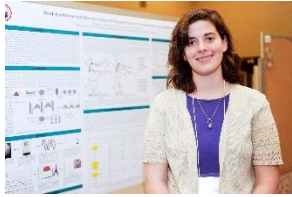

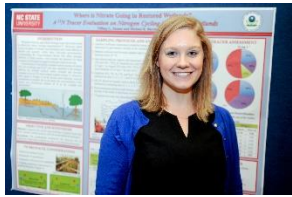
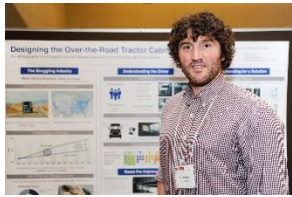




Tenth Annual Graduate Student Research Symposium

Congratulations to the winners of the Tenth Annual Graduate Student Research Symposium! Each year, the Symposium showcases the outstanding quality and diversity of graduate-level research at NC State. The Symposium was held on March 25, 2015 at the McKimmon Center. First-, second-, and third-place winners have been announced in eight categories.

AGRICULTURAL SCIENCES & NATURAL RESOURCES	
	<p>1st Place: Stephanie Mathews - Microbiology and Forest Biomaterials</p> <p><u>Biodegradation and Bioconversion of Pulping Waste by <i>Paenibacillus glucanolyticus</i></u></p>
	<p>2nd Place: Bryan Dick – Forest Biomaterials</p> <p><u>Erosion Rates Derived From Exposed Tree Roots – New Tools in Water Resource Management</u></p>
	<p>3rd Place: Tiffany Messer – Biological and Agricultural Engineering</p> <p><u>Where is Nitrate Going in Restored Wetlands? A 15N Tracer Evaluation on Nitrogen Cycling in Restored Wetlands</u></p>
DESIGN	
	<p>1st Place: David Eidson – Industrial Design</p> <p><u>Designing the interior Environment for Long Haul Trucks: An Investigation into the Lifestyle Needs of Over the Road Truck Drivers</u></p>
	<p>2nd Place: Jimena Vergara Sanz – Industrial Design</p> <p><u>Universal and Inclusive Design for Leisure Activities for the Deaf and Hard of Hearing</u></p>
	<p>3rd Place: Rachel Whitaker – Industrial Design</p> <p><u>The Future of Furniture: A Renewed Opportunity for Domestic Furniture Design and Production</u></p>

EDUCATION



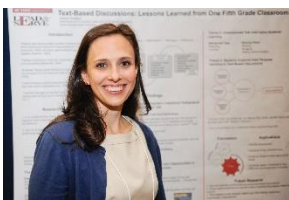
1st Place: Jennifer Nickell & Emily Thrasher – Mathematics Education
(right) (left)

[Impact of Graduate Course on Teachers' Self-efficacy to Teach Statistics](#)



2nd Place: Jeremy Tuchmayer – Educational Research & Policy Analysis

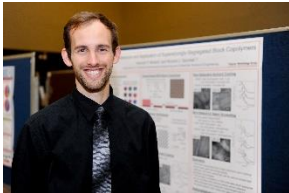
[The Community College Effect: A Comparison of Labor Market Outcomes of Community College Transfer and Four-year Native Graduates](#)



3rd Place: Melissa Pendleton – Curriculum and Instruction

[Text-based Discussions: Lessons Learned from One Fifth Grade Classroom](#)

ENGINEERING



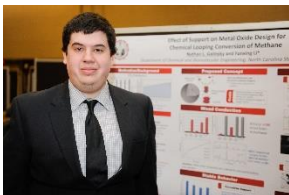
1st Place: Kenneth Mineart - Chemical and Biomolecular Engineering

[Novel Phase Behavior and Application of Superstrongly-segregated Block Copolymers](#)



2nd Place: Lopamudra Kundu- Electrical Engineering

[Impact of Frequency Selective Matching on the Capacity of Compact MIMO Systems](#)



3rd Place: Nathan Galinsky - Chemical and Biomolecular Engineering



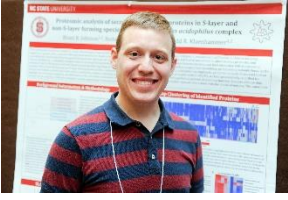
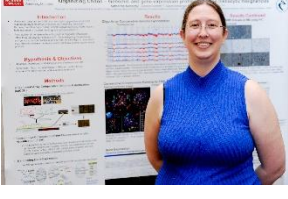

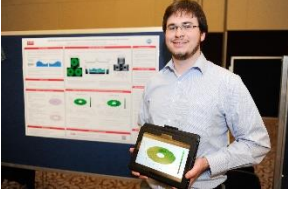
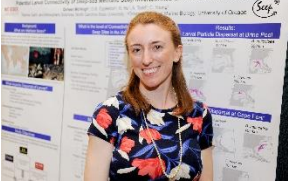
[Effect of Support on Metal Oxide Design for Chemical Looping Conversion of Methane](#)

HUMANITIES



1st Place: Johanne Laboy - Communication, Rhetoric and Digital Media

[IHBs, Diabetes Knowledge and Media Sources: Exploring the Connections in Young Adults](#)

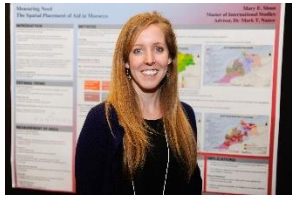
	<p>2nd Place: Casey Helms - Foreign Languages and Literatures</p> <p><u>L2 Spanish Subject Personal Pronouns: A Study of Twelve Undergraduate Students</u></p>
	<p>3rd Place: Sarah Evans - Communication, Rhetoric and Digital Media</p> <p><u>Couples who Slay Together, Stay Together: Examining the Relational Processes of Romantic Couples Who Game</u></p>
<p>LIFE SCIENCES</p>	
	<p>1st Place: Brant Johnson - Microbiology</p> <p><u>Exoproteome Analysis of Cell Surface Proteins in S-layer and Non-S-layer Forming Species of <i>Lactobacillus</i> Reveal Conserved Proteins Putatively Involved in Probiotic-host Interactions</u></p>
	<p>2nd Place: Katherine Kennedy - Comparative Biomedical Sciences</p> <p><u>Organizing Chaos – A Study of the Molecular Genomics and Gene Expression of Canine Histiocytic Malignancies</u></p>
	<p>3rd Place: Emily Medlin - Comparative Biomedical Sciences</p> <p><u>Investigation of mPGES-1 as a Novel Anti-inflammatory Target in Equine Leukocytes</u></p>
<p>MATHEMATICAL AND PHYSICAL SCIENCES</p>	
	<p>1st Place: Stephen Strickland - Physics</p> <p><u>Spatiotemporal Measurement of Surfactant Distribution on Gravity-capillary Waves</u></p>
	<p>2nd Place: Doreen McVeigh – Marine, Earth, and Atmospheric Sciences</p> <p><u>Potential Larval Connectivity of Deep-sea, Methane Seep Invertebrates in the Intra-American Sea</u></p>



3rd Place: Jacob Norton – Biomathematics

Convergent Cross Mapping (CCM): Limits of Applicability

SOCIAL SCIENCES AND MANAGEMENT



1st Place: Mary Sloan – International Studies

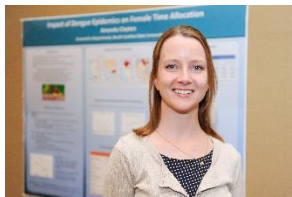
[Mapping Progress in International Aid: Threats and Responses in Morocco](#)



2nd Place: Christopher Allred, Sonia Oakley & Richard Yentes -
(left) (right)

Industrial and Organizational Psychology

[Functioning of the Utrecht Work Engagement Scale among Men and Women from the United States: An IRT Approach](#)



3rd Place: Amanda Clayton – Agricultural and Resource Economics

[Impact of Household Dengue Incidence on Female Time Allocation](#)