

# Undergraduate Research and Creative Works

Volume 3, Issue 7

April 2014

Our mission: to engage undergraduates in student-faculty collaborations that reflect individual, unique, scholarly and imaginative experiences which promote the development of new competencies, foster critical thinking, and provide students with opportunities to add to the sum of human knowledge.

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## High Point University Research and Creativity Symposium

This year's High-PURCS event was a success! Taking place on Reading Day (April 24), students had freedom to explore the projects of their peers.

With opening remarks by Director of the Office, Dr. Altman, and Dr. Carroll, this annual event marked the summation of everything this office accomplished this year.  
*(continued on pages 2-7)*



Dr. Altman with her mentees Katelyn Long and Jacqueline Simpson

## NCURS

The National Conference on Undergraduate Research (NCUR) is the only **national** conference for undergraduate research. This year's meeting, in Lexington, KY, received more than 4,000 abstract submissions and was competitive. High Point University's Office of Undergraduate Research and Creative Works sent six students, accompanied by Dr. Altman, Dr. Cavendish, Ms. Walker, Dr. Fiser, and Dr. Vess.

Right to left: Dr. Fiser, Dr. Altman, Dr. Danzis, Dr. Cavendish, Alyssa Springer, Kylie Foster, Kayla Dolan, Tayla Curran, Dr. Walker, Jacob Brooks

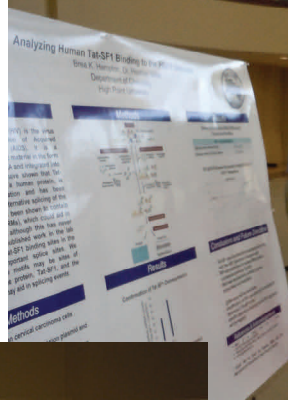


### High-PURCS (continued)



Left: Andrea Perrault discusses her mathematics research *Steady State Dopamine in a Single Neuron* with some interested friends

Right: Brea Hampton discusses her work *Analyzing Human Tat-SF1 Binding to the HIV-1 Genome*



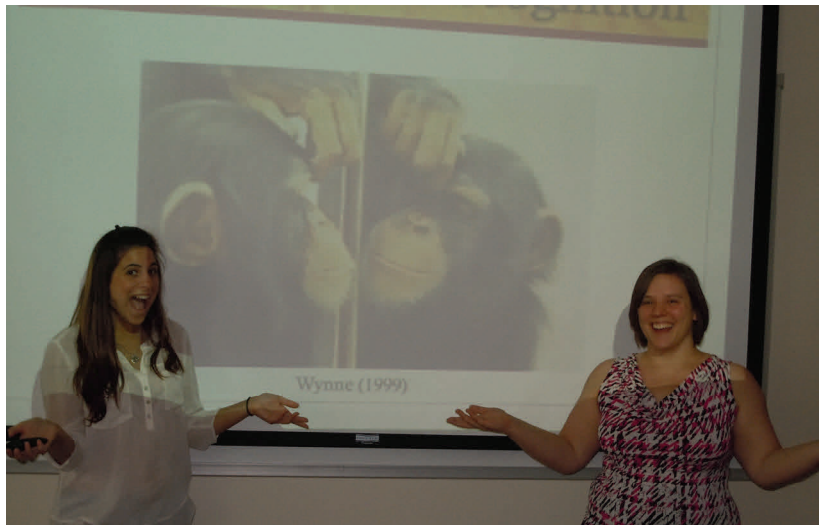
Left: Dr. Carroll learns about physical therapy for track athletes at Lauren Blackwell's *Do Track and Field Athletes Competing in Events with Asymmetric Movements Have Bilateral Differences in Hip Bone Mineral Density?*

Below: Some of the beautiful food choices available at the symposium





Right: Katelyn Long and Jacqueline Simpson pose before their presentation *A Review of the Comparative Study of Human and Non-Human Cognitive Ability* that explores the abilities of other species.



Left: Devan Plyler presents her research *Virginia Woolf's Androgynous Ideal: The Procreative Mind in Mrs. Dalloway* that gives focus to Woolf's treatment of androgyny.

Below: Left: Sarah Thompson and Rachel Garrett give a theatre presentation  
Right: Courtney Feiman and Joshua Stein perform a theatrical scene



## List of Student Presentations

Participant	Title of Project
Lindsey Anuzis	<i>Parenting Connections to College Students and Their Academic Entitlement</i>
Allie Arpante	<i>Reaction Time is Impaired on Large, but Not Small, Visual Field Activities in Athletes with a Self-Reported History of Concussion</i>
Andrea Baellow	<i>Landing Kinematics Differ Between Adolescents with High and Low Values of Asymmetrical Unilateral Hip Rotation</i>
Anna Katherine Barker	<i>The Effects of Neurocognitive Visual Reaction Training on Division I Athletes</i>
Jaimie Bartlett	<i>The Role of Personality in the Propensity to Deceive for Extrinsic/Intrinsic Reward</i>
Lauren Blackwell	<i>Do Track and Field Athletes Competing in Events with Asymmetric Movements Have Bilateral Differences in Hip Bone Mineral Density?</i>
Brenn Bolding	<i>Computerized Neurocognitive Performance Does Not Reflect Gross Visual-Motor Function During Concussion Baseline Assessments</i>
Andrew Bosio	<i>The Thermodynamic Properties of Recyclable Materials</i>
Jacob Brooks	<i>Using vPython Modeling to Design the Magnetics for an Artificial Cilia Platform</i>
Lindsay Jessy Brooks	<i>Bioaccumulation of Total Mercury in Wilson's Snipe (<i>Gallinago delicata</i>) from Alabama</i>
Jessica Coble	<i>The Effects of Group Characteristic and Ostracism on Prosocial Behavior</i>
Shannon Curley	<i>Dead Man Walking: Provoking Audiences to Reconsider the Legal and Moral Implications of the Death Penalty through Film Narrative</i>
Tayla Curran	<i>The Healing Power of Narrative Medicine: Aiding Adults in Aging Creatively</i>
Emmaline Doherty	<i>Rekindling: The Effects of Risk Regulation and Need to Belong</i>
Kayla Dolan	<i>Utilizing a RtI Service Learning Program to Train Pre-Service Teachers</i>
Elizabeth Ezzell	<i>Reducing Stigma for Mental Illness</i>
Morgan Falls	<i>Tres Lucías, Una Nación: La Importancia de una Identidad Cubana</i>
Courtney Feiman	<i>Kennedy Center American College Theatre Festival</i>
Caitlin Ferguson	<i>Spectroscopic and Microscopic Analysis of Chloroform Vapor Exposed Poly (methyl methacrylate) (PMMA) Surfaces</i>
Elizabeth Fidyment	<i>The Supreme Court and the Reconstruction Amendments</i>
Kylie Foster	<i>The Effect of Canine Personality on Pet Recovery from Anesthesia</i>
William Scotty Fravel	<i>Thermogenic Effects of Anthocyanin Pigments in Evergreen Leaves</i>
Rachel Garrett	<i>Kennedy Center American College Theatre Festival's Stage Management Fellowship</i>
Amanda Garrison	<i>Populational Investigation of Spider-lilies Distributed in the Atlantic Coastal Plain</i>
Marcella Gibson	<i>Something Cool about Vincente Minnelli</i>

Alexandra Glasure	<i>Can You See Me Now?</i>
Cameron Griffin	<i>Adjustment to College in Only-Children and Children with Siblings and Identifying Distinctions in Covert and Overt Narcissism: Links to Language Use, Self-Esteem, and Gender Differences</i>
Ashley Quinn Hagen	<i>The Secret Stimulants: The U.S. vs. Coca-Cola's Impact on The Food and Drug Act of 1906</i>
Brea Hampton	<i>Analyzing Human Tat-SF1 Binding to the HIV-1 Genome</i>
Alexander Hart	<i>Phylogenetic Investigation of Selected Species in Habranthus and Zephyranthes</i>
Haley Hegedus	<i>Pollinator and Beneficial Insect Abundance and Diversity in Four Different Biofuel Treatments</i>
Alyssa Heisler	<i>Effects of Regional Cloud Patterns on Microclimate and Shoot-level Photosynthetic Gas Exchange in Picea engelmannii and Abies lasiocarpa at Treeline, Medicine Bow Mountains, Wyoming, USA</i>
Jasmine Jordan	<i>Effects of Regional Cloud Patterns on Microclimate and Shoot-level Photosynthetic Gas Exchange in Picea engelmannii and Abies lasiocarpa at Treeline, Medicine Bow Mountains, Wyoming, USA</i>
Shane Keene	<i>Desegregation of Little Rock Central High School</i>
Jennifer Keith	<i>Asymmetry in a Functional Hop Test Effectively Identifies Differences in Landing Kinematics</i>
Kathleen Kelley	<i>Operationalizing Attempted Mass Murder</i>
James Kizer	<i>Queer Cyberactivism and its Influence on North Carolina's Amendment One</i>
Chloe Kunar	<i>United Institute for Theatre Technology, Technology Olympics</i>
Thomas Langford	<i>Why MC Hammer Could Never be a Computer Scientist: Because You CAN Touch this: Building a Touchscreen Computer</i>
Mia LeNoir	<i>Pinecone Chair</i>
Junjie Liao	<i>Framed: Physics in Non-Inertial Reference Frames</i>
Katelyn Long	<i>A Review of the Comparative Study of Human and Non-human Cognitive Ability</i>
Alexandra Louk	<i>Triclosan's Estrogenic Effect on Early Zebra Fish Development</i>
Alexandra Love	<i>Gender Roles and Stereotypes in Beauty and the Beast</i>
Chase Manuel	<i>Determining if Alternative "Green" Cleaners are Effective Measures to Inhibit MRSA Growth</i>
Alexandra Mauch	<i>United Institute for Theatre Technology, Technology Olympics</i>
Benjamin May	<i>Emmy Noether Contributions as a Mathematician and Physicist</i>
Matt McKone	<i>United Institute for Theatre Technology, Technology Olympics</i>
Jamison Meyer	<i>ACTF SDC Directing Fellowship Program</i>
Danielle Miller	<i>Potential Estrogenic Effect of Epigallocatechin Gallate's on Early Zebra Fish Development</i>
Sam Mjalli	<i>Employment Law and Lochner: the Legal Tale of an Evolving Society</i>
Zachary Molan	<i>Store Atmospherics</i>
David Naylor	<i>Is Democracy a Total Train Wreck? An Exploration of Voting Anomalies in Real World Data</i>
Molly O'Keeffe	<i>Gallery Show 101</i>

Kelsey Ortiz	<i>A Record of Ecological/Anthropological Change From Bat Guano Deposits in Fern Cave, Jackson County- Alabama</i>
Alex Ortowski	<i>Risk Regulation and Destiny vs. Growth Beliefs</i>
Alex Palmer	<i>American Slave Cases from 1818-1860</i>
Taylor Patzwahl	<i>Pollinating and Beneficial Insects Within Four Treatments of Switchgrass and Pine</i>
Jennifer Pearson	<i>Tat-Specific Factor 1's Role in Insulin Signaling</i>
Andrea Perrault	<i>Steady State Dopamine in a Single Neuron</i>
Stephanie Pettit	<i>Emmy Noether Contributions as a Mathematician and Physicist</i>
Devan Plyler	<i>Virginia Woolf's Androgynous Ideal: The Procreative Mind in Mrs. Dalloway</i>
Ryann Quigley	<i>Internet Hacktivism: Is It Worth the Effort?</i>
Robert Rivera	<i>Technology in the Gym: Using Wii to Teach Bowling Skills</i>
Haley Ruehle	<i>Technology in the Gym: Using Wii to Teach Bowling Skills</i>
Carl Rugato	<i>United Institute for Theatre Technology, Technology Olympics</i>
Ashley Russell	<i>Face-To-Face With Technology</i>
Stacie Sampson	<i>El Despertar de las Mujeres in la Guerra Civil de El Salvador</i>
Jennifer Silk	<i>Resveratrol's Estrogenic Effect on Early Zebra Fish Development</i>
Amiras Simeonides	<i>Framed: Physics in Non-Inertial Reference Frames</i>
Jacqueline Simpson	<i>A Review of the Comparative Study of Human and Non-human Cognitive Ability</i>
Lake Slabach	<i>Capital Punishment in the United States</i>
Alyssa Springer	<i>A Globalized Education: A Comparative Study of the International Baccalaureate and Common Core State Standards Systems</i>
Joshua Stein	<i>Kennedy Center American College Theatre Festival</i>
Michelle Tarangelo	<i>The Legal World of Moll Flanders: Crime and Deviance in the Eighteenth Century</i>
Lauren Terry	<i>The Effectiveness of Injury Prevention Programs in Reducing Lower Extremity Injury Risk in Basketball Players: A Systematic Review and Meta</i>
Jacklyn Tonkovich	<i>Parenting Connections to College Students and Their Academic Entitlement</i>
Kaila Tuccio	<i>Parenting Connections to College Students and Their Academic Entitlement</i>
John Vitello	<i>Occurrence of the Red-eared Slider, a Non-native Pond Turtle, in Central North Carolina</i>
Stephen Vultaggio	<i>A Survey or Pulsating Hot Subdwarf Stars with SKYNET</i>
James Walls	<i>The Destruction of Standard Oil and the Rise of Antitrust</i>
Stephen Walser	<i>Reliability of Knee Joint Threshold to Detect Passive Motion Across Multiple Angles and Angular Velocities</i>
Paige Ward	<i>Comparison of Lower Extremity Landing Biomechanics of Collegiate Basketball and Soccer Players</i>

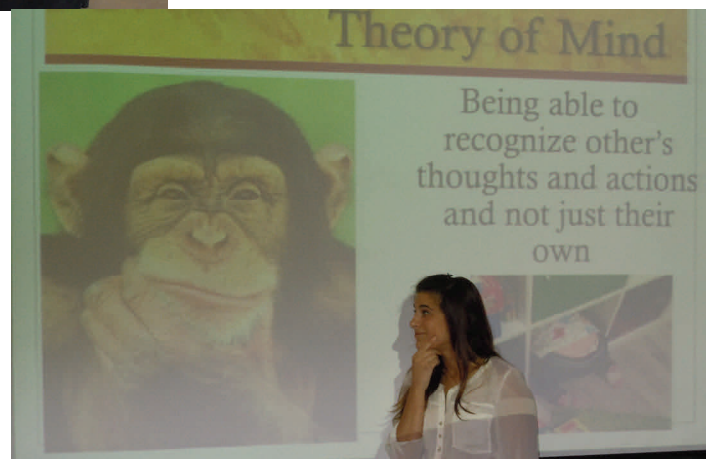


Carlisa Warner	<i>The Influence of Testing on Memory in Elementary School Children</i>
Richard Warren	<i>From Acceptable to Atrocious: The Evolution of North Carolina Domestic Violence Law</i>
Christian Weigandt	<i>Why MC Hammer Could Never be a Computer Scientist: Because You CAN Touch This: Building a Touchscreen Computer</i>
Taylor Wimbish	<i>Hip Strategy During Landing Reduces Knee Abduction Moment in Collegiate Soccer Players</i>
Kim Winiker	<i>Occurrence of the Red-eared Slider, a Non-native Pond Turtle, in Central North Carolina</i>
Ethan Winter	<i>The Curt Flood Case and the Birth of Modern Free-Agency In Major League Baseball</i>
Leah Anne Wirfel	<i>Effects of Body Weight Unloading on In-Shoe Forces During Treadmill Running</i>
Rebecca Woodly-Oliver	<i>Japanese Internment During World War II and Civil Rights</i>
Nina Yasick	<i>The What-Ifs That We Carry</i>
Nick Zayatz	<i>Is Democracy a Total Train Wreck? An Exploration of Voting Anomalies in Real World Data</i>
Miranda Zupp	<i>Tat-Specific Factor 1's Role in Insulin Signaling</i>

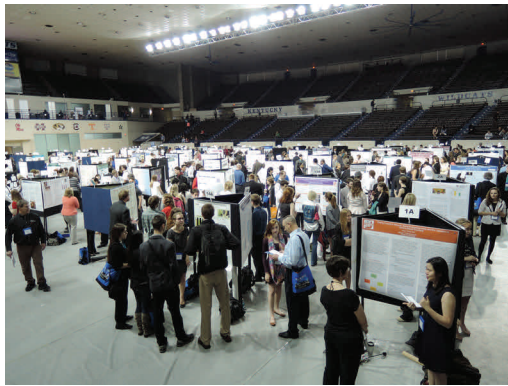


Left: Mia LeNoir presents her design of a pine cone chair at High-PURCS as part of her interior design field

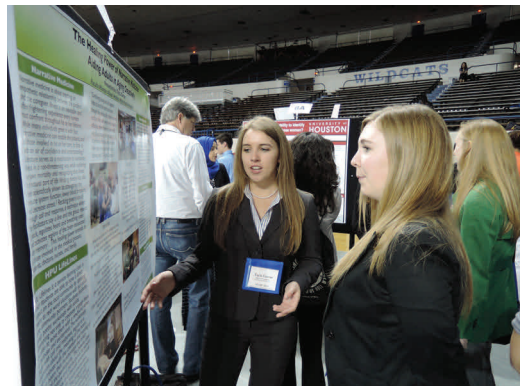
Right: Katelyn Long muses upon her own presentation in regards to the cognition abilities of other species



**NCURS (cont.)**



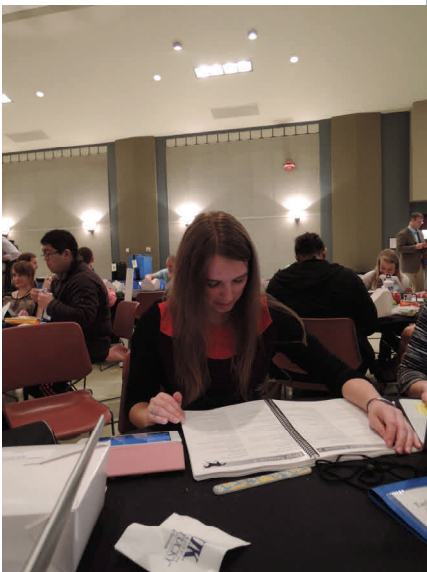
Left: the vast number of poster presentations at NCURS



Right: Tayla Curran explains her work on narrative medicine

Below: Alyssa Springer presents on Education

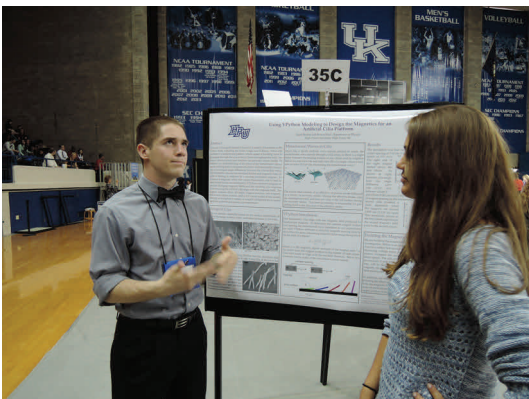
Below: Tayla Curran prepares for her presentation



Below: Kylie Foster poses before her presentation



"The opportunity to carry out undergraduate research has been extraordinary for me. It has changed the way I want to practice medicine in the future, and I know I am a stronger medical school applicant because of it. The networking opportunity was an invaluable experience, and I already have a PhD program recruiting me as a result. I am glad HPU is offering the opportunity for me to continue my research over the summer, and I cannot wait to see what data we collect as a result. This would not have been possible without the small class sizes and individualized attention HPU offers its students." -Tayla Curran



Left: Jacob Brooks discusses star pulsation with an interested visitor

Right: Kayla Dolan gives her oral presentation on training pre-service teachers





## Psychology Students Return From Texas

Psychology Students Jacklyn Tonkovich (Senior) and Kaila Tuccio (Junior) presented their research *Parental Involvement on Academic Entitlement in College Students: Exploring Gender Difference* at the Society for Research in Human Development Research Conference in Austin, Texas this month. Their research focuses around the exploration of parent involvement in student reports of Academic Entitlement and was

presented as a poster at this conference, which welcomes both undergraduate and graduate research students.

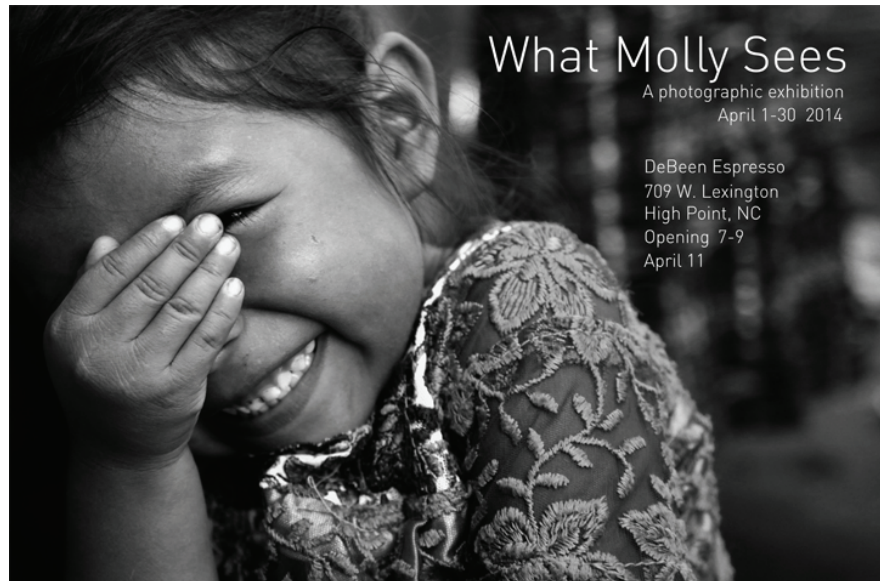
Tonkovich and Tuccio are both thankful for the experience to learn the relevance of their research in the scope of the other presentations they had the opportunity to visit. Tonkovich reflects, "I was able to teach others about academic entitlement and its connection to parenting while at the same time learn-

ing about different studies and the ways to present."

They also had the opportunity to meet important scholars in their field. Tuccio shares, "We ended up even meeting a woman who worked with some of the people we quoted in our research about helicopter parenting. She is currently writing a book with those psychologists."

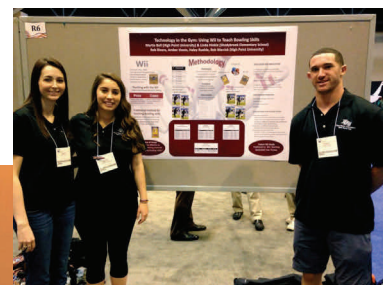
## Student Opens Her First Gallery, In High Point

In addition to presenting at High-PURCS, Molly O'Keeffe opened her first gallery at DeBeen Espresso in High Point for the month of April. For the past two years, she has acted as an aspiring photojournalist as she captured incredible images of villages in the jungle of Guatemala.



## Students Return from AAHPERD

Students Haley Ruehle, Amber Hoots, and Rob Rivera returned from the American Alliance of Health and Physical Education, Recreation, and Dance this month. At this conference, they presented their work *Technology in the Gym: Using Wii to Teach Bowling Skills*, which explores the idea of using video games to expose forms of Physical Education to children.



## Experienced Student Shares Her Story

Junior Ashlee "Tree" Branch has been involved in three separate research projects supported by the Office of Undergraduate Research and Creative Works, all three of which she presented at conferences. Her areas of study have included Communications, Women and Gender Studies, and Psychology.

Branch first got involved with the office when Dr. Isaksen (Associate Professor of Media and Popular Culture Studies) encouraged her to submit her research paper on the glamorization of casual sex in the media to the 2012 BigSURS Conference. Dr. Isaksen advised Branch again the next year on a project that examined public responses to violence based on victim gender expression. She presented this research at the National Cultural Association and American Culture Association Conference in Washington, D.C..

The same year, Branch worked as a Psychology Research Assistant to Dr.

Elder (Assistant Professor of Psychology) and worked on a project entitled *Beauty and the Billionaire: Evolutionary Psychology and Risk Regulation as Predictors of Partner Preference*, which has been an ongoing project, for it is now in its fourth semester of research.

The poster presentation for this project won first place in its division at BigSURS 2013 and was also presented at the Society for Personality and Social Psychology Conference in Austin, Texas, in February. This project was also recently accepted to High Point University's own journal, *Innovation*.

Branch says that her research at High Point University has been one of the most rewarding academic endeavors of her career, for she has had the opportunity to travel to new places and meet experts in the fields she studies. Branch advises students interested in undergraduate research to "embrace opportunities, work hard, and prove yourselves." She also says to recognize and



appreciate the people who have helped you along the way.

Branch thanks Dr. Isaksen and Dr. Elder for recognizing her potential and investing in her. If they had not done this, she never would have begun doing undergraduate research and certainly would not be where she is today.

Branch also advises interested students to start early and do work in a field they are passionate about. "Let your natural curiosity guide your research. When passion and curiosity combine, exploration is limitless."

## Contact Us!

Dr. Joanne Altman  
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[www.highpoint.edu/urcw](http://www.highpoint.edu/urcw)

Newsletter brought to  
you by Amy King

## Student to Chicago for Supplemental Instruction

On May 22, Reza Moghtderi, accompanied by Dr. Craig Curty (Director, Academic Services) and supported by a grant from the Office of Undergraduate Research and Creative Works, will

travel to Chicago, Illinois, for the International Supplemental Instruction Conference. Moghtderi's work, titled *Recalibrating SI Leader Training: From Practice to Theory to Theoretical Prac-*

*tice*, explores avenues of revamping tutor strategies and better leader awareness through the use of supplemental instruction.

The **final count** for presentations at the annual High Point University Undergraduate Research and Creativity Symposium (High-PURCS) comes to: **96 students** who presented **81 presentations** and who were mentored by **47 faculty members** across **18 departments** at the university!