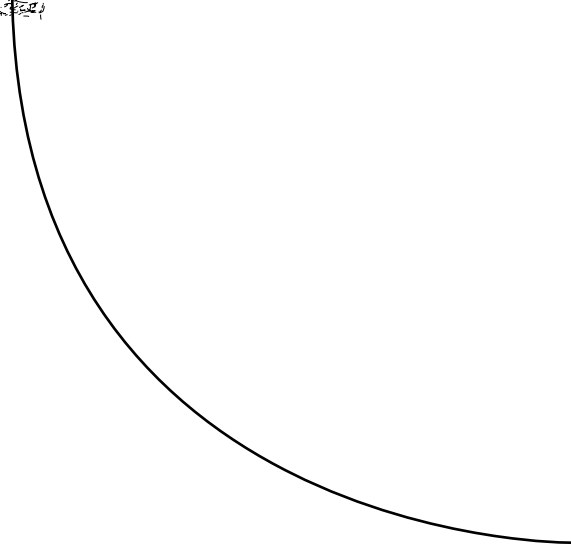




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# **Undergraduate Expo 2009**

*Western Carolina University*

*March 23-26*

## **Welcome**

The eleventh Undergraduate Expo features 194 student presenters and 71 faculty sponsors, spread over 23 departments and four days. During this week, 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.



## Engineering

*An Inexpensive Bathing Assistive Device For Home Healthcare*

Richard Domanski, Loc Wilkerson, Chris Rhodes, Josh Ellis ..... presenters  
Phillip Sanger ..... sponsor

*Vehicular Upright Sitting Assistance Device*

Mark Little, T.J. Powers, Evan Burnette, Adam Cruthis ..... presenters  
Chip Ferguson ..... sponsor

## History

*The Morality of a Smoking Ban*

William Burton ..... presenter  
John Whitmire ..... sponsor

*An Immigrant Crisis: The Question Of Foreigners In The Civil War*

Michael Frixen ..... presenter  
Richard Starnes ..... sponsor

*The Tune of War: An Analysis of Confederate Music*

Leia Hays ..... presenter  
Richard Starnes ..... sponsor

*Archers and Artillery: Early Modern Military Evolutionism*

Steven Johnson ..... presenter  
Laura Cruz ..... sponsor

*From Otzi's Ears, to Rebekah's Nose, to Your Kid's What?! The Progression of Body Piercing Through History*

Cayli Meizel ..... presenter  
Jessica Jones ..... sponsor

*Conversion en Español: The Hellin Family and the Transition to Modernity in Early Modern Spain*

Nathan Roberto ..... presenter  
Laura Cruz ..... sponsor

## Interdisciplinary Studies

*Go Team...Go?: A Lack of School Spirit at Western Carolina University*

Dominique Keaton ..... presenter  
Bart Andrus ..... sponsor

## International Studies

*Machismo In American Politics And Foreign Relations*

Emily Collman ..... presenter  
Russell Binkley ..... sponsor

## Law and Legal Studies

*Does the Second Amendment of the U.S. Constitution Apply to the States?*

Russell McLean IV ..... presenter  
Debra Burke, Malcolm Abel ..... sponsors

## Management

*Re-examining the significance of stakeholder view of strategic management: the case of Harrah's Cherokee Casino and Hotel*

Marsha Ensley ..... presenter  
Kyuhoo Lee ..... sponsor

## Mathematics

*Quasigroups and Cryptographic Application*

Michael Russell ..... presenter  
Risto Atanasov ..... sponsor

## Music

*Implementing Community-Based Learning*

*Opportunities in the Music Classroom*

Rebecca Frank ..... presenter

Michael Schallock ..... sponsor

*Evolution of the Clarinet: Antiquity through the*

*Eighteenth Century*

Nicholas Gattis ..... presenter

Christina Reitz ..... sponsor

## Political Science

*The Hidden Hazards of the Stafford Act*

Tristan Artman ..... presenter

Todd Collins ..... sponsor

*Power, Money, and Safety: Why States Pursue*

*Nuclear Weapons*

Katy Elders ..... presenter

Julie Loggins ..... sponsor

*Just How Accurate are Polls Anyway?*

Matthew Neely ..... presenter

Gibbs Knotts ..... sponsor

*The Peace Corp in Africa: Who gets a piece?*

Ashley Runnion ..... presenter

Gibbs Knotts, Betty Farmer ..... sponsors

*Voting Trends in the South*

Logan Thomas ..... presenter

Gibbs Knotts ..... sponsor

## Psychology

*Motivations For Meat Consumption Among Ex-Vegetarians*

# Undergraduate Expo 2009

Presentations will be held at Western Carolina University, March 23-26, according to college and department. Below are the project titles, presenters, sponsors, time, and place of presentation.

\* - denotes a presentation also selected for NCUR23

## Monday, March 23, 2009

Anthropology and Sociology

m8

## History

**Time: 2:30 p.m.**      **Place: McKee110**

*Homer's Works: Parallels of Modern Combat*

Student Presenter: Mark Braxton Rogers

Faculty Sponsor: Vicki Szabo

*Impact of British Colonialism on Modern India*



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## **College of Business**

Business Administration and Law and Sport Management

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## **College of Fine and Performing Arts**

**Tuesday, March 24, 2009**

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**College of Arts and Sciences**

**English**

**Time: 8:30 a.m. Place: Coulter 204**

*Population and its Effect on Conflict*

Student Presenter: Sara Wyatt

Faculty Sponsor: Eric Hendrix

**Time: 12:35 p.m. Place: Coulter 203**

*From Otzi's Ears, to Rebecca's Nose, to Your Kid's What?! The Progression of Body Piercing Through History \**

Student Presenter: Cayli Meizel

Faculty Sponsor: Jessica Jones

**Time: 3:35 p.m. Place: Coulter 301**

*"Serial Killers Existed Before Slayer," But Who Can Argue With "Take the Gun and Try It?": The Perpetual Debate Over Heavy Metal and Violence \**

Student Presenter: Cayli Meizel

Faculty Sponsor: Jessica Jones

**History**

**Time: 12:35 p.m. Place: McKee 209**

*I'm Bound for Canaan Land: The History of Gospel Music*

Student Presenter: Eric Shane Steward

Asia Moore, Devane Woodruff

Faculty Sponsor: Elizabeth McRae

**Philosophy and Religion**

**Time: 11:00 a.m.- 3:00 p.m. Place: Stillwell 225**

*The Development of Satan in Judaism and Its Implications for the Judeo-Christian Tradition*

Student Presenter: Carrie Eidson

Faculty Sponsor: James M. McLachlan

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**College of Business**

**Accounting, Finance, Information Systems, and Economics**

**Time: 8:00 a.m. Place: Forsyth 116**

*A Comparison of Mutual Funds and ETFs*

Student Presenters: Sebastian Guillama, Andres Guillama

Faculty Sponsor: Grace Allen

**Business Administration and Law and Sport Management**

**Time: 9:30 a.m. Place: Forsyth 329**

*Checks and Fund Transfers*

Student Presenter: J. D. Large

Faculty Sponsor: Debra Burke

# Poster Sessions

Wednesday, March 25

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

Students are invited to set up posters after 4:00 p.m.

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## College of Arts and Sciences

### Biology

*The Effect of Web Location in a Host Plant on Web Population Size of the Social Theriid *Anelosimus studiosus* \**

Student Presenter: Jody Harkey

Faculty Sponsor: Kefyn Catley

### Chemistry and Physics

*Boroxines are Predecessors for Molecular Boxes*

Student Presenter: Stephanie L. Harper

Faculty Sponsor: William R. Kwochka

*Theoretical Model of a Phase Transition in Lipid Bilayers*

Student Presenter: Harrison Burke

Faculty Sponsor: Matthew Rave

### Mathematics & Computer Science

*Analysis of Force Controlled Arm Movement*

Student Presenter: Shawn Rigdon

Faculty Sponsor: Jeffrey Lawson

*Polynomials With All Real Zeros and Coefficients 1 or -1*

Student Presenter: Craig DeFelice

Faculty Sponsor: Risto Atanasov

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## College of Business

Accounting, Finance, Information Systems, and Economics

*Investing After College Graduation: What You Need to Know*

*Economic Development at WCU and the Surrounding Community*

Student Presenters: Adam Richardson, Nick Fracassi

Faculty Sponsor: Steve Ha

*Four-Lane Highway in Graham County*

Student Presenter: Taylor Carringer

Faculty Sponsor: Steve Ha

*Development of the Green Energy and Green Building Industries in WNC*

Student Presenter: Mark Roloff

Faculty Sponsor: Steve Ha

*The Ritz-Carlton Hotel in Uptown Charlotte*

Student Presenter: Donald James

Faculty Sponsor: Steve Ha

*Jackson County's Southern Loop*

Student Presenters: Kathleen Graham, Claudia

Molina, Nathacs 2: Steve Ha

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## College of Education and Allied Professions

### Health, Physical Education, and Recreation

*Preventative Physical Therapy*

Student Presenter: Brandon VanHook

Faculty Sponsor: Maridy Troy

*The Chemistry Behind Exercise*

Student Presenter: Rebecca Carlson

Faculty Sponsor: Maridy Troy

*Backpacking Energy Miles: Testing Petzoldt's Energy Mile Theory*

Student Presenter: Hannah Goodson

Faculty Sponsor: Maridy Troy

## College of Fine and Performing Arts (continued)

### Interior Design (continued)

*Fire and Water*

Student Presenter: Kimberly Jarrett  
Faculty Sponsor: Jane Nichols

*Green Restaurant Design*

Student Presenter: Cheremnykh Natasha  
Faculty Sponsor: Jane Nichols

*H2O*

Student Presenter: Charlene McAllister-Pell  
Faculty Sponsor: Jane Nichols

*Mannequin Manor (Residential Design)*

Student Presenter: Amber Baxley  
Faculty Sponsor: Candace Roberts

*Residential Design II Senior Project*

Student Presenter: DeAnna Shepherd  
Faculty Sponsor: Candace Roberts

*Residential Design Project - XO Productions*

Student Presenter: Heather Krause  
Faculty Sponsor: Jane Nichols

*Roots' Jazz Club - Restaurant Design*

Student Presenter: Natalie Miller  
Faculty Sponsor: Jane Nichols

*Sake-Tu-Mi; Sushi Bar*

Student Presenter: Jana Rohe  
Faculty Sponsor: Jane Nichols

*Shyouz*

Student Presenter: Margo Peck  
Faculty Sponsor: Jane Nichols

*Skybox Design*

Student Presenter: Cheremnykh Natasha  
Faculty Sponsor: Jane Nichols

*Skybox Design - Base Burnt Records*

Student Presenter: Nicholas Savell  
Faculty Sponsor: Jane Nichols

*So Fresh Records' Skybox Design*

Student Presenter: Olivia Banks  
Faculty Sponsor: Jane Nichols

*Soul Session Records Luxury Sky Box Design*

Student Presenter: Heather Provenzano  
Faculty Sponsor: Jane Nichols

*The Water Mark*

Student Presenter: Rosalind Leos  
Faculty Sponsor: Jane Nichols

*Urban Grotto*

Student Presenter: Jessica Godfrey  
Faculty Sponsor: Jane Nichols

### Stage and Screen

*Costume Design for Plaza Suite*

Student Presenter: Leeanne Deaver  
Faculty Sponsor: Glenda Hensley

*Tales of Trickery: A Visual Synthesis of the Cultural and Theatrical Traditions of Bali \**

Student Presenter: Cara Ward  
Faculty Sponsor: Glenda Hensley

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## College of Health and Human Sciences

### Emergency Medical Care

*Smallpox Eradication: The Defeat of the World's Most Notorious Killer*

Student Presenter: Casey Ivey  
Faculty Sponsor: David Trigg

### Environmental Health

*Evaluating the Noise Exposure of Employees at the WCU Steam Plant*

Student Presenter: Chris Ray  
Faculty Sponsor: Burt Ogle/Tracy Zontek

### Health Sciences

*A Case of Sturge Weber Syndrome in a Division 2 Cross-country Runner*

Student Presenter: Ashleigh Wilkes  
Faculty Sponsor: Ashley Long

*Extent of Body Image Distortion in Healthy Weight College Students*

Student Presenter: Cara Perdue  
Faculty Sponsor: Wayne Billon

*Safety Hazards of Cabinet Shop Workers*

Student Presenter: Laura Litchfield  
Faculty Sponsor: Tracy Zontek

*The Affects of Lead Placement on Electrocardiogram Tracings of the Heart*

Student Presenters: William Bishop, Andrew Girton, Nimon Badgley  
Faculty Sponsor: Marianne Hollis

*Unique Finger Injury in a Collegiate Baseball Player*

Student Presenter: Casey Shirey  
Faculty Sponsor: Ashley Long

### Health Sciences/Athletic Training

*Blunt Force Trauma in a Male Soccer Player Causing Pancreatic Transection \**

Student Presenter: Emily Whittington  
Faculty Sponsor: James Scifers

*Chronic Tibial Pain in a Collegiate Football Player*

Student Presenter: Brandon Johnson  
Faculty Sponsor: James Scifers

*Foot Fracture in a High School Teacher*

Student Presenter: T.J. Moore  
Faculty Sponsor: James Scifers

*Insidious Onset Groin Pain in a High School Football Player*

Student Presenter: Brian Gill  
Faculty Sponsor: James Scifers

*Insidious Patella Fracture in a Collegiate Football Player*

Student Presenter: Jacqueline Kennedy  
Faculty Sponsor: James Scifers

*Transverse Process Fracture In A Collegiate Male Baseball Player \**

Student Presenter: Andrea Kaufman, Nicole Davis  
Faculty Sponsor: Jill Manners

*Subscapular Bursitis in a Collegiate Athlete \**

Student Presenter: Dan Brown  
Faculty Sponsor: James Scifers

*Nursing*

Cultural Differences: Pregnancy and Childbirth  
Student Presenter: Amanda Armstrong  
Faculty Sponsor: Susan Mitchell

*Defining Characteristics of Neonatal Intensive Care*

Student Presenter: Jennifer Pickler  
Faculty Sponsor: Steven Forst

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## **Kimmel School of Construction Management and Technology**

### **Engineering and Technology**

*Assistive Typing Device for Stroke Patient*

Student Presenters: Rich Domanski, Josh Ellis,

Chris Rhoades, Locke Williamson

Faculty Sponsor: Phil Sanger

*Enormous Field Enhancement in Periodic Birefringent Media \**

Student Presenters: Mitchell Pate, Shawn Rigdon

Faculty Sponsor: Weiguo Yang

*Head Restraint System*

Student Presenters: William Krukedall, Eric

Proctor, Brian Burks

Faculty Sponsor: Phil Sanger

*Improved Goniometer*

**Wednesday, March 25, 2009**

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**College of Arts and Sciences**

**English**

**Time: 1:30 p.m. - 3:30 p.m. Place: Hunter Library Circulation Desk**

*"Choose Your America" - American Literature Non-Violent Tradition (format: Display Cabinets)*

Student Presenters: Jamie Hicks, Amber Jones, Kati Pullium, Samantha Montrose

Faculty Sponsor: Marsha Lee Baker

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**College of Business**

**Accounting, Finance, Information Systems, and Economics**

**Time: 8:00 a.m. Place: Forsyth 301**

*An Analysis of Subprime Lending and Today's Housing Market*

Student Presenter: Hayden Smith

Faculty Sponsor: J. Michael Arnott

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**College of Education and Allied Professions**

**Health, Physical Education, and Recreation**

**Time: 10:00 a.m. Place: Reid 122H**

*Resumé Research*

Student Presenter: Shane Baker

Faculty Sponsor: Ben Tholkes

*Sports Equity*

Student Presenters: Kristen Bullock, Leigh Ann Fox, Brett Pickle, Patrick Neal, Andrew Pierce

Faculty Sponsor: Ben Tholkes

*Crowding in Recreation*

Student Presenters: H.B. "Trey" Kelly, Kelly Zehrung, Beau Blackwelder

Faculty Sponsor: Ben Tholkes

*Pantherstown*

Student Presenters: Ashley Merrill, Mary Kate Olson, Kimberly Breedlove, Matthew Mason

Faculty Sponsor: Ben Tholkes

*Creek Line Productions*

Student Presenters: Bryan Mangum, Josh Heritage

Faculty Sponsor: Debby Singleton

*Outside the Box*

Student Presenters: Zoe Rolly, Shane Baker, Ashley Merrill

Faculty Sponsor: Debby Singleton

*Dynamix*

Student Presenter: Zoe Rolly

Faculty Sponsor: Maurice Phipps

**Time: 5:00 p.m. Place: Reid 132**

*Seven Ways College Students Can Go Green*

Student Presenter: Katherine Scott

Faculty Sponsor: Bill Papin



**Thursday, March 26, 2009**

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**College of Health and Human Sciences**

**Environmental Health**

**Time: 1:25 p.m. Place: Moore 107**

*Stream Quality: Evaluation of the Effects of Livestock  
Events on Stream Quality and the Tuckaseegee River*

Student Presenter: Clint McGinty

Faculty Sponsor: Tracy Zontek

**Time: 1:35 p.m. Place: Moore 107**

*Gross Anatomy Lab Formalin Concentration  
Evaluation*

Student Presenter: Clint McGinty

Faculty Sponsor: Tracy Zontek

**Time: 1:40 p.m. Place: Moore 107**

*Pre-Developmental Evaluation of Water Quality for  
Mine Creek, NC*

Student Presenters: Bill Wiseman, Preston  
Jacobsen

Faculty Sponsor: Tracy Zontek, David Kinner

**Time: 2:10 p.m. Place: Moore 107**

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**Kimmel School of  
Construction Management and  
Technology**

# Undergraduate Academic Project Grants Awarded 2008-2009

Initiated by Chancellor John Bardo in 1996, the Undergraduate Academic Projects Grant Program funds a variety of student projects.

Members of the UAPGP Committee are

Debra Burke (Business)

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## Arts and Sciences

*WCU in Washington Program*

Student Recipient: Brad Semma

Faculty Sponsor: Niall Michelsen

*WCU in Washington Program*

Student Recipient: David Young

Faculty Sponsor: Niall Michelsen

*WCU in Washington Program*

Student Recipient: Brittani Davis

Faculty Sponsor: Niall Michelsen

## Business Administration and Law and Sport Management

*Societal Tattle Tales: The Business of Public Tips,  
Hotlines and Law Enforcement*

Student Recipient: Cassie Erwin

Faculty Sponsor: Lorrie Willey

## Center for Service Learning

*WCU's 2008 Alternative Spring Break in Chi-  
cago: Life-Changing Experiences from Service-  
Learning Sites*

Student Recipients: Bessie and Alan Goggins

Faculty Sponsor: Katherine Graunke

## Chemistry and Physics

*Preparation of a Molecular Box*

Student Recipient: Stephanie Harper

Faculty Sponsor: William Kwochka

*Categorization Technique Development*

Student Recipient: Jessica Spear

Faculty Sponsor: Scott Huffman

*Self-Assembled Monolayers as Foundation for Chemical  
Sensors*

Student Recipient: Tyler David Jones

Faculty Sponsor: Scott Huffman

*Dependence of Plasmon-induced Local Electromagnetic  
Field Extension on Silver Nanoparticle Size and  
Dielectric Environment*

Student Recipient: Jacklyn C. Bush

Faculty Sponsor: David Evanoff, jr

## Department of Geosciences and Natural Resources Conservation and Management

*Understanding Canopy Characteristics for Mapping  
Deciduous Forest Land in Jackson County, North  
Carolina*

Student Recipient: Staci Mellon

Faculty Sponsor: Joni Bugden-Storie

## Environmental Health Sciences

*Species Composition and Relative Population Abun-  
dance of Container-inhabiting Aedes Mosquitoes in  
Jackson County, North Carolina*

Student Recipient: James Alan Goggins

Faculty Sponsor: Brian D. Byrd

## Health Sciences

*Region VI PDC, Myrtle Beach, presentation posters*

## Stage and Screen

### *Choreographic Study*

Student Recipients: Whitney Hinson, with Lisa Dunn, Amy Pisano, Patience Owl

Faculty Sponsor: Amy Dowling

### *Tales of Trickery: A Visual Synthesis of the Cultural and Theatrical Traditions of Bali*

Student Recipient: Cara Ward

Faculty Sponsor: Glenda Hensley

### *WCU in the '30s*

Student Recipients: Joshua Pond, Stephen Nanney, Brittnee Pressley, Sara Hawken

Faculty Sponsor: Steve Carlisle

### *Josephina Niggli*

Student Recipients: Rachel Bleich, Emily Goodman, Marie Rawlings, Clara Hodge

Faculty Sponsor: Steve Carlisle

### *War of the Worlds Original Broadcast October 30, 1938*

Student Recipients: Zachary Heaton, Adam Smith, Wade Redfearn, Amanda Kouri

Faculty Sponsor: Steve Carlisle

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## Honors College International Travel Grants

### *Study Abroad Ireland*

Student Recipient: Katelyn Rath

Faculty Sponsor: Brian Railsback

### *Study Abroad England*

Student Recipient: Kasey Wilson

Faculty Sponsor: Richard Starnes

### *Study Abroad Mexico*

Student Recipient: Stephanie Strobel

Faculty Sponsor: Brian Railsback

### *Study Abroad Japan*

Student Recipient: Max DeGrove

Faculty Sponsor: Masafumi Takeda

## **The 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 pen and ink rendering of Reynolds Hall was done by Asheville artist Lee Panthas and the medal's graphic design was completed by Loretta Adams.

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 Western Carolina University**

**140 Reynolds Hall  
Cullowhee, NC 28723  
828-227-7383**

**Dr. Brian E. Railsback, Dean  
J. Steven Carlisle, Associate Dean  
and Director of Humanities  
Emily A. Sharpe, Director of Honors Advising  
and Pre-Professional Programs  
Bonnie J. Beam, Executive Assistant**