

Undergraduate Research and Creative Works

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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.



High Point University's Office of Undergraduate Research and Creative Works is proud to present a new program this semester specifically for Freshmen and Sophomores in order to incorporate students into the university's culture of research and creative work early in their undergraduate careers. The Research Rookies program is designed to create a community of undergraduate scholars who will learn research-related skills and prepare for faculty collaborative scholarship that makes an original contribution to each person's field.

Students who participate in the program will be asked to complete a list of fifteen tasks across two semesters along with a final mini-research project. These tasks include activities such as completing online assignments, participating in workshops, and attending discussions. Some activities are mandatory for all Rookies, but the rest of the activities can be chosen from a list of options. Upon completion of these tasks, each student will be promoted to the title of *Research Apprentice*, reported to the faculty, and will receive a medallion that can be worn at graduation.

The purpose of the specially designed tasks is to help the student discover the importance of research, learn about research ethics, master methods and design, improve data and analysis skills, strengthen writing and presentation skills, and to explore other research opportunities. Since its inception at the beginning of this Spring semester, the program has already obtained nineteen students!

The Research Rookies program is a great way to integrate oneself into the research and creative works culture. Students who wish to apply for the program should contact Dr. Joanne Altman, director of the Office of Undergraduate Research and Creative Works, at jaltman0@highpoint.edu.

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High Point University Research and Creativity Symposium (High-PURCS)

This year's annual symposium will take place on April 24, 2014 (Reading Day) with abstracts for presenters due on March 13, 2014. High-PURCS showcases student scholarship in a supportive environment that models a professional venue. Students may choose to present their work orally, as a poster presentation, as a brief performance, or as an exhibit. These works must exemplify originality and creativity and reflect high quality work.

Last year, at the Big South Undergraduate Research Symposium (BigSURS), which incorporated this event, over one-hundred HPU students participated in fields including Anthropology, Art History, Chemistry, Communications, Economics, Education, English, Health Sciences, History, Mathematics, Modern Language, Physics, Psychology, Sociology, and Theatre.

From the list of concentrations from last year, it is evident that any undergraduate from any discipline is encouraged to participate in the program.

The High Point University Research and Creativity Symposium began a tradition that will continue with the intent of granting students opportunity to receive in extraordinary education and be able to showcase themselves in a professional manner, which will carry on into the rest of their careers.

For guidelines and to apply, visit www.highpoint.edu/urcw.

Talk to your mentor about getting involved.

Abstracts are due March 13, 2014!



The poster features a central illustration of a stylized figure with a human head and a robotic body, holding a violin and a soccer ball. The background is black with white and purple circles of varying sizes. The text is in white and purple.

High-PURCS CALL FOR ABSTRACTS

High Point University students from all schools, majors, and minors are invited to participate in HPU's second annual Research and Creativity Symposium (High-PURCS). This event will showcase student scholarship in a supportive environment that models professional venue.

Students may choose to present their work as a poster, oral presentation, brief performance, or exhibit. Projects must be mentored, independent work that reflect originality and creativity and be quality products that went beyond a course assignment.

Abstracts due by March 13 (Thursday), 2014

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URCW
HIGH POINT UNIVERSITY

Physics Student Makes Star Discovery

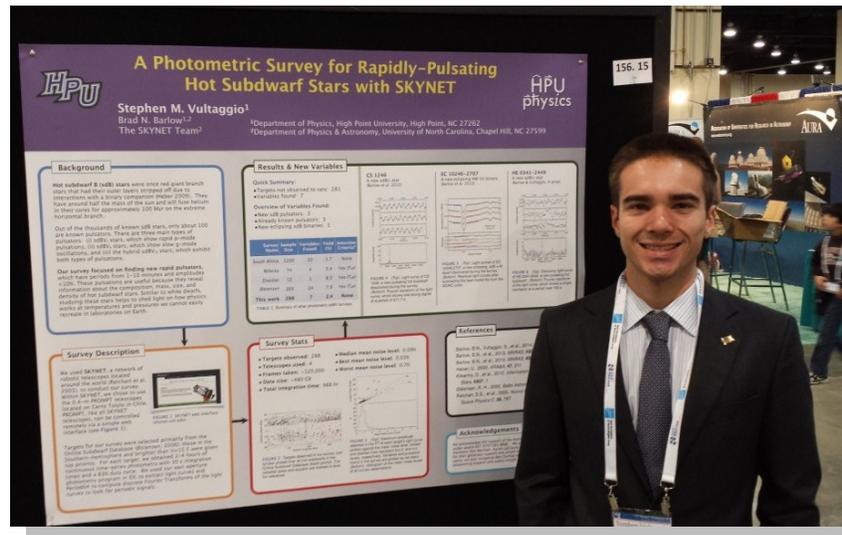
Stephen Vultaggio, a Junior HPU Physics major, recently unveiled his discovery of a new Hot Subdwarf B Star during the 223rd symposium of the American Astronomical Society (AAC) in Washington, D.C.

Vultaggio was able to discover this new star with the guidance of High Point University Assistant Professor of Astrophysics, Dr. Brad Barlow, as they worked in concert through remote access to the robotic PROMPT telescopes in Chile. Vultaggio's contribution to astronomy enables future research opportunities into the development of stars.

Considering that Hot Subdwarf B stars are stars that have their outer atmospheric hydrogen layers removed, scientists and researchers are able to peer into the very core of the

star before it begins to fuse helium.

Vultaggio's stellar work will allow for a better understanding of fusion energy and a bright start for this nebula physics major!



Criminal Justice Major on Hacktivism

On Thursday, November 21, 2013, senior Criminal Justice major Ryann Quigley presented her research on the effectiveness of hacktivism at the American Society of Criminology Annual Conference in Atlanta, Georgia. Appearing on a panel entitled "Technological Issues and Advances in the Study of Punishment," Quigley explained how

the hacktivist group known as *Anonymous* made hundreds of efforts to gain unauthorized access to computer networks in order to promote their ideologies of free speech, access to information and social justice. She noted that while the group has made many efforts, only a select few have garnered much attention, a key characteristic of an effective

protest. Her work received several inquiries from those in attendance and made an original contribution to this growing area of research in the Criminal Justice field. In the next few months, Quigley and her faculty mentor, Scott Ingram, plan on revising the work and submitting it for publication in the journal *Global Crime*.

By Dr. Ingram

Physics Students Present at Association of Physics Teachers

Before the beginning of the Spring semester, Physics students Kevin Sanders, Matthew Carnaghi, and Jacob Brooks presented at the 2014 Winter Meeting of the American Association of Physics Teachers in Orlando, Florida.

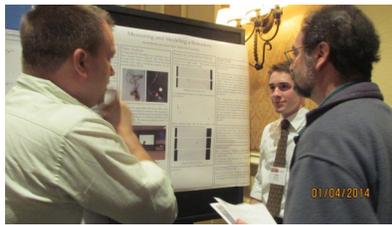
Sanders presented research that he performed in the Summer of 2013 at the European Organization for Nuclear Research (CERN), the

premier particle physics facility in the world in France and Switzerland.

Carnaghi and Brooks presented their research that began in their freshman year at High Point University and completed in the Spring and Fall of 2013. Brooks' work included collaborators Tom Dooling at UNC Pembroke and Jeff Regester at Greensboro Day School.

In addition, alumna Nikki Sanford (2013) gave an invited talk on her work as an intern for the Society of Physics Students on Capitol Hill in Summer 2013. Sanford was a Mather Policy Intern, with support from Nobel Laureate John Mather. Nikki presented her work with the House Democrats on the House Committee on Space, Science, and Technology.

By Dr. Titus



Theatre Students to Travel on Grant

Professors Jay Putnam and Matthew Emerson will accompany 13 student theatre major competitors and 4 students who will be scene partners to attend the Kennedy Center American College Theatre Festival in Roanoke, Virginia, February 4-8. This trip is supported by a grant from the Office of Undergraduate Research and Creative Works.

These students have been nominated to

represent High Point University for their outstanding work in HPU theatre productions, as adjudicated by ACTF respondents. Students David Mikulay, Courtney Feiman, Macaulley Quirk, Ashton Hunt, Heather Rossi, and Madison Jordan have been recognized as outstanding actors and will perform rehearsed scene work as part of the Irene Ryan Acting Competition.

Students Rachel Garrett and Sarah Thompson have been recognized as outstanding stage managers and will present their portfolios of work and showcase their stage managing skills during the festival.

Student Jamison Meyer has applied and has been awarded the SDC Fellowship as an outstanding director. He will direct, analyze, and rehearse a ten-minute scene in competition.

Students Nina Yassick, Ashlee Branch, DeAnna Hughes, & Chaz Duffy have applied and been awarded a place in the Devised Theatre competition. All students will also perform their work in an open workshop at High Point University on February 3.

By Jay Putnam

Additional Students Who Will Travel on URCW Grants

Ashlee Branch with Dr. Sadie Leder researched the individual's motivation to remain in a relationship based on the role of "risk regulation." The work, titled *Beauty and the Billionaire: Risk Regulation and Partner Preference*, explores the results of 92 undergraduates reading scenarios and rating the extent to which they would remain with their current partner or pursue others.

Taylor G. Wimbish, Dr. Anh-Dung Nguyen, **Jennifer Keith**, and Dr. Kevin Ford collaborated on the work *Hip Strategy During Landing Reduces Knee Abduction Moment in Collegiate Soccer Players*. In this, they analyze the evidence that females have lower external hip flexion movement than males, which shows that males favor a certain hip strategy or movement when landing. This ties in with the fact that females have more noncontact anterior cruciate ligament (ACL) injuries than males. By providing a new landing strategy, their work seeks to prevent injury in collegiate sports.

Brenn A. Bolding, Dr. James M. Smoliga, Anna K. Barter, Dr. Anh-Dung Nguyen, and Dr. Kevin Ford, also collaborated on the experiment *Sex Differences in Concussion Baseline Assessment Methods*, which explored dif-

ferences in the severity of symptoms and rate of recovery from concussion injuries. This is one of the very few studies to focus on sex differences when looking at concussions.

Alyssa R. Springer examined the effectiveness of nationally standardized mathematics and language arts by comparing two different curriculums used in K-12 schools and other public elementary schools. Her study, *A Globalized Education: A Comparative Study of the International Baccalaureate and Common Core Standards* seeks, to improve education nationally.

Stephen C. Walser and Dr. James M. Smoliga examined the ability to sense when a joint is being bent by an outside force in their study, *Reliability of Knee Joint Threshold to Detect Passive Motion Across Multiple Angles and Angular Velocities*. To obtain data, they asked volunteers to tell them when they felt their knee bending at certain angles and at certain speeds while remaining blindfolded with headphones to eliminate outside variables.

Lauren Blackwell and Dr. Smoliga's work asks whether track and field athletes competing in events with asymmetrical movements have bilateral differences in hip bone mineral density? Since tissue adapts in response to the load placed upon it, this experiment measured differences in bone mineral density (BMD) across both legs for asymmetrical movements in sports.

Sam Kizer examined interactions on the three most popular social media platforms (Facebook, Twitter, and Tumblr) for his paper **Queer Cyberactivism and its Influence on North Carolina's Amendment One**. During debates and the passage of North Carolina's Amendment One, he analyzed communications to demonstrate the raising of a new age of feminist consciousness.

Erin Graye House explored the Riot Grrrl Movement that ushered in Third Wave Feminism in *Riot Grrrls in the Cyber Age: How the Riot Grrrl Movement Has Transitioned from the Streets to the Internet*. This work explored whether or not the recent resurgence of the movement through online platforms is new and original, or if it is simply a natural progression from the past.

Find Even More Opportunities!

Have you visited our website recently? Take a look at all the new opportunities to get involved with Undergraduate Research and Creative Works.

For example, did you know that the Survey Research Center has a data-

base of information regarding politics, religion, economics, and academics, collected from polls?

Students who wish to participate in research can use and analyze these data?

The Survey Research Center focuses on

students' pursuits of interdisciplinary research and the communication of these findings to the public.

For more information, or to view *Archived Polls*, visit www.highpoint.edu/src.



Register URCW Activity

Did you know that there are four types of activity you can (and should) register with the Office of Undergraduate Research and Creative Works?

Students involved in one-on-one mentored research with a faculty member should complete the **Mentee Registry** and complete the pre-assessment measure.

The **Presentation** category should be completed when students are taking work to present at a conference. This can include works from class that have been refined for public presentation, performance, or exhibit. Currently, there are **31 students** registered for presentations this year!

The **Publication** category is for works that have been published. We are proud of the **4 students** registered for publication!

The **Competition** category includes any works in a discipline that leads to a competition. There are **21 students** registered for

Contact Us!

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www.highpoint.edu/urcw

Newsletter brought to you
by Amy King