

#### WE ARE PREPARING FOR LIFE

**Hannah Austin** is the woman on the cover of the 2013 *Imagine* magazine.

She came to Western Carolina University with a vague idea of what she wanted to do after graduation. She found a home in The Honors College, she received great mentoring and instruction from key faculty members, and she learned to set her sights on a challenging goal. And then she achieved it. The good news for all of us at WCU is that her story is not unique.

In the sixth grade she chose to play the clarinet just because "it looked cool." She made All-State band from the 7th to 12th grades. By the time she graduated from Brevard High School, she knew that she wanted to keep playing. But how could that translate into a career?

She went to WCU because she saw the Wind Ensemble play and she wanted to be part of it. "But when I came to Western, I had no idea what I wanted to do." Teach? Perform for a living? She pursued the BSED in Music because teaching was "practical." But **Shannon Thompson**, Associate Professor of music/clarinet, "saw potential in me that I did not see in myself." So Hannah pursued the B.M. as well and by her senior year focused on her performance on the clarinet (ending her three years on the marching band – with two as a drum major).

Dr. Thompson worked her hard for four years. **John West**, Associate Dean of the School of Music and Director of the Wind Ensemble, "was a great mentor and example." When she thought about graduate school, **Christina Reitz**, Assistant Professor/music history, introduced her to the University of Florida and "she even introduced me to the clarinet faculty there." But there was only one full assistantship for clarinet in the Florida program, so the competition for that spot was very tough.

Hannah was accepted, and she earned that full assistantship at Florida.

Each year there are hundreds of graduates like Hannah, each one an example of what Western Carolina University is all about. In the pages of this magazine, there are plenty of other stories about students who are well on their way. *Ad vitam paramus*.

Brian Railsback, Dean The Honors College August 14, 2013

Juan Kairlack



**BACK ROW**: Deidre Elliott (faculty advisor), MaryKate Powell, Kaitlyn Howard, Kaitlyn Speer, Cara Forbes, Callie Mosher, Morgan Lau, Erin Mullins, Chequita Brooks, Dr. Brian Railsback (Dean, The Honors College)

FRONT ROW: Grace Overby, Rachel Bondenhamer, Jared McMillan, Regina Rumley, Althea Holenko, Veronica Browning

NOT PICTURED: Emily Glesias, Leah Rhodes

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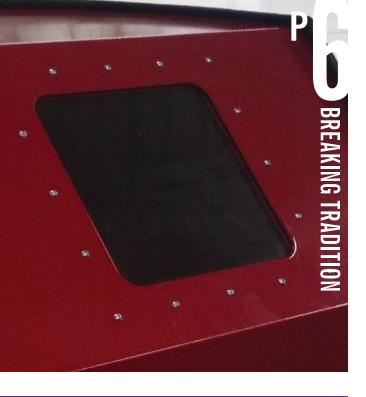
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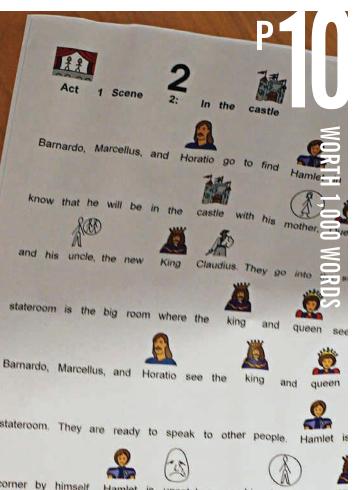
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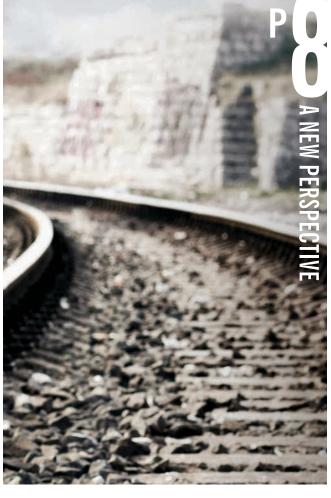
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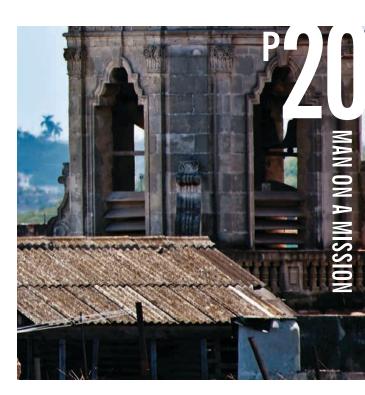






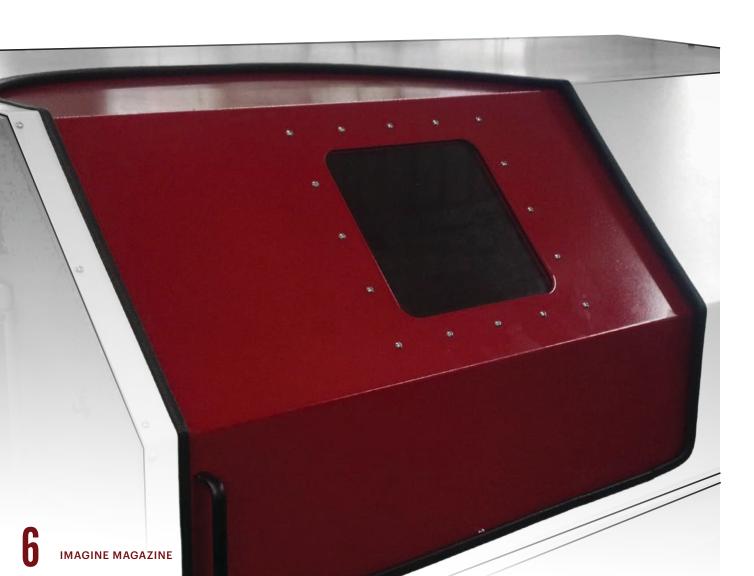






[SECTIONS] 22 UNDERGRADUATE SNAPSHOTS
24 NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH **26 ALUMNI UPDATES** 

# BALAND BY RACHEL BODENHAMER AND MARYKATE POWELL TRANSPORTED TO THE STATE OF THE ST





Most students who attend Western Carolina University live in residence halls, attend classes on campus, and perhaps have a part-time job. However, Carl Tannenbaum, 27, is not a traditional student. As a distance learning student, he spends practically no time on campus. He lives in Mars Hill, N.C., works full-time, and has a wife and a one-year-old son.

As an engineering technology major, he took Dr. Martin Tanaka's course, ET 493-53 Engineering Biomechanics, and was assigned a general project as part of the class. Carl saw this as an opportunity to solve a real problem, giving his project immediate and practical applications.

While working as a machinist at Advanced Superabrasives in Mars Hill, Carl had noticed that a machine in the shop used to trim metal was causing repetitive stress injuries in his co-workers. Spurred by his classroom assignment, Carl decided he would conduct an experiment to find the reason why the machine's door caused these injuries. He found that an average person would have to use 79% of his or her maximum lift force to open the door. This was an issue, so Carl created a new design for the door to reduce these numbers. The new door, which has a

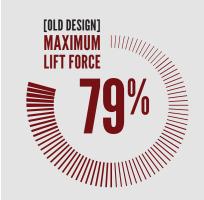
sliding design, was put into place. To prove that his design was beneficial, he conducted another experiment to measure the pull force. The new door only required 36% of an average person's maximum pull force. Carl knew that, theoretically, this should decrease the number of injuries and after the new door was in use, this proved to be true.

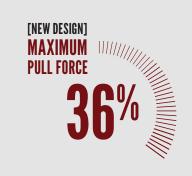
The success of Carl's project impressed Dr. Tanaka. He notes that because of Carl's concern for others, Carl didn't approach his project as if it were just another class assignment and he didn't do just the minimum requirements. "He went above and beyond my expectations," Dr. Tanaka adds. "He implemented a real solution and made an impact."

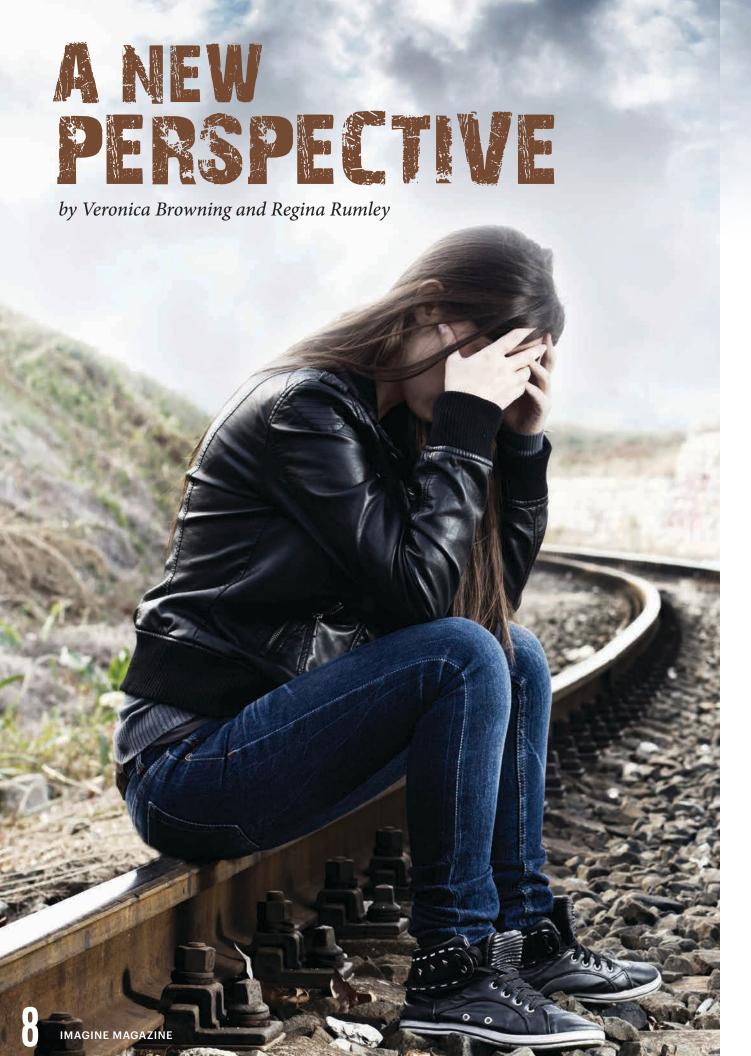
Carl is driven and determined to succeed. He began his job with an associate's degree, but wanted to further his education, so he enrolled at WCU. "It's interesting to see what I have learned by working," Carl says. His job comes with opportunities to travel and gain hands-on experience. In 2012, he traveled to Washington, D.C.; Detroit, Michigan; and Hong Kong and Shanghai, China to install machinery. Saying he's busy is an understatement.

Carl plans to graduate by 2015 and continue his work with machinery and engineering at Advanced Superabrasives. A future with this company will allow him to use the skills that he's learned, both inside of the classroom and out. Carl's career has only just begun.

### CARL'S DESIGN REDUCED THE CHANCE FOR REPETITIVE STRESS INJURIES AT HIS WORKPLACE







"Anybody can be a bully. Even the nicest girl next door can be picking on her little sister," says **Samantha Brothers**. Sam is a 21-year-old senior from Charlotte, N.C., double majoring in criminal justice and forensic chemistry at Western Carolina University. In spring 2012, she began conducting research on the effects of bullying and how it can cause a destructive cycle of stress.

Sam took a unique perspective in this research. Instead of focusing on the bully, she concentrated her research on the victim and what behaviors might stem from being bullied. She was inspired to take on this perspective because of experiences involving her brother, Matthew, who was bullied in high school. She was drawn to the topic of her research because of differences between Matthew and herself. Sam says, "It's interesting how we turned out. I wasn't bullied and I'm kind of an average, cookie cutter [person], but my brother was bullied and now he's a bouncer at a club. He pretty much makes his living off of fighting."

A variety of behaviors can emerge from being bullied, such as tendencies toward alcohol abuse, physical violence, and bulimia. Sam notes that Matthew's situation reveals that he turned one of those bullying-related behaviors into a positive thing, but that's not always the case. Sam plans to look more deeply into these behaviors as she continues her research.

The hardest part of her research is explaining it to someone who doesn't

"Research is a shoe-in for grad school in criminal justice, especially if you get published."



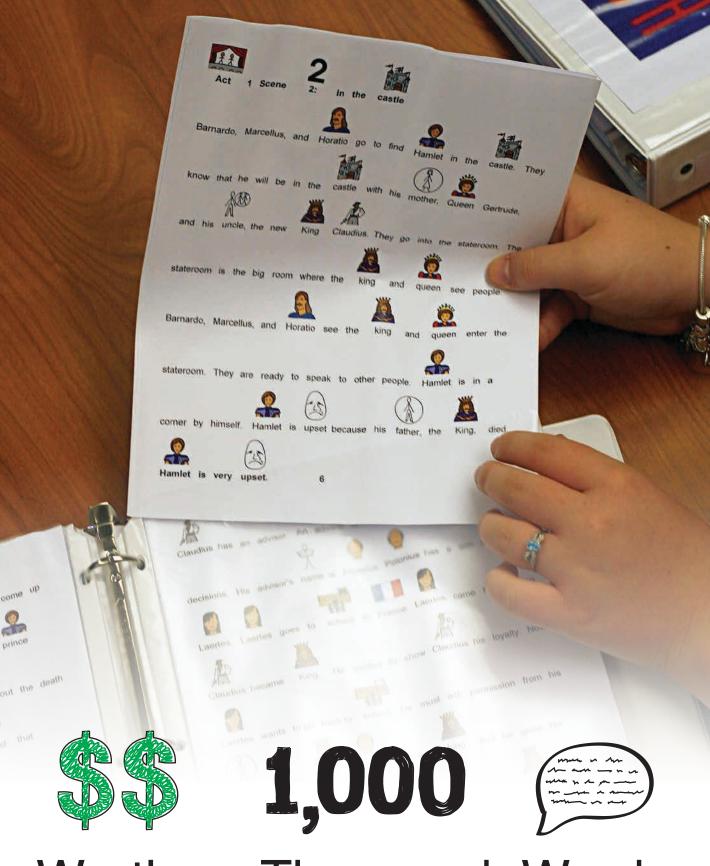
understand math. As a researcher, she collects data and then uses a math-oriented computer program to produce correlations between the victims and various destructive behaviors arising from bullying.

Originally starting as a research paper for her CJ 355 Theories of Crime class, her research has evolved into something even more rewarding than just a paper: participation in the week-long Southern Criminal Justice Association Conference in Atlantic Beach, Florida. After much encouragement from Assistant Professor of Criminology and Criminal Justice Dr. Albert Kopak, Sam agreed to present her research in September 2012. The conference is generally geared toward graduate students, professors, and doctors. Nevertheless, Sam felt that it was a good experience for her as an

undergraduate. She says, "It was nerve-wracking to get up in front of a group of people who were a lot smarter than you. You want to feel like you taught them something in the end. Still, it was empowering as well as intimidating."

Sam is now working to have her research published. Research is very important for graduate school. Samantha says, "Research is like a shoe-in for grad school in criminal justice, especially if you get published."

Despite her success in criminal justice, after an internship with the Charlotte-Mecklenburg Police Department Crime Lab in summer 2012, she decided to go to medical school in order to combine her two majors and then pursue forensic pathology after graduation.



#### Worth a Thousand Words

by Chequita Brooks and Grace Overby



### "I don't want to be the teacher who has given up on a student."

Savannah Pegram, a senior at Western Carolina University from Clemmons, N.C., is passionate about students who have special needs. Savannah is working on a project with Dr. Karena Cooper-Duffy, Associate Professor of Inclusive Education, to make curriculum more accessible to high school students with intellectual disabilities.

Savannah's project involves adapting books for students who have difficulty understanding the original text. The project began during her junior year as an Honors contract in Dr. Cooper-Duffy's class, Inclusive Education 414: Curriculum and Methods for Students in the Adapted Curriculum. Since then, Savannah has worked alongside Cooper-Duffy on eight books. Titles range from Shakespeare's Hamlet to Kate DiCamillo's Because of Winn-Dixie. The wide variety of books makes it possible for students with intellectual disabilities to stay engaged in the same curriculum as their classmates.

Textual adaptations of the books began with a research program at UNC-Charlotte designed to simplify texts for students who encounter difficulty when reading. The original program highlighted basic vocabulary words, and Cooper-Duffy and Savannah expanded the project to include pictures in the text by using the software programs Boardmaker and Writing with Symbols. The combination of picture cues and simplified texts allows students to more successfully follow the stories. Savannah notes, "You're still able to 'read,' even if you can't read [well]." As a next step, Savannah hopes to start working on adapting books for elementary school students. "She's not afraid to try something new," says Cooper-Duffy.

Savannah, originally an elementary education major, decided to switch to Inclusive Education after volunteering with the University Participant (UP) Program. During her sophomore year, Savannah worked with **Anna Grace**, a student in the UP Program. The UP Program provides a two-year college experience for students with intellectual disabilities in order to prepare them for employment and independent living. While working with Anna, Savannah says, "I realized that my heart was in Special Education and that I couldn't take the easy way out. I needed to challenge myself as a student and as a professional."

Savannah does not believe that students should be pushed through the school system without receiving a thorough education and says, "I don't want to be the teacher who has given up on a student."

Since starting her Inclusive Education studies, Savannah has become very active with WCU students who have disabilities. As a suitemate for students in the UP Program, she helps make sure that they adjust well to dorm life. She also started a weekly class called "About Life" that provides students with lessons on relationships and daily living skills. The class holds socials that allow students to use role-play in order to model ways to act appropriately in interpersonal situations.

After graduating in spring 2013, Savannah plans to volunteer as camp director for Camp Imagine, a summer camp for students with autism near her home in Forsyth County. Savannah then plans to work in a high school to help prepare students with special needs to become valuable members of the community after they graduate.



# PASSION:

## \*\*JESSICA HURLBUT IS ALWAYS MOVING... VERY FAST,\*\*\*

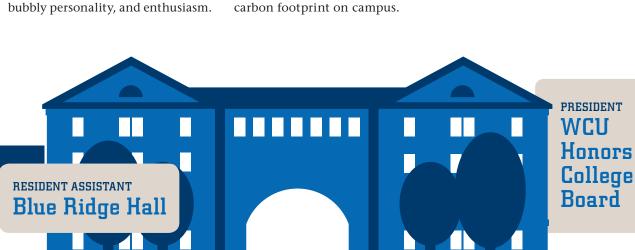
says Bonnie Beam, executive assistant of the Western Carolina University Honors College. From Youngsville, N.C., Jessica graduated with an applied mathematics major, double minoring in physics and creative writing. She was also the president of the WCU Honors College Board and EcoC.A.T.S, the Campus Awareness Team for Sustainability. She worked as a resident assistant in Blue Ridge Hall and presented two projects at NCUR, the National Conference for Undergraduate Research. To top it all off, she maintained a 3.94 GPA and a social life. Jessica is readily recognized by her short black hair,

#### BY LEAH RHODES AND CARA FORBES

Her passion for helping people led her to become a resident assistant. "I just wanted to be available to those who needed me," says Jessica. She strived to be an R.A. who had the answers. Students say it is easy to ask her for advice, directions, or help. "I want to be there for people... perhaps when no one else is," she explains.

Jessica also has a heart for the environment. As president of EcoC.A.T.S, she organized recycling drives and annual Earth Day festivals, promoting eco-friendly habits such as electricity conservation and shorter showers. EcoC.A.T.S. also initiated the Sustainable Energy Initiative, a project focused on reducing the carbon footprint on campus.

Jessica's interest in the environment led to one of her undergraduate research projects, which she presented at NCUR spring 2012 in Ogden, Utah. Her project detailed three steps in a hypothetical process to clean up the oceans by removing harmful plastic wastes, which endanger ocean flora and fauna. Though Jessica discovered that her innovative ideas are unattainable with today's technology, she learned a lot from her research. Her other research project, presented in spring 2011 in Ithaca, N.Y., contemplated using the Necker cube (a threedimensional drawing of a cube) as a convenient, mobile method of measuring attention span.





### A DIFFERENT DIMENSION



The Necker cube is an optical illusion that causes a two-dimensional line drawing of a cube to appear as a three-dimensional object. The eye perceives the cube as either receding into or protruding from the page, depending on how the brain interprets what the eyes see.

HELP AND INFLUENCE OTHERS IN A POSITIVE WAY WHILE EXPRESSING MY PASSIONS. 33

PRESIDENT

ECOC.A.T.S.

Campus Awareness

Team for Sustainability

Jessica was President of the Honors College Board for two years running. "She had big shoes to fill when the past president left," says **Steve Carlisle**, Honors College Associate Dean. "She's done a remarkable job." Her duties include chairing board meetings, planning events, and delegating positions within the board. "I like to propel the college forward and get people as interested in the college as I am," she says. "I love interacting with students and making their dreams realities."

Jessica's success comes not only from her hard work, but also from contributions from her WCU professors. Jessica's most influential professor was Dr. Erin McNelis, Associate Professor of Mathematics, who oversaw Jessica's environmental research project.

Jessica plans to apply to graduate school at Duke University in Durham, N.C., where she intends to obtain a master's degree in environmental science.

None of these accomplishments would be possible without Jessica's can-do mentality. When asked what drives her to participate in so many endeavors, Jessica explains, "I do all I do because I want to help and influence others in a positive way while expressing my passions."

IMAGINE MAGAZINE

# FINDING THE RIGHT TEMPO

by Althea Holenko and Emily Glesias



"I really like middle school band. Everyone is just starting off and you have the chance to teach music to first-time students."

"I don't do much besides music," Hannah Austin says. This attitude has driven Hannah's development from beginning as a band student in sixth grade to becoming a successful senior at Western Carolina University, where she plays clarinet and is a member of the Honors College. She says that she chose the "smaller and feminine" clarinet, thinking she would stand out more than the many other girls in band who chose the flute. Although many band students switch instruments, Hannah continued as a clarinet player. She has been the principle clarinet in the WCU Wind Ensemble for six semesters. She comments, "Coming to WCU was the right choice. I've grown as a musician and as a person because of the amazing faculty here and because of my amazing friends."

All of her hard work and practice paid off when she had the opportunity to attend the MasterWorks Music Festival in Winona Lake, Ind., in summer 2012. She was one of

five clarinetists chosen out of 250 students who auditioned from all over the world. The MasterWorks Music Festival is a highly prestigious, month-long camp for students who excel in classical music performance arts. As part of the orchestral program, Hannah worked with other young musicians. They received sheet music the day before the first rehearsal and had to be ready to perform by the end of each week. Dr. Shannon Thompson, Associate Professor of Music, was her clarinet teacher and says of her, "Hannah has an exceptional degree of musical talent. Her accomplishments have come about through the passion, energy, and great amount of hard work that she has invested into her music-making."

Hannah has always been invested in her own performances and growth as a musician. Her professors have encouraged her to choose her own music, helping to develop her interest in, and excitement about, the pieces that she performs. Hannah gave her final solo recital at WCU on November 7, 2012. She had to prepare enough music not only to entertain an audience, but also to impress a panel of judges. Hannah saw the recital, though daunting, as a chance to play challenging music that she was excited about. She chose to perform "Clarinet Concerto, K. 622 (III. Rondo)" by Mozart, "Hommage à M. de Falla" by Bela Kovacs, and "Sonata No. 1 in F Minor, Op. 120" by Johannes Brahms.

Though Hannah did not have a set goal for her future when entering WCU, she knew that she wanted to study music. Her decision to get her undergraduate degree in music education was a path that she felt was practical in today's job market. Besides, Hannah adds, "I really like middle school band. Everyone is just starting off and you have the chance to teach music to first-time students."

She plans on getting her graduate degree in music performance. As a musician, she recognizes the need to be flexible in order to go where the work is, whether that ultimately means a career in performance or in education. Either way, she'll be pursuing her passion for music.





Matt James, a senior from Stokesdale, N.C., says enthusiastically, "I saw John Kerry's office. I looked him right in the face." He is describing his trip to Washington, D.C., in March 2012, where he met several political figures such as Kerry, then U.S. senator from Massachusetts, now U.S. Secretary of State, and a former presidential candidate.

Matt, a health and physical education major, along with four classmates and Health and P.E. Professor David **Claxton**, attended SPEAK Out! Day, an effort sponsored by the National Association for Sport and Physical Education, to lobby for increased funding for federal Physical Education Program grants (PEP). PEP grants distribute financial aid to schools that are striving to meet state physical education standards.

During SPEAK Out! Day, Matt was also able to lobby for his intended profession. Matt says that many people "don't really consider health and P.E. teachers as real teachers." He begs to differ, and the classes he taught in 2012 as an intern at Franklin High School in Franklin, N.C., show that health and P.E. are more than, as he says, "just rolling out the basketballs and reading off a PowerPoint."

When he teaches, Matt requires that his students do more than merely attend class and recall information for tests. He encourages his students to apply classroom learning to real-world situations. For example, because many high school students encounter bullying, he prompted a classroom discussion at Franklin H.S. about bullying and encouraged students to respect each other.

#### "HEALTH AND P.E. TEACHERS MIGHT BE THE STUDENTS' ONLY HOPE FOR NOT DYING AT 40."

Besides classroom learning, Matt also taught a variety of sports from basketball to disc golf as well as including lessons on scorekeeping and officiating. Additionally, he implemented Adventure Education Skills, a program that encourages students to work together on outdoor leadership challenges. For example, they might have to cooperate and use nonverbal communication to untie a knot without letting go of a rope. This wide variety of activities aims to encourage students with varied interests to live active, healthy lifestyles.

Matt believes that there needs to be more physical education programs like these in public schools. Increased

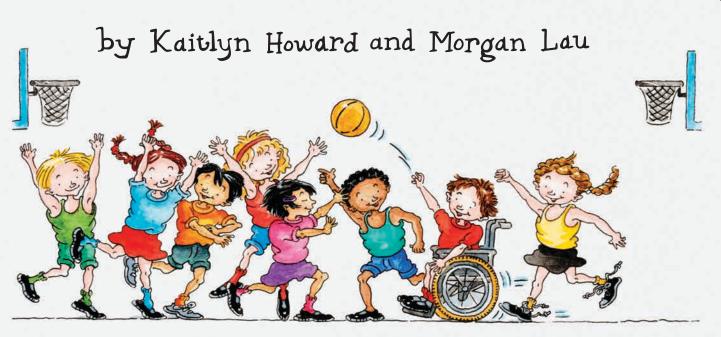
physical activity is important because it helps lower obesity levels and improves cognitive performance by increasing blood flow to the brain. He notes that most students want to learn about healthy habits and engage in physical activities, but they need more opportunities to do so. This makes the funding that the WCU students lobbied for at SPEAK Out! Day even more important. As Matt says, "Health and P.E. teachers might be the students' only hope for not dying at 40."

Unfortunately, a lack of adequate funding (from kindergarten through high school) limits the amount of health and physical education time in public schools. Students, on average, exercise 30 minutes a week in school, compared to the government-recommended 30 minutes, or more, a day.

Professor Claxton reaffirms Matt's passion for health and physical education and adds, "I find Matt to be thoughtful, dependable, and really solid."

After graduation, Matt would like to coach high school football, and of course, he wants to continue to advocate for health and physical education programs.

# A Sporting Chance



With childhood obesity rates on the rise, it is clear that health and physical education should be top priorities to improve the lives of students in the United States. School systems are working to increase the quality of physical education, but are steps being taken for students of all types? Anastasia Carlson and Jenna Clark, juniors at Western Carolina University, decided to help fight for the inclusion of all students in physical education.



While doing research online, Jenna and Anastasia found that some P.E. teachers were having difficulty finding ways to include children with disabilities in their classes. The problem was that many of these children had trouble participating in activities that the rest of the class could do. "That made me really angry," Anastasia says, explaining that the children weren't receiving the attention they deserved and the teachers were not being supplied with the materials they needed.

Anastasia and Jenna decided they would create a book for P.E. teachers that included adaptive activities for children with disabilities. Each activity in the book has instructions that explain how to involve children with disabilities such as asthma, obesity, learning disabilities (A.D.D. or A.D.H.D.), visual impairment, spinal cord disabilities, hearing impairment, and mental retardation.

For example, students with asthma or obesity might take part in similar, but more stationary activities that require less strenuous breathing, allowing them to still be active. In addition, students confined to wheelchairs could participate in activities that use scarves and ribbons to encourage upper body movement.

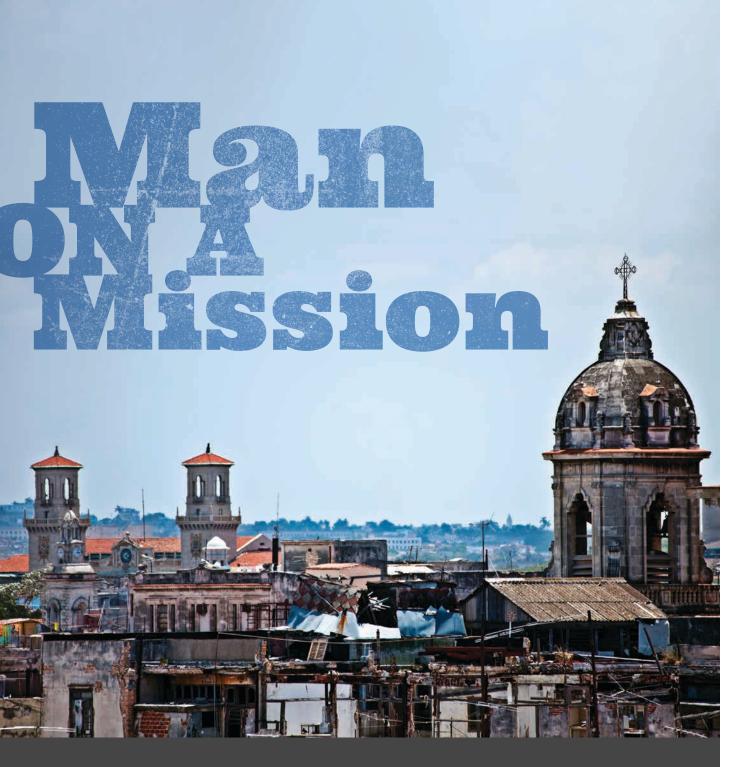
# Regardless of ability, every child deserves a sporting chance.

Anastasia, from Durham, N.C., decided she wanted to major in health and physical education because she "always loved anatomy and the way the human body moves." Jenna, from Asheville, N.C., said she wanted to major in H.P.E. because she "always was good at physical fitness, and loved working with kids and teaching." Despite

their different reasons for majoring in H.P.E., both women found common ground for why they wanted to do research in adaptive P.E. for students with disabilities.

The point of their book of activities is to make sure that P.E. teachers have the resources they need to create optimal inclusion of all students. Jenna and Anastasia hope to receive a grant to help produce and print their books so they can make them available for fellow H.P.E. majors, as well as elementary schools near WCU. They will also submit the research used to create these books to NCUR (National Conference for Undergraduate Research).

With their undergraduate project, Anastasia and Jenna want to show that physical education is a right for all children. Regardless of ability, every child deserves a sporting chance.





Jarred Teague, a vibrant, visionary, 21 year-old Spanish and communication double major at Western Carolina University, is originally from Asheville, N.C. "Jarred is an inspiration for other students because of his interest in – and work toward – student awareness of other cultures and ethnicities," says Dr. Lori Oxford, Assistant Professor of Spanish. Jarred, a strong believer in helping others, is a nondenominational Christian whose faith is evident in the way he lives his life. He says, "The concept of Christianity is, at its core, not just about trying to save people from hell; it's about saving people from hell on earth." This simple concept is what drives Jarred to do everything in his life. It also helps keep him in tune with the feelings of others.

# is, at its core, not just about trying to Save people

The Spanish language is the means by which Jarred accomplishes a large portion of what he loves to do. During WCU-sponsored trips to Spain and Cuba, he witnessed positives and negatives in both countries. Jarred lived in Valencia, Spain, in June 2012. While there, he took Spanish grammar and culture classes from Dr. Oxford. Jarred tried to get to know the country, culture, and people. In October 2011, he visited Cuba and thoroughly enjoyed his time there, although the country differed from Spain in almost every way possible. In Cuba, he met many people who seemed content, even though by American perspectives, their standard of living was much lower.

The fact that Cubans couldn't buy whatever they needed did not sit well with Jarred. "In the U.S., when you think 'black market,'" he says, "you think guns or drugs, but in Cuba, it's milk or socks." The suffering of people who lack many basic needs is part of what keeps Jarred working to help others.

Back home at WCU, Jarred's involvement in social issues and politics is wide-ranging, and includes L.A.S.O. (Latino Appreciation Student Organization) and Ummah (a WCU club promoting tolerance between American and Arabic students). Jarred also supports political candidates who he believes have the interests of the people at heart.

Jarred is interested in public relations – not for his own benefit, but for the benefit of people in need. By improving communication with people around the world, he hopes to bridge the gap between himself and the needy. His goal is to create a network between non-profits and businesses using a business he created called Enable Media, which is designed to spread awareness about good causes.

In the future, Jarred wants to delve even more into human services as he continues to live out his faith. He recognizes that he has "been blessed a lot," and he adds, "To not return these blessings would be terrible and truly selfish." Though his experiences have been numerous, his goal in life remains singular: He wants to help others.



from hell; it's about

saving people

from hell



[HONORS COLLEGE]

# UNDERGRADUATE SNAPSHOTS



#### HALEY MATHIOT | by Erin Mullens

"Art runs in our family. All of us are artists, but in different ways," says English and ballet pedagogy double major Haley Mathiot from New Bern, N.C. Haley, a WCU senior, also teaches ballet three days a week at Rabun Gap-Nacoochee Preparatory School in northern Georgia. When she has time, Haley runs her own business on Etsy (an online marketplace for artists) where she sells knitted apparel. All things considered, Haley does not worry about her busy schedule, saying, "If I'm not stressed about something, I tend to sit in my room and watch 'Doctor Who' all day. I need to have something motivating me."



#### **JACOB MARLOWE** by Kaitlyn Speer

"If I do something, I don't toy around; I get in there and get the job done," says Jacob Marlowe, a WCU junior from Nebo, N.C., majoring in sociology and political science. He got the job done in September 2012, when he helped organize and mail 28 care packages to American soldiers in eastern Afghanistan. Local veterans and other community members financed the packages. As a U.S. Navy veteran who served for eight years, Jacob understands the need for care packages. He says, "Care packages are what keep us in the Armed Forces going."

#### BRUCE KATZ | by Regina Rumley

Bruce "Bud" Katz is a nontraditional student working toward a B.A. in English literature with a minor in creative writing. Retired and living in Highlands, N.C., he took ENGL 308 Fiction Writing with Assistant Professor of English Pam Duncan in summer 2012. In that class, he wrote "Beer," a short story based on events that he heard about while stationed in West Berlin in 1962 as part of the U.S. Air Force Security Service. His story fictionalizes events involving an escape tunnel from East Berlin that led to a bar in West Berlin. Pam says Bud's writing "develops a compelling voice, tells a good story, and teaches us something along the way."

#### **ASHLEY HEMSATH** | by Rachel Bodenhamer

Ashley Hemsath, a junior from Asheville, received her associate's degree from Blue Ridge Community College in Flat Rock, N.C., and transferred to WCU in fall 2012. She is double-majoring in anthropol-

ogy and criminal justice. As an Honors project, she completed an ethnography with Dr. Philip E. Coyle, head of the Anthropology Department. Her project focuses on the idea of family within Aikido, a Japanese martial art and philosophy. Ashley notes that an important



part of an ethnography is giving back to the people studied. Her research discusses the immense trust Aikido members must demonstrate in one another due to the physical pain involved when practicing this martial art.

#### **DENISE CALHOUN** | by Emily Glesias

Denise Calhoun, a sophomore from West Jefferson, N.C., balances her studies as an interior design major with a spot on WCU's women's track and



field team. "Currently I'm training for the heptathlon, which consists of the high jump, long jump, 100 meter hurdles, 200 meter sprint, 800 meter run, shot put, and javelin," she explains. Denise, a member of the Honors College, also volunteers through WCU's Center for Service Learning. During fall break 2011, she traveled

to Tuscaloosa, Ala., where she aided with disaster relief efforts after a tornado devastated portions of the area. "I have a new appreciation for things that I once took for granted," she says.

IMAGINE MAGAZINE

# NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH 2013

Below are the projects accepted, titles, student presenters and their sponsors for NCUR27 at University of Wisconsin-La Crosse, La Crosse, Wisconsin. In terms of presentations accepted at the conference, Western Carolina University tied for third in the nation.

#### **ART & MEDIA STUDIES**

Music Video Across Cultures
Althea Holenko, presenter | Peter Nieckarz, sponsor

#### BIOLOGY

What's The Buzz About? Pteridine Extraction In Apis Mellifera Taylor Fie, Kalli Devecki, presenters | Lori Seischab, sponsor

Taylor Fie, Kalli Devecki, presenters | Lori Seischab, spor

#### CHEMISTRY

Lanthanide-Doped Magnetite Nanoparticles As Dual-Modality Magnetic Resonance And Luminescence Imaging Agents Mickey Clark, presenter | Channa R. De Silva, sponsor

Adsorption Of Aqueous Copper (Ii) Ions To Aluminum Oxide Substrates Kanika Davis, presenter | Carmen Huffman, sponsor

Synthesis And Characterization Of Functionalized Cadmium Sulfide Quantum Dots For Application In DNA Sequencing Techniques
Stefan Faulkner, presenter | David Evanoff Jr., sponsor

Reactivity Models Of Oxidative Stress Associated With Diabetes

Brittni Foster, presenter | Benjamin Hickman, Jack Summers, sponsors

Synthesis Of Core-Shell Silver Nanoparticles With An Embedded Rare Earth Complex And Characterization Of Fluorescence Enhancement Joseph Richardson, presenter | David Evanoff, sponsor

Boron-Nitrogen And Boron-Oxygen Bond Characteristics In Phenylboronate And Phenylboroxine Complexes Richard Overstreet, presenter | Carmen Huffman, sponsor

#### CRIMINOLOGY

Conflict In The Middle East: Moving Towards The Creation Of A 21st Century Apartheid Wesley Myers, presenter | Cyndy Caravelis Hughes, sponsor

#### **ECOLOGY & ORGANISMAL BIOLOGY**

Human-Bird Interaction Desensitization: Genetic Or Environmental?

Kate Beavers, Kelsey Stover, presenters | Jeremy Hyman, sponsor

#### **EDUCATION**

English Language Learners: Examining Multiple Perspectives
Haley Bridges, presenter | Kelly Tracy, sponsor

Elementary Student Engagement: Comparing A

Classroom Setting To A Field Experience
Mariah Cousineau, presenter | Patricia Bricker, sponsor

Opposites Attract: Studying Mathematical Literature In The Adventures Of Sir Cumference Kriston Haynes, presenter | Kathy Jaqua, sponsor

Teach Foreign Language To College Students In Their Native Language Or Foreign Language?

Kriston Haynes, presenter | Kathy Jaqua, sponsor

A Pedagogical Study And Manifesto: How Is North Carolina Meeting The Needs Of English Language Learners In And Beyond The Public Schools? Jill West, presenter | Eleanor Petrone, sponsor

#### **ENGINEERING/ENGINEERING TECHNOLOGY**

Maybe The Military Should Be Nicer Kaley Geyer, presenter | Martin L. Tanaka, sponsor

#### **ENGLISH**

The Foulest Toad: Analyzing The Amphibian Imagery In Shakespeare's Tragedy Of *Richard The Third* 

Marissa Duncan, presenter | Mary Adams, sponsor

Onomastics At Work: Character Names In Gabriel García Márquez's One Hundred Years Of Solitude Jessica Huntbut, presenter | Annette Deba, sponsor

Colonization By Cuisine In Nervous Conditions
Jessica Jaqua, presenter | Brent Kinser, sponsor

"We Got To Interact!": Natasha Trethewey's Treatment Of Memory, Race, And History In Native Guard

Kathleen McMullen, presenter | Brent Kinser, sponso

#### **ENVIRONMENTAL STUDIES & SCIENCES**

The Human Population Problem And Its Environmental Impact

Detrick Ellen, presenter | David Henderson, sponsor

Species Diversity And Vertical Distribution Of Container-Inhabiting Aedes Mosquitoes As Measured By Infusion-Baited Oviposition Traps Michael Riles, presenter | Brian D. Byrd, sponsor

Fire Effects On Acorn And Hickory Nut Production In Western North Carolina

Amber Holland, Michael W. McCloy, Brent C. Mills, Ben A. Melton, and Paul E. Pittman, presenters | Peter C. Bates, sponsor

Challenges To Oak Regeneration In Western North Carolina: Investigating The Role Of Deer Mike McCloy, George Hahn, Gabriella Hovis, Ashley Mendenhall, and Michael Mustin, presenters | Peter Bates, sponsor

Characterizing The Potential Use Of Ansi Class Z87.1 Safety Glasses For The Attenuation Of UV Excimer Laser Exposure Tina Wells, presenter | Burton Ogle, sponsor

#### FILM/PHOTOGRAPHY STUDIES

Stereotypical Representations Of Africa In
The Ghost And The Darkness
Tyler Aufthammer, presenter | Elizabeth Heffelfinger, sponsor

Creating A Devil: How Adapting Mark Zuckerberg In *The Social Network* Shaped The Creation Myth Of Facebook, The Internet, And A Generation *Emily Maesar, presenter* | *Elizabeth Heffelfinger, sponsor* 

Film As Sexual Pedagogy And The Cultivation Of Hook-Up Culture Kathleen McMullen, presenter | Christopher Hoyt, sponsor

#### **HEALTH SCIENCES & PUBLIC HEALTH**

Liver Enzyme Levels And The Correlation With Mortality In Liver Transplant Patients Peyton Flinchum, presenter | Brenda Marques, sponsor

Traumatic Shoulder Injury In A Collegiate Football Player

Alessa Lennon, presenter | Jill A. Manners, sponsor

Validity Of Morphological Characters Used To Distinguish The Mosquitoes Culex Restuans And Culex Pipiens

Tyler McKinnish, presenter | Brian D. Byrd, sponsor

Abdominal Pain In A High School Football Player Sarah McNamara, presenter | Charles Dingle, James Scifers, sponsor

La Crosse Encephalitis In NC: Is This Disease Truly Emerging?

David Rollick. presenter | Brian D. Byrd. sponsor

#### HISTOR

"The Garden Of Eden Of The Red Man": William Holland Thomas And The Americanization Of Eastern Cherokee Culture

Andrew Benton, presenter | Andrew Denson, sponsor

North Carolina's Amendment One: Making History

The Iron Lady: How Margaret Thatcher Helped Win

The Cold War
Caroline Parsons, presenter | David Dorondo, sponsor

T'Shana McClain, presenter | Elizabeth McRae, sponso

Greed, Glory And Gods: How The Desire For Perfection Doomed The Mexica Elizabeth Pratt, presenter | Gael Graham, sponsor

Suppressing The Swastika: The American Denazification Effort Within Occupied Germany, 1945-1949

Christopher Ray, presenter | David Dorondo, sponsor

#### **LAW & LEGAL STUDIES**

International Promotions On Mobile Devices: Existing Law And A Proposed Model For The Future Christopher Horn, presenter | Anne B. Downing, sponsor

Race, Diversity And Critical Mass: Is The United States Supreme Court Out Of Touch With Modern Students?

Caitlyn Ball, presenter | Melissa English, sponsor

#### LITERATURE

Barbed Wire In Heartwood: The Endurance Of Appalachian Stereotypes From Horace Kephart To Ron Rash

Andrew Benton, presenter | Mae Claxton, sponso

Invoking The Word: Nature's Voice In As You Like It Chelsea Lantz-Cashman, presenter | Mary Adams, sponsor

The Constant Gardener: Representations Of Africa And White Narration

Alexa Menz, presenter | Elizabeth Heffelfinger, sponsor

The Sub-Creation Of Man: Approaching Christian Morality Within The Category Of Literary Fiction Clare Murray, presenter | Brent Kinser, sponsor

#### MICROBIOLOGY & IMMUNOLOGY

The Identification Of An Isolate From Kephart Prong, Great Smoky Mountains National Park Kelsey Stover, presenter | Sean O'Connell, sponsor

The Identification And Characterization Of Some Indian Strains Of The Human Pathogenic Yeast, Cryptococcus

Katherine Turnbull, presenter | Indrani Bose, sponsor

#### MUSIC

Lowell Mason: Father Of American Music Education Matthew Martin, presenter | Christina Reitz, sponsor Maurice Ravel's Compositional Philosophies: As Demonstrated In Daphnis Et Chloé Leanna Smith, presenter | Christina Reitz, sponsor

#### MUSIC PERFORMANCE

You Xiaci De Zuanshi

Dane Morgan, presenter | Bruce Frazier, sponsor

#### PHILOSOPHY & ETHICS

Planting The Seed Of Reason

Melissa Bradley, presenter | John Whitmire, sponsor

The Ethics Of Collateral Damage In 21st Century Warfare Paul Horton, presenter | Kevin Schilbrack, sponsor

The Reversal Of The Noir Hero
Tom Pazderka, presenter | Christopher Hoyt, sponsor

#### PHYSICS

Atmospheric Stratification Of Terrestrial Gamma-Ray Flashes, (Tgfs) And Capture Of Electromagnetic Phenomenon In The Southern Appalachian Mountian Region Michele Coker, presente | Enrique Gomez, sponsor

Mass Transfer And Stellar Jets In Binary Star System Beta Lyrae

Jessica Hurlbut, presenter | Enrique Gomez, sponsor

#### **PSYCHOLOGY**

Changes In Women's Preferences During Ovulation Isabel Leavitt, presenter | Thomas Ford, sponsor

Review Of Literature On Personality Characteristics Associated With Performance As A Special Forces Military Operative Mandy Long. presenter | David McCord. sponsor Music Is The Language: Personality Traits And Musical Preferences Olivia Muse, presenter | David M. McCord, sponsor

Examining Risk Propensity Subfactors Through The Lens Of The Five-Factor Model Of Personality

Military Families: Deployment Impact On College Students

Sarah Zucca, presenter | David McCord, sponso

David Chandler, Meridia Sanders, Isabel Leavitt, presenters | Candace Boan, Mickey Randolph, sponsors

Transgender In Service: Focusing On A Better Outlook On The Transgender Community Katie Salmons, Miranda Dickens, presenters | Mickey Randolph, sponsor

#### SOCIOLOGY

The Case Of Class In Hayao Miyazaki's Spirited Away Kelsey Hales, presenter | Brent Kinser, sponsor

North Carolina's Harvest Of Shame Jessica McLamb, presenter | Lori Oxford, sponsor

Contributing Factors To Rape Culture On College Campuses: Small Rural University

Caillin Armer, presenter | Marilyn Chamberlin, sponsor

Did Lenin Pollute Marx's Theory Of Communism? A Study Of Lenin's Interpretation Of Marx's Theory Of Communism

Jacob Marlowe, presenter | Peter Nieckarz, sponsor

#### THEATRE/DRAMA

The Revival Of The Ribbon Cockade

Ashton Bennett, presenter | Susan Brown-Strauss, sponsor

Men's Style In Hollywood In The 1930's

Paul Thiemann, presenter | Susan Brown-Strauss, sponsor





#### **AMY TREXLER BEANE** | by Jared McMillan

After graduating from WCU, Amy Trexler Beane has done more than earn her B.S.in nutrition and dietetics. In 2002, she returned to WCU to acquire her master's degree in health science, and then her B.S.N. in nursing in 2007. Amy is a certified diabetes educator and she taught a health class, "Human Nutritional Needs," at WCU for four semesters. She says that WCU "is a wonderful school...so much so that I came back three times!" She married **Nathan Beane** in 2003. Because of Nathan, she says, she has gone skydiving, paragliding, and scuba diving.

#### **CASEY ICENHOUR** | by Kaitlyn Howard

Casey Icenhour graduated from WCU in spring 2012 with a B.S. in electrical engineering. He now attends North Carolina State University in Raleigh, where he is pursuing an M.S. in nuclear engineering. Casey, a native of Lenoir, N.C., hopes to get a Ph.D. and then research applications of plasma and fusion technologies. Casey's advice for WCU students is to "take advantage of discovering as much as you can about your major." Casey says that what he misses most about WCU are faculty mentors, former co-workers, and free time with friends.

#### **ERIN (PONDER) JONES** | by Althea Holenko

Erin Ponder graduated from WCU with honors and a B.S.N. in nursing in 2010. Originally from Hendersonville, N.C., Erin and **David Jones**, her husband, now live in Chapel Hill. David also graduated from WCU in 2010 with honors and a B.S. in chemistry. Erin works in the UNC Health Care Intensive Care Unit in Chapel Hill. Eventually, she plans to pursue her master's degree in nursing education. Erin encourages current WCU students to continue learning through "the opinions you hear, the ideas you challenge, the open dialogue you allow, and the experiences you pursue."

#### AMANDA KOURI | by Morgan Lau

"If you can dream it, you can do it," advises Amanda Kouri, and she should know. After only being in New York City for three weeks, she had already landed a part in a commercial for Hite beer, starring South Korean pop singer **PSY** (who became an internet sensation with his song, "Gangnam Style"). She also worked on two NBC primetime shows, "Elementary" and "Smash." Raised in Raleigh, she graduated from WCU in May 2012 with a B.F.A in theater and a concentration in musical theater. She plans to continue acting and her goal is to perform on Broadway.

#### **CRYSTAL OLSON** | by Veronica Browning

Since graduating from Western Carolina University in 2002, Crystal Olson completed her M.S. in chemistry (with a specialization in medicinal and combinatorial chemistry) at the University of Virginia in 2005. After relocating to her hometown of Hickory, N.C., she now works for PMG Research. Outside of work, Crystal likes to stay busy by singing in her church choir and running. She offers this advice to incoming freshmen: "Get involved, meet people, and stay busy. You only get one chance, and you want college to be a great experience."

#### **SHANNON OWEN** by Leah Rhodes

Shannon Owen graduated with honors in 2011 and a B.S.B.A. in finance, with a concentration in financial planning. Originally from Shelby, N.C., she currently works in financial support for General Parts Company in Atlanta, Ga. She is in the process of designing and implementing a new accounting system for the entire company.

While at WCU, Shannon was president of the Honors Board for two years. Her advice to Honors students? Join the board and get involved!

#### **ABIGAIL ROPER** | by Callie Mosher

Since graduating with a B.S.Ed. and B.M. in music education in May 2012, Abigail Roper has worked with Drake Retail and Entertainment in her hometown of Franklin, N.C. She recently became the administrative assistant for the vice-president of the business. "I want to get my master's degree in music education and eventually teach high school chorus," she says. Abigail admits that she plans on going to WCU's rival school, Appalachian State University, to get her master's degree. She misses the friends she made at WCU and encourages future students to get as involved as possible with university life.

#### RALEIGH RUMLEY | by Chequita Brooks

"What spare time? I study." Raleigh Rumley laughs. Since graduating from WCU in 2011 with a major in biology with a pre-health professional concentration, Raleigh has been busy. She is currently studying to be an osteopathic physician (D.O.) at the Edward Via College of Osteopathic Medicine (VCOM) in Spartanburg, S.C. Her studies took her to El Salvador to provide health care services. She says, "I went to VCOM because they really emphasize care for underserved people and populations." After graduating, she hopes to practice medicine in a rural farming community.

#### **JOEL STROOT** | by Cara Forbes

Joel Stroot graduated from WCU in 2005 with a B.S. in biology. After that, he took a year to travel through nearly every state in the U.S., as well as to Spain, Ireland, Switzerland, France, Germany, and Mexico. He also hiked the entire Appalachian Trail. After curing his "adventure bug," he returned to WCU to obtain his B.A. in philosophy. Currently, he is in graduate school at UNC-Chapel Hill, studying dentistry.

#### LAURA (LITCHFIELD) THOMAS | by MaryKate Powell

Laura Thomas, originally from Franklin, N.C., graduated from WCU in 2009 with a B.S. in public health and science. Since then, she taught biology and physics at Atkins High School in Winston-Salem for one year, prepared for her MCAT examination, enrolled at Edward Via College of Osteopathic Medicine (VCOM) in Spartanburg, SC, and traveled to the Dominican Republic on a mission trip with VCOM. She is married to **Patrick Thomas**, who received a bachelor's degree in music from WCU, as well as an M.A.T. The couple now lives in Spartanburg and misses the mountains of Western North Carolina. In spite of their busy lives, they still find time to go mountain biking every weekend.





HONORS COLLEGE

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