

The Thirteenth Annual

# Undergraduate Expo



March 21-22

# 2011

# Undergraduate Expo 2011

Western Carolina University

March 21-22

## Welcome

The thirteenth Undergraduate Expo features 263 student presenters and 77 faculty sponsors, spread over thirty departments and programs and two days. Through this event, Western Carolina University celebrates undergraduate achievement, with presentations representing the creative thinking, research, practice, service, calculation, writing, and editing that occurs every day our institution is open, in studios, labs, classrooms, and out in the field. *Please take some time to attend a presentation, even one that is out of your discipline, to learn more about what is taught and learned at your university.*

## The Expo Reception

The reception for students, faculty sponsors, and the community at large will begin at **5:30 p.m. on Monday, March 21, in the Grand Room at the University Center.** A brief program will start at 6:00 p.m. in the Grand Room, where the RODIN award will be announced.

## Poster Session

The Expo Poster Session will be held in and around the University Center Grand Room from 5:00 p.m. to approximately 6:30 p.m. on Monday, March 21.

## Press Releases for Student Presenters

WCU's Office of Public Relations routinely sends news releases about student activities and honors to the students' hometown/local newspapers. Participants in the Undergraduate Expo 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; or 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).

## National Conference on Undergraduate Research (NCUR)

This year NCUR will be on the campus of the Ithaca College, Ithaca, New York, March 30 - April 2. Please check the program on the next page for the complete list of the 69 NCUR25 abstracts accepted; this year, **WCU is fourth in the nation in the number of accepted abstracts and once again number one in North Carolina.**

## Acknowledgments

Without students to do the work and faculty members to mentor them, there would be no Expo. Many thanks to them, and to the deans, associate deans, directors, and department heads who did so much to help promote the Expo this year!

# National Conference on Undergraduate Research 2011

Below are the projects accepted, titles, student presenters, and their sponsors for NCUR25. Funding for travel to NCUR25 was made possible by Honors College Advisory Board members and assistance from the Office of the Chancellor.

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## Anthropology & Archeology

*Cross Cultural Comparison of Medicine And  
Medicine Folklore: Cherokee and Irish*

Bethel Bower, presenter  
Anne Rogers, sponsor

*Exploring Cherokee Foodways Through Raman and  
Fourier Transform Infrared Spectrometry*

Tina Crowe, presenter  
Jane M. Eastman, sponsor

*Mass Graves of Guatemala*

Neisha Harding, presenter  
Dr. James D. Davis, sponsor

*Applying Microanalysis Techniques to Forensic Cases  
Involving Dismemberment*

Lacy Hoyle, presenter  
Cheryl Johnston, sponsor

## Art & Media Studies

*Dream Time*

Brandon Chapman, presenter  
Brian Railsback, sponsor

## Business/Finance/Accounting

*Don't Go with Your Gut: Using Data-Driven  
Analyses to Determine Budget Cuts*

Jay Aldridge, presenter  
Barbara Jo White, sponsor

*Code of Ethics?*

Michael McLamb, presenter  
Kyuho Lee, sponsor

*Cell & Molecular Biology Interactions Between  
Chemotaxis-Like Signal Transduction Pathways in Azo-  
spirillum Brasilense*

Tess Branon, presenter  
Gladys Alexandre - U. of Tennessee, sponsor

## Chemistry

*Lanthanide-Based Nanomaterials with Enhanced  
Luminescence and Magnetic Properties for  
Biomedical Imaging Applications*

Lauren Runken, presenter  
Dr. Channa De Silva, sponsor

## Communications

*How Clarence Thomas Squeaked By a Senate  
Judiciary Vote by Benefit-of-the Doubt Strategy*

Christopher Younts, presenter  
Pamela Harris, PhD., sponsor

## Criminology

*Los Estados Unidos Drogados: Narcotics, Violence and  
the Mexican-American Connection*

Erin Andrews, presenter  
Dr. James D. Davis, sponsor

*Comparison of Self-Reported Crime and Official  
Crime Statistics at Western Carolina*

Donnielle Foster, presenter  
Cyndy C. Hughes, sponsor

*The CSI Effect: A Few Rare Cases or a Changing  
of Juror Mentality?*

Cayli Meizel, presenter  
Leonard Knight, sponsor

## Ecology & Organismal Biology

*The Effect of Germination Time on Acorn  
Predation*

William Ford, presenter  
Beverly Collins, Kathy Mathews, sponsor

*Salamanders and the Ecology of Fear: Behavioral  
Responses to Predation Risk*

Mariah Hornby, presenter  
Joseph H.K. Pechmann, sponsor

## Economics

*Income Inequality in the United States and Historical Solutions*

Matthew Sutter, presenter  
Inhyuck Ha, sponsor

*An Economic and Policy Analysis of South Korea as the Top Producer in the World's Ship Building Industry*

Eun-jung Woo, presenter  
James M. Arnott, sponsor

## Education

*Perceptions of Special Education and General Education Teachers on Students with Physical and Intellectual Disabilities in the Classroom*

Ashley Anderson, presenter  
Valerie M. Mazzotti, PhD, sponsor

*Special Education Teachers Perceptions of Using "Scientifically-Based" Research Practices to Teach Students with Moderate/Severe Disabilities*

Amber Anderson, presenter  
Valerie M. Mazzotti, PhD, sponsor

*Researching Farm to School: Integrating Farm Field Trips, Nutrition, Cooking, and Gardening into an Already Filled Third Grade Curriculum*

Sarah Malcolm, presenter  
Dr. Patricia Bricker, sponsor

*Connecting Farm to School Activities and Required Curriculum: An Action Research Project in a Kindergarten Classroom*

Carol Norris, presenter  
Dr. Patricia Bricker, sponsor

*Civic Education for Teenagers: Educating Effective Citizens*

Amanda Smith, presenter  
Dr. Christopher Cooper, sponsor

*Enhancing the Learning Experience*

Christine Weathers, presenter  
Dr. Terry Rose, sponsor

## English

*Feminism, Sexuality, and Myth in H.D.'S Sea Garden*

Kayla Beauduy, presenter  
Dr. Annette Debo, sponsor

*John Keats, the Apothecary Surgeon of "Ode To A Nightingale"*

Taylor Fie, presenter  
Brent E. Kinser, sponsor

*Things Fall Apart: The Real Housewives of Igbo Culture*

Kayla Jones, presenter  
Laura Wright, sponsor

*"You Rememory Me?": The Role of the Past in Toni Morrison's Beloved*

Elizabeth Nissly, presenter  
Dr. Annette Debo, sponsor

## Environmental Studies & Sciences

*Actual Versus Perceived Recycling by Western Carolina University Students*

Austin Brooks, presenter  
Dr. Laura Dewald, sponsor

## Film/Photography Studies

*The Hitchcock Blonde and How She Drives the Thriller*

Donnie Lambert, presenter  
Dr. Elizabeth Heffelfinger, sponsor

## Health Sciences & Public Health

*Joint Hypermobility in a High School Female Athlete*

Ashley Bracken, presenter  
James Scifers, sponsor

*Traumatic Facial Nerve Palsy in a High School Football Player*

Heather Brown, presenter  
James Scifers, sponsor

## Health Sciences and Public Health

(continued)

*“The Effect of Substituting Resistant Starch for All Purpose Flour in Wheat Bread on Fiber and Flavor”*

Frances Childers, presenter

Mary Baldwin Sanders, sponsor

*Taste Acceptance of Bread Made with Resistant Starch Compared to All Purpose Flour*

Chloe Greene, presenter

Mary B. Sanders, April Tallant, sponsor

*Not In My Backyard...Unless I'm Poor, Uneducated or a Person of Color: The Toxicity of PCBs,*

*Midnight Dumping, and Environmental Racism in Warren County, North Carolina*

Erin Gymburch, presenter

Dr. Burton Ogle, sponsor

*Farm Fresh Taste: Acceptability of Local Produce among School-Aged Children*

Patricia Hipgrave, presenter

April Tallant, sponsor

*Impacted Zygomatic Tripod Fracture in a High School Soccer Player*

Andrea Kaufman, presenter

James Scifers, sponsor

*Potential Use of an Ozonator to Improve Air Quality in Unoccupied Spaces*

Amanda McQueen, presenter

Dr. Burton Ogle, sponsor

*Comparison of Noise Emissions of Standard Electric and Gas-Powered Chainsaws*

Amanda McQueen, presenter

Dr. Burton Ogle, sponsor

*Non-Contact Posterior Hip Subluxation in a Collegiate Football Player Resulting in an Acetabular Fracture*

Emily Whittington, presenter

Ashley S. Long, sponsor

## History

*Between the Lines of Longitude: An Alternate Look into the Longitude Problem and John Harrison's Prize*

Hope Alwine, presenter

Dr. Richard Starnes, sponsor

## Interdisciplinary Studies

*“My Eiffel Tower is No Minaret” - Anti-Islamic Discrimination in France*

Corey Atten, presenter

Dr. James D. Davis, sponsor

*Framing Liberation in Latin American Social Movements*

Mary Beth Fallin, presenter

Lori Oxford, sponsor

## Literature

*Santiago's Ascension: Mortality and Transcendence in Ernest Hemingway's The Old Man and The Sea*

Andrew Benton, presenter

Brent E. Kinser, sponsor

*Portrait of a Monster: Class Differences in John Fowles's The Collector*

Travis Mullen, presenter

Dr. Annette Debo, sponsor

*Satan is America: John Milton, Thomas Jefferson, and the Foundations of A New Republic*

Christopher Rollins, presenter

Mary Fenton, sponsor

*Time: A True Miltonic Villain*

Kimberly Waddell, presenter

Dr. Mary Fenton, sponsor

## Management

*Mama Always Said, “You Shouldn't Say Shut Up,” Was She Right?*

Shannon Owen, presenter

Theresa A. Domagalski, sponsor

## Microbiology & Immunology

*Prokaryotic 16s rDNA and Ammonia Monooxygenase  
Gene Diversity from an Imperiled Keystone Tree  
Species*

Julie Carter, presenter

Dr. Sean O'Connell, sponsor

## Music

*Now You Hear It, Now You Don't: Observing  
Constructive and Destructive Interference of Sound  
and How it Pertains to Instrumental Ensembles*

Kelsey Stover, presenter

Dr. Eldred Spell, sponsor

## Physical/Occupational Therapy/ Speech Language Pathology

*A Life Without Knees: Restructured and Redeveloped*

Jessie Conner, presenter

Joseph Mathews, sponsor

## Poetry & Creative Writing

*Clearest Minds of a Clouded Generation*

James Ruff, presenter

Beth Huber, sponsor

## Political Science

*The Problem With No Child Left Behind: A Study  
on the Correlation Between Community Type and  
a School's Adequate Yearly Progress Score in North  
Carolina Schools*

Hope Alwine, presenter

Dr. Daniel Bromberg, sponsor

*Drug Bust: The War on Drugs and is it Working?*

Mitchell Bridges, presenter

Dr. Chris Cooper, sponsor

*The Sound of Music; Examining Cultural Differences  
in Political Parties*

Lea Anna Bright, presenter

Dr. Chris Cooper, sponsor

*Does Type of Government Affect Overall Happiness?*

Catherine Denning, presenter

Dr. Christopher Cooper, sponsor

*The Technological, Economic, and Political Potential  
of the Alternative Energy Industry*

Mitchell Rosewall, presenter

Dr. Christopher Cooper, sponsor

*Terrorism: The Effects of Corruption*

Hayden Smith, presenter

Niall Michelsen, sponsor

*How September Eleventh Changed the United States  
and Pakistan Relationship*

Catherine Stiers, presenter

Jennifer Schiff, sponsor

## Psychology

*The Necker Cube: An Alternative Measure of Direct  
Attention*

Jessica Hurlbut, presenter

Windy Gordon, sponsor

*The Freshman 15; How Real is Race*

Rachel Lockett, presenter

Dr. John Habel, sponsor

*Sex Differences in Cognitive Mapping and Sense of  
Direction*

Amanda McNally, presenter

James Goodwin, sponsor

*Mammification of the African-American Woman;  
How Black and White College Students Perceive  
Aunt Jemima*

Mahogany Smith, presenter

Dr. John Habel, sponsor

*An Analysis of Attachment and Attachment  
Disorder in Early Childhood*

Alisha Smith, presenter

Dr. John Habel, Mickey Randolph, sponsor

## Sociology

*Game On—Understanding The Nintendo Ds as a Socializer in Childhood: From the Child's Perspective; From The Adult's Perspective*

Nicholas Weitzel, presenter

Marilyn Chamberlin, sponsor

*The Culture War's Littlest Crusaders: The Orthodox Allies' Last Hope*

Mary Beth Fallin, presenter

Peter Nieckarz, sponsor

## Theatre/Drama

*Theatre Games/Exercises and their Effect on Thespians*

Benjamin Chafetz, presenter

Deryl Victor Caitlyn, sponsor

*Creating a 1938 Period Look for Women With Contemporary Eveningwear.*

Sarah Hardy, presenter

Susan K. Brown-Strauss, sponsor

## Women and Gender Studies

*"Is it a Choice?"*

Amanda Bienhaus, presenter

Lorrie Willey, sponsor

*End the Silence: An In-Depth Look at Why the Congo is Still the Rape Capital of the World*

Kayla Coe, presenter

Robin Payne, sponsor

# Undergraduate Expo 2010

Presentations will be held at Western Carolina University, March 21-22, according to college and department. Below are the project titles, presenters, sponsors, time, and place of presentation.

\* ~ denotes a presentation also selected for NCUR25

## Monday, March 21, 2010

### Poster Session

5:00 - 6:30 PM ~ University Center Grand Room & Lobby

Students are invited to set up posters in the Grand Room after 4:30 p.m.

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### College of Arts and Sciences

#### Biology

*16s rDNA of Bacteria and Archaea and amoA of Archaea and Bacteria Obtained from Root and Soil Samples Collected from Three Eastern Hemlock Trees (Tsuga canadensis) in the Great Smoky Mountains National Park Along the Keport Prong Trail*  
Student Presenter: Julie Carter  
Faculty Sponsor: Sean O'Connell

*Using a Catalytic Beacon to Identify Effective siRNA Target Sites*  
Student Presenter: Susan Clark, Olena Northrup  
Faculty Sponsor: Christopher Coburn

*Use of Pteridine and Lipofuscin Fluorescence for Age Determination in Apis mellifera*  
Student Presenter: Christina Kotraba  
Faculty Sponsor: Christopher Coburn

*PR Meets Wellness*  
Student Presenter: Gabby Robinson  
Faculty Sponsor: Weaver Haney

*HERDA: A Genetic Disease in Horses*  
Student Presenter: Kathy Turnbull  
Faculty Sponsor: Indrani Bose

#### Chemistry & Physics

*Perceived vs. Actual Recycling Among Students at WCU*  
Student Presenter: Austin Brooks\*, Kindra Foy  
Faculty Sponsor: Laura E. DeWald

*Planetary Fit*  
Student Presenter: Sarah Dinkins  
Faculty Sponsor: Enrigue Gomez

*Dirty Bombs: Destruction or Distraction?*  
Student Presenter: Adam Flaherty  
Faculty Sponsor: Matthew Rave

*A Laboratory Evaluation and Comparison of The Release Rates of Oriental Fruit Moth in Soy, Paraffin, and Microcrystalline*  
Student Presenter: Afton Harris  
Faculty Sponsor: Cynthia Atterholt

*Antitumor Oplopane Sesquiterpenoids from Arnoglossum atriplicifolium*  
Student Presenter: Kristin M. Naylor  
Faculty Sponsor: Jason Clement

*Lanthanide-based Nanomaterials with Enhanced Luminescence and Magnetic Properties for Biomedical Imaging Applications*  
Student Presenter: L. Blair Runken\*  
Faculty Sponsor: Channa De Silva

## Chemistry and Physics (continued)

*DNA Extraction from Bone Demineralization*

Student Presenter: Alexandra Witter

Faculty Sponsor: Brittania Bintz

## English

*MacDonald's Spiritual Evolution in Narnia's Animals*

Student Presenter: Anne Catherine "Kate" McRae

Faculty Sponsor: James Addison

*Charles Dickens: His Life and His Work*

Student Presenter: Elizabeth Nissly

Faculty Sponsor: Brent Kinser

*Charles Dickens the Revolutionary Reader: A Christmas Carol on Stage*

Student Presenter: Christopher Rollins

Faculty Sponsor: Brent Kinser

## Geosciences & Natural Resources

*Groundwater Flow Through Fractures in Crystalline Rock at Coweeta Hydrologic Laboratory, North Carolina*

Student Presenter: Lily Savitsky

Faculty Sponsor: Cheryl Waters-Tormey

*The Effects of Magnetic Interactions and Concentrations on Magnetic Remanence and Magnetic Fabrics*

Student Presenter: Michael D. Stillwagon Jr

Faculty Sponsor: Cheryl Waters-Tormey

*Assessing Ruffed Grouse Populations and Habitats at Balsam Mountain Preserve*

Student Presenter: Kyle Underwood

Faculty Sponsor: Ronald Davis

## Mathematics & Computer Science

*Developing Mobile Applications for Use in Teaching a Mobile Applications Development Course*

Student Presenter: Christopher Blades

Faculty Sponsor: Mark Holliday

## Modern Foreign Languages

*"My Eiffel Tower is no Minaret" - Anti-Islamic Discrimination in France*

Student Presenter: Corey Atten

Faculty Sponsor: Jamie Davis

*Mass Graves of Guatemala*

Student Presenter: Neisha Harding\*

Faculty Sponsor: Jamie Davis

## Political Science and Public Affairs

*What's Happening? Acceptance and Use of New Media in Parliament and Congress*

Student Presenter: Caroline Wright

Faculty Sponsor: Gibbs Knotts

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## College of Business

### Accountancy, Finance, Information Systems and Economics

*Unemployment; How it is Affecting our Economy?*

Student Presenter: Steven Blake Boley

Faculty Sponsor: Robert Mulligan

*Fuel Consumption of Panamax Ships vs New Panamax Ships*

Student Presenter: Brittany Burch

Faculty Sponsor: Robert Mulligan

*Forecasting Home life with Regression*

Student Presenter: Sydney Burruss

Faculty Sponsor: Robert Mulligan

*Unemployment Forecasting*

Student Presenter: Jacob Calloway

Faculty Sponsor: Robert Mulligan

*Job Availability for Upcoming College Graduates*

Student Presenter: Andrew Carter

Faculty Sponsor: Robert Mulligan

*Fuel Consumption and Emissions for 4500 and 9000 TEU Ships*

Student Presenter: Benjamin Collette

Faculty Sponsor: Robert Mulligan

*Panama Canal Expansion: Good For the Environment?*

Student Presenter: John Cory Combs

Faculty Sponsor: Robert Mulligan

*Forecasting 2011 Unemployment*

Student Presenter: Matthew Core

Faculty Sponsor: Robert Mulligan

*Environmental Impacts of Expanding the Panama Canal to Allow for Larger Panamax Container Vessels*

Student Presenter: Dakota Cutshall

Faculty Sponsor: Robert Mulligan

*An Environmental Comparison of a 4,000 TEU Panamax and a 10,000 TEU New Panamax Container Vessel*

Student Presenter: Travis Dean

Faculty Sponsor: Robert Mulligan

*Using the Phillips Curve and FRED Data to Forecast Unemployment*

Student Presenter: Jason Eades

Faculty Sponsor: Robert Mulligan

*By Land or By Sea: Is the New Panamax 10000 TEU Ship a More Environmental and Economically Sustainable Way to Ship Cargo?*

Student Presenter: Krisha Faw

Faculty Sponsor: Robert Mulligan

*Estimating the Phillips Curve and Unemployment Rate for 2011*

Student Presenter: Vickie Funk

Faculty Sponsor: Robert Mulligan

*Forecast Unemployment for January to December 2011*

Student Presenter: Barbara A. Garner

Faculty Sponsor: Robert Mulligan

*Environmental Impact of Panama Canal Expansion*

Student Presenter: George Hahn

Faculty Sponsor: Robert Mulligan

*Will New Panamax Vessels Travel More Efficiently With Fewer Emissions?*

Student Presenter: Wesley Hall

Faculty Sponsor: Robert Mulligan

*Unemployment Rate for 2011*

Student Presenter: Benjamin Harrison

Faculty Sponsor: Robert Mulligan

Accountancy, Finance, Information Systems and Economics (continued)

*Comparing the Energy Requirements for Two Sizes of Panamax Vessels (4000 TEU And 11000 TEU) to Those of Semi-Trucks and Trains*

Student Presenter: Andrew Harsey  
Faculty Sponsor: Robert Mulligan

*2011 Unemployment Forecast based on Historical Unemployment and Inflation Rates*

Student Presenter: Jonathan Jeuck  
Faculty Sponsor: Robert Mulligan

*Projected Unemployment Rate for 2011*

Student Presenter: Reed Jones  
Faculty Sponsor: Robert Mulligan

*Effects of the Canal Expansion Project on Efficiency between Current Ship Sizes, New Ship Sizes, and Ground Transport, as well as Pollution Concerns*

Student Presenter: Robert G Kreza  
Faculty Sponsor: Robert Mulligan

*Evaluating the Environmental Impact of the Panama Canal Expansion Project*

Student Presenter: Patrick Lacienski  
Faculty Sponsor: Robert Mulligan

*2011 Rise and Fall of Unemployment*

Student Presenter: Brodie Lowe  
Faculty Sponsor: Robert Mulligan

*Where Are the Jobs?*

Student Presenter: Michael McLamb  
Faculty Sponsor: Robert Mulligan

*Comparison Between Truck, Train, and Panamax Shipping Vessels to Determine the Most Efficient Delivery Method*

Student Presenter: Lacy McMinn  
Faculty Sponsor: Robert Mulligan

*2011 Unemployment Forecast*

Student Presenter: Naim Mehovic  
Faculty Sponsor: Robert Mulligan

*With the Expansion of the Panama Canal, new Panamax Vessels will have Lower Emissions*

Student Presenter: Benjamin Melton  
Faculty Sponsor: Robert Mulligan

*Forecasting the Unemployment Rate with the Phillips Curve*

Student Presenter: Natalie Navi  
Faculty Sponsor: Robert Mulligan

*Unemployment Regression Forecast 2011*

Student Presenter: Matthew Page  
Faculty Sponsor: Robert Mulligan

*Freight Transportation by Ship: an Evaluation of Panama Canal Expansion and the Effects of Ship Size, Efficiency, and Pollution on the Environment*

Student Presenter: Thomas Pagels  
Faculty Sponsor: Robert Mulligan

*Unemployment Rate Forecast for 2011*

Student Presenter: Rachel Pedo  
Faculty Sponsor: Robert Mulligan

*Evaluation of Pollution Emissions Between 5000 TEU Panamax and 12500 TEU New Panamax Ships*

Student Presenter: Paul Pittman  
Faculty Sponsor: Robert Mulligan

*Unemployment Forecast for 2011*

Student Presenter: Scott T. Richmond  
Faculty Sponsor: Robert Mulligan

*The Phillips Curve and Its Significance In Forecasting Unemployment*

Student Presenter: David Ross  
Faculty Sponsor: Robert Mulligan

*New Panamax Ships vs Old Panamax Ships Due to the Panama Canal Expansion*

Student Presenter: Christopher Sandel  
Faculty Sponsor: Robert Mulligan

## Accountancy, Finance, Information Systems and Economics (continued)

*Fuel Consumption and Emissions Comparison of Current and New Panamax Ships*  
Student Presenter: Jacob Sinclair  
Faculty Sponsor: Robert Mulligan

*Comparing Oil Consumption, Carbon Dioxide, and Nitrogen Oxide Emissions between Panamax Vessels and Trucks/Trains*  
Student Presenter: Joshua Tipps  
Faculty Sponsor: Robert Mulligan

*Is the Expansion of the Panama Canal a Positive Step Forward for Lowering Transportation Emissions?*  
Student Presenter: Kyle Underwood  
Faculty Sponsor: Robert Mulligan

*The Unemployment Dilemma*  
Student Presenter: Austin Walker  
Faculty Sponsor: Robert Mulligan

*Comparison of Energy Usage, Emission Levels, and Fuel Consumption of Panamax and new Panamax Vessels Traveling from Los Angeles to New York City*  
Student Presenter: Ben Watkins  
Faculty Sponsor: Robert Mulligan

*The Unemployment Rate: Will it Rise or Fall?*  
Student Presenter: Michael Whitlock  
Faculty Sponsor: Robert Mulligan

*An Economic and Policy Analysis of South Korea as the Top Producer in the World's Ship Building Industry*  
Student Presenter: Eun-jung Woo\*  
Faculty Sponsor: James Mike Arnott

## Business Administration and Law and Sport Management

*Who Needs a Jury When We Have Nancy Grace? - The Influence of Media Publicity on High-Profile Court Cases*  
Student Presenter: Natalie Cannon  
Faculty Sponsor: Janet Ford

*Is Free Speech Going to Hell? Thank God for Fervent Funeral Protesters*  
Student Presenter: Kyle Smith  
Faculty Sponsor: Janet Ford

## Global Management and Strategy

*Title IX, Is it Really Fair?*  
Student Presenter: Andrew Fowkes  
Faculty Sponsor: Gary Fetter

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## Education and Allied Professions

### Elementary & Middle Grades Education

*David Wiesner- Not your Ordinary Author*  
Student Presenter: Alisha A. Smith  
Faculty Sponsor: Roya Scales

### Health, Physical Education & Recreation

*Kinesiology in Gymnastics*  
Student Presenter: Elizabeth Hill  
Faculty Sponsor: Maridy Troy

### Human Services

*Basics of Effective Mentoring*  
Student Presenter: Kriston Haynes  
Faculty Sponsor: Marie-Line Germain

## Psychology

*A Multicultural Approach in the Elementary Education Classroom*

Student Presenter: Tia Hughes

Faculty Sponsor: John Habel

*"Using the Necker Cube to Measure Attention"*

Student Presenter: Jessica L. Hurlbut\*,

Christopher J. Macemore

Faculty Sponsor: Winford A. Gordon

*Abortion, Animal Rights, and Anthropomorphism:  
The Relationship Between Anthropomorphism and  
Moral Values*

Student Presenter: Jonathan Long

Faculty Sponsor: Hal Herzog

*Direct Attention and Fatigue*

Student Presenter: Seth M. Sherrin

Faculty Sponsor: Winford Gordon

*A Formal Observation of Study Habits of College  
Students at a College Library*

Student Presenter: Nicholas A Stevens, Michelle  
McCall

Faculty Sponsor: Thomas Ford

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## Fine and Performing Arts

### School of Art and Design

*Swarovski Crystal: Chic or Bleak?*

Student Presenter: Megan Garrett

Faculty Sponsor: Erin Adams

### School of Stage and Screen

*The Dreaming Tree*

Student Presenter: Carey McKelvey, Liz Oslund

Faculty Sponsor: Jack Sholder

*Arts Advocacy: Using the Arts To Promote Awareness*

Student Presenter: Amanda Wilson

Faculty Sponsor: Glenda Hensley

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## Health and Human Sciences

### Criminology and Criminal Justice

*Latin American Children: Stress, Location and Gang Membership*

Student Presenter: Irene Diaz Clark  
Faculty Sponsor: Lisa Briggs

*Guilty by Science*

Student Presenter: Sarah Zucca  
Faculty Sponsor: Albert Kopak

*Effectiveness of Domestic Violence Shelters*

Student Presenter: Brittany Banks, Seth Carver  
Faculty Sponsor: Jamie Vaske

*Domestic Violence Services in North Carolina*

Student Presenter: Brittany Burke  
Faculty Sponsor: Jamie Vaske

*DRD2 and Environmental Interaction on Externalizing Behavior*

Student Presenter: Christina Foster, Mike Gaffigan  
Faculty Sponsor: Jamie Vaske

*Interaction of MAOA and the Environment on Antisocial Behavior*

Student Presenter: Chelsea Fountain, Brandon Edwards  
Faculty Sponsor: Jamie Vaske

*Interaction of DRD4 and the Environment on Antisocial Outcomes*

Student Presenter: Luke Gilliland, Michael Reardon  
Faculty Sponsor: Jamie Vaske

*Interaction of DAT1 and the Environment on Risk Taking Outcomes*

Student Presenter: Destiny Green, Ashley Malone  
Faculty Sponsor: Jamie Vaske

*Effectiveness of Mandatory Penalties for Domestic Violence*

Student Presenter: Kellie Hayes, Brittany Burke  
Faculty Sponsor: Jamie Vaske

*Effectiveness of Batterer Intervention Programs*

Student Presenter: Alex Hunt, Drew Dotson  
Faculty Sponsor: Jamie Vaske

*Effectiveness of Mandatory Prosecution Policies for Domestic Violence*

Student Presenter: Kerri Hunter, Shay Scruggs  
Faculty Sponsor: Jamie Vaske

*Interaction of DRD2 and the Environment on Antisocial Outcomes*

Student Presenter: Paige Jones, Aimee Nieto  
Faculty Sponsor: Jamie Vaske

*Interaction of DAT1 and the Environment on Antisocial Outcomes*

Student Presenter: Brandon Livingston, Matthew Wabby  
Faculty Sponsor: Jamie Vaske

*Effectiveness of Domestic Violence Shelters and Services*

Student Presenter: Katie McCoy, Amber Poe  
Faculty Sponsor: Jamie Vaske

*The Interaction of 5-HTTLPR and the Environment on Antisocial Outcomes*

Student Presenter: Jeff McCrorey, Jacob Bowers  
Faculty Sponsor: Jamie Vaske

*What's on Your Strip? Hotel Key Cards and Personal Information*

Student Presenter: Amber Poe  
Faculty Sponsor: Jamie Vaske

## Criminology and Criminal Justice (continued)

*Effectiveness of Mandatory Arrest Policies for Domestic Violence*

Student Presenter: Kayla Russell, Jordan Peters  
Faculty Sponsor: Jamie Vaske

*Gene, Environment Interaction of Gene DRD4 on Antisocial Behavior Outcomes*

Student Presenter: Meridia Sanders, Lindsey Harper  
Faculty Sponsor: Jamie Vaske

*Interaction of MAOA and the Environment on Antisocial Outcomes*

Student Presenter: Jacon Stamey, Peggy Johnson  
Faculty Sponsor: Jamie Vaske

## School of Health Sciences – Athletic Training

*Traumatic Knee Injury in a Collegiate Cheerleader*

Student Presenter: Brandi L. Anders  
Faculty Sponsor: Jill Manners

*Lateral Knee Pain in a Collegiate Football Player*

Student Presenter: G. Britton Harper  
Faculty Sponsor: Doug Branch

*Non-Contact Posterior Hip Subluxation in a Collegiate Football Player Resulting in an Acetabular Fracture*

Student Presenter: Emily K. Whittington  
Faculty Sponsor: Ashley Long

## School of Health Sciences – Environmental Health Sciences

*Identifying Deficiencies in Construction Injury/Illness Reporting*

Student Presenter: Layne Arnold  
Faculty Sponsor: Tracy Zontek

*Measuring Ambient Air Concentrations in a R & D Clean Room Environment*

Student Presenter: Samantha Connell  
Faculty Sponsor: Burt Ogle

## School of Health Sciences – Liberal Studies

*Pricing and Availability of Gluten-Free Products on Campus at Western Carolina University*

Student Presenter: Melanie Boeyer, Lauren Fleming  
Faculty Sponsor: April Tallant

*Facial Paralysis in a High School Football Player*

Student Presenter: Heather A Brown\*, Matthew M. Fortune  
Faculty Sponsor: James Scifers

*Irregular Breakfast Eaters Consume Soda More Often Than Regular Breakfast Eaters*

Student Presenter: Kyrie Carlson, Rebekah Fortney  
Faculty Sponsor: April Tallant

*Optimal Gluten Free Foods on Campus at Western Carolina University*

Student Presenter: Lauren Fleming, Melanie Boeyer  
Faculty Sponsor: April Tallant

*Regular Breakfast Eaters Consume More Fruit Than Irregular Breakfast Eaters*

Student Presenter: Rebekah Fortney, Kyrie Carlson  
Faculty Sponsor: April Tallant

*Farm Fresh Taste: Acceptability of Local Produce Among School-Aged Children*

Student Presenter: Patricia C. Hipgrave\*  
Faculty Sponsor: April Tallant

*Facial Trauma in a High School Soccer Player*

Student Presenter: Andrea N. Kaufman\*  
Faculty Sponsor: James Scifers

## School of Health Sciences – Nutrition and Dietetics

*Investigating Weight Reduction Diets: Comparing the Costs of One Day Menus for MyPyramid, Atkins™, Slim Fast®, and Weight Watchers® Weight Loss Programs*

Student Presenter: Krystal Arrington, Annie Pauley  
Faculty Sponsor: Wayne Billon

*Eating Habits of College Freshmen*

Student Presenter: Kristian Belk, Whitney Hinceman  
Faculty Sponsor: Wayne Billon

*Comparing a Regular Diet, Pesco-Vegetarian Diet, Vegan Diet, and Vegetarian Diet in Athletes*

Student Presenter: Chloe Greene, Mindy Toler  
Faculty Sponsor: Wayne Billon

*Determining Cost When Adopting a Plant-Based Diet*

Student Presenter: Mary Hackney, Rebecca Rolon  
Faculty Sponsor: Wayne Billon

*Common Conditions and Contributing Factors Seen at the Good Samaritan Clinic*

Student Presenter: Caroline Holland  
Faculty Sponsor: Wayne Billon

*Knowledge of Diabetes in Diabetic and Non-diabetic Students of Western Carolina University*

Student Presenter: David Lightner  
Faculty Sponsor: Wayne Billon

## School of Nursing

*Errors Related to Fatigue in Nursing*

Student Presenter: Whitney Benfield  
Faculty Sponsor: Steve Forst

*Exploring Atrial Fibrillation: A Student's Perspective*

Student Presenter: Chelsea Dennis  
Faculty Sponsor: Steve Forst

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## Office of the Provost

### The Program for the Study of Developed Shorelines

*Mapping Western Carolina University using High Resolution Aerial Photographs*

Student Presenter: Rachel Phipps  
Faculty Sponsor: Adam D. Griffith

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## The Kimmel School

### Construction Management

*Solar Powered Fountain*

Student Presenter: Lyndsey GentryNathan Pierce  
Faculty Sponsor: Dr. George Ford

# Monday, March 21, 2010

## Presentations

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### College of Arts and Sciences

#### Anthropology & Sociology

**Place: McKee 114**

**Time: 12:15 PM**

*Cadaver Dogs as Part of the Archaeological Survey Process*

Student Presenter: Paul S. Martin

Faculty Sponsor: Anne Rogers

**Time: 12:35 PM**

*Game On—Understanding the Nintendo DS as a Socializer in Childhood: From the Child's Perspective; From the Adult's Perspective*

Student Presenter: Nicholas A. Weitzel\*

Faculty Sponsor: Marilyn Chamberlin

**Time: 12:55 PM**

*Irish Kinship*

Student Presenter: Elaine Tolbert

Faculty Sponsor: Philip Coyle

**Time: 1:15 PM**

*Second Hand Emotion: Romantic Love from an Anthropological Perspective*

Student Presenter: Shakita Holloway

Faculty Sponsor: Philip Coyle

#### Biology

**Time: 9:00 AM Place: Natural Sciences 123**

*The Effect of Germination Time on Acorn Predation*

Student Presenter: William D. Ford\*

Faculty Sponsor: Beverly Collins, Katherine Mathews

#### Communication

**Time: 2:30 PM**

**Place: Stillwell 149**

*Community and University Engagement and Partnerships*

Student Presenter: Jasna McElrath

Faculty Sponsor: Betty Farmer

#### History

**Time: 1:00 PM**

**Place: Killian 114**

*The Meat on Their Bones: Diets, Food Practices, and Nutritional Status of Antebellum Slaves*

Student Presenter: Rebekah Fortney

Faculty Sponsor: Andrew Denson

*The Destruction of Bolshevik Hopes*

Student Presenter: Alice Lapoint

Faculty Sponsor: David R. Dorondo

**Time: 2:30 PM**

**Place: McKee 209**

*Manual of the Theophilanthropes:*

*Theophilanthropists and the Importance and Role of this Religion in France During the French Directory*

Student Presenter: Zachary Williams

Faculty Sponsor: Elizabeth Yale

*Wealth, Society and Marriage: Representations of Gentry Women in Pride and Prejudice*

Student Presenter: Samantha Matott

Faculty Sponsor: Andrew Denson

*For Sacred Germany: A History of the German Military Resistance to Adolf Hitler, 1938-1944*

Student Presenter: Adam Ray

Faculty Sponsor: David Dorondo

#### Mathematics & Computer Science

**Time: 1:00 PM**

**Place: Killian 114**

*Rediscovering Archimedes*

Student Presenter: Cynthia Dayton

Faculty Sponsor: Sloan Despeaux

## Modern Foreign Languages

**Time: 1:25 PM**                      **Place: McKee 135**

*Japan and I (Past, Current, Future)*

Student Presenter: Dorothy Anna Hunt, Joshua Pond, Matthew Barret, Alexander Smith, Jeremy Gregory, Cassie Small, Matthew Mugrage, James Berry, Alfres Vendrell, and Stephen Parton  
Faculty Sponsor: Yumiko Ono

## Political Science and Public Affairs

**Time: 2:30 PM**

**Place: McKee Computer Lab**

*Green: The Economic and Political Perspectives on Alternative Energy*

Student Presenter: Mitchell Rosewall\*  
Faculty Sponsor: Chris Cooper

**Time: 2:30 PM**                      **Place: McKee 135**

*Japan and I (Past, Current, Future)*

Student Presenter: Dorothy Anna Hunt, Joshua Pond, Matthew Barret, Alexander Smith, Jeremy Gregory, Cassie Small, Matthew Mugrage, James Berry, Alfres Vendrell, and Stephen Parton  
Faculty Sponsor: Yumiko Ono

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## College of Business

### Business Administration and Law and Sport Management

**Time: 10:10 AM**                      **Place: Forsyth 314**

*Child Abuse and Neglect and the Impact on a Child's Academic Performance*

Student Presenter: Erin Keenan  
Faculty Sponsor: Lorrie Willey

**Time: 11:15 AM**                      **Place: Forsyth 314**

*The Chef's Special*

Student Presenter: Megan Nantel  
Faculty Sponsor: Lorrie Willey

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## Education and Allied Professions

### Elementary & Middle Grades Education

**Time: 11:15 AM**                      **Place: Killian 114**

*Are Charter Schools Killing Public Schools?*

Student Presenter: Amanda Roberts  
Faculty Sponsor: Pamela Buskey

### Health, Physical Education and Recreation

**Place: Reid 122H**

**Time: 11:15 AM**

*Xtreme Sports Research*

Student Presenter: Nate Christian, Troy Adams, Phillip Yarborough, Saunders Southecorvo  
Faculty Sponsor: Ben Tholkes

## Health, Physical Education and Recreation (continued)

**Time: 11:35 AM**

*Western Waterfall Awareness*

Student Presenter: Justin Kleberg, Will Butler,  
Emily Baker

Faculty Sponsor: Maurice Phipps

**Time: 12:35 PM**

*Recreational Use of Panthertown Valley*

Student Presenter: Robyn Tetterton, Sarah  
Owenby, Zach Broyhill

Faculty Sponsor: Ben Tholkes

**Time: 11:55 AM**

*Gender Equity in Publications*

Student Presenter: Will Mayse, Ty Fehrenbacher,  
Elliott Knoch

Faculty Sponsor: Ben Tholkes

**Time: 12:55 PM**

*Head High at the "Y" - A Challenge Course Business  
Plan*

Student Presenter: Joseph Faison

Faculty Sponsor: Debby Singleton

**Time: 12:15 PM**

*Outdoor Recreation Research*

Student Presenter: Emily Baker, Ted Freemeyer

Faculty Sponsor: Ben Tholkes

**Psychology**

**Time: 12:20 PM**

**Place: Killian 338**

*Personality Traits and Roommate Compatibilty*

Student Presenter: Rebecca P. Smith

Faculty Sponsor: David McCord

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## Health and Human Sciences

**Criminology and Criminal Justice**

**Place: Belk 412**

**Time: 4:00 PM**

*Sociopolitical Impact of Federal Response Delays*

*Prior to Emergency and Disaster Operations*

Student Presenter: Richard L. Beauchamp III

Faculty Sponsor: Robert T. Berry, Lifetime CEM

**School of Health Sciences**

**Place: Moore 107**

**Time: 4:30 PM**

*Health Care*

Student Presenter: Alessa Lennon, Kaitlyn Levan,

Katie Sprague

Faculty Sponsor: Baldwin Sanders

**Time: 4:15 PM**

*Disaster Logic Model: A F.A.S.T. Approach to*

*Survivor Triage and Stabilization*

Student Presenter: Brandon L. Morgan

Faculty Sponsor: Robert T. Berry, Lifetime CEM

**Time: 4:30 PM**

*High Fiber Substitution in Baking*

Student Presenter: Nicole Levi

Faculty Sponsor: Baldwin Sanders

**Time: 4:30 PM**

*Course Application: Applying Criminological*

*Theories to Real Criminal Events*

Student Presenter: Lydia Scott

Faculty Sponsor: Lisa Briggs

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## The Kimmel School

### Engineering & Technology

**Place:** Belk 355

**Time:** 4:00 PM

*The Beginning of a Cross Platform Project for*

*Mathematical and Scientific Plotting*

Student Presenter: Michael Jordan

Faculty Sponsor: Robert Adams

**Time:** 4:20 PM

*Power Control by Pulse Width Modulation*

Student Presenter: Allan Overstreet

Faculty Sponsor: Robert Adams

# Tuesday, March 22, 2010

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## College of Arts and Sciences

### Chemistry & Physics

**Time: 3:00 PM Place: Natural Sciences 208**

*Antimicrobial Agent from a Pseudomonas sp. Strain from the Great Smoky Mountains National Park*

Student Presenter: Rachel M. Bleich

Faculty Sponsor: Jason Clement

*Is God A Tyrant: a Miltonic Prolusion*

Student Presenter: Tabatha Bishop

Faculty Sponsor: Mimi Fenton

**Time: 3:30 PM**

*John Milton's "A Masque": Virtue, Wisdom, and Contemplation*

Student Presenter: Kimberly Waddell

Faculty Sponsor: Mimi Fenton

### English

**Place: Coulter 304**

**Time: 1:00 PM**

*You Rememory Me?: The Role of the Past in Toni Morrison's Beloved*

Student Presenter: Elizabeth Nissly\*

Faculty Sponsor: Annette Debo

*John Milton and "Il Penseroso"*

Student Presenter: Erik Freitas

Faculty Sponsor: Mimi Fenton

*John Keats, the Apothecary Surgeon of "Ode to a Nightingale"*

Student Presenter: Taylor Fie\*

Faculty Sponsor: Brent Kinser

*Satan is America: John Milton, Thomas Jefferson, and the Foundation of a New Republic*

Student Presenter: Christopher Rollins, Travis Mullen

Faculty Sponsor: Mimi Fenton

*Santiago's Ascension: Mortality and Transcendence in Hemingway's The Old Man and the Sea*

Student Presenter: Andrew M. Benton

Faculty Sponsor: Brent Kinser

**Time: 4:45 PM**

*The Dark Side of Humanity*

Student Presenter: Joanna Andrews

Faculty Sponsor: Laura Samal

**Time: 2:15 PM**

*Prolusion I*

Student Presenter: Abigail Isom

Faculty Sponsor: Mimi Fenton

*Little Miss Perfect*

Student Presenter: Jessica Presnell

Faculty Sponsor: Margaret Bruder

*Prolusion I: Blindness is Preferable to Sight*

Student Presenter: Anne Catherine "Kate"

McRae

Faculty Sponsor: Mimi Fenton

*Understanding Culture Through a Personal Artifact*

Student Presenter: Allison Dixon

Faculty Sponsor: Margaret Bruder

## Mathematics & Computer Science

**Place:** Stillwell 434

**Time:** 10:00 AM

*Modular Artificial Intelligence*

Student Presenter: Wesley E. Holland, Jr

Faculty Sponsor: William Krehling

**Time:** 1:30 PM

*Dynamically Load Balanced Distributed Systems*

Student Presenter: Eddie Allen, Russell T. Gaskey

Faculty Sponsor: William Krehling

**Time:** 2:00 PM

*Assignment Management and File Submission System*

Student Presenter: Bradley Proctor, Calum

Anderson-Carroll

Faculty Sponsor: William Krehling

**Time:** 4:30 PM

*Integrating Real-Time Data with Mobile Applications*

Student Presenter: Christopher Blades

Faculty Sponsor: William Krehling

## Modern Foreign Languages

**Time:** 9:30 AM                      **Place:** McKee 116

*The Montessori Method into El Método Montessori:*

*Understanding Spanish Syntax through Visual and Tactile Learning*

Student Presenter: Carolyn Ellison

Faculty Sponsor: Jamie Davis

## Philosophy and Religion

**Place:** Stillwell 225

**Time:** 10:00 AM

*Teaching Science vs. Anti-Science*

Student Presenter: Jeff Lux

Faculty Sponsor: Daryl Hale

**Time:** 10:30 AM

*Sōma - Sēma? The Body as a Prison in Hellenistic Philosophy and Early Christianity*

Student Presenter: Heather Cavalier

Faculty Sponsor: Daryl Hale

**Time:** 1:00 PM

*John Haught and a Growing God*

Student Presenter: Matthew Sutter\*

Faculty Sponsor: Daryl Hale

**Time:** 2:00 PM

*Religion, Ethics, and Evolution*

Student Presenter: Austin Hughes

Faculty Sponsor: Daryl Hale

**Time:** 2:30 PM

*Social Reminders: The Problem of Freedom and Authenticity*

Student Presenter: Heather E. Cavalier

Faculty Sponsor: James McLachlan

**Time:** 3:00 PM

*Four Hikers Meet David Hume*

Student Presenter: Marina Martinez

Faculty Sponsor: James McLachlan

**Time:** 3:30 PM

*The Devil and Charlie Darwin*

Student Presenter: Joshua Harris

Faculty Sponsor: Daryl Hale

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## Fine and Performing Arts

### School of Music

**Place:** Coulter 357

**Time:** 12:30 PM

*Women in Jazz: An Investigation of Gender Roles In Jazz Music*

Student Presenter: Rebecca Lautier

Faculty Sponsor: Christina Reitz

**Time:** 12:50 PM

*Irish Sreet Ballads*

Student Presenter: Jacqueline Traywick

Faculty Sponsor: Christina Reitz

**Time:** 1:10 PM

*The Role of Race in Rap Music*

Student Presenter: Sarah Sheehan

Faculty Sponsor: Christina Reitz

**Time:** 1:30 PM

*A Comparison of Philosophies and Ideologies In the Ancient and Baroque Musical Periods*

Student Presenter: Rebecca Lautier

Faculty Sponsor: Christina Reitz

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## Health and Human Sciences

### Communication Sciences & Disorders

**Time:** 2:05 PM

**Place:** Belk 138

*A Comparison of Perspectives Surrounding the Influences on an Individual's Dialect Formation*

Student Presenter: Rebekah Norris

Faculty Sponsor: Georgia Hambrecht

**Time:** 1:05 PM

*Assessing Safety and Environmental Health Measures in Elderly Homes in Angoon, AK*

Student Presenter: Stephanie Caler

Faculty Sponsor: Burt Ogle

**Time:** 1:15 PM

*Water Quality Monitoring in the Carol's Cabins Community*

Student Presenter: Lailani Rockholt

Faculty Sponsor: Tracy Zontek

### School of Health Sciences

**Place:** Moore 107

**Time:** 12:35 PM

*Not in my Backyard, Unless I am Poor, Uneducated, or a Person of Color: The Toxicity of PCBs*

Student Presenter: Erin Gymburch\*

Faculty Sponsor: Burt Ogle

**Time:** 1:25 PM

*Progress Toward the Development of a Molecular Assay to Discriminate Two Species of Bed Bugs*

Student Presenter: Erin Gymburch

Faculty Sponsor: Brian Byrd

**Time:** 12:45 PM

*The Use of RFID to Improve the Effectiveness, Efficiency, and Safety of Chemical Inventories at CNMS*

Student Presenter: David Craig

Faculty Sponsor: Burt Ogle

**Time:** 1:35 PM

*Application of the Agilent BioAnalyzer for the Identification of Two Morphologically Similar Mosquitoes*

Student Presenter: Virginia Hopkins

Faculty Sponsor: Brian Byrd

**Time:** 12:55 PM

*Complete Hazard Assesment within a Gross Anatomy Laboratory*

Student Presenter: Chris Caler

Faculty Sponsor: Burt Ogle

# Undergraduate Academic Project Grants

## Awarded 2010-2011

Initiated by Chancellor John Bardo in 1996, the Undergraduate Academic Projects Grant Program funds a variety of student projects. The committee awarded over \$28,375 this year.

Members of the UAPGP Committee are

Robert Mulligan..... Business  
Hal Herzog ..... Education and Allied Professions  
Katherine Mathews ..... Arts and Sciences  
Christina Reitz ..... Fine and Performing Arts  
Douglas Kinard ..... Kimmel School of Construction Management and Technology  
Tracy Zontek ..... Health and Human Sciences  
Brian Railsback ..... Honors College

### Anthropology and Sociology

#### *Haitian Voodoo*

Student Recipient: Jer-Mayne White

Faculty Sponsor: Philip Coyle

#### *The Kegare Concept*

Student Recipient: Lauren Levine

Faculty Sponsor: Philip Coyle

#### *Cadaver Dogs in Archaeological Survey*

Student Recipient: Paul S. Martin

Faculty Sponsor: Anne Rogers

#### *Taphonomy of Infant-Sized Remains*

Student Recipient: Paul S. Martin, Spencer

Oliver, and Brittani Benton

Faculty Sponsor: Cheryl A. Johnston

### Biology

#### *The production of a DNA bank enabling the study of the genetics of aggression in song sparrows*

Student Recipient: Haley Pace

Faculty Sponsor: Ron Michaelis

### Chemistry and Physics

#### *Over Expression and Purification of Stm1p Protein in E. Coli*

Student Recipient: Catherine Denning

Faculty Sponsor: Michael Van Dyke

#### *Supramolecular Chemistry: Crown ether complexes and their unique bonding*

Student Recipient: Richard Overstreet, Melissa Williams

Faculty Sponsor: Carmen Huffman

#### *Preparation and Materials Characterization of Lanthanide Metal-Based Nanoparticles for Biomedical Imaging*

Student Recipient: Lauren Runken

Faculty Sponsor: Channa De Silva

#### *BAFFLE - Bacteria Aids Fresco For Longer Existence*

Student Recipient: Caitlin Williams

Faculty Sponsor: Scott Huffman

### Communication Sciences and Disorders

#### *Testing the Attentional Network in Persons with Aphasia*

Student Recipient: Sarah Robbins

Faculty Sponsor: Leigh Morrow-Odom

### Construction Management

#### *EDCON and EXPO Associated Builders and Contractors (ABC) 2011 Student Chapter Competition*

Student Recipient: Sarah Schultz, Lyndsey

Gentry, Anthony Solary, Matt Smith

Faculty Sponsor: David Martin

## Criminology and Criminal Justice

### *Various Poster Presentations*

Student Recipient: including Joseph Kellerman, Courtney Dameron, Christina Foster, Alindrea Rawlinson  
Faculty Sponsor: Stephen Brown

### *The Effectiveness of Juvenile Justice Programs in North Carolina*

Student Recipient: Travis Simpson, Lindsey Harper, Derek Mueller  
Faculty Sponsor: Albert Kopak & Cyndy Caravelis Hughes

## Engineering and Technology

### *Powered Ankle Orthosis, Phase 1*

Student Recipient: Chris Justice, Jason McCurry  
Faculty Sponsor: Martin Tanaka

## English

### *Satan in America: John Milton, Thomas Jefferson, and the Foundations of a New Republic*

Student Recipient: Travis Mullen, Christopher Rollins  
Faculty Sponsor: Mary Fenton

## Geosciences and Natural Resources Management

### *Assessing Ruffed Grouse (*Bonasa umbellus*) Populations and habitat at Balsam Mountain Preserve*

Student Recipient: Kyle Underwood  
Faculty Sponsor: Ronald Davis

### *Measurement of Shallow Hydraulic Conductivity Profiles in Potential Landslide Initiation Zones of the Mountains of Western North Carolina*

Student Recipient: Matthew Burnette  
Faculty Sponsor: David Kinner

### *The effects of magnetic interactions and magnetic particle concentration on remanent magnetization and magnetic fabrics*

Student Recipient: Michael Stillwagon  
Faculty Sponsor: Cheryl Waters-Tormey

### *Groundwater flow through fractures in crystalline rock at Coweeta Hydrologic Laboratory, North Carolina*

Student Recipient: Lily Savitsky  
Faculty Sponsor: Cheryl Waters-Tormey

### *Analysis of Groundwater-Surface Water Interaction in a Headwaters Stream System in the Southern Appalachians, Cullowhee NC Part A and Part B*

Student Recipient: W. Blake Roberts, Elizebeth Allen, Matthew Burnette, Jason Dobyne, Chad Hiatt, Ashley MacIntyre, Mark Padgett  
Faculty Sponsor: Mark Lord, David Kinner

### *Measurement of Wxygen and Hydrogen Isotopes to Determine Groundwater Flow Paths in a headwaters Stream System in The Southern Appalachian Mountains, Cullowhee, North Carolina*

Student Recipient: Chad Hiatt  
Faculty Sponsor: Benjamin Tanner

### *Measurement of Oxygen and Hydrogen Isotopes to Determine Groundwater Flow Paths in a headwaters Stream System in The Southern Appalachian Mountains, Cullowhee, North Carolina*

Student Recipient: Chad Hiatt  
Faculty Sponsor: Benjamin Tanner

### *A Biomarker Analysis of Panthertown Bog Deposits*

Student Recipient: Jessica Parris  
Faculty Sponsor: Benjamin Tanner

## Math and Computer Science

Laurel Cobb is our nominee this year for the NCCTM student award.

Student Recipient: Caitlynn Yench, Mary Griffin, Jennifer Bumgardner, Laurel Cobb, Arminda (Roxy) Boone, Ashley (Elizabeth) Gierok, Christine Wilson, Ericka Byrd, Judy Fleming, Ashley Staggs, Rachel Owens, Connie Abadie, Gabrielle Martin, Alisha Smith, Jeff Rousselle, Melo  
Faculty Sponsor: Tuval Foguel

## Philosophy and Religion

Student Recipient: Stephanie Bridges, Emily Marie Elders, Bethany Barton, Paul Horton, Molly Metz, Ryan Rutledge, Amber Shipp, Bethany Ketting (mentor)  
Faculty Sponsor: John Whitmire

## Political Science and Public Affairs

*Terrorism: The Causal and Intrinsic Relationship to Corruption*

Student Recipient: Hayden Smith  
Faculty Sponsor: Nial Michelsen

## Psychology

*Can the Necker Cube Measure Attention*

Student Recipient: Christopher J. Macemore  
Faculty Sponsor: Windford Gordon

## School of Health Sciences

*Various Topics*

Student Recipient: Heather Brown, Andrea Kaufman, Brandi Anders, G. Britton Harper, Ashley Bracken  
Faculty Sponsor: Jill Manners

*Potential Use of an Ozone Generator to Improve Air Quality in Unoccupied Spaces*

Student Recipient: Amanda McQueen  
Faculty Sponsor: Burton Ogle

*Various Topics*

Student Recipient: Heather Brown, Emily Whittington, Britton Harper  
Faculty Sponsor: Jill Manners

*WCU Nutrition Habits Survey Results*

Student Recipient: Kyrie Carlson, Rebekah Fortney  
Faculty Sponsor: April Tallant

*NCDA research projects*

Student Recipient: Krystal Arrington, Nancy Belk, Sarah Brown, Frances Childers, Chloe Green, Mary Hackney, Whitney Hinceman, Eli Hipps, Caroline Holland, David Lightner, Annie Pauley, Rebecca Rolon, Melinda Toler, Choua Vue  
Faculty Sponsor: Wayne Billon, Susan Bogardus

*Application of a Microfluidics-based platform (Agilent BioAnalyzer) for the molecular identification of closely two related mosquito species (Aedes atlanticus and Aedes tormentor)*

Student Recipient: Virginia Hopkins  
Faculty Sponsor: Brian Byrd

## School of Music

*Bach Prelude and Fugue in A Minor and Beethoven Egmont Overture*

Student Recipient: Candice Boling, Jeff Bowman, Kayla Chipley, Savannah Forest, Andrew Gore, Mat McChargue, Elizabeth Priode, Tori Roach, Amy Shuford, Whitney Stewart, Avery Surratt  
Faculty Sponsor: Travis Bennett

*North American Saxophone Alliance, Region VI Conference Master Class Performance*

Student Recipient: Delante Randolph, Adam Wooten, Martin Baker, Ethan King  
Faculty Sponsor: Ian Jeffress

*The nief-norf Summer Festival 2011*

Student Recipient: Gregory Andrew Dills  
Faculty Sponsor: Mario Gaetano

## School of Stage and Screen

*Too Much To Ask*

Student Recipient: Leah Thomas, Mandy Hughes  
Faculty Sponsor: Terry Curtis Fox

*The Dreaming Tree*

Student Recipient: Carey McKelvey, Liz Oslund  
Faculty Sponsor: Jack Sholder, Terry Curtis Fox, Arledge Armenake

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## Honors College International Travel Grants

These grants are possible due to a fund established by Honors College Advisory Board members Dr. E.J. Tarbox and Dr. Mark and Kathy Whitehead.

Study Abroad Wales

*Student: Angela Langdon*

Study Abroad Netherlands

*Student: Allison Ray*

Study Abroad Amsterdam

*Student: Cayli Meitzel*

Study Abroad Australia

*Student: Nikki Harrold*

Study Abroad Amsterdam

*Student: Marie Rawlings*

Study Abroad Australia

*Student: Kaitlyn Conger*

Study Abroad Ireland

*Student: Micheal A.Kahn*

Study Abroad Hong Kong

*Student: Courtney Timmons*

Study Abroad Germany

*Student: Benjamin Ward*

Study Abroad Japan

*Student: Jessica Sloan*

Study Abroad Japan

*Student: Max DeGrove*

Study Abroad Peru

*Student: Desiree Reagan*

Study Abroad Wales

*Student: Seth Crockett*

Study Abroad Australia

*Student: Emily Goodman*

Study Abroad Chile

*Student: Ian Youmans*

Study Abroad Ireland

*Student: Samuel Colin Scott*

## The (New) Honors College Medallion

To commemorate the tenth anniversary of The Honors College, the student Board of Directors led the creation of a College medallion. The first medallion, featuring a pen and ink rendering of Reynolds Hall—the first home of The Honors College—was in use from 2007 to 2011. The new medallion, featuring the new residences for The Honors College—Balsam and Blue Ridge Halls—was illustrated by Asheville artist Lee Panthas and the graphic design was completed by Loretta Adams and Rubae Schoen. The medallion is worn at Commencement by students who complete the Honors curriculum, the dean, and in rare cases by special friends of The Honors College. The medallion replaced the purple cord Honors graduates have worn at commencements since 1997.

# The Honors College

*Ad vitam paramus*

**Western Carolina University**

HC 101 Balsam Hall

Cullowhee, NC 28723

828-227-7383

**Dr. Brian E. Railsback, Dean**

**J. Steven Carlisle, Associate Dean**

**Emily A. Sharpe, Director of Honors Advising  
and Pre-Professional Programs**

**Bonnie J. Beam, Executive Assistant**