The Twelfth Annual

Undergraduate Expo

March 22-25

2010
Undergraduate Expo 2010

Western Carolina University
March 22-25

Welcome
The twelfth Undergraduate Expo features 190 student presenters and 68 faculty sponsors, spread over twenty eight 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. Please take some time out this week 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 22, in the Grand Room at the University Center. A brief program will start at 6:00 p.m. in the Grand Room, where RODIN awards 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 22.

Press Releases for Student Presenters
WCU’s Office of Public Relations routinely sends news releases about student activities and honors to hometown/local newspapers. Participants in the Undergraduate Expo who wish to take advantage of that service can visit the Web site http://www.wcu.edu/22961.asp to fill out an online biographical form and submit it via e-mail to the Public Relations Office.

The Public Relations Office also can send photographs of students to 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 and 5 p.m. on Thursday, April 22, Wednesday, April 28, or Tuesday, May 4, or make an appointment at 828-227-3081. Students’ personal photos will be considered for use, depending on quality. Head-and-shoulders shots may be e-mailed to rholcomb@wcu.edu.

National Conference on Undergraduate Research (NCUR)
This year NCUR will be on the campus of the University of Montana, Missoula, April 15-17. Please check the program on the next page for the complete list of the 80 NCUR24 abstracts accepted; this year, WCU is second in the nation in the number of accepted abstracts.

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 2010

Below are the projects accepted, titles, student presenters, and their sponsors for NCUR24. Funding for travel to NCUR24 was made possible by Honors College Advisory Board members and assistance from the Office of the Chancellor.

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**Anthropology**

*Shoo Fly Don’t Bother Me! A Study of Entomological Activity in Western North Carolina*
Stephanie Peters, presenter
Cheryl Johnston, sponsor

*The Plague: An Extensive Look at the Etiology, Distribution, and Ramifications of One of the Most Deadly Diseases in Human History*
Cayli Meizel, presenter
Anne Rogers, sponsor

**Buddhism and the “Third” Gender: Yesterday and Today**
Christina Esmay, presenter
Philip Coyle, sponsor

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**Business**

*Investigating the Ethical Issues That are Present in the Cruise Line Industry*
Ashley Leserra, presenter
Kyuho Lee, sponsor

*Exploring the Difference Between the Ritz-Carlton Hotel Company and Marriott International*
Yrome Graham, presenter
Kyuho Lee, sponsor

*Investigating the Human Resource Coaching Strategy of J. Alexander’s Restaurant Corporation*
Christopher Govan, presenter
Kyuho Lee, sponsor

*Investigating Corporate Social Responsibility and Front-Line Employee Involvement in the Hospitality Industry*
Charity Harris, presenter
Kyuho Lee, sponsor

*Investigating the Impact of Employee Morale*
Norma Coggins, presenter
Kyuho Lee, sponsor

*Investigating the Organized Cultured Environment and Service Standards of the Four Seasons*
Hayley Duncan, presenter
Kyuho Lee, sponsor

*Examining the Human Resource Management Practices of Brinker International, Inc., and How These Practices Have Contributed to the Firm’s Ability to Expand Despite Unfavorable Economic Conditions*
Hannah Armstrong, presenter
Kyuho Lee, sponsor

*Investigating the Relationship Between Company Culture and Customer Satisfaction in the Airline Industry*
Aaron Wilson, presenter
Kyuho Lee, sponsor

*Examination of the Relationship Between Success of Fast Food in South America and Training Techniques*
Eduardo Moreira, presenter
Kyuho Lee, sponsor

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**Business, continued**

*NCAA Letters of Intent: Where’s the Commitment?*
Mary Moore, presenter
Debra Burke, sponsor

*Investigating the Organized Cultured Environment and Service Standards of the Four Seasons*
Hayley Duncan, presenter
Kyuho Lee, sponsor

*Examining the Human Resource Management Practices of Brinker International, Inc., and How These Practices Have Contributed to the Firm’s Ability to Expand Despite Unfavorable Economic Conditions*
Hannah Armstrong, presenter
Kyuho Lee, sponsor

*Investigating the Relationship Between Company Culture and Customer Satisfaction in the Airline Industry*
Aaron Wilson, presenter
Kyuho Lee, sponsor

*Examination of the Relationship Between Success of Fast Food in South America and Training Techniques*
Eduardo Moreira, presenter
Kyuho Lee, sponsor

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Chemistry
Variations in Lewis Acidity of Trivalent Boron Systems with Amines
Tyler Jones, presenter
William Kwochka, sponsor

Communications
Cut and Dry: A Comparison of Male and Female Circumcision
Rachel Sherrill, presenter
Betty Farmer, sponsor

Criminology
Criminal Statutes of Limitations: Need or Nuisance?
Jessica Burkley, presenter
Lorrie Willey, sponsor

Economics
Healthcare Services and Its Affect on the Economy
Brodie Lowe, presenter
Inhyuck Ha, sponsor

An Analysis of Subprime Lending and the Policy Behind It
Hayden Smith, presenter
James Arnott, sponsor

Education
Warning! Graphic Content May Improve Writing Performance!
Emily Collman, presenter
Penny Saurino, sponsor

Education in Guatemala: The Sixty-Nine Percent Literacy Rate Exposed
Amanda Smith, presenter
James Davis, sponsor

Electrical Engineering
Meta-Materials and the Speed of Light
Sean Reardon, presenter
Weiguo Yang, sponsor

Engineering
Free Energy: 350°F Solar Heater
Joseph Schwierking, presenter
Wesley Stone, sponsor

English
Shattered Borders: Josefina Niggli De-Regionalized
Bobby Willover, presenter
Brent Kinser, sponsor

“I Noot Not How Men Hym Calle”: The Religious Identity of the Canterbury Tales’ Merchant
Kirsten Huscusson, presenter
Brian Castle, sponsor

Alcoholism: Curse or Cure? The Depiction of Alcoholism in Native American Literature
Andrew Sutton, presenter
Mae Claxton, sponsor

The Jig is Up: “Hills Like White Elephants” and the Case for Hemingway’s Ambiguity
Bobby Willover, presenter
Brent Kinser, sponsor

Film Studies
Parallelism in Poe’s “The Fall of the House of Usher”: A Cross Media Examination of the Man and the Mansion
Cayli Meizel, presenter
Brian Railsback, sponsor

Sense of Self: An Exploration of Personal Identity in Modern Film
Jason Beck, presenter
Christopher Hoyt, sponsor
Health and Human Performance
An Investigation into North Carolina’s Culture of Obesity.
Nicole Jesserer, presenter
Gibbs Knotts, sponsor

Insidious Elbow Pain in a College Female
Brandy Jones, presenter
James Scifers, sponsor

Scheuermann’s Kyphosis in a High School Football Player
Andrea Kaufman, presenter
James Scifers, sponsor

Acute Shoulder Injury in a Collegiate Football Player
Amanda Taylor, presenter
James Scifers, sponsor

Cervical Fracture in a High School Football Player
Emily Whittington, presenter
James Scifers, sponsor

History
Welcome to Disneyland: A Roller Coaster Ride Through History
Melanie Wells, presenter
Laura Cruz, sponsor

The Real Housewives of the Plantation: A Reinterpretation of the Antebellum Plantation Wife
Rachel Drawdy, presenter
Laura Cruz, sponsor

The Hidden Message in a Soldier’s Letters
Jenny Jessup, presenter
Alex Macaulay, sponsor

Grimm Reminders: A Reconstruction of German National Identity Through Fairy Tales
Angela Merritt, presenter
Laura Cruz, sponsor

Interdisciplinary Studies
Endometriosis and Fertility: Is Now or Never Really the Only Option?
Shannon Owen, presenter
Emily Sharpe, sponsor

Literature
A Thirst for Innocence
Kimberly Waddell, presenter
Catherine Carter, sponsor

Music
Music Theory: The Musical Elements That Give Life to Lyrics
Alyssa Gillikin, presenter
Terri Armfield, sponsor

Free Masonry and Mozart: A Look at the Simple Woman
Courtney Allen, presenter
Mary Kay Bauer, sponsor

Fiddling Traditions of the Toe River Valley
William Ritter, presenter
Scott Philyaw, sponsor

Computers in the Music Industry: A Critical Look at Technology’s Effect on Artistic Integrity
Rebecca Lautier, presenter
Murat Yazan, sponsor

Nicholas Gattis, presenter
Christina Reitz, sponsor
Nursing
Health Care Disparities in Rural Hospitals:
Language Barriers, Caregiver Perceptions, and Health Literacy
Jessica Holland Kirby, presenter
James Davis, sponsor

Philosophy
Humans Vs. Nature: The Morality of Preservation
Mariah Hornby, presenter
David Henderson, sponsor

Reason: As Defined by Film Noir and Classical Detective Stories.
Matthew Johnson, presenter
Christopher Hoyt, sponsor

Derrida’s Re-Thinking of an “Unfortunate Necessity”
Marshall Solomon, presenter
John Whitmire, sponsor

To Be, or To Become...
David Young, presenter
James McLachlan, sponsor

How We Decide: John Rawls, Jurgen Habermas and the Ethics of Public Debate
David Young, presenter
Daryl Hale, sponsor

Samsara is Nirvana: Existential Logic of the Autonomous Self in Schelling & Nishida
Jared Utecht, presenter
James McLachlan, sponsor

The Historiography of the Concept of Depression and its Social Consequences
Nicholas Sanford, presenter
Christopher Hoyt, sponsor

The Role of Women in the Ancient Greek Realm
Morgan Turner, presenter
Daryl Hale, sponsor

Philosophy (continued)

Why Does Socrates Remain Quiet About Imperialism, While Pericles Praises it so Highly?
Morgan Turner, presenter
Daryl Hale, sponsor

Second-Generation Immigrants
Rebecca Rolon, presenter
Christopher Hoyt, sponsor

Zombie Chaos: An Analysis of the Evolution of Apocalyptic Literature
Matthew Kirby, presenter
James Davis, sponsor

Political Science
The Media and Politics Relationship
Justin Caudell, presenter
Gibbs Knotts, sponsor

When Journalists Protect Their Sources, Who Protects the Journalists?
Seth Crockett, presenter
Janet Ford, sponsor

Religion & Stem Cell Research: A Partnership
Travis Tallent, presenter
Christopher Cooper, sponsor

Corruption, the Missing Link: The Connection Between Democracy and Terrorism
Hayden Smith, presenter
Todd Collins, sponsor

The Level of Education Spending and its Relation to Voter Turnout in the United States
Timoteo Hines, presenter
Todd Collins, sponsor

Oil and Democracy
Brad Semma, presenter
Gibbs Knotts, sponsor

The Role of Women in the Ancient Greek Realm
Morgan Turner, presenter
Daryl Hale, sponsor
### Philosophy (continued)

*Stretching the Inverted U: How Far Can Current Inequality Theories Take Us?*
Phillip Matulich, presenter
Todd Collins, sponsor

### Psychology

*Determinants of Male Attractiveness: “Hotness”*
Gregory Shuler, presenter
David McCord, sponsor

*Do Men Really Have Superior Spatial Navigation Abilities? Results of Experiment Point to No.*
Gregory Shuler, presenter
James Goodwin, sponsor

### Religious Studies

*‘Go Back to the Shadow’: Augustinian Evil in Tolkien*
James Thomas, presenter
John Whitmire, sponsor

*Righteousness in a World of Despair: Transcendental Film Style in Bresson’s Au Hasard, Balthazar and Joffe’s The Mission*
Edwin Lohmeyer, presenter
James McLachlan, sponsor

### Social Work

*Is America Starving?*
Michael McLamb, presenter
Inhyuck Ha, sponsor

### Sociology

*The Effects of Second Home Development: Comparing the Community Attachment of Residents in a Small Appalachian Community*
Morgan Childers, presenter
Anthony Hickey, sponsor

*A Contribution to Disproportionality in HIV Rates: Healthcare Disparities in North Carolina Minorities*
Erin Gymburch, presenter
Mary Byrnes, sponsor

*How Do Deployments Affect Military Families?*
Ashley Shemery, presenter
Peter Nieckezar, sponsor

*Towards a Modern Definition of Appalachia*
Katy Elders, presenter
Chris Cooper, sponsor

### Spanish

*Cuba: The Forbidden Country*
Brittany Bottoms, presenter
Daniel Ostergaard, sponsor

*ESL: The Good, the Bad, and the Ugly*
Christine Weathers, presenter
Lori Oxford, sponsor

*La Búsqueda Del Sueño Americano: The Pursuit of the American Dream as a Primary Motivation for Latino Immigrants*
Marie Rawlings, presenter
Mark Couture, sponsor

### Theatre/Drama

*The Actor and the Tattoo: Worst Enemies to Best Friends*
Rebecca White, presenter
Susan Brown-Straus, sponsor

### Women’s Studies

*Shattered Innocence: An Examination of Global Human Trafficking*
Amanda Bienhaus, presenter
Michelle Scifers, sponsor
The Fifth Biennial Smoky Mountain Undergraduate Conference on the History of Mathematics
March 20, 2010
Niggli Theater, Stillwell Building, Western Carolina University

Poster: Napier's Logarithms and the Public
Student Presenter: Jennifer Annas ............................................. Faculty Sponsor: Sloan Despeaux

Poster: Harriot: Father of Modern Notation
Student Presenter: Layla Biddix .................................................... Faculty Sponsor: Sloan Despeaux

Poster: Decline of the 20th Century: American Women in Mathematics
Student Presenter: Roxy Boone .................................................... Faculty Sponsor: Sloan Despeaux

Poster: How did Robert Recorde change the way mathematics was taught in England?
Student Presenter: Darci R. Brush .............................................. Faculty Sponsor: Sloan Despeaux

Poster: Alice's Adventures in Wonderland
Student Presenter: Erica Byrd ..................................................... Faculty Sponsor: Sloan Despeaux

Talk: History of the Construction of Regular Polygons
Student Presenter: Craig DeFelice .............................................. Faculty Sponsor: Sloan Despeaux

Talk: E. T. Bell – Now that's Entertainment!
Student Presenter: Sal Frontauria ............................................... Faculty Sponsor: Sloan Despeaux

Poster: The Moore Genealogy Project
Student Presenter: Samantha Hodge .......................................... Faculty Sponsor: Sloan Despeaux

Poster: Kepler's Harmonice Mundi
Student Presenter: Melody McDaniel .......................................... Faculty Sponsor: Sloan Despeaux

Poster: Blaise Pascal: A Defense For Religion
Student Presenter: Ashley McLendon .......................................... Faculty Sponsor: Sloan Despeaux

Poster: How did politics affect calendrical reform?
Student Presenter: Drew E. Miller .............................................. Faculty Sponsor: Sloan Despeaux

Poster: Galileo and His Support for Heliocentricity
Student Presenter: Jenna Reese .................................................. Faculty Sponsor: Sloan Despeaux

Poster: Hilbert's Axioms
Student Presenter: Lindsey M. Robinson ..................................... Faculty Sponsor: Sloan Despeaux

Poster: Treatment of Women in Flatland.
Student Presenter: Sarah Swartzel ............................................. Faculty Sponsor: Sloan Despeaux

Poster: “Pythagorean” Theorem, Western World vs. Chinese
Student Presenter: Christine Wilson .......................................... Faculty Sponsor: Sloan Despeaux

Poster: How did the use of mathematics in navigation aid the age of discovery?
Student Presenter: Elizabeth Witt ............................................... Faculty Sponsor: Sloan Despeaux
Undergraduate Expo 2010

Presentations will be held at Western Carolina University, March 22-25, according to college and department. Below are the project titles, presenters, sponsors, time, and place of presentation.

* ~ denotes a presentation also selected for NCUR24

Monday, March 22, 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 4:00 p.m.

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College of Arts and Sciences

Anthropology & Sociology
* The “Third” Gender of Buddhism  
Student Presenter: Christina Esmay  
Faculty Sponsor: Philip Coyle

Biology
Research in Sustainable Beekeeping  
Student Presenters: Jeremiah Faw and Jason Wolfe  
Faculty Sponsor: Christopher Coburn

Chemistry/Physics
Inhibition of Superoxide Dismutase by Low Molecular Weight Compounds.  
Student Presenter: Ben Hickman  
Faculty Sponsor: Jack Summers

Isolation and Characterization of Antitumor Compounds from Arnoglossum atriplicifolium  
Student Presenter: Rachel M. Bleich  
Faculty Sponsor: Jason A. Clement

Surface Adsorption of Cetylpyridinium Chloride to Silica Gel  
Student Presenter: Jessica Spear  
Faculty Sponsor: Carmen Huffman

Geosciences and Natural Resources
Reflected Light Image Analysis Method: Application to Magnetic SPO Measurements  
Student Presenter: Tiffany Liner  
Faculty Sponsor: Cheryl Waters-Tormey

Mathematics and Computer Science
Disjoint Monochromatic Circuits in Complete Graphs  
Student Presenter: Gregory Ferrin  
Faculty Sponsor: Risto Atanasov

Graph Lineage and Graph Generation  
Student Presenter: Ben Casses  
Faculty Sponsor: Risto Atanasov

Political Science & Public Affairs
An Investigation Into North Carolina’s Culture of Obesity  
Student Presenter: Nicole Jesserer  
Faculty Sponsor: Giggs Knotts

Undergraduate Expo 2010 - Western Carolina University - Poster Session - Monday, March 22
College of Business

Accountancy, Finance, Information Systems and Economics

Forecasting CPI Inflation for 2010-2011
Student Presenter: Mike Beard
Faculty Sponsor: Robert F. Mulligan

Forecasts of the Unemployment Rate for 2010-2011
Student Presenter: Lauren Nixon
Faculty Sponsor: Robert F. Mulligan

A Look at the North Carolina Film Making Tax Incentive and Its Effect on the State’s Economy
Student Presenter: Brooke Banther
Faculty Sponsor: Inhyuck Ha

A Structural Change of a Local Economy: Catawba County, North Carolina
Student Presenter: Charles Powell
Faculty Sponsor: Inhyuck Ha

An Economic Impact of the Maryland Inter-County Connector
Student Presenter: Ashley Wild
Faculty Sponsor: Inhyuck Ha

Carolina Veterans - Proposal to New MLB Franchise
Student Presenter: Jake Stryjewski
Faculty Sponsor: Inhyuck Ha

Consumer Price Index Forecast
Student Presenter: Jessica Martin
Faculty Sponsor: Robert F. Mulligan

Forecast of Unemployment Rate for 2010 and 2011
Student Presenter: Ashley Wild
Faculty Sponsor: Robert F. Mulligan

Forecasting the Inflation Rate
Student Presenter: Jeremiah Satterfield
Faculty Sponsor: Robert F. Mulligan

Impact of Tractor Supply On Local Economy in Haywood County, NC
Student Presenters: Darren Caudle and Luke Fleshman
Faculty Sponsor: Inhyuck Ha

Business Administration and Law

Improving Resource Allocation in Hospitals
Student Presenter: Brodie Lowe
Faculty Sponsor: Inhyuck Ha

Is America Starving?
Student Presenter: Michael McLamb
Faculty Sponsor: Inhyuck Ha

The Impacts of the NC 107 Connector on WNC: The Light Rail Alternative Approach to Transportation
Student Presenters: Ryan Sims and Charles Parrish
Faculty Sponsor: Inhyuck Ha

The Importance of Revitalization of Old Cullowhee
Student Presenters: Patrick Buckley and Scott Lundgren
Faculty Sponsor: Inhyuck Ha

Unemployment Rate Forecast
Student Presenter: Jennifer Blanton
Faculty Sponsor: Robert F. Mulligan

Global Management

Consulting Project for Macular Degeneration Foundation
Student Presenters: Jessica Ball, Jonathan Billings, Kelly Huffman and Antonio Velazco
Faculty Sponsor: Daniel Ostergaard

The Carr Research and Development Institute
Student Presenters: Brittany Bottoms, Whitney Hughes, Robby Reeves and Melvin Van Velthoven
Faculty Sponsor: Daniel Ostergaard

Undergraduate Expo 2010 - Western Carolina University - Poster Sessions - Monday, March 22
College of Education and Allied Professions

Health, Physical Education, and Recreation
ACL Injuries in Female Athletes
Student Presenter: Heather Swayne
Faculty Sponsor: Maridy Troy

Psychology
What is a Pet?
Student Presenter: Samantha Strazanac
Faculty Sponsor: Hal Herzog

College of Fine and Performing Arts

School of Art & Design - Interior Design
Hunter Library Design
Student Presenters: Derek Brown, Bridget Oprean, Jessica Sullo and Heather Provenzano
Faculty Sponsor: Jane L. Nichols

Hunter Library Design
Student Presenters: Jessie Deshong, Kelly Roberson and Linsey Wilson
Faculty Sponsor: Jane L. Nichols

Hunter Library Design
Student Presenters: Danielle Shaurette, Nick Savell and Shanna Beam
Faculty Sponsor: Jane L. Nichols

Hunter Library Design
Student Presenters: Nicole Smathers, Olivia Banks, Joseph Deese and Melody Updyke
Faculty Sponsor: Jane L. Nichols

Hunter Library Design
Student Presenters: Hannah Sult, Stacy Carter and Heather Krause
Faculty Sponsor: Jane L. Nichols

Residential Interior Design - The Neville Residence
Shotgun Home Addition
Student Presenter: Danielle Shaurette
Faculty Sponsor: Candace Roberts

The Leibbrandt Family: Double Shotgun House Design
Student Presenter: Jessica Sullo
Faculty Sponsor: Candace Roberts

Stage and Screen
Retratos
Student Presenters: Amanda Pisano, Erica Wellbem and Karah Garrison
Faculty Sponsor: Glenda Hensley

College of Health and Human Sciences

Criminology & Criminal Justice
A Look Inside: A Study of Departments in Local Law Enforcement
Student Presenter: Regina Cline
Faculty Sponsors: Cyndy Caravelis Hughes

Crime and The Nature/Nurture Debate
Student Presenter: Alindrea Rawlinson
Faculty Sponsors: Stephen Brown and Jamie Vaske

Does Rehabilitation Reduce Criminal Recidivism Rates?
Student Presenter: Hannah MacCall
Faculty Sponsors: Stephen Brown and Jamie Vaske

Female Offenders and Strain: Increasing Self-efficacy and Coping through Mindfulness
Student Presenter: Heather E. Cavalier
Faculty Sponsor: Jamie Vaske
Higher Education and Law Enforcement
Student Presenter: Jaered Shelton
Faculty Sponsor: Jamie Vaske

The CSI Effect in the Courtroom, Law Enforcement, and Academe
Student Presenter: Courtney Dameron
Faculty Sponsors: Stephen Brown and Jamie Vaske

School of Health Sciences - Athletic Training
* An Acute Shoulder Injury in a Collegiate Football Player
Student Presenter: Amanda Taylor
Faculty Sponsor: Jill Manners

Cervical Fracture of a High School Football Player
Student Presenter: Frank Baker
Faculty Sponsor: Ashley Long

* Insidious Elbow Pain in a College Female
Student Presenter: Brandy Jones
Faculty Sponsor: James Scifers

* Scheuermann’s Kyphosis in a High School Football Player
Student Presenter: Andrea N. Kaufman
Faculty Sponsor: James Scifers

Evaluation of Formaldehyde Concentrations in Cadaver Lab
Student Presenter: Drew Craig
Faculty Sponsor: Burton Ogle

Hazard Evaluation and PPE Assessment at Student Health Services
Student Presenter: Armelja Sanxhaku
Faculty Sponsor: Burton Ogle

Is the New Smoking Policy at Western Carolina University Effective?
Student Presenters: Jessica Stevenson and Annaleise Lysen
Faculty Sponsor: Tracy Zontek

Personal Protective Equipment Selection and Training Program for Janitors, Custodians, and Housekeepers at Western Carolina University
Student Presenter: Neil Henry
Faculty Sponsor: Burton Ogle

Using Movable Control Areas to Comply with International Building Code Chemical Storage Limits
Student Presenter: Anna L. Voncannon
Faculty Sponsor: Tracy Zontek

School of Health Sciences - Liberal Studies
Using the Socio-Ecological Model to Understand Food Choices Among Western Carolina University Students
Student Presenter: Katlyn Burchard
Faculty Sponsor: April Tallant

School of Health Sciences - Nutrition and Dietetics Program
A Cost Comparison of Some Common Weight Reduction Diets
Student Presenter: Stephanie Pixely
Faculty Sponsor: Wayne Billon
School of Health Sciences - Nutrition and Dietetics Program (continued)

The Effects of Diabetes Education on Patient Self Monitoring of Blood Glucose Levels
Student Presenter: Sherry April Innis
Faculty Sponsor: Wayne Billon

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Kimmel School of Construction Management and Technology

Construction Management
Radon and Indoor Air Quality
Student Presenter: Anthony Solary
Faculty Sponsor: George Ford

Engineering & Technology
A BTU Meter, It Just Doesn’t Measure Temperature!
Student Presenter: Timothy Russell
Faculty Sponsor: Brian Howell

A One-Octave Musical Keyboard from Scratch
Student Presenter: Benjamin Rudolph
Faculty Sponsor: Paul Yanik

Carolina Rehab: Rugby Wheelchair
Student Presenter: Trent Killian
Faculty Sponsor: Ronald Bumgarner

CAT Ring Seal Container, Improve Ergonomics
Student Presenters: Oscar Holcombe, Brian Thompson and Travis Silvers
Faculty Sponsor: Robert Anderson

Engine Replacement Frame for USCG HU 25 Falcon
Student Presenters: Colinda Petrus, Tim Froning, Danny Rice and Christian Bethune
Faculty Sponsor: Chip Ferguson and Aaron Ball

Evergreen Packaging: “PLC: Next Generation of Controls”
Student Presenters: Justin Cabe, William Gall and T.J. Gilbert
Faculty Sponsor: Ken Burbank

Frequency Detector
Student Presenters: Gui Min Wu, Brittany Young and John Kerr
Faculty Sponsor: Peter Tay

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Head Immobilization for Radiation Therapy
Student Presenters: Nathan Wetmore and Stephon J. Moore
Faculty Sponsor: Chip Ferguson

Kimberly-Clark Control Panel
Student Presenters: Kayla Sanders and Mike Ramey
Faculty Sponsor: Paul Yanik

* Meta-Materials
Student Presenters: Sean Reardon and Allen Locke
Faculty Sponsor: Weiguo Yang

Mud Skipper
Student Presenter: James Wyatt
Faculty Sponsor: Chip Ferguson

Solar Heater
Student Presenter: Sean Shropshire
Faculty Sponsor: Wes Stone

SWAT Entry Monitor
Student Presenters: Kristen Rivers, David McRell and Shante Barnes
Faculty Sponsor: Robert Adams

Ulcer Prevention Training Mannequin
Student Presenters: James Ashworth, Isaac Crisp, Andrew York and Brandon Ellington
Faculty Sponsor: Phil Sanger

Vehicle and Residential Emergency Power System
Student Presenters: Ian Luther and John Shrone
Faculty Sponsor: Robert Adams

Laser Tracking System for Radiation Treatment
Student Presenter: Kris Erickson
Faculty Sponsor: Weiguo Yang

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Monday, March 22, 2010
Presentations

College of Arts and Sciences

History
Time: 8:30 AM Place: McKee 209
An African American Family Odyssey
Student Presenter: Jonathan Christian-Hodges
Faculty Sponsor: Elizabeth Gillespie McRae

Time: 10:00 AM Place: McKee 112
"Necessity Knows No Law," The Freedman’s Bureau in North Carolina: Their Accomplishments and Why They Eventually Failed
Student Presenter: Zachary Williams
Faculty Sponsor: Richard Starnes

Time: 10:00 AM Place: McKee 112
A Case of Mistaken Identity: Homosexuals in the Holocaust
Student Presenter: Michelle A. Smiley
Faculty Sponsor: Richard Starnes

Time: 11:00 AM Place: McKee 112
Identity and Literacy: The Legacy of Constantine-Cynl and Methodius in Slavic Culture
Student Presenter: Ari Rocchio
Faculty Sponsor: Richard Starnes

Time: 11:00 AM Place: McKee 112
The Whip of God: Attila the Hun and the Whore Named Rome
Student Presenter: Jared Utecht
Faculty Sponsor: Vicki Szabo

Time: 11:00 AM Place: between NS & Hunter Library outdoors
The Physics of Medieval Trebuchets
Student Presenter: Adam Ray
Faculty Sponsor: Laura Cruz

Time: 12:00 PM Place: McKee 220
* The Cross and the Compass: A Study of Masonic and Christian Relations in the Eighteenth Century
Student Presenter: Matthew Neely
Faculty Sponsor: Laura Cruz

Time: 12:00 PM Place: McKee 220
* The Gateway to English Exploration: The Legacy of the Tudors
Student Presenter: Phoebe C. Raulston
Faculty Sponsor: Richard Starnes

Time: 2:00 PM Place: McKee 220
At the Mast: Weathering the Economic Tides of Appalachian History (1906-2006)
Student Presenter: Justin Hinson
Faculty Sponsor: Laura Cruz

Time: 3:00 PM Place: McKee 220
* The Real Housewives of the Plantation: A Reinterpretation of the Antebellum Plantation Wife
Student Presenter: Rachel Drawdy
Faculty Sponsor: Laura Cruz

Time: 3:00 PM Place: McKee 220
* Welcome to Disneyland: A Roller Coaster Ride Through History
Student Presenter: Melanie Wells
Faculty Sponsor: Laura Cruz

Modern Foreign Languages
Time: 11:15 AM Place: McKee 133
* La Búsqueda del Sueño Americano: The Pursuit of the American Dream as a Primary Motivation for Latino Immigrants
Student Presenter: Marie Rawlings
Faculty Sponsor: Mark Couture
College of Sciences (continued)

Philosophy & Religion
Time: 10:00 AM Place: Stillwell 225
MacIntyre’s Critique of Modern Liberalism
Student Presenter: Marshall Solomon
Faculty Sponsor: Daryl Hale

Time: 3:45 PM Place: McKee 223
* To Be or To Become
Student Presenter: Dave Young
Faculty Sponsor: James McLachlan

Time: 4:15 PM Place: McKee 223
* Righteousness in a World of Despair:
  Transcendental Film Style in Bresson’s Au hasard
  Balthazar and Joffe’s The Mission
Student Presenter: Eddie Lohmeyer
Faculty Sponsor: James McLachlan

Time: 4:45 PM Place: McKee 223
* Samsara is Nirvana: Existential Logic of the
  Autonomous Self in Schelling & Nishida
Student Presenter: Jared Utecht
Faculty Sponsor: James McLachlan

Time: 5:00 PM Place: McKee 223
* Zombie Chaos! An Analysis of the Evolution of
  Apocalyptic Literature
Student Presenter: Matt Kirby
Faculty Sponsor: James McLachlan

Political Science & Public Affairs
Time: 4:30 PM Place: Stillwell 348
* The Level of Education Spending and its Relation
  to Voter Turnout in the U.S.
Student Presenter: Timoteo Hines
Faculty Sponsor: Todd Collins

College of Business

Business Administration and Law
Time: 4:00 PM Place: Forsyth 307
* NCAA Letters of Intent: Where’s the Commitment?
Student Presenter: Katie Moore
Faculty Sponsor: Debra Burke

Time: 4:15 PM Place: Forsyth 307
What You Should Know About Whistleblowing
Student Presenter: Antonitte M. Burrell
Faculty Sponsor: Lorrie Willey

Time: 4:30 PM Place: Forsyth 307
Who Audits the Auditors? A Look at the PCAOB
Student Presenter: Karen Erlacher
Faculty Sponsor: Lorrie Willey
College of Fine and Performing Arts

School of Music
Time: 2:30 PM       Place: Coulter 351
A Brief History of the Study of Symmetry in Music
Student Presenter: Renee Morgan
Faculty Sponsor: Jason Solomon

Time: 3:00 PM       Place: Coulter 351
The Clarinet Music of Johannes Brahms
Student Presenter: Billie Jeanne Curns
Faculty Sponsor: Christina Reitz

Time: 3:30 PM       Place: Coulter 351
Philip Glass and Minimalism: A Bridge to the Future of Orchestral Music
Student Presenter: Parker Cox
Faculty Sponsor: Christina Reitz

Time: 7:30 PM       Place: Coulter 358
Student Presenter: Nicholas Gattis
Faculty Sponsor: Christina Reitz

Time: 8:00 PM       Place: Coulter 358
Bluegrass: An Appalachian Tradition
Student Presenter: Jessica Palmer
Faculty Sponsor: Christina Reitz

Time: 8:30 PM       Place: Coulter 358
* Fiddling Traditions of the Tow River Valley
Student Presenter: William Ritter
Faculty Sponsor: Scott Philyaw
Undergraduate Expo 2010 - Western Carolina University - Tuesday, March 23, 2010

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College of Arts and Sciences

Mathematics and Computer Science
Time: 2:00 PM  Place: Stillwell 424
Factoring Polynomials of Type \((x-a_1)(x-a_2)\ldots(x-a_n) \pm 1\)
Student Presenter: Stephen Nanney
Faculty Sponsor: Risto Atanasov

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College of Business

Business Administration and Law
Time: 10:10 AM  Place: Forsyth 213
Truth in Advertising: Fact or Fiction?
Student Presenter: Jody Owens
Faculty Sponsor: Lorrie Willey

Time: 2:00 PM  Place: Forsyth 214
Americans with Disabilities Act of 1990
Student Presenter: Bryan David DeBlaker
Faculty Sponsor: Lorrie Willey

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Honors College

Interdisciplinary Studies
Women’s Issues
Time: 9:30 AM  Place: UC Conference Room 322
* Endometriosis and Fertility: Is Now or Never Really the Only Option?
Student Presenter: Shannon Owen
Faculty Sponsor: Emily Sharpe
Wednesday, March 24, 2010

College of Arts and Sciences

Anthropology & Sociology
Time: 12:15 PM Place: McKee 110
* A Contribution to Disproportionality in HIV Rates: Healthcare Disparities in NC Minorities
Student Presenter: Erin Gymburch
Faculty Sponsor: Mary Byrnes

Time: 12:15 PM Place: McKee 110
* The Plague: An Extensive Look at the Etiology, Distribution, and Ramifications of One of the Most Deadly Diseases in Human History
Student Presenter: Cayli Meizel
Faculty Sponsor: Anne Rogers

College of Business

Accountancy, Finance, Information Systems and Economics
Time: 9:05 AM Place: Killian 111
Forecasts of Unemployment and GDP with the Phillips Curve
Student Presenter: Amber Spanton
Faculty Sponsor: Robert F. Mulligan

Business Administration and Law
Time: 12:20 PM Place: Forsyth 115
When Doctors Cause Injury: Medical Malpractice
Student Presenter: Daniel Baker
Faculty Sponsor: Lorrie Willey
College of Education and Allied Professions

Health, Physical Education, and Recreation

Time: 10:10 AM  Place: Reid 109
The Modern Paddler of Western North Carolina
Student Presenters: Nathan Golder and David Wallace
Faculty Sponsor: Ben Tholkes

Time: 10:25 AM  Place: Reid 109
Crowding in Outdoor Recreation
Student Presenters: Ian Harwell, Milas Dyer and Blake Jenkins
Faculty Sponsor: Ben Tholkes

Time: 11:30 AM  Place: Reid 109
Sport Equity
Student Presenters: Kellie Oberholtzer and Hayley Bonvillain
Faculty Sponsor: Ben Tholkes

Time: 11:45 AM  Place: Reid 109
High School Drags Business Plan
Student Presenter: Trevor Lemon
Faculty Sponsor: Debby Singleton

Psychology

Time: 2:05 PM  Place: Killian 338
The Relationship Between Sexual Behavior and Three Dimensions of Disgust
Student Presenter: Michael McGathy
Faculty Sponsor: Hal Herzog

Parks and Recreation Management

Time: 11:00 AM  Place: Reid 109
The Effects of an all Women’s Workshop on Climbing
Student Presenters: Tiffany Ashley and Katie Moser
Faculty Sponsor: Maurice Phipps

College of Fine and Performing Arts

School of Music

Time: 2:30 PM  Place: Coulter Recital Hall
“Mozart, Anton Stadler, and the Clarinet”
Student Presenters: Ashley Danielle Jonas, Tabitha Stinson and Tripp Lewis
Faculty Sponsor: Shannon Thompson
Thursday, March 25, 2010

College of Arts and Sciences

English
Time: 9:30 AM  Place: Coulter 304
* Parallelism in Poe's “The Fall of the House of Usher”: A Cross Media Examination of the Man and the Mansion
Student Presenter: Cayli Meizel
Faculty Sponsor: Brian Railsback

Time: 9:30 AM  Place: Coulter 304
* Shattered Borders: Josefina Niggli De-Regionalized
Student Presenter: Bobby Willover
Faculty Sponsor: Brent Kinser

Modern Foreign Languages
Time: 2:05 PM  Place: McKee 133
Una obra de investigacion que se enfoca en “La alfabetizacion visual” y la orientacion de los estudiantes adultos en la aplicacion de una segunda lengua
Student Presenter: Patricia H. Graham
Faculty Sponsor: Lori Oxford

College of Education and Allied Professions

Health, Physical Education, and Recreation
Time: 10:45 AM  Place: Reid 109
Indoor Soccer- An Alternative to Intrumurals
Student Presenters: William Higbe and Will Mayse
Faculty Sponsor: Maurice Phipps

Time: 11:15 AM  Place: Reid 109
Smokey Bear Fire Prevention
Student Presenters: Jackelyn Hastings and Keith Wigham
Faculty Sponsor: Maurice Phipps

Psychology
Time: 2:05 PM  Place: Killian 338
Effects of Hunger on Mate Preferences in Males
Student Presenter: Christopher J. Holden
Faculty Sponsor: Hal Herzog

Time: 2:05 PM  Place: Killian 338
Effects of Hunger on Mate Preferences in Males
Student Presenters: Jenifer Taylor and Christopher J. Holden
Faculty Sponsor: Hal Herzog

College of Health and Human Sciences

Criminology & Criminal Justice
Time: 4:00 PM  Place: Belk 412
Texts from Last Night: What They Really Mean
Student Presenter: Samantha Moss
Faculty Sponsor: Jamie Vaske

Time: 4:00 PM  Place: Belk 412
Volunteers as a Resource
Student Presenter: Nancy Coltrin
Faculty Sponsor: Robert T. Berry

Undergraduate Expo 2010 - Western Carolina University - Thursday, March 25
College of Health and Human Sciences (continued)

School of Health Sciences - Emergency Medical Care Program
Time: 1:30 PM       Place: Moore 212
The Right Complication
Student Presenters: Amanda Rogers and Chelsey Dyches
Faculty Sponsor: David Trigg

School of Health Sciences - Environmental Health Program
Time: 12:30 PM       Place: Moore 212
Container-Inhabiting Aedes Mosquitoes on WCU’s Campus
Student Presenter: Jamie Wyatt
Faculty Sponsor: Brian Byrd

Time: 12:30 PM       Place: Moore 212
Molecular and Morphological Identification of Aedes atlanticus and Aedes tormentor
Student Presenter: Charlie Sither
Faculty Sponsor: Brian Byrd

Time: 12:30 PM       Place: Moore 212
Molecular Identification of Container-Inhabiting Aedes Mosquitoes
Student Presenter: James Alan Goggins
Faculty Sponsor: Brian Byrd

Time: 12:30 PM       Place: Moore 212
Preliminary Studies of the Oviposition Behavior of Aedes atropalpus
Student Presenter: Samantha E. Kunze Garcia
Faculty Sponsor: Brian Byrd

Time: 12:40 PM       Place: Moore 212
Hazard Evaluation and PPE Assessment at Student Health Services
Student Presenter: Armelja Sanxhaku
Faculty Sponsor: Burton Ogle

Time: 12:45 PM       Place: Moore 212
Evaluation of Formaldehyde Concentrations in Cadaver Lab
Student Presenter: Drew Craig
Faculty Sponsor: Burton Ogle

Time: 12:50 PM       Place: Moore 212
Comparing Integrated Sampling and Photoionization Detector Results to Encourage Real-time Monitoring of Solvents
Student Presenter: Candice Waldron
Faculty Sponsor: Tracy Zontek

Time: 1:00 PM         Place: Moore 212
Using Movable Control Areas to Comply with International Building Code Chemical Storage Limits
Student Presenter: Anna L. Voncannon
Faculty Sponsor: Tracy Zontek

Time: 1:10 PM         Place: Moore 212
Is the New Smoking Policy at Western Carolina University Effective?
Student Presenters: Jessica Stevenson and Annaleise Lysen
Faculty Sponsor: Tracy Zontek

Time: 1:20 PM         Place: Moore 212
Personal Protective Equipment Selection and Training Program for Janitors, Custodians, and Housekeepers at Western Carolina University
Student Presenter: Neil Henry
Faculty Sponsor: Burton Ogle

School of Health Sciences - Liberal Studies
Time: 9:30:00 AM      Place: McKee 223
* Shattered Innocence: An Ethical Examination of Global Human Trafficking
Student Presenter: Amanda Bienhaus
Faculty Sponsor: Michelle Scifers

School of Health Sciences - Nutrition and Dietetics Program
Time: 12:00 PM       Place: Moore 101
Student Health Initiative for Nutrition Education (SHINE)
Student Presenter: Jennifer Trippe
Faculty Sponsor: April Tallant
Initiated by Chancellor John Bardo in 1996, the Undergraduate Academic Projects Grant Program funds a variety of student projects. The committee awarded over $9,250 this year. Members of the UAPGP Committee are:

Gary Jones ................................................................................................................... Business
Hal Herzog .................................................................................................................... Education and Allied Professions
Katherine Mathews ..................................................................................................... Arts and Sciences
John Schweikart ........................................................... International Programs and Services
Douglas Kinard .............................................. Kimmel School of Construction Management and Technology
Tracy Zontek .............................................................................................................. Health and Human Sciences
Brian Railsback ........................................................................................................ Honors College

Anthropology & Sociology

*The Effects of Second Home Development and Tourism on a Small Appalachian Community: Issues of Social Capital, Community Attachment, and Attitudes*
Student Recipient: Morgan A. Childers
Faculty Sponsor: Anthony Hickey

Engineering & Technology

*Mudskipper 2010*
Student Recipient: Joe Schwierking
Faculty Sponsors: Chip Ferguson and Brian Howell

Biology

*Using DNA Sequencing to study Genetic Variation in River Cane*
Student Recipients: Ashley Malone and Chrystal Lashley
Faculty Sponsor: Katherine Mathews

English

*We Got Books Out Here, Too: Strategies for Promoting Lifelong Reading in Rural High Schools*
Student Recipient: Candice Brown
Faculty Sponsor: Brian Lawrence

*We Got Books Our Here, Too: Strategies for Promoting Lifelong Reading in Rural High Schools*
Student Recipient: Earl King
Faculty Sponsor: Catherine Carter

Business Administration & Law

*Arbitrator’s Fees in Agreements to Arbitrate: Unconscionability as a Defense?*
Student Recipient: Devon Green
Faculty Sponsor: Debra Burke

Faculty Center

*Mast General Store: Surviving the Tide of Commercial Enterprises*
Student Recipient: Justin Hinson
Faculty Sponsor: Laura Cruz
Geosciences and Natural Resources Management

Analysis of a Headwaters Stream System in the Southern Appalachians, Cullowhee, NC, Part A: Setting and Stream Geomorphology
Student Recipients: Andrew Allen, Rachael Tury, Jesse Buchanan, Jenny McKibben, Kurt Remington and Cory Sills
Faculty Sponsor: Mark Lord

Assessing Ruffed Grouse (Bonasa unbellus) Populations and habitat at Balsam Mountain Preserve
Student Recipient: Kyle Underwood
Faculty Sponsor: Ronald Davis

Development: Mass Movement and Weathering Profiles: A Slow Moving Weathered Rock Slide in Western North Carolina
Student Recipient: Preston Jacobsen
Faculty Sponsors: David Kinner and Cheryl Waters-Tormey

Carbon Sequestration Rates of Different Marsh Zones in the Schoodic Marsh of Acadia National Park, Maine
Student Recipient: Lee Matthew Sorrell
Faculty Sponsor: Mark Lord

Political Science

Corruption: The Missing Link between Democracy and Terrorism
Student Recipient: Hayden Smith
Faculty Sponsors: Kristen Flanagan and Todd Collins

Psychology

Christian Beliefs and Egalitarian Goal Activation in Response to Homosexuals
Student Recipients: Dustin Callahan, Michael McGathy and Sara Jennings
Faculty Sponsor: Tom Ford

School of Art and Design

BFA portfolio
Student Recipient: Sarah Bonner
Faculty Sponsor: Cathryn Griffin

The Ghost
Student Recipient: Thomas Smith
Faculty Sponsor: Marya Roland

Portrait of Josefina Niggli
Student Recipient: Traci Pierce
Faculty Sponsor: Joan Byrd
School of Health Sciences, Athletic Training Program

Acute Shoulder Injury in a Collegiate Football Player
Student Recipient: Amanda Taylor
Faculty Sponsor: Jill Manners

Thoracic Spine Pain in a High School Football Player
Student Recipient: Andrea Kaufman
Faculty Sponsor: Jill Manners

Insidious Elbow Pain in a College Female
Student Recipient: Brandy Jones
Faculty Sponsor: Jill Manners

Traumatic Knee Injury in a Collegiate Women’s Soccer Player
Student Recipient: Bryan Fletcher
Faculty Sponsor: Jill Manners

Cervical Fracture in a High School Football Player
Student Recipient: Emily Whittington
Faculty Sponsor: Jill Manners

School of Health Sciences, Environmental Health Program

Molecular Studies of the North American Wyeomyia
Student Recipient: Bill Wiseman
Faculty Sponsor: Brian Byrd

Container Inhabitind Aedes Mosquitoes on Western Carolina’s Campus, Additional Morphological Characters to separate Damaged Adult Female Container Mosquitoes, and Molecular studies of the North American Wyeomyia
Student Recipient: James Alan Goggins
Faculty Sponsor: Brian Byrd

Additional Morphological Characters to separate Damaged Adult Female Container Mosquitoes, and Molecular studies of the North American Wyeomyia
Student Recipient: Mike Singleton
Faculty Sponsor: Brian Byrd

Honors College International Travel Grants

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

Study Abroad Germany
Student Recipient: Tatjana Moffitt
Faculty Sponsor: Brian Railsback

Study Abroad Germany
Student Recipient: Taylor Mendelsohn
Faculty Sponsor: Brian Railsback

Study Abroad Ireland
Student Recipient: Bethel Bower
Faculty Sponsor: Brian Railsback

Study Abroad Ireland
Student Recipient: Elaine Tolbert
Faculty Sponsor: Brian Railsback

Study Abroad Japan
Student Recipient: Levi Mines
Faculty Sponsor: Leonardo Bobadilla

Study Abroad Korea
Student Recipient: Cati Branton
Faculty Sponsor: Brian Railsback

Study Abroad Korea
Student Recipient: Andrea Rawlinson
Faculty Sponsor: Brian Railsback

Study Abroad Korea
Student Recipient: Tristen Hamby
Faculty Sponsor: Brian Railsback
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.