomas will be available in the Registrar’s Office 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.

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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, Doctor of Nursing Practice and Doctor of Public Health GRADUATE MARSHALS WILL LEAD THE GROUPS TO THEIR SEATS.
<i>Presiding</i>	Carol L. Folt, <i>Chancellor, The University of North Carolina at Chapel Hill</i>
<i>National Anthem</i>	Charlotte Jackson, <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>	Shelby Dawkins-Law, <i>President, Graduate and Professional Student Federation</i>
<i>Commencement Address</i>	Susan A. Murphy, <i>H.E. Robbins Distinguished University Professor of Statistics, Professor of Psychiatry, Research Professor, University of Michigan; Principal Investigator, Pennsylvania State University Methodology Center</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> Charlotte Jackson

CAROL L. FOLT

Chancellor



When Carol L. Folt was installed as Carolina's 11th chancellor and first woman leader in October 2013, she said, "As America's first public university, Carolina became the gold standard. The founders passed the baton, and the future is up to us. How can we fulfill this honorable charge in a way that is ever fresh and relevant?" In her first year as chancellor, Folt — an internationally recognized environment scientist, award-winning teacher and accomplished administrator — has worked to fulfill that charge by preserving and expanding Carolina's academic excellence and innovation, access and affordability, and deep commitment to the state.

Under her leadership, the University received 31,000 applications for the Class of 2018 — breaking the previous year's record for the ninth consecutive time. Faculty ranked seventh nationally and first in the South for 2013 research grants awarded by the National Institutes of Health. New investments have made Carolina's science, technology, engineering and math curriculum one of the top in the country. And the University's commitment to its public service mission has never been stronger, as illustrated by the School of Government's work supporting local governments and communities, and by expanding programs like the Carolina College Advising Corps, which provides college advising for the state's high-school students.

Folt has met with hundreds of students, faculty, staff, alumni and supporters, championing the importance of the University's research mission for North Carolina's economy. She has also focused on improving undergraduate graduation rates — particularly low-

income, first-generation and underrepresented students — and on comprehensively addressing past academic and athletic irregularities.

Declaring that "Carolina can indeed be the leader in shaping the path for the great public university in America," Folt has represented the University in the national dialogue about higher education, joining other leaders at White House meetings on topics as diverse as preserving accessibility to an affordable college degree and protecting students from sexual assault.

Folt came to Carolina from Dartmouth College, where she was interim president in 2012–2013, Dartmouth Professor of Biological Sciences, and a faculty member and administrator for 30 years.

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 from the University of California at Davis and did postdoctoral work at the W.K. Kellogg Biological Station of Michigan State University.

Her 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 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



Steven 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 Boards of Directors for the Graduate Record Exam and for the TOEFL English language test.

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 such as the Richard Bland Fellowship Professional Pathways Program. In fall 2014, The Graduate School announced the creation of the Harold J. Glass USAF Faculty Mentor/Graduate Fellow Distinguished Term Professorship, which also provides for a graduate fellowship.

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.

SUSAN A. MURPHY

The Doctoral Hooding Ceremony Speaker



Susan A. Murphy, a statistician and UNC–Chapel Hill alumna, was named a 2013 John D. and Catherine T. MacArthur Foundation Fellow for breakthroughs that may help clinicians more effectively assess and adapt treatment of chronic and relapsing diseases.

Murphy received her doctorate in statistics from UNC–Chapel Hill. She is the H.E. Robbins Distinguished University Professor of Statistics, a professor of psychiatry and a research professor, all at the University of Michigan. She also is a principal investigator with the Pennsylvania State University Methodology Center.

Murphy’s distinguished fellowship recognized her work in designing the Sequential Multiple Assignment Randomized Trial, or SMART. This statistics-based approach collects and analyzes a patient’s health data over time, and provides guidance on the possible need to change treatment or on how long current treatment should continue.

In announcing the fellowship, the MacArthur Foundation said, “Using SMART, clinicians assess and modify patients’ treatments during the trial, an approach with potential applications in the treatment of a range of chronic diseases – such as ADHD, alcoholism, drug addiction, HIV/AIDS and cardiovascular disease – that involve therapies that are regularly reconsidered and replaced as the disease progresses.”

In October 2014, Murphy was elected to membership within the Institute of Medicine of the National Academies.

“The knowledge Dr. Murphy has created will have major implications for medicine, and also for other fields in which researchers are tackling challenges requiring careful analysis of information captured at different times,” said Steven W. Matson, dean of The Graduate School at UNC–Chapel Hill.

Photo courtesy of the John D. and Catherine T. MacArthur Foundation

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CANDIDATES *for* GRADUATE DEGREES

May 2015

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

- Garrett Robert Ainslie**, *Toxicology*, A Translational Approach to Assess the Risk of Dietary Substance-Drug Interactions. Professor Mary F. Paine.
- Santiago Anria**, *Political Science*, Social Movements, Parties and the Left in Latin America: The Bolivian MAS (Movement Toward Socialism) in Comparative Perspective. Professor Evelyne Huber.
- Marios Antoniou**, *Education*, The Prospects for Peace Education in Cyprus: Exploring the Potential for Future Unified Education Through the Examination of a Bi-Communal School. Professor Lynda Stone.
- Katherine J. Arpen**, *Art History*, Pleasure and the Body: The Bath in 18th-Century French Art and Architecture. Professor Mary D. Sheriff.
- Lydia Tatiana Aybar**, *Microbiology and Immunology*, Characterization of Regulatory B Cells in Patients With Anti-Neutrophil Cytoplasmic Autoantibody Vasculitis. Professor Ronald Falk.
- Jacob William Bartel**, *Computer Science*, Predictions to Ease User's Effort in Scalable Sharing. Professor Prasun Dewan.
- Amanda Katharine Bean**, *Education*, "The Bridge Between Sessions": The Nature of Discourse in a Novice Teachers' Blended Community of Practice. Professor Jocelyn Glazier.
- John Doyle Beard**, *Epidemiology*, Military Service, Deployments and Exposures in Relation to Amyotrophic Lateral Sclerosis Etiology and Survival. Professor Lawrence S. Engel.
- Joshua Eugene Beaver**, *Chemistry*, The Development of Receptors for Posttranslationally Modified Peptides in Water. Professor Marcey L. Waters.
- Charles Micha Belden**, *Health Policy and Management*, Organizational Determinants of Minority Participation in Clinical Research. Professor Bryan J. Weiner.
- Angela Marie Bengtson**, *Epidemiology*, cART Initiation During Pregnancy Among HIV-Infected Women in Lusaka, Zambia: The Impact of Duration of cART on Pregnancy Outcomes and Predicting Postpartum Loss to Follow Up. Professor Audrey Pettifor.
- Laya R. Bhavaraju**, *Toxicology*, Examination of Diesel and Biodiesel Exhaust Exposure Induced Disruption of Lipid Arachidonic Acid Metabolism. Professor Frank Church.
- David Bockino**, *Mass Communication*, "The Noble Path": Journalism Education and Journalism Students in the United States and India. Professor Daniel Kreiss.
- Lisa Mullen Bono**, *Biology*, Competition and the Evolution of Novel Resource Use: An Experimental Test in a Virus. Professors Christina L. Burch and David W. Pfennig.
- Adrian D. Bridges**, *Education*, The Relationship Between Collaborative Learning and Self-Regulated Learning During Adolescence: A Meta-Analytic Review. Professor Jeffrey A. Greene.
- Francisco Brignole**, *Romance Languages and Literatures*, Nuevos Rumbos en la Novela del Exilio Latinoamericano de la Postdictadura (1990–2014). Professor Oswaldo Estrada.
- Lena Jeanette Brown**, *English*, Kicking Ass is Comfort Food: Television and the Feminist Heroick. Professor Todd Taylor.
- Jason Brunton**, *Microbiology and Immunology*, Identifying Host and Bacterial Factors Required for *Francisella tularensis* Intracellular Growth. Professor Thomas Kawula.
- Sri Hapsari Budisulistiorini**, *Environmental Sciences and Engineering*, Real-Time Chemical Characterization of Atmospheric Organic Aerosol in the Southeastern United States by Aerosol Mass Spectrometry. Professor Jason D. Surratt.
- Evan L. Busch**, *Epidemiology*, Markers of Epithelial-Mesenchymal Transition and Colorectal Cancer Mortality: Time-to-Event and Latent-Class Analyses. Professor Robert S. Sandler.
- Nathaniel Bushek**, *Mathematics*, Descending G-equivariant Line Bundles to GIT Quotients. Professor Shrawan Kumar.
- Joshua Kalin Busman**, *Musicology*, (Re)Sounding Passion: Listening to American Evangelical Worship Music (1997–2015). Professor Mark Katz.
- Tessa Marie Carducci**, *Chemistry*, Electron Transfers Between Small Nanoparticles. Professor Royce W. Murray.
- Sarah Apffel Cegelski**, *Romance Languages and Literatures*, Monstrosity and Identity in the Comedias of Lope de Vega. Professor Carmen Hsu.
- Adriana Nicole Cerami**, *Romance Languages and Literatures*, Mafia Motifs in Andrea Camilleri's Detective Montalbano Novels: From the Culture and Breakdown of Omerta to the Mafia as a Scapegoat for the Failure of State. Professor Ennio I. Rao.
- Ashley Chaifetz**, *Public Policy*, The Food Safety Policy Gap: Essays on Emergency Food in North Carolina. Professor Pamela Jagger.
- Roy Anthony Charles**, *Education*, Exploring Proximal Influences on the Academic and Research Career Choices of African American Female Graduate Students. Professor George Noblit.
- John Cluverius**, *Political Science*, Grassroots Lobbying and the Economics of Political Information in the Digital Age. Professor Thomas M. Carsey.
- Amanda Barnes Cook**, *Political Science*, Breastfeeding, Feminism and Political Theory. Professor Susan Bickford.
- Erin Elizabeth Cooley**, *Psychology*, More People but Less Mind: How Number Affects Mind Perception and Decisions to Harm. Professor Brian Keith Payne.

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.

- Daniel Earl Cooper**, *Nutrition*, Physiological Consequences of Compartmentalized Glycerolipid Synthesis. Professor Rosalind A. Coleman.
- Anna B. Cope**, *Epidemiology*, Assessment of HIV Transmission and Diagnosis Patterns in North Carolina. Professor William C. Miller.
- Katie L. Cotter**, *Social Work*, Adolescent Female Aggression: Measurement, Relational Risk and Promotive Factors and Risk Pathways. Professor Paul R. Smokowski.
- Melissa Marie Crane**, *Health Behavior*, Improving Men's Health Through Weight Control: Randomized Trials Testing Recruitment Messaging and a Novel Weight Loss Intervention. Professor Deborah F. Tate.
- Emily Rose Cranford**, *Romance Languages and Literatures*, I Am Myself the Matter of My Book: Gender, Friendship and Writing in Héli-senne de Crenne and Marie de Gournay. Professor Hassan Melehy.
- Stacey Leigh Cutbush**, *Health Behavior*, Teen Dating Violence Perpetration Among Middle School Youth: The Role of Bullying, Sexual Harassment and Gender. Professor Vangie Foshee.
- Danielle O. Dean**, *Psychology*, Utilizing Multilevel Event History Analysis to Model Temporal Characteristics of Friendships Unfolding in Discrete-Time Social Networks. Professor Daniel J. Bauer.
- Jennifer Caraway Deese**, *Epidemiology*, Inflammation of Innate Immune Responses in the Female Genital Tract: Association With Use of Injectable Progestin-Only Contraception, Reproductive Tract Infections and Risk of HIV Acquisition. Professor William Miller.
- Svetoslav Misak Derderyan**, *Political Science*, The Effects of the European Union on Corruption Control in Central and Eastern Europe Before and After Accession. Professor Milada Vachudova.
- Mathieu Ronald Despard**, *Social Work*, Evidence-Based Practice in Nonprofit Human Service Organizations. Professor Gina Chowa.
- Joy Elizabeth Diamond**, *Speech and Hearing Sciences*, Examining Language and Literacy Profiles of Adolescent Struggling Readers. Professor Karen Erickson.
- Anthony M. Diercks**, *Economics*, Asset Price and Macroeconomic Policy. Professors Patrick Conway and Max Croce.
- Adam H. Dombey**, *History*, War Within the States: Loyalty, Dissent and Conflict in Southern Piedmont Communities, 1860–1876. Professors W. Fitzhugh Brundage and Joesph Glatthaar.
- Kerry M. Dorr**, *Genetics and Molecular Biology*, Characterization of the CASZ1-Dependent Mechanisms Essential for Cardiomyocyte Development. Professor Frank Conlon.
- Mingsong Dou**, *Computer Science*, Enhanced 3D Capture of Room-Sized Dynamic Scenes With Commodity Depth Cameras. Professor Henry Fuchs.
- Bart Hayden Dunlap**, *Physics*, The Origin of Carbon-Atmosphere White Dwarfs With Implications for Type Ia Supernovae. Professor J. Christopher Clemens.
- Shannon Camille Eaves**, *History*, "A Sad Epoch in the Life of a Slave Girl": The Sexual Exploitation of Enslaved Women and Its Impact on Slaveholding and Enslaved Communities. Professor Heather A. Williams.
- Magdalena Alyssa Ellis**, *Geological Sciences*, Evolution of Active Fault Systems and Their Topographies. Professor Kevin Stewart.
- Derek Andrew Epp**, *Political Science*, Information Processing and the Instability of Political Outcomes. Professor Frank R. Baumgartner.
- Caroline Bill Robertson Evans**, *Social Work*, Bystander Behavior and Victim Coping Strategies: A Mixed-Methods Study of Rural Bullying. Professor Paul Smokowski.
- Xiangyu Fan**, *Information and Library Science*, Influences of Serendipity on Consumer Medical Information Personalization. Professor Javed Mostafa.
- Adam James Filgo**, *Toxicology*, Early Life Chemical Exposures and Latent Mammary Gland Effects in Male and Female Rats. Professors Suzanne Fenton and William Kaufmann.
- Christopher Nicholas Ford**, *Nutrition*, Post-Millennial Beverage Trends and the Relationship Between Price and Food/Beverage Intakes and Purchases in the U.S. Preschooler. Professor Barry M. Popkin.
- Amber Frick**, *Pharmaceutical Sciences*, Cellular Genomics Approaches for Defining Susceptibility and Resistance to Chemotherapeutic Toxicity in Immune Cells. Professor Timothy Wiltshire.
- Ellen Gutman Galantucci**, *Political Science*, Normal Winners: The Strategies of Strong Candidates. Professor James A. Stimson.
- Lauren Garrett**, *English*, In Praise of Debt: Affective Economics in Early Modern English Literature. Professor Mary Floyd-Wilson.
- Justin David Garwood**, *Education*, Classroom Management for Rural Students With or at Risk for Emotional and Behavioral Disorders: A Longitudinal Study Across Early Elementary School. Professor Lynne Vernon-Feagans.

- Grant Allen Gearhart**, *Romance Languages and Literatures*, The Knight and War: Alternative Displays of Masculinity in El Paso Honroso de Suero de Quiñones, El Victorial and the Historia de los Hechos del Marqués de Cádiz. Professor Frank A. Dominguez.
- Nathan James Gesmundo**, *Chemistry*, The Development of Complexity Generating Organic Photoredox Transformations and the Application of These Transformations in Complex Molecule Synthesis. Professor David A. Nicewicz.
- Abhinav Golas**, *Computer Science*, Modeling of Complex Large-Scale Flow Phenomena. Professor Ming C. Lin.
- Shiho Goto**, *Exercise and Sport Science*, The Effects of an Integrated Exercise Program on Lower Extremity Biomechanics in Females With Medial Knee Displacement. Professor Darin A. Padua.
- Shannon Colleen Grabich**, *Epidemiology*, Associations Between Hurricane Weather Exposure and Pregnancy Outcome: Demonstration of Ecological and Individual-Level Methods. Professor Whitney R. Robinson.
- Alexandra Elizabeth Graddy-Reed**, *Public Policy*, The Private Provision of Public Goods: Three Essays on the Evolving Public Economics of Philanthropy. Professor Maryann P. Feldman.
- Oleg Gredil**, *Business Administration*, Market-Timing and Agency Costs: Evidence from Private Equity. Professor Gregory W. Brown.
- Trisha J. Grevengoed**, *Nutrition*, Flawed Phospholipid Formation or Faulty Fatty Acid Oxidation: Determining the Cause of Mitochondrial Dysfunction in Hearts Lacking ACSL1. Professor Rosalind A. Coleman.
- Andrew Eugene Haerberlin**, *History*, Towards a Post-Nazi Education: Administrators Rebuild the German School System 1945–1949. Professor Konrad H. Jarausch.
- Alison Renee Hafera**, *Art History*, Visual Mediations of Mourning and Melancholia in France, 1790–1830. Professor Mary Sheriff.
- William James Hall**, *Social Work*, The Implementation and Effectiveness of Policy Interventions for School Bullying. Professor Mimi Chapman.
- Ryan Alexander Hallett**, *Biochemistry and Biophysics*, Design, Improvement and Benchmarking of a Light-Induced Heterodimer: The Awakening of iLID. Professor Brian Kuhlman.
- Sean M. Hanley**, *Health Behavior*, Community-Based Approaches to Prevention: Linking Coalition Capacity, Community Readiness and Implementation to Reductions in Adolescent Alcohol Use. Professor J. Michael Bowling.
- Christopher Harrison**, *Education*, The Discourse of Teacher Policy Reform: An Analysis of Policy Narratives Surrounding Tenure Elimination, Performance Pay and Performance-Based Evaluation in Three States. Professor Lora Cohen-Vogel.
- Cassandra Hartblay**, *Anthropology*, Inaccessible Accessibility: An Ethnographic Account of Disability and Globalization in Contemporary Russia. Professor Michele Rivkin-Fish.
- Zhijian He**, *Pharmaceutical Sciences*, Poly(2-oxazoline)s as New Drug Delivery Systems. Professor Alexander Kabanov.
- Tandra Sharrell Hilliard**, *Health Policy and Management*, Examining Rural vs. Urban Disparities in Community-Based Helper Support and Residential Care Transitions Among Medicare Beneficiaries With Dementia and Functional limitations. Professor Peggye Dilworth-Anderson.
- Renske Suzanne Hoedemaker**, *Psychology*, Effects of Meaning-Based Relationships and Goal-Driven Processing on Semantic Priming on Ocular Response Tasks. Professor Peter C. Gordon.
- Jin-Liern Hong**, *Epidemiology*, Breast Cancer Risk After Metformin Initiation in Older Women: The Role of Study Design, Potential Confounding by Body Mass Index, and Differential Detection. Professor Til Stürmer.
- Margot E. Howard**, *Business Administration*, Are Firms Stockpiling Foreign Earnings? Professor Douglas A. Shackelford.
- Nicholas O. Howard**, *Political Science*, Members and Leaders in Senate Obstruction. Professor Jason M. Roberts.
- Marc Alan Howlett**, *City and Regional Planning*, Freight Planning and the Metropolis: The Role of Metropolitan Planning Organizations in Regional Freight Transportation Planning. Professor Daniel A. Rodriguez.
- Kuan-Chieh Huang**, *Biostatistics*, Statistical Methods for Genetic and Epigenetic Association Studies. Professor Yun Li.
- Shunping Huang**, *Computer Science*, Correcting Reference Bias in High-Throughput Sequencing Analysis. Professor Wei Wang.
- Catherine A. Hughes**, *Musicology*, Branding Brussels Musically: Cosmopolitanism and Nationalism in the Interwar Years. Professor Annegret Fauser.
- Richard Shane Hutton**, *Psychology*, Modeling Bachelor's Degree Completion Rates of North Carolina Community College Transfer Students Using a Discrete-Time Survival Analysis. Professor Abigail Panter.
- Michael Dela Iglesia**, *Genetics and Molecular Biology*, A Genomic Approach to the Identity, Clonal Diversity and Clinical Import of Tumor-Infiltrating Lymphocytes in Human Cancers. Professor Charles Perou.
- Anne-Martine Sherbeck Jackson**, *Chemistry*, Utilizing Functionalization to Access Advanced Materials Properties. Professor Valerie S. Ashby.
- Adrienne Kathleen Jacobs**, *History*, The Many Flavors of Socialism: Modernity and Tradition in Late Soviet Food Culture, 1965–1985. Professor Donald J. Raleigh.
- Sara Louise Juengst**, *Anthropology*, Community and Ritual on the Copacabana Peninsula (800 BC – AD 200). Professor Dale L. Hutchinson.
- Dimitris Katsoridas**, *Economics*, Applications of Generalized Fiducial Inference in High Frequency Data. Professor Jan Hannig.
- Stefanos Kechagias Athanasopoulos**, *Statistics and Operations Research*, Studies in Multidimensional Stochastic Processes: Multivariate Long-Range Dependence and Synthesis of Gaussian Random Fields. Professor Vlasos Pipiras.
- Taylor Marie Kent**, *Germanic Languages*, Theater of Infection: Illness and Contagion in German Drama Around 1800. Professor Jonathan Hess.
- Rajat Khanna**, *Business Administration*, Learning From Small Failures: Role of Relatedness, Familiarity and Structure of Knowledge Base. Professor Atul Nerkar.
- HyoSun Kim**, *Mass Communication*, Whom Do You Follow? Examining Social Distance in Facebook Friendship and Its Influence on Brand Message Adoption. Professor Francesca Dillman Carpentier.
- Stella Soojin Kim**, *Romance Languages and Literatures*, Gender, Bodies, Sex, Technology: Dismantling Heterosexual Male Subjectivity and Desire in Transnational Film. Professor Samuel Amago.

- Jessica L. Kinard**, *Speech and Hearing Sciences*, Start That Coexistence: Three Studies of Parent Responsiveness to Children With or At-Risk for Autism Spectrum Disorder. Professor Linda R. Watson.
- Lindsey Marie King**, *Sociology*, Risk Perceptions and Risk Preferences in an Era of Precarity and Austerity. Professor Arne L. Kalleberg.
- Anne Veronica Kirby**, *Occupational Science*, Factors Influencing Participation Outcomes of Young Adults With Autism Spectrum Disorder. Professor Grace T. Baranek.
- Jennifer Helen Kling**, *Philosophy*, The State Right of Self-Defense: A Claim in Need of Justification. Professor Bernard Boxill.
- Anca Koczkas**, *Romance Languages and Literatures*, Cartografía del Deseo: Transgresiones Sexuales y de Género en la Literatura Latinoamericana Contemporánea (1990-2010). Professor Oswaldo Estrada.
- Racquel Elizabeth Kohler**, *Health Policy and Management*, Enhancing Breast Cancer Early Detection in Malawi: A Mixed Methods Study to Understand Knowledge and Preferences. Professor Stephanie B. Wheeler.
- Margaret Mae Kovach**, *Geography*, Climate-Human Health Vulnerability: Identifying Relationships between Maximum Temperature and Heat-Related Illness Across North Carolina. Professor Charles E. Konrad.
- Scott W. Krabbe**, *Chemistry*, Strategic Applications of New Redox Transformations in Organic Synthesis. Professor Jeffrey S. Johnson.
- Stephanie Ann Kramer**, *Chemistry*, Synthesis of Polymeric Materials for Drug Delivery and Industrial Applications. Professor Michel R. Gagne.
- Alison Elizabeth LaGarry**, *Education*, Narratives of Note: The Dynamics of Socially Just Music Education. Professor George Noblit.
- Lauren Lanahan**, *Public Policy*, The Multilevel Innovation Policy Mix: Three Essays on State SBIR Matching Programs. Professor Maryann P. Feldman.
- Kathleen Egan Lawlor**, *Public Policy*, Impacts of Poverty Reduction Programs in Remote Rural Landscapes: Evidence from Cash Transfers in Zambia. Professor Sudhanshu Handa.
- Joseph Gilbert Louis Lee**, *Health Behavior*, Relationship Between Sexual Minority Couples and Tobacco Retailer Density and Marketing. Professor Kurt M. Ribisl.
- Carolyn Louise Lekavich**, *Nursing*, The Identification of Biomarkers that Predict Impending Heart Failure Preserved Ejection Fraction (HFpEF). Professor Debra J. Barksdale.
- Catherine R. Lesko**, *Epidemiology*, The Population Level Impact of HIV Treatment in the Test-and-Treat Era. Professor Stephen R. Cole.
- Sherry Lynette Leviner**, *Nursing*, Going With the Flow: Left Without Being Seen in the Emergency Department. Professor Debbie Travers.
- Yi Li**, *Sociology*, Three Genetically Informed Sociological Studies on Data Quality Control, Delinquency and Religiosity. Professor Guang Guo.
- Katharine J. Liang**, *Neurobiology*, AAV-Nrf2 Mediated Rescue of Oxidative Stress in Mouse Models. Professor Richard J. Samulski.
- Yang Liu**, *Psychology*, Generalized Fiducial Inference for Graded Response Models. Professor David Thissen.
- Erica Marie Longenbach**, *Art History*, Constructing Campanillismo: The Sacred Topography of Ravenna in the Middle Ages. Professor Dorothy Verkerk.
- Kristjen Brienne Lundberg**, *Psychology*, Why Implicit Attitudes Predict Voting Among Undecided Voters: A Test of the Introspective Neglect Hypothesis. Professor B. Keith Payne.
- Qianlai Luo**, *Epidemiology*, Sexual Attractiveness, Sexual Satisfaction and Psychological Distress in Liuzhou, China. Professor Victor J. Schoenbach.
- Heidi Joan Maclean**, *Biology*, Adaptation to Climate and Climate Change in Rocky Mountain Butterflies: Morphology, Physiology and Behavior. Professor Joel G. Kingsolver.
- Amanda Mah**, *Nutrition*, Functional Impact of Obesity or Intermittent Feeding on Intestinal Stem Cells. Professor Pauline K. Lund.
- Andrew S. Maimone**, *Computer Science*, Computational See-Through Near-Eye Displays. Professor Henry Fuchs.
- Kathleen Megan Day Malley**, *Education*, Validation of the SCALE: A Measure of Middle School Students' Transition Experiences. Professor Jill V. Hamm.
- Benjamin Mangrum**, *English*, Land of Tomorrow: The Postwar Novel and the Rise of the New Conservative Movement. Professor John McGowan.
- Allison Mathews**, *Sociology*, Stigma and Intersectional Identities: Examining the Strategies Black Gay Men Use to Reduce Identity Conflict. Professor Carolyn D. Tyson.
- Brett Roger Matsumoto**, *Economics*, Estimating Models of Learning in Individual Decision Making With an Application to Youth Smoking. Professor Donna Gilleskie.
- Karen Elizabeth McIntyre**, *Journalism and Mass Communication*, Constructive Journalism: The Effects of Positive Emotions and Solution Information in News Stories. Professor Rhonda Gibson.
- Laura Meadows**, *Mass Communication*, Losing Forward: An Ethnographic Study of the LGBT Movement in North Carolina. Professor Daniel Kreiss.
- Ravish Mehra**, *Computer Science*, Efficient Techniques for Wave-Based Sound Propagation in Interactive Applications. Professor Dinesh Manocha.
- Kyle Philip Messier**, *Environmental Sciences and Engineering*, Spatiotemporal Geostatistical Methods for Exposure and Epidemiological Analyses of Groundwater Nitrate and Radon. Professor Marc L. Serre.
- Megan Meyer**, *Microbiology and Immunology*, The Protease/Antiprotease Balance Determines Influenza Susceptibility and Can Be Modified by Oxidants and Antioxidants. Professor Ilona Jaspers.
- Di Miao**, *Statistics and Operations Research*, Class-Sensitive Principal Components Analysis. Professors James S. Marron and Jason P. Fine.
- Brooke Midkiff**, *Education*, Searching for the Causal Impact of Sex Education Policy Reform: Using a Synthetic Control to Study the Intersection of Health and Education Policy. Professor Catherine Marshall.
- Katherine Anne Moga**, *Chemistry*, Rapidly Dissolvable PRINT Microneedles for the Transdermal Delivery of Therapeutics. Professor Joseph M. DeSimone.
- Jennifer Lindsay Moss**, *Health Behavior*, Concomitant Adolescent Vaccination: The Influence of Seasonal Variation, School Requirements and Patient-Provider Communication. Professor Noel T. Brewer.

- Kathleen M. Nichols**, *Education*, Creating a Collective Consciousness of Public Schooling Inequities: Participatory Action Research With Community College Students. Professor George Noblit.
- Njamkou Ngasseu Noucti**, *Chemistry*, Nickel-Catalyzed Cycloadditions of Ene-Allenes. Professor Erik J. Alexanian.
- Claire Novotny**, *Anthropology*, Social Identity Across Landscapes: Ancient Lives and Modern Heritage in a Maya Village. Professor Patricia A. McAnany.
- Melati Nungsari**, *Economics*, Essays on Pricing and Matching on Two-Sided Platforms. Professor Gary Biglaiser.
- Julie Kathleen O'Donnell**, *Epidemiology*, Psychological and Behavioral Outcomes Associated With Stressful or Traumatic Life Events Among HIV-Infected Persons With Depression. Professor Brian W. Pence.
- Julia Scatliff O'Grady**, *Communication Studies*, Citizens of the Air: Perceptions of Safety in the Social Imaginary of Flight. Professor William Balthrop.
- Florence Osita Okoro**, *Nursing*, Gender Differences in Peer Support in Type 2 Diabetes Self-Management: An International Qualitative Study. Professor Debra J. Barksdale.
- Vicente I. Ordonez Roman**, *Computer Science*, Language and Perceptual Categorization in Computational Visual Recognition. Professor Tamara L. Berg.
- Lukas Dylan Osborne**, *Physics and Astronomy*, Biophysics of Cancer Progression and High-Throughput Mechanical Characterization of Biomaterials. Professor Richard Superfine.
- Britt Frisk Pados**, *Nursing*, Feeding the Medically Fragile Infant: Effects of Feeding Method and Milk Flow on Physiology and Behavior. Professor Suzanne M. Thoyre.
- Abhishek Pal Majumder**, *Statistics and Operations Research*, Long Time Asymptotics of Some Weakly Interacting Particle Systems and Higher Order Asymptotics of Generalized Fiducial Distribution. Professors Amarjit S. Budhiraja and Jan H. Hannig.
- Derek Pamukoff**, *Human Movement Science*, The Effect of Vibratory Stimuli on Measures of Neuromuscular Function. Professor Troy Blackburn.
- Angela M. Parcesepe**, *Maternal and Child Health*, Interpersonal Violence and HIV Sexual Risk Behaviors: The Influence of Alcohol Harm Reduction and Early Initiation of Sex Work Among Female Sex Workers in Mombasa, Kenya. Professor Sandra L. Martin.
- Lanita Danielle Parker**, *Education*, "He's Got a Good Life, It's Just Offering Him More": Black Motherhood and Deconstructing the Myths About Mentoring the Black Child. Professor George Noblit.
- Ryan Alexander Peeks**, *History*, "The Cavalry of the Fleet:" Organization, Doctrine and Battlecruisers in the United States and the United Kingdom, 1904–1922. Professor Wayne Lee.
- Jennifer J. Persson**, *Education*, The Math Teaching Gap: A Study of the Relationship Between Different Levels of Mathematics Teacher Effectiveness and Student Achievement. Professors Catherine Scott and Jocelyn Glazier.
- Adrienne Gilbert Pettiford**, *Psychology*, Effects of Puberty and Parenting on Adolescent Psychosocial Maturity and Risky Behavior. Professor Martha J. Cox.
- Nicholas Karl Pinkin**, *Chemistry*, Discovery and Application of Small Molecule Receptors for the Recognition of Trimethyllysine in Water. Professor Marcey Waters.
- McLean Dickinson Pollock**, *Maternal and Child Health*, The Impact of Child Maltreatment on the Development of Alcohol and Substance Use: Comparing Trajectories of Alcohol and Substance Use in Adolescence and Young Adulthood Between Victims and Non-Victims of Maltreatment. Professor Sandra L. Martin.
- April L. Raphiou**, *Mass Communication*, The Eagle vs. the Dragon in Africa: A Content Analysis of Economic News Frames in Nigeria and Kenya on the U.S. and China's Economic Pursuits. Professor Debashis Aikat.
- Kevin Gerald Reuter**, *Chemistry*, Polymeric PRINT Hydrogel Nanoparticles: Next Generation Drug Delivery Vehicles Targeting Cancerous Tissue. Professor Joseph M. DeSimone.
- Greggory Matthew Rice**, *Chemistry*, High-Throughput Experiment Driven Modeling of RNA Interactions and Structures. Professor Kevin M. Weeks.
- Joseph Rigdon**, *Biostatistics*, Causal Inference for Binary Data With Interference. Professor Michael Hudgens.
- Jessica L. Rinsky**, *Epidemiology*, The Role of Occupational Exposure to Animal Production in Chronic Obstructive Pulmonary Disease Among Farmers in Iowa and North Carolina. Professor Steve B. Wing.
- Megan Clarke Roberts**, *Health Policy and Management*, Racial Variation in the Use of Oncotype DX Testing Among Women With Breast Cancer. Professor Morris Weinberger.
- Miguel Andrés Rocha**, *Romance Languages and Literatures*, Textualidades Oralitegráficas y Visiones de Cabeza en las Oralituras y Literaturas Indígenas Contemporáneas en Colombia. Professor Emilio Del Valle Escalante.
- Elizabeth Tacket Rogawski**, *Epidemiology*, Are Our Favorite Drugs Killing the Wrong Bugs? The Impact of Antibiotic Treatment on Diarrhea and Growth in Early Childhood. Professor Daniel J. Westreich.
- Karen Gayle Roos**, *Epidemiology*, Overuse Injuries in College and High School Populations: Occurrence and Methodological Issues in Surveillance. Professor Stephen W. Marshall.
- Elise Camille Rosa**, *Psychology*, Semantic Role Predictability Affects Referential Form. Professor Jennifer E. Arnold.
- Sarah Elizabeth Rutstein**, *Health Policy and Management*, Optimizing HIV Therapy: Outcomes, Challenges and Opportunities for Virological Monitoring in Resource-Limited Settings. Professor Andrea K. Biddle.
- Sara Safransky**, *Geography*, Promised Land: The Politics of Abandonment and the Struggle for a New Detroit. Professor Wendy Wolford.
- Maura Sabatos DeVito**, *Psychology*, Investigating the Predictive Value of Infant Attention Behaviors and Profiles for Detecting Differences in Self-Regulation and Social and Sensory Responsiveness in the Toddler and Early Preschool Years. Professor J. Steven Reznick.
- Elissa J. Sampson**, *Geography*, Tenement Tales: The Fashioning of 97 Orchard Street. Professors John Pickles and Nina Martin.
- Diana Maria Sanchez**, *Epidemiology*, Concurrent Sexual Partnerships: Predictors of Initiation and Reliability of Reports Analysis of the Project on Partner Dynamics. Professor Victor J. Schoenbach.
- Maria Agostina Santoro**, *Cell and Molecular Physiology*, Obesity, Hyperinsulinemia, the Insulin and Insulin-Like Growth Factor 1 Receptors and Risk of Colorectal Cancer. Professor Pauline K. Lund.

- Mallory Renee Selzo**, *Biomedical Engineering*, Interrogating the Viscoelastic Properties of Tissue Using Viscoelastic Response (VisR) Ultrasound. Professor Caterina M. Gallippi.
- Joseph James Shaffer**, *Neurobiology*, Functional MRI Correlates of Schizophrenia Negative Symptoms During Auditory Oddball Task and Resting State. Professor Aysenil Belger.
- Jing Shan**, *Physics and Astronomy*, Development of a Stationary Chest Tomosynthesis System Using Carbon Nanotube X-Ray Source Array. Professor Otto Z. Zhou.
- Laura Jeanne Sims**, *History*, Rethinking France's "Memory Wars": Harki and Pied-Noir Collective Memories in Fifth Republic France. Professor Donald M. Reid.
- Wasin Siwasarit**, *Economics*, The Skewness in Expected Macro Fundamentals and Predictability of Equity Returns: Evidence and Theory. Professors Eric Ghysels and Riccardo Colacito.
- Rosa Arrington Heath Sledge**, *English*, Reading Fashions, Fashioning Readings: Genre, Style and Sartorial Semiotics in 19th-Century American Literature. Professors Jane F. Thrailkill and John McGowan.
- Catherine Slota**, *Pharmaceutical Sciences*, Examining Patient-Physician Communication Regarding Cost in the Glaucoma Patient Population. Professor Betsy Sleath.
- Tangi L. Smallwood**, *Genetics and Molecular Biology*, The Genetic Architecture of Atherosclerosis and the Atherosclerosis-Associated Metabolite Trimethylamine-N-Oxide in the Diversity Outbred Mouse Populations. Professor Brian J. Bennett.
- Che Lena Smith**, *Biostatistics*, Model Selection for Nonnested Linear Mixed Models. Professor Lloyd J. Edwards.
- Zachary Philip Smith**, *History*, Reading Citizens: Popular Education Campaigns and the Construction of the Chinese Political Subject, 1904–1937. Professor Michael Tsien.
- Forrest Rule Spence**, *Economics*, The Role of Consumer Experience in the Market for College Textbooks. Professor Brian McManus.
- Melissa Ann Sreckovic**, *Education*, Peer Network Interventions for Secondary Students With ASD: Effects on Social Interaction and Bullying Victimization. Professors Harriet Able and Kara Hume.
- Einaiv Srulovici**, *Nursing*, Assets and Health: Examining the Asset-Building Theoretical Framework and Psychological Distress. Professor Barbara A. Mark.
- Eric T. Staunton**, *Environmental Sciences and Engineering*, Integrated Biological Treatment of Swine Waste for Nitrogen Removal and Energy Recovery. Professor Michael D. Aitken.
- Xuezheng Sun**, *Epidemiology*, Parity, Obesity and Breast Cancer Survival: Does Intrinsic Subtype Modify Outcomes? Professor Melissa A. Troester.
- Susan Bramley Thananopavarn**, *English*, LatinAsian Nation: Re-Imagining United States History Through Contemporary Asian American and Latina/o Literature. Professors Jennifer Ho and Maria DeGuzman.
- Peter Matthew Thompson**, *Biochemistry and Biophysics*, The Structural and Functional Consequences of the Interaction of the Vinculin Tail Domain With F-Actin and PIP2. Professor Sharon L. Campbell.
- Matthew Robert Toth**, *Health Policy and Management*, Outcomes and Costs of Post-Hospitalization Transitions in Urban and Rural Settings. Professor Pam Silberman.
- Armond Rasheen Towns**, *Communication Studies*, "Riding While White": Transporting Race and the Production of Blackness. Professor Sarah Sharma.
- Yi-Hsuan Tsai**, *Bioinformatics and Computational Biology*, Transcriptome-Wide Study of Alternative Splicing Across Multiple Cancer Types. Professors Zefeng Wang and Shawn M. Gomez.
- Christopher Radcliff Turlington**, *Chemistry*, Oxygen Atom Transfer to Half-Sandwich Complexes of Iridium and Rhodium. Professors Joseph L. Templeton and Maurice Brookhart.
- Abigail Haley Turner**, *Chemistry*, Epidermal Growth Factor Receptor Tyrosine Kinase Assays in Single Intact Cells Using Capillary Electrophoresis. Professor Nancy L. Allbritton.
- Kristen Meyers Turner**, *Musicology*, Opera in English: Class and Culture in America, 1878–1910. Professor Annegret Fauser.
- John W. Wallace**, *Epidemiology*, Characterization of Arboviral Disease in North Carolina. Professor Steven R. Meshnick.
- William Waller**, *Business Administration*, Default, Recovery and the Macroeconomy. Professor Gregory W. Brown.
- Bethany Lynne Walton**, *Pathology*, The Contribution of Fibrinogen and Red Blood Cells To Arterial Thrombosis. Professor Alisa S. Wolberg.
- Alice Wang**, *Environmental Sciences and Engineering*, Performance Evaluation of the Compartment Bag Test for E. coli in Drinking Water. Professor Mark D. Sobsey.
- Weibo Wang**, *Computer Science*, Detect Copy Number Variations from Read-Depth of High-Throughput Sequencing Data. Professor Wei Wang.
- Jayne Kristen Warischalk**, *Pharmacology*, Uncovering Structural Components of the Adeno-Associated Viral Capsid That Can Be Modified to Improve Clinical Gene Therapy Outcomes. Professor Richard Jude Samulski.
- Crystal Ann Waters**, *Genetics and Molecular Biology*, Factors Increasing the Flexibility of Nonhomologous End Joining. Professor Dale Ramsden.
- Rachel Palmieri Weber**, *Epidemiology*, Evaluation of Hysterectomy as Both Exposure and Outcome: Association With Epithelial Ovarian Cancer and Prediction of Premenopausal Hysterectomy With Ovarian Conservation. Professor Andrew F. Olshan.
- Sarah Elizabeth Wetzel-Strong**, *Cell and Molecular Physiology*, Effect of Adrenomedullin Over-Expression in the Cardiovascular System During Development and Disease. Professor Kathleen M. Caron.
- Kevin R. White**, *Social Work*, An Examination of Post-Permanency Adjustment and Discontinuity for Older Foster Youth in Adoptive and Guardianship Homes. Professor Mark F. Testa.
- David Wilkie**, *Computer Science*, Simulating, Reconstructing and Routing Metropolitan-Scale Traffic. Professor Ming C. Lin.
- Kimberly Sade Williams**, *Neurobiology*, Neurotrophin-Chemokine Receptor Interactions on Macrophages Regulate HIV Neuropathogenesis. Professor Rick B. Meeker.
- Colton James Willig**, *Mathematics*, Nonlinear Geometric Optics for Reflecting and Evanescent Pulses. Professor Mark Williams.
- Alice Brooke Wilson**, *Anthropology*, Contesting the Future of the Campo Mexicano: Food Sovereignty and the Cultural Politics of Transgenic Corn. Professor Dorothy Holland.
- Benjamin Wilson**, *Mathematics*, Measuring Complexity in Dynamical Systems. Professor Karl Petersen.
- Emma Woelk**, *German Studies*, Folk Fiction: Yiddish and the Negotiation of Literary Legacy in Germany after 1945. Professor Ruth von Bernuth.

Mary Woessner, *Epidemiology*, Determinants of Parasite Clearance Time and Recrudescence in Patients Treated for Uncomplicated Plasmodium Falciparum Malaria in Sub-Saharan Africa. Professor Steven R. Meshnick.

Sandi Wong, *Microbiology and Immunology*, Assembly of Intestinal Microbiota is Determined by Host Development, Diet and Environment. Professor John F. Rawls.

Hui Ching Dominica Wong, *Chemistry*, Perfluoropolyether-based Electrolytes for Lithium Battery Applications. Professor Joseph M. DeSimone.

Richard Wyss, *Epidemiology*, Using High Dimensional Disease Risk Scores in Comparative Effectiveness Research of New Treatments. Professor Til Stürmer.

Yuying Xie, *Genetics and Molecular Biology*, Role of Epidermal Growth Factor Receptor on Cardiac Function. Professor David W. Threadgill.

Jie Xiong, *Statistics and Operations Research*, Radial Distance Weighted Discrimination. Professors James Steve Marron and Dirk Dittmer.

Nicole Rachele Zane, *Pharmaceutical Sciences*, Predicting Pharmacokinetic Behavior and Dose of Sildenafil and Voriconazole in Neonatal and Pediatric Populations by In Vitro Metabolism and PBPK Modeling. Professor Dhiren R. Thakker.

Kurt Zemlicka, *Communication Studies*, Public Argument and the “Human”: Rhetoric, Values and Differences in the Biotechnology Debate. Professor Christian O. Lundberg.

Hongtao Zhang, *Biostatistics*, Statistical Methods for Correlated Data from Observational Studies. Professors Jianwen Cai and Haibo Zhou.

Feng Zheng, *Computer Science*, Spatio-Temporal Registration in Augmented Reality. Professor Gregory F. Welch.

Xiaolei Zhou, *Biostatistics*, Model Assessment for Models With Missing Data. Professor Hongtu Zhu.

Jennifer Lynn Zoski, *Speech and Hearing Sciences*, Kindergarten Linguistic Awareness Intervention: The Effects of Phonological, Morphological and Orthographic Instruction on Early Reading Outcomes in At-Risk Students. Professor Karen Erickson.

DOCTOR OF NURSING PRACTICE

Christa Williams Seaman, *Nursing*, An Evaluation of Fatigue Management Strategies Implemented on Hospital Nursing Units. Professor Cheryl B. Jones.

Jessica Grantham Sparrow, *Nursing*, Coping With ADHD: Experience of Pregnant Women. Professor Grace Hubbard.

DOCTOR OF PUBLIC HEALTH

Ashley Lynn Buchanan, *Biostatistics*, Causal Inference in HIV/AIDS Research: Generalizability and Applications. Professor Michael G. Hudgens.

Gretchen Anne Cowman, *Health Policy and Management*, Cholera Prevention and Control in Kenya. Professor Harsha Thirumurthy.

Laura Miniea Hoemeke, *Health Policy and Management*, To Help, or at Least Do No Harm: The Evolving Roles of Global Health NGOs in Health Systems Strengthening. Professor Suzanne H. Hobbs.

Sue Lynn Ledford, *Health Policy and Management*, Improving the Transition Process from Pediatric to Adult HIV Care in North Carolina: A Patient-and Family-Centered Perspective System Dynamics Model. Professor Andrea K. Biddle.

Lisa H. Ozaeta, *Health Policy and Management*, Satisfying Non-Profit Hospitals' Community Benefit Obligations by Targeting Population Health Programs in Partnership With Their Distributed Ambulatory Practices: The Results of a Mixed Method Study. Professor George M. Holmes.

Sophie Shen, *Health Policy and Management*, What Factors Employers Should Consider in Designing and Implementing Value Based Insurance Design? Professor James Porto.

Valerie Anne Smith, *Biostatistics*, Marginalized Two-Part Models for Semicontinuous Data With Application to Medical Costs. Professors John Preisser and Brian Neelon.

Craig River Westling, *Health Policy and Management*, An Examination of Ethics Conflicts in Pioneer Accountable Care Organizations. Professor Kristin L. Reiter.

Mark Joseph Woodring, *Health Policy and Management*, What Role Do Charitable, Nonprofit Hospitals Have in Community Building Activities Post-2010 Patient Protection and Affordable Care Act Reforms? Leadership Perspectives from an Exploratory, Intrinsic Case Study of Persistent Poverty Leaver Counties in Rural New Mexico. Professor Sandra Greene.

The School of Education

ESTABLISHED 1885

Dean G. Williamson McDiarmid

DOCTOR OF EDUCATION

Charles Alexis Aiken, *Educational Leadership*, Superintendent Decision Making and Communication Practices in the Age of Social Media and Social Networking. Professor Fenwick English.

Christine Marie Fierro, *Educational Leadership*, Does How Students Are Assigned to Classrooms Matter? An Examination of Students' Relative Achievement on State Standardized Tests in Tracked and Untracked North Carolina English Language Arts Middle Grades Classrooms. Professor Fenwick English.

Shane Michael Morrison, *Educational Leadership*, A Comparison of the Challenge of the Common Core State Standards to Traditional Job Stressors of North Carolina Superintendents. Professor Fenwick English.

Susan Elizabeth Sutherland, *Educational Leadership*, Preparing Students To Be Globally Competitive in the 21st Century: Exploring Educational Leaders' Global-Mindedness and Student Achievement in North Carolina Public High Schools. Professor Dana Thompson Dorsey.

GRADUATE DEGREES

August 2014

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

- Yousuf Al-Bulushi**, *Geography*, The Struggle for a Second Transition in South Africa: Uprising, Development and Precarity in the Post-Apartheid City. Professor John Pickles.
- Yunus Annayev**, *Biochemistry and Biophysics*, Characterization of New Mouse Circadian Clock Gene: GM129. Professors Aziz Sancar and Greg Wang.
- Alexandra Arreola**, *Genetics and Molecular Biology*, Molecular and Physiological Roles of Von Hippel-Lindau Mutation and Hypoxia Inducible Factors: Fine-Tuned Expression Effects on Angiogenesis and Metabolism. Professor Wendy K. Rathmell.
- Rose Aslan**, *Religious Studies*, From Body to Shrine: The Construction of Sacred Space at the Grave of Ali ibn Abi Talib in Najaf. Professor Carl W. Ernst.
- Lynn Ann Badia**, *English*, A Universe of Forces: Energy in Early 20th-Century Theory and Literature. Professors Lawrence Grossberg and Tyler Curtain.
- Austin James Baird**, *Mathematics*, Modeling Valveless Pumping Mechanisms. Professor Laura Miller.
- John Stewart Bankhead**, *Romance Languages and Literatures*, Queer(ed) Bodies, Spaces and Forms in Selected Works by Reinaldo Arenas, Mario Bellatin and Isaac Chocrón. Professor Alicia Rivero.
- Nicholas George Batz**, *Chemistry*, Development and Application of Surface Coatings for Microchip Capillary Electrophoresis-Electrospray Ionization-Mass Spectrometry Analysis of Biological Analytes. Professor John Michael Ramsey.
- Sarah E. Bauerle**, *Political Science*, Cronies, Capitalists and Control: Foreign Direct Investment Regulation, International Capital Flows and Banking Sector Reforms. Professor Layna Mosley.
- Zane Van Beckwith**, *Physics*, Dynamic Critical Properties of Disordered Magnetic Systems. Professor Dmitri Khveshchenko.
- Rebecca Lynn Begalle**, *Human Movement Science*, Double and Single Leg Landing Biomechanics in Adolescent Female Athletes with a History of Anterior Cruciate Ligament Reconstruction and the Effects of Verbal Instructions on Acute Alterations in Landing. Professor Darin Padua.
- LeeMarie Ayers Benschoff**, *School Psychology*, Validity of a Local Norms Approach for Universal Screening in Early Childhood Response to Intervention. Professors Barbara Wasik and Ellen Peisner-Feinberg.
- Michael Anthony Bertucci**, *Chemistry*, Synthetic Agents for the Derivatization of N-Acyl Homoserine Lactones. Professor Michel Gagne.
- Belle Bryant Booker**, *Education*, Science Teachers' Efficacy Beliefs, Mastery-Focused Instruction, and Students' Efficacy Beliefs: A Multilevel Structural Equation Model. Professor Judith Meece.
- Laurel Almira Bradley**, *Anthropology*, Health, Well-Being, and Rights: Mapping the Boundaries of Belonging for Filipino Caregivers in Israel. Professor Michele Rivkin-Fish.
- Merrick Lancaster Brown**, *Mathematics*, Saturation Problem for Affine Kac-Moody Algebras. Professor Shrawan Kumar.
- Sara Farner Budarz**, *German Studies*, Inside the City: Gender and the Production of Space in Weimar Republic German Literature, 1929–1933. Professor Eric Downing.
- Alison Reimuller Burns**, *Psychology*, Development and Validation of an Observational Measure of Alcohol-Specific Communication. Professor Andrea Hussong.
- Anne Mobley Butler**, *Epidemiology*, The Cancer Burden and Patterns of Erythropoiesis-Stimulating Agent Use Among End-Stage Renal Disease Patients on Hemodialysis. Professor M. Alan Brookhart.
- Brandon R. Byrd**, *History*, An Experiment in Self-Government: Haiti in the African-American Political Imagination, 1863–1915. Professor W. Fitzhugh Brundage.
- James Donald Byrne**, *Pharmaceutical Sciences*, Iontophoretic Delivery of Cytotoxic Agents for the Treatment of Solid Tumors. Professor Leaf Huang.
- Courtney Marie Cameron**, *Psychology*, The Role of Rapid Dopamine Signaling Within the Nucleus Accumbens in Natural and Drug Reward-Seeking Behaviors. Professor Regina Carelli.
- Shanyce L. Campbell**, *Public Policy*, Quality Teachers Wanted: An Examination of Standards-Based Evaluation Systems and School Staffing Practices in North Carolina Middle Schools. Professor Gary Henry.
- Jason Carter**, *Computer Science*, Automatic Difficulty Detection. Professor Prasun Dewan.
- Guanhua Chen**, *Biostatistics*, Statistical Learning for Biomedical Data under Various Forms of Heterogeneity. Professor Michael Kosorok.
- Ting-Huei Chen**, *Biostatistics*, Penalized Estimation Methods and Their Applications in Genomics and Beyond. Professors Wei Sun and Jason Fine.
- Haw Cheng**, *Physics*, A Photometric Study of the Dwarf Spheroidal Galaxies LEO IV and BOÖTES II. Professor Bruce Carney.
- Diana R. Chirovsky**, *Health Policy and Management*, Comparative Effectiveness of Surveillance and Current Treatment Approaches for the Detection and Management of Hepatocellular Carcinoma in East Asia. Professor Kristen Hassmiller Lich.
- Rushina Cholera**, *Epidemiology*, HIV and Depression in a Primary Care Clinic in Johannesburg, South Africa. Professor William Miller.

- Warren Edmund Christian**, *Education*, A Statistical Distance: Examining the Experiences of Chinese Graduate Instructors and Their Undergraduate Students in Statistics Courses. Professor James Trier.
- Rosario Colchero-Dorado**, *Romance Languages and Literatures*, Del Silencio al Alzheimer: Releyendo al Anciano en Tres Novelas sobre la Transición. Professor Samuel Amago.
- Daud Cole**, *Biochemistry and Biophysics*, Shape Analysis of Telomerase RNA Form and Function. Professor Barry Lentz.
- Joshua G. Coyne**, *Business Administration*, Equity Analysts' Earnings Forecasts and Information Asymmetry in Private Lending. Professor John R. M. Hand.
- Tessa Crowl**, *Genetics and Molecular Biology*, SOX2 is Critical for the Maintenance of Quiescence and Homeostasis in Nascent Müller Glial Cells. Professor Ellen Weiss.
- Jessica A. Cuellar**, *Psychology*, Neighborhood Contributions to Positive Parenting and Youth Externalizing Problems: A Multi-Sample Study of African-American Single Mother Families. Professor Deborah Jones.
- Jeffrey Stuart Damrauer**, *Genetics and Molecular Biology*, Discovery and Characterization of Molecular Subtypes in High-Grade Urothelial Carcinoma. Professor William Kim.
- Benjamin Danforth**, *Political Science*, The Development of Education Systems in Advanced Capitalist Societies. Professor John Stephens.
- Myra Grace A. dela Pena**, *Microbiology and Immunology*, CD4+ T Cells in Infant Immunity. Professor Kristina Abel.
- Cynthia Paula Demetriou**, *Education*, Reflections at the Finish Line: The Activities, Roles, and Relationships of Successful First-Generation College Students. Professor Judith Meece.
- Jason Christopher Dyke**, *Chemistry*, Designing Biomimetically Inspired Materials for Potential Orthopedic Tissue Engineering Applications. Professors Wei You and Ching-Chang Ko.
- Luke Elson**, *Philosophy*, Vagueness in Action. Professor Geoffrey Sayre-McCord.
- Eva Erber**, *Nutrition*, Acculturation, Body Mass Index and Type 2 Diabetes Risk in Asian Americans. Professor June Stevens.
- Jeremy P. Erickson**, *Computer Science*, Tardiness Bounds and Overload in Soft Real-Time Systems. Professor James Anderson.
- Kaitlin Fague**, *Chemistry*, Multidimensional Separations with Ultrahigh Pressure Liquid Chromatography-Mass Spectrometry for the Proteomics Analysis of *Saccharomyces Cerevisiae*. Professor James Jorgenson.
- Lydia Feinstein**, *Epidemiology*, Implementation of Pediatric HIV Prevention and Care Guidelines in Routine Settings: Outcomes among HIV-Exposed Infants in DR Congo (2007–2013). Professor Frieda Behets.
- Nicole Marie Fenton**, *Psychology*, The Adolescent Health Belief Model: Conceptualizing Cognitive Factors That Influence Medication Non-Adherence Among Adolescents. Professor Don Baucom.
- Ellen E. Fitzsimmons-Craft**, *Psychology*, Examining an Elaborated Sociocultural Model of Disordered Eating among College Women: The Roles of Social Comparison and Body Surveillance. Professor Anna Bardone-Cone.
- Kim A. Gaetz**, *Epidemiology*, Free to Breathe, Free to Teach: Indoor Air Quality in Schools and Respiratory Health of Teachers. Professor David Richardson.
- Michael Geier**, *Chemistry*, New Mechanisms for Turnover and Functionalization in the Platinum Initiated Cyclization of Polyenes. Professor Michel Gagné.
- Emily M. Gidcumb**, *Materials Science*, Performance of a Carbon Nanotube Field Emission X-Ray Source Array for Stationary Digital Breast Tomosynthesis. Professors Otto Zhou and Jianping Lu.
- Benjamin Charles Giglio**, *Chemistry*, Alkene Difunctionalization Using Hydroxamic Acids. Professors Erik Alexanian and David Nicewicz.
- David Hamilton**, *Chemistry*, Anti-Markovnikov Addition Reactions of Oxy-Acids to Alkenes Enabled by Photoredox Catalysis. Professor David Nicewicz.
- Conor M. Harrison**, *Geography*, Power for All? Electricity and Uneven Development in North Carolina. Professor Scott Kirsch.
- Yizhou Joseph He**, *Genetics and Molecular Biology*, Identification of Novel Regulatory and Target Proteins in the P53 Pathway: APC2 and PFK2. Professors Yanping Zhang and William Marzluff.
- Scott Houck**, *Cell and Developmental Biology*, Degradation of Misfolded Membrane Proteins via ERQC Autophagy. Professor Douglas Cyr.
- Kristen Vaughn Bell Hughes**, *School Psychology*, Academic and Civic Outcomes of African-American Graduates of Historically Black and Historically White High Schools. Professors Rune Simeonsson and Jonathon Livingston.
- Ellis Eugene Hughes**, *Romance Languages and Literatures*, Confession(s) of an Early Modern Virago: Situating Confession, Evangelizing and Defense of Women in the Works of Héloïse de Crenne. Professor Hassan Melehy.
- Jungwon Huh**, *Social Work*, The Resource Availability and Work First Use Among Low-Income Mothers in North Carolina. Professor Dean Duncan.
- Rebecca A. Hunter**, *Chemistry*, Electrochemical Measurement of Nitric Oxide from Biological Systems. Professor Mark Schoenfisch.
- Noorie Hyun**, *Biostatistics*, Analysis of Interval Censored Data Using a Longitudinal Biomarker. Professors Donglin Zeng and David Couper.
- Lauren Elizabeth Jarocho**, *Chemistry*, Electron Paramagnetic Resonance Studies of Spin and Molecular Motion in Surfactant Aggregates. Professor Malcolm D. E. Forbes.
- Silia Kaplan**, *German Studies*, Fragmented Bodies and the Exploded Boundary between Self and Other: Discourses of Trauma in the Visual Media of Early Weimar Germany, 1916–1926. Professor Eric Downing.
- Saleema A. Karim**, *Health Policy and Management*, The Magnet Recognition Program: What Are the Effects on Financial Performance? Professor George Pink.
- Megan C. Kassabaum**, *Anthropology*, Feasting and Communal Ritual in the Lower Mississippi Valley, AD 700–1000. Professor Vincas Steponaitis.
- Syed Muaz Khalil**, *Microbiology and Immunology*, Characterization of Alphavirus Replicon-Based Vaccines and Adjuvants in a Neonatal Murine Model. Professor Laura White.
- Nikhil Kishor Khankari**, *Epidemiology*, Polyunsaturated Fatty Acids, Genetic Susceptibility, and Breast Cancer Incidence and Survival. Professor Marilie Gammon.
- Meagan Millen Knowles**, *School Psychology*, Association between Teacher Liking and Student Characteristics, and the Influence of Job Satisfaction and Peer Social Preference. Professor Barbara Wasik.
- Tu Lan**, *Geography*, Made in Italy, by Chinese: How Chinese Migration Changed the Apparel Production Networks in Prato. Professor John Pickles.

- Karen A.F. Landale**, *Business Administration*, Examining Accession and Retention and the Role of Relationship Marketing in Public Service Organizations: Three Studies. Professor Jan-Benedict E.M. Steenkamp.
- Jonathan Leano**, *Biochemistry and Biophysics*, The CLASP Family Regulates Microtubule Dynamics by Using an Array of TOG-Like Domains. Professors Kevin Slep and Andrew Lee.
- Jill Farnell Lebov**, *Epidemiology*, Pesticide Exposure and End-Stage Renal Disease among Pesticide Applicators and Their Spouses in the Agricultural Health Study. Professor Lawrence Engel.
- Elizabeth Chase Lessey-Morillon**, *Cell and Developmental Biology*, The RhoA Guanine Nucleotide Exchange Factor, LARG, Mediates ICAM-1-Dependent Mechanotransduction in Endothelial Cells to Stimulate Transendothelial Migration. Professor Keith Burridge.
- Peng Li**, *Computer Science*, Replication and Placement for Security in Distributed Systems. Professor Michael Reiter.
- Xiaoxi Liu**, *Biostatistics*, Variable Selection and Statistical Learning for Censored Data. Professor Donglin Zeng.
- Zhipeng Lu**, *Biology*, Comprehensive Analysis of Eukaryotic SM-Associated Ribonucleoprotein Complexes. Professor A. Gregory Matera.
- Hanlin Luo**, *Materials Science*, Metal Complexes Derivatized Metal Oxides as Nanostructured Electrodes in Electrochemistry or Photoelectrochemistry. Professor Thomas Meyer.
- Sara Mamo**, *Speech and Hearing Sciences*, Electrophysiological and Psychophysical Measures of Auditory Temporal Processing. Professor John Grose.
- Andrius Masedunskas**, *Biology*, The Role of Actin Cytoskeleton in Endocytosis and Exocytosis in the Salivary Glands of Live Rodents. Professor Steve Rogers.
- Rita-Marie Thomas McFadden**, *Oral Biology*, The Role of Curcumin in Modulating Colonic Microbiota during Colitis and Colon Cancer Prevention. Professor Pawel Kiela.
- James Silas McGinley**, *Psychology*, A Novel Mixed Effects Modeling Framework for Longitudinal Ordinal Substance Use Data. Professor Patrick Curran.
- Luke Justin McKay**, *Marine Sciences*, Microbial Ecology of a Manmade Oil Spill in the Gulf of Mexico and a Natural, Hydrothermal Oil Seep in the Gulf of California. Professor Andreas Teske.
- Matthew Meiners**, *Biology*, The Mechanism of Modulation of the Escherichia Coli DNA Helicase II (UVRD) Unwinding Activity, A Study of the 2B Subdomain. Professor Steven W. Matson.
- Obiajulu Emmanuel Melekwe**, *Nursing*, Ability to Work and Its Relationship with Health Status and Health Behaviors in Nursing Assistants Employed in North Carolina Nursing Homes. Professor Mary Palmer.
- Chelsea Redeker Milbourne**, *English*, Revisions of Nature: Spectacle, Gender, and Public Science Rhetoric in 18th-Century Great Britain. Professors Jordynn Jack and Jane Danielewicz.
- Michelle F. Miranda**, *Statistics and Operations Research*, Bayesian Analysis of Ultra-High Dimensional Neuroimaging Data. Professor Joseph Ibrahim and Hongtu Zhu.
- Megan Kelly Mitchell**, *Philosophy*, Implicit Bias, Colorblindness and Institutional Racism. Professor Bernard Boxill.
- William Brandon Monteith**, *Chemistry*, Residue Level Quantification of Protein Stability in Living Cells. Professor Gary Pielak.



WILL OWENS

- Yves Maurice Morillon**, *Microbiology and Immunology*, Thymic Development of Autoreactive T Cells in NOD Mice, and the Altered Trafficking of T Cells Following Antibody Mediated Crosslinking of the CD4 Co-Receptor. Professors Roland Tisch and Barbara Vilen.
- Laura Rose Nesar**, *Geological Sciences*, The Timing of Laramide Deformation in the Northern Rocky Mountains. Professor Kevin Stewart.
- Mai Anh Ngo**, *Economics*, The Impact of Credit Constraint on Exporting and Innovation: Evidence from Ghana and Vietnam. Professor Patrick Conway.
- Melanie R. Nicol**, *Pharmaceutical Sciences*, Pre-Exposure Prophylaxis for HIV: Linking Antiretroviral Pharmacokinetics and Pharmacodynamics to Identify Optimal Dosing Strategies. Professor Angela D. M. Kashuba.
- Sarah Nicolson**, *Pharmacology*, Understanding Mechanisms of Adeno-Associated Virus Vector Transduction through Pharmacological and Biological Approaches. Professor R. Jude Samulski.
- Sara Niedzwiecki**, *Political Science*, Multilevel Social Policies and Partisan Alignments: Cash Transfers and Healthcare in Argentina and Brazil. Professor Evelyne Huber.

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.



Oscar Ignacio Guerra Nunez, *Mass Communication*, Empowerment of Foreign-Born Latino Students through the Use of Digital Educational Technologies: A Collective-Case Study. Professor Rhonda Gibson.

Tyler Randolph Oakley, *Romance Languages and Literatures*, Nihilism in Turn-of-the-Century Spanish Drama. Professor Samuel Amago.

Christopher Joseph O'Connor, *Biomedical Engineering*, TRPV4-Mediated Mechanotransduction in Articular Cartilage Function and Disease. Professors Farshid Guilak and Elizabeth Lobo.

Douglas M. Ornoff, *Pharmacology*, Development of a Cellular Analysis Platform Featuring Arrays of Patterned Microwells Fabricated Atop Permeable Supports. Professors Nancy Allbritton and Robert Nicholas.

Yannick Jeanine Orthodoxou, *School Psychology*, A Cross-Cultural Mediated Model Analysis of Parent Responsiveness, Child Social Competence, and Child Emergent Literacy. Professor Barbara Wasik.

Nazire Ozkan, *Economics*, Government Budget Predictions with Mixed Frequency Analysis. Professor Eric Ghysels.

Didem Pekkurnaz, *Economics*, Dynamic Analysis of Maternal Employment, Child Care, Quality and Early Childhood Development. Professor David Guilkey.

Carmen Perez-Munoz, *Romance Languages and Literatures*, *Leer la Nación: Pedagogía Fundacional en Colombia (1870-1898)*. Professor Juan Carlos Gonzalez Espitia.

Andrew Perkowski, *Chemistry*, Direct, Catalytic, Intermolecular Anti-Markovnikov Hydroacetoxylation of Alkenes Enabled via Photoredox Catalysis, and Investigations into the Mechanism of the Polymerization of 4-Methoxystyrene Initiated by Pyrylium Salts. Professors David Nicewicz and Erik Alexanian.

Sarah Peterson, *Romance Languages and Literatures*, *Geographies of Everyday Urban Life: French Literary and Cinematic Experiments in the Contemporary City*. Professor Hassan Melehy.

Kashif J. Powell, *Communication Studies*, *Specters and Spooks: Developing a Hauntology of the Black Body*. Professor Renee Alexander-Craft.

Bo Qin, *Nutrition*, Diet, Vascular Risk Factors and Cognitive Decline in Chinese Older Adults. Professor Michelle Mendez.

Zhimin Ren, *Computer Science*, Real-Time Physically Based Sound Synthesis and Application in Multimodal Interaction. Professor Ming Lin.

Joseph John Patrick Roberts, *Chemistry*, The Electrochemistry of Surface Modified <10 nM Metal Oxide Nanoparticles. Professors Royce Murray and James Jorgenson.

Luke Roode, *Pharmaceutical Sciences*, Sub-Tumor Distribution of PRINT Nanoparticles and Its Application for Nucleic Acid Delivery. Professors Ian Davis and Joseph DeSimone.

Molly Sears Rosenberg, *Epidemiology*, The Influence of School Enrollment and Alcohol Outlets on Sexual Risk among Rural South African Young Women. Professor Audrey Pettifor.

Lorrie Schmid, *Education*, Processes of Peer Selection and Influence in Adolescents' Academic Achievement. Professor Jill Hamm.

Sunyoung Shin, *Statistics and Operations Research*, Contributions to Penalized Estimation. Professors Jason Fine and Yufeng Liu.

Sooyeon Sim, *Materials Science*, Electron Paramagnetic Resonance Studies of Polymer Chain Dynamics in Solution. Professor Malcolm D. E. Forbes.

- Sean G. Skwerer**, *Statistics and Operations Research*, Tree-Oriented Data Analysis. Professors J. S. Marron and Scott Provan.
- Josh Smicker**, *Communication Studies*, Off-Base: Rethinking New Media Technologies and Military Everydayness. Professor Lawrence Grossberg.
- Gina Song**, *Pharmaceutical Sciences*, Immune Mechanisms Regulating Pharmacokinetics and Pharmacodynamics of Pegylated Liposomal Anticancer Agents. Professor William Zamboni.
- Nicholas A Spidale**, *Microbiology and Immunology*, Factors Regulating Thymic Dendritic Cell Homeostasis and Function. Professor Roland Tisch.
- Jeran Stratford**, *Pharmacology*, Aberrant Gene Expression: Diagnostic Markers and Therapeutic Targets for Pancreatic Cancer. Professors Jen Jen Yeh and Channing Der.
- Qiang Sun**, *Biostatistics*, On High Dimensional Sparse Regression and Its Inference. Professors Hongtu Zhu and Joseph Ibrahim.
- Sauna Marie Swanson**, *Microbiology and Immunology*, Mechanisms of Antibiotic Resistance in *Neisseria Gonorrhoeae* and the Development of LpxC Inhibitors as Novel Therapeutics. Professor Robert Nicholas.
- Zhengzheng Tang**, *Biostatistics*, Association Analysis of Rare Variants in Sequencing Studies. Professor Danyu Lin.
- Nicholas A. Taylor**, *Microbiology and Immunology*, Balancing Proand Anti-Inflammatory Signals for Effective Immunotherapy in the Post-Hematopoietic Stem Cell Transplant and Solid Tumor Settings. Professor Jonathan Serody.
- Autumn Thoyre**, *Geography*, The Production of Consuming Less: Energy Efficiency, Climate Change and Light Bulbs in North Carolina. Professor Martin Doyle.
- Laura Ann Tollini**, *Genetics and Molecular Biology*, Exploring the In Vivo Role of the Mdm2 Ring Finger Domain in p53 Regulation. Professor Yanping Zhang.
- Christine Marie Tucker**, *Maternal and Child Health*, Preterm Birth Prediction and Receipt of Postpartum Contraception among Participants of North Carolina's Pregnancy Medical Home Program. Professor Carolyn Halpern.
- Katherine Tumlinson**, *Epidemiology*, Measuring the Quality of Family Planning Service Delivery in Urban Kenya. Professor Brian Pence.
- Riha Vaidya**, *Economics*, Demand for Health: An Empirical Model of Health Production in China. Professor David Guilkey.
- Sai Phanindra Venkatapurapu**, *Bioinformatics and Computational Biology*, A Novel Role for the RGS Protein SST2 in Yeast Signaling Revealed by Mathematical Modeling and Live Cell Imaging. Professor Timothy Elston.
- Audrey Rose Verde**, *Neurobiology*, Structural Abnormalities within the Episodic Prospection and Decision Making Circuitry in Cigarette Smokers: A DTI and sMRI Analysis. Professors Charlotte Boettiger and Martin Styner.
- Zackary Vernon**, *English*, Haunted by Waters: The Hydropolitics of American Literature and Film, 1960–1980. Professor Fred Hobson.
- Tasanee Walsh**, *Social Work*, The Conceptualization of Depression and Acculturative Stress among Latino Immigrants: A Comparison of Scores from Non-Hispanic Whites and Persons of Mexican Origin on the Center for Epidemiologic Studies Depression Scale – Revised (CESD-R). Professor Kathleen Rounds.
- Gang Wang**, *Business Administration*, Strategic Operational Decisions in a Supply Chain with Demand and Recall Risks. Professors Lauren Xiaoyuan Lu and Jayashankar Swaminathan.
- Kristina Charles Webber**, *Social Work*, School Engagement of Rural Early Adolescents: Examining the Role of Academic Relevance and Optimism across Racial/Ethnic Groups. Professor Natasha Bowen.
- Kate M. Wegmann**, *Social Work*, A Mixed-Methods Exploration of Stereotype Threat in Middle Childhood. Professor Natasha Bowen.
- Darmond Wei**, *Toxicology*, Elucidating SNF5 Regulated Gene Expression in Malignant Rhabdoid Tumor Development. Professor Bernard Weissman.
- Kate Lynn White**, *Pharmacology*, Identification of Biased Kappa Opioid Receptor Ligands for In Vivo Probing of Specific Signal Transduction Pathways. Professors Bryan Roth and T. Kendall Harden.
- Jennifer Jane Winston**, *Geography*, Hypospadias and Prenatal Exposure to Atrazine via Drinking Water: A Geographic Analysis. Professor Michael Emch.
- Clinton James Wutzke**, *Human Movement Science*, Influence of Lower Extremity Sensory Function on Threshold of Inter-Limb Gait Asymmetry Perception in People PostStroke. Professor Michael Lewek.
- Hong Sik Yoo**, *Environmental Sciences and Engineering*, Effects of Inter-Strain Differences in the Metabolism of Trichloroethylene on Liver and Kidney Toxicity. Professor Ivan Rusyn.
- Chong Zhang**, *Statistics and Operations Research*, Flexible Classification Techniques with Biomedical Applications. Professor Yufeng Liu.
- Yinqian Zhang**, *Computer Science*, Cache-Based Side-Channel Attacks in Multi-Tenant Public Clouds and Their Countermeasures. Professor Michael Reiter.
- Wei Zhao**, *Bioinformatics and Computational Biology*, Molecular Characterization and Clinical Implementation of Breast Cancer Genomics using Massive Parallel Sequencing and Microarray. Professor Charles Perou.
- Shengjun Zhu**, *Geography*, 'Go Up,' 'Go West' and 'Go Out': Changing Industrial Policy and Firm Strategies in China's Apparel Industry. Professor John Pickles.

DOCTOR OF PUBLIC HEALTH

- Tia Simmons**, *Health Policy and Management*, An Exploratory Study of mHEALTH Technology Acceptance for Type 2 Diabetes Self-Management among Adults in Later Life. Professor Sandra Greene.
- Kelley D. Wekheye**, *Biostatistics*, Statistical Methods for Repeated Measures in Experimental Gingivitis with Adjustment for Left Truncation Due to Lower Detection Limits. Professor John Preisser.

The School of Education

ESTABLISHED 1885

Dean G. Williamson McDiarmid

DOCTOR OF EDUCATION

- Cassandra Lytle Mangum**, *Educational Leadership*, Inspiring Others to Lead: Making the Impossible Possible. Professor Catherine Marshall.
- Kebbler M. Williams**, *Educational Leadership*, Elementary Principals' and Assistant Principals' Perceptions of Culturally Responsive Teaching Practices in North Carolina. Professor Fenwick English.

GRADUATE DEGREES

December 2014

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

Nour Abdo, *Environmental Sciences and Engineering*, The 1000

Genomes Toxicity Screening Project: Utilizing the Power of Human Genome Variation for Population-Scale In Vitro Testing. Professor Ivan Rusyn.

Laura Louisa Adduci, *Chemistry*, Methods of Carbohydrate Functionalization and Defunctionalization. Professor Michel R. Gagné.

Melanie Fawaz Alazzam, *Oral Biology*, Murine Transgene Insertional Mutation Involving Runx1T1 and GM11823 Genes and Their Contribution to Cleft Palate and Rib Anomalies. Professor Eric Everett.

William Benjamin Allshouse III, *Environmental Sciences and Engineering*, Modern Space/Time Geostatistical Approaches to Mapping Point Sources of Pollution and Infectious Disease. Professor Marc Serre.

Dennis Lee Ashford, *Chemistry*, A Molecular Solution to Solar Fuels. Professors Thomas Meyer and Joseph Templeton.

Jennifer Marie Ashlock, *Sociology*, Work Values and Control: A Longitudinal Analysis of the Structural, Cultural and Psychological Predictors of Work Values in the High School Class of 1972. Professor Arne L. Kalleberg.

Amelia Bachleda, *Neurobiology*, SOX2 Is Essential for the Maturation and Maintenance of Retinal Muller Glia. Professors Ellen Weiss and Larysa Pevny.

Christopher James Backlund, *Chemistry*, Nitric Oxide-Release Vehicles as Oral Disease Therapeutics. Professor Mark Schoenfisch.



- Sean Thomas Bailey**, *Genetics and Molecular Biology*, Inhibition of Compensatory Survival and Proliferative Pathway Activation Induced by mTOR Inhibition in Renal Cell Carcinoma. Professor William Y. Kim.
- Daniel E. Bonder**, *Neurobiology*, Astrocytic Gq-GPCR-linked IP3R-dependent Calcium Signaling Does Not Mediate Neurovascular Coupling in Mouse Visual Cortex In Vivo. Professor Ken D. McCarthy.
- Brian Bower**, *Genetics and Molecular Biology*, An In Vitro Characterization of Functional Interactions between Purified Telomere Repeat Binding Factors 1 and 2 and RAD51 Recombinase. Professors Jack D. Griffith and Jeff Sekelsky.
- Ila Hughes Broyles**, *Health Policy and Management*, Community Versus Facility Long-Term Care: Impacts on Medicare Spending and Service Use. Professor Morris Weinberger.
- Elizabeth Bucher**, *Chemistry*, Methods and Applications for Fast-Scan Cyclic Voltammetric Detection of In Vivo Catecholamine Dynamics. Professor R. Mark Wightman.
- Jessie P. Buckley**, *Epidemiology*, Prenatal Phthalate Exposures and Childhood Adiposity: Examining the Obesogen Hypothesis. Professor Stephanie Engel.
- Matthew Quinn Buckner**, *Physics*, Hydrogen Burning of the Rare Oxygen Isotopes. Professor Christian Iliadis.
- Steven Busan**, *Chemistry*, Frameworks for Large-Scale RNA Structure Profiling in Transcriptomes and Disease. Professor Kevin M. Weeks.
- Justin Bryce Callaway**, *Microbiology and Immunology*, Interfering with Inflammatory Cytokine Production during Antibody-Enhanced Dengue Virus Infection. Professor Jenny P.-Y. Ting.
- Daniela Cannamela**, *Romance Languages and Literatures*, Knowledge through Things: A New Perspective on Crepuscular and Futurist Avant-Garde. Professor Federico Luisetti.
- Susan Caplow**, *Ecology*, The Communication of Values, Beliefs and Norms in Live Animal Interpretive Experiences: A Comparative Case Study. Professor Pamela Jagger.
- Lindsay B. Case**, *Cell and Developmental Biology*, Spatiotemporal Coordination of the Actin Cytoskeleton and Integrin Adhesion. Professor Clare Waterman.
- Melissa Caughey**, *Epidemiology*, Is Sick Cell Trait a Risk Factor for Stroke and Cerebral Small Vessel Disease? Professors Laura Loehr and Kari North.
- Meredith Denise Clark**, *Mass Communication*, To Tweet Our Own Cause: A Mixed-Methods Study of the Online Phenomenon "Black Twitter." Professor Rhonda Gibson.
- Kizzmekia Shanta Corbett**, *Microbiology and Immunology*, Characterization of Human Antibody Responses to Dengue Virus Infections in a Sri Lankan Pediatric Cohort. Professor Aravinda de Silva.
- Emil Adrian Cornea**, *Biostatistics*, Advanced Biostatistical Methods for Curved and Censored Biomedical Data. Professors Joseph G. Ibrahim and Hongtu T. Zhu.
- Thomas Joseph Corona**, *Physics*, Methodology and Application of High Performance Electrostatic Field Simulation in the KATRIN Experiment. Professor John Wilkerson.
- Courtney Ellen Cox**, *Biology*, Evaluating Strategies for Restoring Parrotfish Populations in Belize. Professor John Bruno.

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 "SIGILLUM UNIVERSITATIS 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.

- Carmen Crosby**, *Social Work*, Sexual Assault among Female Students at Historically Black Colleges and Universities: An Exploration of the Black Feminist Perspective and Routine Activity Theory. Professor Natasha K. Bowen.
- Sayan Dasgupta**, *Biostatistics*, Non-Parametric and Semi-Parametric Methods for Parsimonious Statistical Learning with Complex Data. Professor Michael R. Kosorok.
- Nicholas DeFelice**, *Environmental Sciences and Engineering*, Drinking Water Risks to Health 40 Years After Passage of the Safe Drinking Water Act: A County-by-County Analysis in North Carolina. Professor Jacqueline MacDonald Gibson.
- Sumit Dhole**, *Biology*, Evolution of Reproductive Traits Under Preand Post-Mating Sexual Selection. Professor Maria Servedio.
- Alexandra Jazz Dickinson**, *Chemistry*, Single-Cell Analysis of Lipid Enzyme Activity Using Automated Capillary Electrophoresis. Professors Nancy L. Allbritton and James W. Jorgenson.
- Scott Dill**, *English*, The Only Crucial Clocks: Secular Time in the Contemporary American Novel. Professors Florence Dore and Gregory Flaxman.
- Dung Tien Do**, *Chemistry*, Stereoselective Functionalization of Meldrum's Acids and the Efforts toward Total Synthesis of Echinospirin. Professor Jeffrey S. Johnson.
- Shiahna Dye**, *Psychology*, The Associations among Religiosity, Parenting, and Sexual Behavior in African American Youth from Single-Mother Families: A Moderated Mediation Model. Professor Deborah Jones.
- Rebecca Richer Fanelli**, *Neurobiology*, Neuronal Encoding of Habit-Like Alcohol Self-Administration in the Rat Dorsal Striatum. Professor Donita L. Robinson.

- Brian C. Ferslew**, *Pharmaceutical Sciences*, Importance of Hepatic Transporters, Including Basolateral Efflux Proteins, in Drug Disposition: Impact of Phospholipidosis and Non-Alcoholic Steatohepatitis. Professors Kim Brouwer and Dhiren Thakker.
- Amber Frick**, *Pharmaceutical Sciences*, Cellular Genomics Approaches for Defining Susceptibility and Resistance to Chemotherapeutic Toxicity in Immune Cells. Professors Tim Wiltshire and Jian Liu.
- Joseph Carl Gaiteri**, *Chemistry*, Development of a Microfluidic Immunoassay for Determination of Kinase Phosphorylation. Professors J. Michael Ramsey and Nancy L. Allbritton.
- Anisha Gandhi**, *Epidemiology*, Migration, Social Disadvantage, Sexual Partnerships and HIV/STI in the Garífuna Population of Honduras. Professor Audrey Pettifor.
- Rachel Kelley Gittman**, *Ecology*, The Living Shoreline Approach as an Alternative to Shoreline Hardening: Implications for the Ecology and Ecosystem Service Delivery of Salt Marshes. Professors John Bruno and Charles Peterson.
- Ann Gottert**, *Health Behavior*, Gender Norms, Masculine Gender-Role Strain, and HIV Risk Behaviors among Men in Rural South Africa. Professor Clare Barrington.
- Natalia Gouskova**, *Biostatistics*, Analysis of Complex Time-to-Event Data. Professor Jason Fine.
- Nicole Gabrielle Griffin**, *Genetics and Molecular Biology*, Genetic Analysis of Complex and Mendelian Diseases. Professor Kirk C. Wilhelmsen.
- James P. Grinias**, *Chemistry*, Characterization and Control of Band Broadening in Ultra-High Pressure Liquid Chromatography Columns. Professor James W. Jorgenson.
- Brionna Hair**, *Epidemiology*, Body Mass Index, Breast Tissue and the Epigenome. Professor Melissa Troester.
- Hillary Van de Carr Harper**, *Speech and Hearing Sciences*, Connections between Participation in Early Reading First Classrooms and School-Aged Language and Literacy Development. Professor Karen Erickson.
- Jill Shizuko Harunaga**, *Biology*, Cell and Matrix Interactions during Branching Morphogenesis. Professors Kenneth M. Yamada and Stephen Rogers.
- Jessica Keppel Higgins**, *Biology*, Rapid Evolution and Population Divergence in Response to Environmental Change in Colias Butterflies. Professor Joel Kingsolver.
- Steven Hoberman**, *Biostatistics*, Response Adaptive Designs for Highly Successful Treatments, Randomness and Relationship Detection in Clinical Trials. Professors Michael Kosorok and Anastasia Ivanova.
- Kaulani M. Houston**, *Chemistry*, Development of Protease-Resistant Beta-Hairpin Peptides for the Detection of Enzymatic Activity in Cancer Cell Lines. Professor Marcey Waters.
- James Huckle**, *Pharmaceutical Sciences*, C2E2, An Orally Administered Radionuclide Decorporation Agent. Professor Michael Jay.
- Rosa B. Ibanez**, *Romance Languages and Literatures*, Nuevos y Viejos Demonios en la Novelística Histórica (2000–2010) de Mario Vargas Llosa. Professor Rosa Perelmutter.
- Lindsay M. Jaacks**, *Nutrition*, The 3C Nutrition Ancillary Study: Describing the Integration of Diet and Disease Self-Management among Adolescents and Adults with Type 1 Diabetes in China. Professor Elizabeth Mayer-Davis.
- Aziz Jaber**, *Linguistics*, On Genericity and Definiteness in Modern Standard Arabic. Professor Jules Michael Terry.
- Laura Elizabeth Jackson**, *Economics*, Monetary Policy in a Zero Lower Bound Environment. Professors Neville R. Francis and Michael Owyang.
- Joshua Holden Jennings**, *Neurobiology*, Neural Circuit Dynamics and Function of Complex Behavioral States. Professor Garrett Stuber.
- Deepak Kumar Jha**, *Biochemistry and Biophysics*, Role of Histone Methylation and Variants in Genome Function. Professor Brian D. Strahl.
- Brian Layne Jones**, *Musicology*, Signifying DIY: Process-Oriented Aesthetics in 1990s Alternative Rock and Hip-Hop. Professor Mark Katz.
- Leanne Kaye**, *Nutrition*, Examining the Use of Tailored Health Messages to Promote Physical Activity among Inactive Breast Cancer Survivors. Professor Diane S. Ward.
- Amanda Keener**, *Microbiology and Immunology*, Requirements for Memory B Cell and Long-Lived Plasma Cell Development during Adaptive Immune Responses and Staphylococcus Aureus Infection. Professor Barbara Vilen.
- Alexander P. Keil**, *Epidemiology*, Healthy Worker Survivor Bias in a Cohort of Uranium Miners from the Colorado Plateau. Professor David Richardson.
- Kayla Knilans**, *Pharmacology*, The Role of Lytic Transglycosylases LtgA and LtgD in Innate Immune Recognition and Pathogenesis of Neisseria Gonorrhoeae. Professor Joseph A. Duncan.
- Jennifer Frances Kosmin**, *History*, Embodied Knowledge: Midwives and the Medicalization of Childbirth in Early Modern Italy. Professor Melissa Bullard.
- Kevin Kritsch**, *English*, Apostles, Apostolicity and Apocrypha: The Literary Reception and Treatment of the Twelve Apostles in Anglo-Saxon England with a Study of the Cult of Saint Andrew. Professor Patrick O'Neill.
- Jennifer Kulzer**, *Genetics and Molecular Biology*, Molecular and Biological Mechanisms of the ARAP1 Type 2 Diabetes Locus. Professor Karen L. Mohlke.
- Matthew Lawrence Kutys**, *Cell and Developmental Biology*, A Novel, Matrix-Specific GEF/GAP Interaction Regulates Rho GTPase Crosstalk Critical for 3D Collagen Migration. Professors Kenneth M. Yamada and Keith Burridge.
- Julie C. Lauffenburger**, *Pharmaceutical Sciences*, Dabigatran and Warfarin for Stroke Prevention in Atrial Fibrillation: Use, Switching and Clinical Effects Following New Market Entry in Real-World Patients. Professor Gang Fang.
- Jacoba Leiper**, *Nursing*, The Context, Content, and Consequences of Disruptive Behavior among Nurses through Participant Observation and Interviews. Professor Noreen Esposito.
- Luciana Leopold**, *Genetics and Molecular Biology*, Surveillance and Targeting of Aberrant Transcripts in Caenorhabditis elegans. Professor Shawn Ahmed.
- Ya-Ru Li**, *Environmental Sciences and Engineering*, Assessing Exposure to and Risks of Fine Particulate Air Pollution from Multiple Sources. Professor Jacqueline MacDonald Gibson.
- Jesse Lichstein**, *Health Policy and Management*, Do Community Care of North Carolina-Induced Changes Spill Over to Non-Target Populations? Professor Mark Holmes.



WILL OWENS

- Qian Liu**, *Biostatistics*, Non-Parametric Machine Learning Methods for Clustering and Variable Selection. Professor Eric Bair.
- Adam Layton Long**, *Sociology*, Income Inequality and Religion: Beliefs, Disagreements, and Politics. Professor Ted Mouw.
- Lantz Mackey**, *Pathology*, The Role of $\text{D}(1,3)$ -Fucosylated Glycans in Homeostatic Immunity, Granulopoiesis, and Mucosal Injury. Professor Jonathon W. Homeister.
- Ritsa Mallous**, *Education*, Exploration of New Early Childhood and Elementary Teachers' Efficacy Based on Collaborative Conversations of Self-Identified Practice Dilemmas. Professor Harriet Able.
- Jessica L. Martell**, *English*, In Formlessness and Appetite: Modernist Form and Imperial Food Politics, 1890–1922. Professor Gregory Flaxman.
- Rachel L. Martin**, *History*, Out of the Silence: Remembering the Desegregation of Clinton, Tennessee, High School. Professor Jacquelyn Dowd Hall.
- Kevin Clark Mathias**, *Nutrition*, Understanding the Roles that Food Manufacturers, Government, and Consumers Play in Efforts to Reduce Purchases of Grain-Based Desserts. Professor Barry Popkin.
- Brian Christopher Miles**, *Geography*, Small-Scale Residential Stormwater Management in Urbanized Watersheds: A Geoinformatics-Driven Ecohydrology Modeling Approach. Professor Lawrence E. Band.
- Kathleen Miller**, *Health Policy and Management*, The Signaling Effects of FDA Drug Designations. Professor Kristin Reiter.
- Sarah Nicole Mueller**, *Chemistry*, Polymeric PRINT Hydrogel Nanoparticles as a Delivery Platform for Subunit Vaccine Antigens and Adjuvants. Professor Joseph DeSimone.
- Giang Thi Huong Nguyen**, *Economics*, The High Frequency Economics of Government Bond Markets. Professor Eric Ghysels.
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- Stephanie H. Nowotarski**, *Biology*, Roles and Interactions of Enabled, Diaphanous and Capping Protein in Regulation of Actin Structures in *Drosophila* Development. Professor Mark Peifer.
- Caela Brighid Casey O'Connell**, *Anthropology*, Persistent Communities: Entangled Landscapes of Agriculture, Environment, and Fairtrade Development in St. Lucia. Professors Arturo Escobar and Karla Slocum.
- Nathan Paul Oien**, *Pharmaceutical Sciences*, Erythrocyte Carriers: Tool Development for Erythrocyte Mediated Diagnostic and Drug Delivery. Professors David Lawrence and Jian Liu.
- Habib Omari**, *Epidemiology*, Second-Line Antiretroviral Therapy in Northern Tanzania. Professor William C. Miller.
- Adem Orsdemir**, *Business Administration*, Essays on Sustainable Operations and Corporate Social Responsibility. Professors Vinayak Deshpande and Ali K. Parlakturk.
- John Pelton**, *Biology*, Multiple Endothelial Cells Constitute the Tip of Developing Blood Vessels and Polarize to Promote Lumen Formation. Professor Victoria Bautch.
- Ernesto Perez-Chanona**, *Pharmacology*, Microbial Signaling in the Intestinal Ischemia/Reperfusion Injury Response. Professor Christian Jobin.
- Jennifer M. Poti**, *Nutrition*, Development of a Novel Classification System to Determine the Role of Processed and Convenience Foods in the Diets of U.S. Households. Professor Barry M. Popkin.
- Shangbang Rao**, *Biostatistics*, Spatially Regularizing High Angular Resolution Diffusion Imaging. Professors Joseph Ibrahim and Hongtu Zhu.
- Amy Richardson**, *Biostatistics*, Inference about Treatment Effects Using Bounds, Sensitivity Analysis and Instrumental Variables. Professor Michael G. Hudgens.
- Andrea Starkweather Richardson**, *Nutrition*, How Do Changes in the Neighborhood Food Environment Influence Diet and Body Mass Index Over Time? An Innovative Method Using 20 Years of Spatial, Diet and Anthropometry Data. Professor Penny Gordon-Larsen.
- Amy Lynn Roberts**, *Nutrition*, Measuring the Healthfulness of Children's Diets and the Role of the Home Food Environment. Professor June Stevens.
- Cheryl Ann Roberts**, *Sociology*, Family Disadvantage, School Context, and the Educational Attainment of African-American Males. Professors Kathleen M. Harris and Glen H. Elder Jr.
- John Robertson**, *History*, Calamitous Methods of Compulsion: Labor, War and Revolution in a Habsburg Industrial District, 1906–1919. Professor Chad Bryant.
- Ivan Gwilym Sabath**, *Biochemistry and Biophysics*, Characterization of Factors Required for 3' End Processing of Histone pre-mRNAs. Professors Zbigniew Dominski and William Marzluff.
- Wesley Ken Sauret**, *Philosophy*, Internal and External Awareness. Professor William Lycan.

- Kevin Philip Schultze**, *Chemistry*, Advanced System Components for the Development of a Handheld Ion Trap Mass Spectrometer. Professor J. Michael Ramsey.
- Joseph Seaborn**, *Mathematics*, Combinatorial Interpretation of the Kumar-Peterson Limit for $\text{sln}(C)$ Demazure Characters and Gelfand Pattern Description of $\text{sln}(C)$ Demazure Characters. Professor Robert Proctor.
- Tammy Shen**, *Pharmaceutical Sciences*, Development and Characterization of PRINT Particles as Drug Delivery Vehicles in the Lung. Professor Joseph DeSimone.
- Thomas Sheppard**, *History*, Petty Despots and Executive Officials: Civil-Military Relations in the Early American Navy, 1794–1820. Professor Wayne Lee.
- Matt Simon**, *Genetics and Molecular Biology*, Germ Cell Immortality in *C. Elegans*: Reduced Insulin Signaling Restores Germline Immortality in Piwi Argonaute PRG-1 Mutants. Professor Shawn Ahmed.
- Olivenne D. Skinner**, *Psychology*, Longitudinal Predictors of Gender Attitudes and Relationships among the Gender Attitudes, Gender Identity and Educational Choices of Black and White Youth. Professor Beth Kurtz-Costes.
- Lauren Slevin**, *Biology*, A Structural Study of the Conserved Centriole Duplication Machinery. Professor Kevin Slep.
- Lindsey Patricia Smith**, *Nutrition*, Can a Major National Food Retailer Improve the Nutritional Profile of U.S. Packaged Food Purchases and Reduce Diet-Related Disparities? Professor Barry Popkin.
- M. Kumi Smith**, *Epidemiology*, Treatment to Prevent HIV Transmission in Serodiscordant Couples in Henan, China. Professor William C. Miller.
- Kevin Z. Snow**, *Computer Science*, Identifying Code Injection and Reuse Payloads in Memory Error Exploits. Professor Fabian Monroe.
- Eric J. Sobolewski**, *Human Movement Science*, The Time Course of Changes in Neuromuscular Function During and Following Creatine Loading. Professor Eric D. Ryan.
- Alice Michael Stamatakis**, *Neurobiology*, Delineating Midbrain Circuits Underlying Motivated Behaviors. Professor Garret Stuber.
- Matthew Stiegel**, *Environmental Sciences and Engineering*, An Exposure Study Linking Environmental and Human Biological Parameter Measurements, with a Focus on TH1/TH2 Cytokine Expression. Professors Michael Flynn and Joachim Pleil.
- Alissandra T. Stoyan**, *Political Science*, Constituent Assemblies, Presidential Majorities, and Democracy in Contemporary Latin America. Professor Jonathan Hartlyn.
- Natalia K. Suit**, *Anthropology*, Qur'anic Matters: Media and Materiality. Professor Margaret Wiener.
- Zhankun Sun**, *Statistics and Operations Research*, Priority Scheduling of Jobs with Hidden Types. Professors Nilay T. Argon and Serhan Ziya.
- Allison Tatura**, *Microbiology and Immunology*, SARS-Coronavirus Antagonizes Innate Immune Signaling Initiated by RIG-I but is Recognized by TLR Signaling via the Adaptor Molecule TRIF. Professors Ralph Baric and Mark Heise.
- Jenna Tucker**, *Social Work*, Family-School Relationships: Three Papers Addressing Limitations in Parent Involvement Theory and Research. Professor Natasha Bowen.
- Alison McGlenn Turner**, *Education*, Language Classes for Parents at a Two-Way Immersion School in North Carolina: Laying the Groundwork for Third Spaces. Professors Claudia Cervantes-Soon and Xue Rong.
- Franklin Ifeanyi Chukwu Uba**, *Chemistry*, Development of Nanofluidic Devices for Single-Molecule DNA Diagnostics. Professor Steven A. Soper.
- Abel Valdivia-Acosta**, *Biology*, Fish Assemblages of Caribbean Coral Reefs: Effects of Overfishing on Coral Communities under Climate Change. Professor John Bruno.
- Tao Wang**, *Statistics and Operations Research*, Empirical Analysis of Sequential Trade Models for Market Microstructure. Professor Chuanshu Ji.
- Richard Lee Watkins**, *Microbiology and Immunology*, Role of HIV-1 Nef and Vpu in Viral Replication and CD4+ T Cell Depletion. Professor J. Victor Garcia-Martinez.
- Leah Watson**, *Cell and Developmental Biology*, Endo-Exocytic Trafficking in Regulation of Cdc42 Polarity. Professor Patrick Brennwald.
- Christian G. Watt**, *Political Science*, Explaining Postwar Strategic Cooperation between the United States and its Former Adversaries. Professor Mark Crescenzi.
- Catherine Welsh**, *Computer Science*, Computational Tools to Aid the Design and Development of a Genetic Reference Population. Professor Leonard McMillan.
- Matthew Woody**, *Environmental Sciences and Engineering*, On Enhancing Air Quality Model Predictions of Particulate Matter from Aircraft Emissions. Professors J. Jason West and Saravanan Arunachalam.
- Glenn Wozniak**, *Genetics and Molecular Biology*, Investigation of the Role and Regulation of Histone H2B Ubiquitylation in Transcription. Professor Brian Strahl.
- Catherine Wright**, *Genetics and Molecular Biology*, LGN-Dependent Microtubule Regulation Influences Endothelial Cell Migration, Adhesion, and Sprout Integrity. Professors Victoria Bautch and Jean Cook.
- Wan-Ching Wu**, *Information and Library Science*, How Far Will You Go? Characterizing Online Search Stopping Behaviors Using Information Scent and Need for Cognition. Professor Diane Kelly.
- Tingting Yang**, *Marine Sciences*, Microbial Community Dynamics of the Deepwater Horizon Oil Spill. Professor Andreas Teske.
- Zhaoyu Yin**, *Biostatistics*, Statistical Analyses of High Throughput Genetics and Genomics Data. Professor Fei Zou.
- Zhaojun Zhang**, *Computer Science*, Efficient Computational Genetics Methods for Multiparent Crosses. Professors Wei Wang and William Valdar.
- Huan Zhou**, *Economics*, Forecasting in a Data-Rich Environment. Professor Eric Ghysels.

DOCTOR OF NURSING PRACTICE

- Heather Michelle Boykin**, *Nursing*, The Impact of a Pre-End Stage Renal Disease Education Intervention on Central Venous Catheter Placement in Those Initiating Dialysis: A Quality Improvement Project. Professor Meg Zomorodi.
- Carla M. Jones**, *Nursing*, Factors Contributing to Falls in Hospitalized Patients: Post-Fall Aggregate Analysis. Professor Mary Lynn.

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:

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

Catherine K. Madigan, *Nursing*, Drivers of Patient Satisfaction and Effects of Demographics on the HCAHPS Survey. Professor G. Rumay Alexander.

Megan O'Connor, *Nursing*, Changing Organizational Culture through Gaming. Professor Gwen Sherwood.

Valerie Benedicta Idada-Parker, *Nursing*, Using the Dual Diagnosis Capability of Addiction Treatment (DDCAT) Index to Improve Outcomes: An Evaluation of a Community-Based Behavioral Health Program. Professors Cheryl Giscombe and Sonya Oppenwal.

DOCTOR OF PUBLIC HEALTH

Natnaee Aimyong, *Biostatistics*, Propensity Score Methods for Competing Risks. Professors Jason P. Fine and M. Alan Brookhart.

Christian Elizabeth Douglas, *Biostatistics*, Statistical Methods for Assessing the Effect of Mortality on Rates of Change and Variability in a Longitudinal Study of the Elderly. Professor Lloyd Edwards.

Philip Downs, *Health Policy and Management*, Opportunities and Barriers in the Control and Prevention of Lyme Disease: Implications for Practice. Professor Suzanne Hobbs.

Mohammad Saad Khan, *Health Policy and Management*, Improving Local Public Health Capacity through a Health Information Exchange in South Texas: Policy Implications for Health Leaders. Professor Christopher Shea.

Gift L. F. Kamanga, *Health Policy and Management*, How Best Can HIV/AIDS Policy Be Moved to Successful Implementation? Lessons from Routine HIV Testing of Patients with Sexually Transmitted Infections in Malawi. Professors Suzanne M. Hobbs and Sandra B. Greene.

Nicholas Gerard Mosca, *Health Policy and Management*, Acts Before Congress: How Interest Groups Influence Oral Health Policy Making in the U.S. Government. Professor Thomas G. Ricketts.

Lisa Oxendine, *Health Policy and Management*, Critical Factors Related to Communication of Nutrition Information Targeting Lumbee Women in Robeson County, N.C. Professor Suzanne H. Hobbs.

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DOCTOR OF EDUCATION

Cynthia B. Brand, *Curriculum and Instruction*, GED Success Rates for Inmates with Low Reading Ability Compared to Inmates with Higher Reading Skills in a Federal Correctional Setting. Professor Barbara Day.

Thomas Collins Cooper III, *Educational Leadership*, Refugee Students: Educational Challenges and Strategies for Leaders Working with Third World Populations. Professor Kathleen Brown.

Margaret Goodhand, *Educational Leadership*, Teachers' Perceptions of Heteronormativity in Elementary Schools: The Hidden and Evaded Curricula of Gender Diversity. Professor Kathleen Brown.

Shirley Mote Stipe-Zendle, *Educational Leadership*, An Investigation of Parental Calls Regarding Schooling to District Offices Within Bourdieu's Framework of Cultural Reproduction. Professor Fenwick English.

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