

NINETEENTH ANNUAL  
**Graduate Research  
Symposium**

Sponsored By: **GRADUATE SCHOOL & RESEARCH**



Christina Stoeihel, a graduate student in biology, and her adviser, biology professor Kathy Gould Mathews, study plant samples.

March 24, 2011 | 11am – 8pm | University Center

## Activities Overview

### 11AM

HUMANITIES ..... Rogers Room  
 HUMANITIES ..... Dogwood Room  
 ENGINEERING &  
 TECHNOLOGY..... Cardinal Room

FINE &  
 PERFORMING ARTS ..... Catamount Room  
 SOCIAL SCIENCES ..... Multipurpose Room A  
 HEALTH..... Multipurpose Room B  
 HEALTH..... Theater

### 12:30PM

SOCIAL SCIENCES ..... Rogers Room  
 HEALTH..... Dogwood Room

FINE & PERFORMING  
 ARTS & HUMANITIES.... Cardinal Room  
 HUMANITIES ..... Catamount Room  
 SOCIAL SCIENCES ..... Multipurpose Room A  
 ENGINEERING &  
 TECHNOLOGY..... Multipurpose Room B  
 HEALTH..... Theater

### 2PM

HUMANITIES ..... Rogers Room  
 HUMANITIES ..... Dogwood Room  
 SCIENCES & HEALTH .... Cardinal Room  
 SOCIAL SCIENCES ..... Catamount Room  
 SOCIAL SCIENCES ..... Multipurpose Room A  
 FINE &  
 PERFORMING ARTS ..... Multipurpose Room B  
 ENGINEERING &  
 TECHNOLOGY..... Theater

### 3:30PM


HUMANITIES ..... Rogers Room  
 HEALTH..... Dogwood Room  
 HUMANITIES ..... Cardinal Room  
 HUMANITIES ..... Catamount Room  
 EDUCATION ..... Multipurpose Room A  
 SOCIAL SCIENCES . ..... Multipurpose Room B

### 5PM

RECEPTION & AWARDS ...Grand Room

### 6:30PM

SCIENCES &  
 SOCIAL SCIENCES ..... Catamount Room  
 SCIENCES & HEALTH .... Multipurpose Room B

 **North Carolina Research Recognition**  
 Special Recognition and Award for Research  
 related to the economic, cultural, and artistic  
 development of the State of North Carolina.

### Student News Releases

WCU's Office of Public Relations routinely sends news releases about student activities and honors to the students' hometown/local newspapers. Participants in the Graduate Research Symposium who wish to take advantage of that service should visit the Web site <http://www.wcu.edu/22961.asp> to fill out an online form and submit it via e-mail to the Public Relations Office.

The Public Relations Office also can send photographs of students to their hometown/local newspapers to accompany the news releases. Students who wish to take advantage of that service are invited to come to Room 420 in H.F. Robinson Administration Building to have their photographs taken between 2 p.m. and 5 p.m. on one of these days:

Wednesday, April 6  
 Wednesday, April 20  
 Wednesday, May 4

Students with scheduling conflicts that prevent them from taking advantage of these photo sessions may make a special appointment to have a photograph taken by calling the Public Relations photography office at 828.227.3081.

Students' personal photos will be considered for use, depending on quality. Portrait-quality head-and-shoulders shots may be e-mailed to [rholcomb@wcu.edu](mailto:rholcomb@wcu.edu).

### Western Carolina University

Western Carolina is a campus of the University of North Carolina system and enrolls more than 9,000 students. WCU is located in a beautiful valley between the Blue Ridge and Great Smoky Mountains, an hour west of Asheville, NC, and 2.5 hours northeast of Atlanta, GA. Here you will find convenient access to a region that offers tremendous opportunities for outdoor research and recreation. Engagement of students and faculty in service learning and other community activities is a critical part of WCU's tradition of academic excellence.

## NINETEENTH ANNUAL

# Graduate Research Symposium

MARCH 24, 2011 | 11AM – 8PM | UNIVERSITY CENTER


Dear Participants,

Welcome to the Nineteenth Annual Graduate Research Symposium. Since 1992, the Graduate Research Symposium, sponsored by Graduate School and Research, has provided graduate students the opportunity to showcase their scholarly research and projects. I want to express my sincere appreciation to you for sharing your scholarly and creative work. In addition, I congratulate all the participating faculty and staff mentors for supporting and encouraging our presenters to participate in this meaningful experience.

For many of you, this will be your first opportunity to share empirical findings and creative works with the academic community. Today, you take the first step in becoming recognized as a scholar in your chosen discipline. The skills that you learn as part of the research process and your ability to convey that research in writing and in person will enable you to establish your authority within your discipline and improve the world in which we live.

I congratulate you on this significant milestone in your academic development. It is my hope that your experience today inspires you to continue to contribute to our understanding of the significant issues facing our region, state, and world and propels you to take action.

I look forward to meeting each of you and having the opportunity to talk with you about your important work and your plans for the future. A celebration has been planned in your honor in the University Center Grand Room starting at 5pm. Please join your colleagues.



Scott E. Higgins  
 Dean, Graduate School and Research

**11AM–12:15PM**

**HUMANITIES** | English | UC 209 | Rogers Room  
CHANDRIKA BALASUBRAMANIAN, English, Moderator

**The Worthiness of Chaucer's Characters**

Presenter: Hogan Carringer  
Sponsor: Brian Gastle

**Speak Like a Wo(man):****A Corpus Linguistic and Discourse Analysis of Gendered Speech**

Presenter: Forrest Caskey  
Sponsor: Chandrika Balasubramanian

**Reading and Writing Multimodal Texts**

Presenter: Nicole Jarosinski  
Sponsor: Marsha Lee Baker

**(in)Between Word and Image: Reading Comics**

Presenter: Rain Newcomb  
Sponsor: Marsha Lee Baker

**HUMANITIES** | History | UC 212 | Dogwood Room  
HUNT BOULWARE, History, Moderator


**Christian Priber and the Cherokee Utopia**

Presenter: Jacqueline Fischer  
Sponsor: Hunt Boulware

**The Trees Moved without Wind: An “Authentic” Look at the Cherokee Prophecies of 1811-1812 and their Role in the Negotiation of Power**

Presenter: Nathaniel F. Holly  
Sponsor: Hunt Boulware

**Ukte'nas on the Tuckaseegee:****Land-Use and Ideology in the Tuckaseegee River Valley**

Presenter: James A. Owen  
Sponsor: Elizabeth McRae  
NC-RESEARCH 




*“If you have knowledge, let others  
light their candles in it.”*

– Margaret Fuller

**11AM–12:15PM (CONTINUED)**

**ENGINEERING & TECHNOLOGY** | Technology | UC 214 | Cardinal Room  
AARON BALL, Engineering & Technology, Moderator

**Comparison of Two Different Types of Wood Filler with Respect to Fill Capability and Shrinkage across Varying Levels of Temperature and Humidity**

Presenter: Joshua L. Ellis  
Sponsor: Aaron Ball  
NC-RESEARCH 

**The Automated Loading and Detection of Brachytherapy Elements through Non-Mechanical Interface**

Presenter: Jason A. Proffitt  
Sponsor: Aaron Ball

**Accuracy Characterization of the ATOS White Light 3D Scanner**

Presenter: Christopher W. Rhoades  
Sponsor: Chip Ferguson

**Hardware Implementation of a Voice Stress Detection Algorithm using Empirical Mode Decomposition**

Presenter: Joshua D. Schwartz  
Sponsor: Robert Adams

**FINE & PERFORMING ARTS** | Music | UC 215 | Catamount Room  
CHRISTINA REITZ, Music, Moderator

**Debussy and Improvisation**

Presenter: Michael Collings  
Sponsor: Christina Reitz

**Thurber, Dvorák and the American School of Music**

Presenter: Angela Faith Faust  
Sponsor: Christina Reitz

**Coils and Cords: How Clara Rockmore's Theremin Sings**

Presenter: Erin Elizabeth Pugh  
Sponsor: Christina Reitz

**SOCIAL SCIENCES** | Psychology | UC 232A | Multipurpose Room  
LORI UNRUH, Psychology, Moderator

**Ethnicity, Gender, and High School Dropouts: A Case Study**

Presenter: Marquessa Chappell  
Sponsor: Lori Unruh

**Not All Groups Are Equal: Differential Vulnerability of Social Groups to the Prejudice-Releasing Effects of Disparaging Humor**

Presenter: Shane Triplett  
Sponsor: Thomas Ford

**Sex Differences on the Eating Disorder Inventory-3 Scale**

Presenter: Kristin Vice  
Sponsor: Mickey Randolph

11AM–12:15PM (CONTINUED)

**HEALTH** | Communication Sciences & Disorders | UC 232B | Multipurpose Room  
GEORGIA HAMBRECHT, Communication Sciences & Disorders, Moderator

**International Perspectives on Communication Sciences and Disorders**

Presenters: Kate Chappell, Amanda Holliday, Lindsay Hughes,  
Claire Johnson, and Gregory Linge  
Sponsor: David Shapiro

**Graduate Clinicians Enhance Communication during Clinical Rotations**

Presenters: Katie Kirk, Elizabeth Ledford, Katie Reissinger, and Claire Johnson  
Sponsors: Bill Ogletree and Georgia Hambrecht

**HEALTH** | Physical Therapy | UC 315 | Theater  
LORI SCHRODT, Physical Therapy, Moderator

**Clinical Strategies for Fall Prevention Utilized by Physical Therapists**

Presenters: Adam Bridges and Javin Sterner  
Sponsors: Lori Schrodt and Karen Lunnan

**The Effect of a Community-Based Balance Exercise Program on Balance and Mobility in Older Adults**

Presenters: Libby Hinsley, Jeremy Jarvis, Michelle Martin, Amy Minton,  
Anna Pryce, and Lauren Wagner  
Sponsor: Lori Schrodt

**The Prevalence of Urinary Incontinence in Collegiate Female Athletes**

Presenters: Ruth R. Nicholson and Dana R. Robinson  
Sponsor: Michelle Scifers

12:30–1:45PM

**SOCIAL SCIENCES** | Public Affairs | UC 209 | Rogers Room  
CHRIS COOPER, Political Science & Public Affairs, Moderator

**Domestic Violence Homicides in NC: 2002-2010**

Presenter: Tracy Anders  
Sponsor: Chris Cooper  
NC-RESEARCH

**The Asheville Way:  
The City of Asheville Employee Training and Development Program**

Presenter: Jessica Dunlap  
Sponsor: Chris Cooper  
NC-RESEARCH

**Western North Carolina Forest Products Cooperative Program**

Presenter: William Hutchings  
Sponsor: Chris Cooper  
NC-RESEARCH

**Western North Carolina Alliance Informative Survey**

Presenter: Joseph R. John, Jr.  
Sponsor: Chris Cooper

**HEALTH** | Health Sciences | UC 212 | Dogwood Room  
MARIANNE HOLLIS, Health Sciences, Moderator

**Assessing Health Literacy among American Indians and Alaska Natives**

Presenter: Barbara J. Freeby  
Sponsor: Ted Chiappelli

**Factors Related to Sunlight Exposure, Vitamin D Intake, and Autoimmune Disease**

Presenter: Jodi Kimbell  
Sponsor: Marianne Hollis

**The Nonclinical User's Satisfaction and View of  
Quality of Electronic Medical Records in North Carolina Healthcare Facilities**

Presenter: Natalie D. Moore  
Sponsor: Burton Ogle

**"Got Milk; Organic or Conventional?" The Use of the Theory of Planned Behavior  
to Identify Consumer Behavior in Parents Purchasing Milk for their Children**

Presenter: Yasemin Tanrikulu  
Sponsor: Ted Chiappelli



*"We are not what we know but what  
we are willing to learn."*

– Mary Catherine Bateson

12:30–1:45PM (continued)

**FINE & PERFORMING ARTS & HUMANITIES**

Fine Arts & English | UC 214 | Cardinal Room  
JOAN BYRD, Art & Design, Moderator

**Competing Land Use Values:**

**Community versus the Self in Literature of the American South**

Presenter: Leslie Ferguson-Oles  
Sponsor: Mae Claxton

**The Capitalist Agenda and Animal's People: Profit in Poison**

Presenter: Brian Hough  
Sponsor: Laura Wright

**Moving Out of State: Reasonable**

Presenter: Scott Hubener  
Sponsor: Cathy Griffin

**Over Consumption in America**

Presenter: Frank Vickery  
Sponsor: Joan Byrd

**HUMANITIES** | History | UC 215 | Catamount Room

RICHARD STARNES, History, Moderator

**Forget Me Not: Victorian Era Perceptions of Death in Photography, Religion, and Literature**

Presenter: Hilary Lindler  
Sponsor: Alexander Macaulay

**Slave Deaths through the Eyes of Plantation Mistresses**

Presenter: Norrie Meus  
Sponsor: Richard Starnes

**Elite Georgia Women's Civil War Plight: Maintaining Distinguished Positions and Idyllic Images**

Presenter: Kaylynn L. Washnock  
Sponsor: Richard Starnes

**Slavery in Twentieth-Century U.S. History Textbooks**

Presenter: Harrison Williams  
Sponsor: Alexander Macaulay

*"I never see what has been done; I only see what remains to be done."*

– Marie Curie



12:30–1:45PM (continued)

**SOCIAL SCIENCES** | Psychology | UC 232A | Multipurpose Room

DAVID MCCORD, Psychology, Moderator

**The Relationship between Personality and Depression**

Presenter: Adam D. Hicks  
Sponsor: David McCord

**Anxiety and Depression: Personality Differences**

Presenters: Adam D. Hicks and Trevor Dennie  
Sponsor: David McCord

**Correlations between CAP Abuse Scale and MMPI-2-RF Scales in a Clinical Setting**

Presenter: Brittni Morgan  
Sponsor: David McCord

**ENGINEERING & TECHNOLOGY** | Technology | UC 232B | Multipurpose Room

JAMES ZHANG, Engineering & Technology, Moderator

**Optical Assembly of Far-Field Super-Resolution Imaging via Optical Gain**

Presenter: Joshua Deaver  
Sponsor: Bill Yang

**A Novel Implementation of Passive Sonar**

Presenter: William Gall  
Sponsor: James Zhang

**Activity Recognition Using Grey-Markov Model**

Presenter: Kirke L. Shouse  
Sponsor: James Zhang

**Performance Analysis of Ultra Wideband Communication Systems**

Presenter: LakshmiNarasimhan SrinivasaRaghavan  
Sponsor: James Zhang

**HEALTH** | Physical Therapy | UC 315 | Theater

DAVE HUDSON, Physical Therapy, Moderator

**Gender Differences in the Relationship between Alignment of the Lower Extremity and Plantar Pressures of the Foot**

Presenters: Laura Flynn and Chris Wilson  
Sponsor: Dave Hudson

**The Relationship between Static Foot Structure and Plantar Force Patterns**

Presenters: Lauren Parker and Mary Ann Pascutti  
Sponsor: Dave Hudson

**Establishing Validity of the Western Athletic Knee Scale**

Presenters: Spencer Shugart, Eric Collins, and Michelle Ziegler  
Sponsor: James Scifers

2–3:15PM

**HUMANITIES** | History | UC 209 | Rogers Room  
ALEXANDER MACAULAY, History, Moderator

**Cataloochee Valley, NC: Pioneer Settlement, Park, and Heritage Tourism Site**

Presenter: Sarah Beth Lee  
Sponsor: Alexander Macaulay  
NC-RESEARCH

**Singing in the Mountains:**

**The Ginseng Economy in the Southern Appalachians, 1865-1900**

Presenter: Thomas Luke Manget  
Sponsor: Richard Starnes  
NC-RESEARCH

**'Every Necessary Thing': The Carolina Deerskin Trade and the Erosion of Cherokee Culture in the Early and Mid-18th Century**

Presenter: J.G. Benjamin Pullin  
Sponsor: Alexander Macaulay  
NC-RESEARCH

**HUMANITIES** | English | UC 212 | Dogwood Room  
MIMI FENTON, English, Moderator

**Bringing Letters to Life: The Art of Textual Editing**

Presenters: Brian C. Graves, David M. Starnes, and Amy P. Walker  
Sponsor: Mimi Fenton  
NC-RESEARCH

**Exploring the Ethics of Scholarship and Research**

Presenters: Mai Xiong, Bobby Willover, and Josie Javens  
Sponsor: Mimi Fenton

**SCIENCES & HEALTH**

Applied Mathematics, Chemistry, & Nursing | UC 214 | Cardinal Room  
ERIN MCNELIS, Mathematics & Computer Science, Moderator

**Determination of Trace Element Provenance, Rio Loa Basin, Northern Chile**

Presenter: Leslie Rae Wilson  
Sponsor: Jerry Miller

**What Pharmacologic Characteristics of Propofol Contribute to Its Use as a Drug of Abuse?**

Presenters: Erica Edgington and Amelia Hinds  
Sponsor: Claire DeCristofaro

**Mathematical Model for Tissue Invasion by Cancerous Cells**

Presenter: Lindsay Grayson  
Sponsor: Erin McNelis

**A Nurse Educator's Perspective on Global Training of Community Health Workers**

Presenter: Elizabeth Sexton  
Sponsor: Sharon Metcalfe

2–3:15PM (continued)

**SOCIAL SCIENCES** | Psychology | UC 215 | Catamount Room  
ALVIN MALESKY, Psychology, Moderator

**Prevalence of Electronic Bullying in a College Population**

Presenter: Susan Al'Khafaji  
Sponsor: Leonardo Bobadilla

**Cyberharassment, Self Esteem, and the College Population**

Presenter: James McAbee  
Sponsor: Alvin Malesky

**The Effects of Corporal Punishment and Childhood Maltreatment on Adult Personality Traits**

Presenter: David Solomon  
Sponsor: Kia Asberg

**SOCIAL SCIENCES** | Public Affairs | UC 232A | Multipurpose Room  
CHRIS COOPER, Political Science & Public Affairs, Moderator

**Efforts to Reduce Motor Vehicle Collisions**

Presenter: Josh Hill  
Sponsor: Chris Cooper

**County Manager Salaries**

Presenter: Thomas L. Jones  
Sponsor: Chris Cooper

**Proactive Policy for Online Learning Accessibility: Equal Access for Disabled Users**

Presenter: Josie Lane  
Sponsor: Chris Cooper

**The Role of Planning in Strategic Community Development: A Cashiers Community Development Plan**

Presenter: Paige E. Roberson  
Sponsor: Chris Cooper  
NC-RESEARCH



*"The most exciting phrase to hear in science, the one that heralds new discoveries, is not 'Eureka!' but rather 'hmm...that's funny.'"*

– Isaac Asimov  
(American Novelist and Biochemist, 1920-1992)

2–3:15PM (continued)

**FINE & PERFORMING ARTS** | Music | UC 232B | Multipurpose Room  
MARY KAY BAUER, Music, Moderator

**Second Chances**

Presenter: Randall Harris  
Sponsor: Dan Gonko

**The Relationship of Aural Skills Training and Choral Intonation Practice**

Presenter: Maggie K. Jennings  
Sponsors: Terri Armfield and Michael Schallock

**“God Has Revealed”: Musical Composition**

Presenter: Anne Rhymer Schwabland  
Sponsor: Bruce Frazier

**Music Technology and Applications**

Presenter: Christopher S. Visi  
Sponsor: Mary Kay Bauer

**ENGINEERING & TECHNOLOGY** | Technology | UC 315 | Theater  
BRIAN HOWELL, Engineering & Technology, Moderator

**Optimizing the Optical Geometry of an In Situ UV Fluorescence Spectroscopy System**

Presenter: Justin Bullins  
Sponsor: Brian Howell

**Stabilization of an Autonomous Underwater Vessel**

Presenter: Corey McCraw  
Sponsor: Brian Howell

**The Optimization of Swarm Robotic Constellation Communication for Object Detection and Event Recognition**

Presenter: Matthew R. Proffitt  
Sponsor: Brian Howell

**Object Recognition in Lake and Estuary Environments**

Presenter: Andrew J. Punch  
Sponsor: Brian Howell



*“The truth will set you free. But first, it will piss you off.”*

– Gloria Steinem

3:30–4:45PM

**HUMANITIES** | History | UC 209 | Rogers Room  
VICKI SZABO, History, Moderator

**God’s Counting House:**

**The Rise of the Templar Order and Its Role in Shaping Modern Banking**

Presenter: Matthew David Baker  
Sponsor: Vicki Szabo

**“Deal Bountifully With Your Servant”:**

**Protestant Missionary Teachers in Charleston and the Sea Islands, 1865**

Presenter: Cristal G. Thompson  
Sponsor: Richard Starnes

**Young Believers:**

**Youth Culture and Revivalism in the Eighteenth Century British Atlantic**

Presenter: Jonathan M. Williams  
Sponsor: Hunt Boulware

**HEALTH** | Health Sciences | UC 212 | Dogwood Room  
TED CHIAPPELLI, Health Sciences, Moderator

**Decreasing Daytime Agitation by Improving Sleep Quality in Hospitalized Older Adults on a Behavioral Health Unit**

Presenter: Sandra Craver Dorr  
Sponsor: Ted Chiappelli

**A Comparison of the Impact of Meal Delivery on Staffing Patterns in Long Term Care Facilities**

Presenter: Sarajane H. Melton  
Sponsor: Ted Chiappelli

**Are Adult Day Health Services Underutilized in Western North Carolina?**

Presenter: Karla Reese  
Sponsor: Ted Chiappelli


**HUMANITIES** | History | UC 214 | Cardinal Room  
ELIZABETH MCRAE, History, Moderator

**Gay Visibility and Gay Persecution:**

**The Role of Memory in the Homosexual Holocaust**

Presenter: Matt Blaylock  
Sponsor: David Dorondo

**Henry Berry Lowery: A Legacy of Folk Ideology and Activism**

Presenter: Beverly Ellis  
Sponsor: Elizabeth McRae  
NC-RESEARCH 

**American Yehudim: The Making of a Jewish American Identity**

Presenter: Laura Lansford  
Sponsor: Hunt Boulware

**‘And These Signs Shall Follow Them’:**

**Snake-Handling in Central and Southern Appalachia**

Presenter: Jonathan M. Williams  
Sponsor: Mary Ella Engel

3:30–4:45PM (CONTINUED)

**HUMANITIES** | English | UC 215 | Catamount Room  
LAURA WRIGHT, English, Moderator

**Folk Traditions as Identity in *Their Eyes Are Watching God***

Presenter: Adrienne Hollifield  
Sponsor: Annette Debo


**“A Good Ceremony”: Drinking and Colonization in Leslie Silko’s *Ceremony***

Presenter: Heather Williams  
Sponsor: Annette Debo

**“The Past. It Did Not Happen”: Ritual Memory Time in Zakes Mda’s *Heart of Redness***

Presenter: Heather Williams  
Sponsor: Laura Wright

**“But a Mestizo?”: Post-Colonialism and Josefina Niggli’s *A Miracle for Mexico***

Presenter: Bobby Willover  
Sponsor: Laura Wright  
NC-RESEARCH 

**EDUCATION** | Educational Leadership, Physical Education,  
& College Student Personnel | UC 232A | Multipurpose Room  
JUSTIN MENICKELLI, Health, Physical Education, & Recreation, Moderator

**Do Not be Conformed to this World: Practicing Christianity in a Public Residential University Setting**

Presenter: Sarah Burkhardt  
Sponsor: Robert Crow

**Superintendents’ Perceptions of their Role in Developing Teacher Leadership**

Presenters: Amy Jones, Christine Smith, and Heidi Von Dohlen  
Sponsor: Sandra Tonnsen

**The Relationship between Disc Golf and Walking Benefits**

Presenter: Gabrielle Maggi  
Sponsor: Justin Menickelli

**The Effects of Two Teaching Styles on Student Engagement, Skill Learning and Perceived Enjoyment**

Presenters: Jenny Smith and Jessica Clontz  
Sponsor: Justin Menickelli

3:30–4:45PM (CONTINUED)

**SOCIAL SCIENCES** | Psychology | UC 232B | Multipurpose Room  
WINDY GORDON, Psychology, Moderator

**Comparison of DSM-IV and Proposed DSM-V Diagnostic Criteria for Cannabis Use**

Presenter: Trevor Dennie  
Sponsor: Norman Hoffmann

**Amazon’s MTurk: A Flawed Source of Participants in Psychology Studies?**

Presenter: Christopher J. Holden  
Sponsor: Hal Herzog

**Compatibility of the DSM-IV-TR Alcohol Use Disorder and Proposed DSM-5**

Presenter: Amanda V. Metzke  
Sponsor: Norman Hoffmann

**Can the Affect Misattribution Procedure Detect Deception?**

Presenter: Valerie Russell  
Sponsor: Windy Gordon

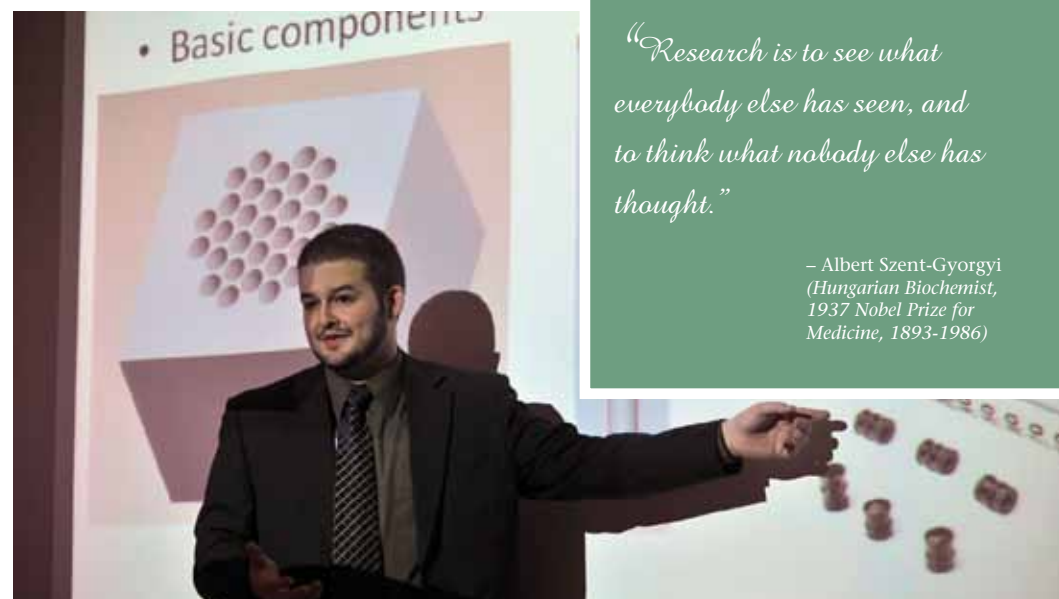
5–6:15PM

**RECEPTION & AWARDS** | UC 302 | Grand Room

Please join us for a brief reception in honor of graduate students, their mentors, and the graduate programs at Western Carolina University.

The Graduate Teaching Assistant Award, Karen Nicholson Thesis Award, North Carolina Research Award, and Research Awards in the respective disciplinary areas will be presented at this reception.

The Symposium continues at 6:30pm, so we will begin promptly at 5pm. Light refreshments and hors d’oeuvres will be available.



6:30–8:00PM

## SCIENCES & SOCIAL SCIENCES

Math, Psychology, & Public Affairs | UC 215 | Catamount Room  
THOMAS FORD, Psychology, Moderator

### Matrix Decomposition with Applications

Presenter: Megan Cavanah  
Sponsor: Erin McNelis

### The Role of Context in the Interpretation of Sexist Humor

Presenter: Jared A. Gray  
Sponsor: Thomas Ford

### Evaluation of Afterschool Programs through Student Surveys

Presenter: Sarah McCord  
Sponsor: Chris Cooper

### Investigation of Personality Trait Norms for Master Teachers

Presenter: James Taurasi  
Sponsors: David McCord and Dale Carpenter

## SCIENCES & HEALTH

Chemistry, Biology, & Health Sciences | UC 232B | Multipurpose Room  
PAUL DEZENDORE, Health Sciences, Moderator

### Rheological Characteristics of Aqueous Wax Emulsions Used for the Controlled Release of Pheromones as an Alternative to the Use of Pesticides for Insect Pest Management

Presenter: Stephen Ballew  
Sponsor: Cynthia Atterholt

### Arsenic and Old Pteridophytes: Assessment of Native Ferns for Phytoremediation Feasibility of Arsenic

Presenter: Jessica L. Jaynes  
Sponsor: Beverly Collins  
NC-RESEARCH 

### Behavioral Problems in Children: Homeopathy versus Ritalin

Presenter: Meghan Kelley  
Sponsor: Ted Chiappelli

### Are Winter Babies Left out in the Cold?

Presenter: Sonya McCall  
Sponsor: Ted Chiappelli

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**Western**  
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