

THE Honors Chronicle

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DECEMBER 2012

Upcoming Events

December

1: Reach Out: Book/Bake Sale – CUB 119, 8:00 a.m. – 4:00 p.m.

1: Orientation Committee: Cookie Decorating and Holiday Movie – Seavers Lounge, 2:00 p.m.

5: Recreation Committee: Death by Chocolate – Time and Location TBA

10: HSO Meeting – CUB 105, 9:00 p.m.

January

22: Deadline to apply for the 2013 PASSHE Summer Honors Program Study Abroad

29: Honors Spring Reception and General Meeting- Tuscarora Room, Reisner Hall, 3:30 p.m.

February

5: Honors Read Book Discussion: Life of Pi, Place TBA, 5:00-6:00 p.m.

National Honors Conference

Honors Students Represent SU at 2012 NCHC Conference in Boston, MA

By Miranda Aaron and Holly Plank, *Honors Seniors*

Seniors Miranda Aaron and Holly Plank, along with Honors Director Dr. Kim Klein, represented the Shippensburg University Honors Program at the 47th annual conference of the National Collegiate Honors Council, the national professional organization for Honors Programs and Colleges. The conference was held from November 14-18, 2012 in Boston, Massachusetts. The students were invited to present about their Honors experiences as education majors. The title of their presentation was “Overcoming the Challenges of Integrating Honors and Education Majors,” which complemented the conference’s theme of “Challenging Structures.” “Miranda and I were able to offer unique perspectives



about our experiences as education majors in the Honors Program,” Plank said. “She is an elementary education major, so her program does not allow for any free electives. As an Earth and Space Science Secondary Education major, my program is also highly structured. We both spoke about our individual research projects within Reach Out, the Honors Program’s service-learning project in the Dominican Republic. A number of those who attended our presentation were anxious to discover new ideas to help education majors infuse honors into their college experiences. The discussion during the question and answer section of our presentation was quite enlightening.”

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Honors Student Selected For Summer Research Program

By Katie Lazarski, *Honors Sophomore*

The Summer Undergraduate Research Experience, also known as S.U.R.E., is a new program designed by Shippensburg University to allow professors and students the opportunity to do research during the summer. The program is open to students and requires a letter of intent from both the student and the faculty adviser, along with a plan of what the research will accomplish. Out of the applicants, around ten students are then chosen to receive grants. This summer, Honors student Kelsey Mengle was chosen to participate in the program, along with her Chemistry adviser, Dr. John Richardson.

Mengle, now a sophomore, was approached by Dr. Richardson during her freshman year at Shippensburg about applying to the program. Starting directly after the Spring 2012 semester, their research centered around the absorption of light by gold and other solvents. Over the course of 100 hours this summer, Mengle helped create various ambigels, which are gel-like substances that contain colloidal gold, as well as other solvents, placed on thin films. The ambigels were then optically characterized through a process known as Attenuated Total Reflectance, or ATR. ATR consists of sending

various wavelength of light through a substance and measuring the wavelength at which light is absorbed. Once the wavelength was measured, Kelsey helped look for absorbency differences between various solvents.

The S.U.R.E. program has provided Kelsey with a variety of other opportunities. In April of 2013, Mengle will be traveling to New Orleans to present the findings of her research at the American Chemistry Society Conference. Kelsey will also continue related research with Dr. Richardson throughout the school year as well. This research will also center on absorbency, but will require Mengle to help create aragel, a substance similar to ambigel. With Dr. Richardson’s help, Kelsey will also attempt to create these substances in an indented plate, also known as a well plate, in order to make the measuring process easier. This entire research process has provided Kelsey with valuable information and knowledge that has enriched her undergraduate experience. If you are interested in participating in the S.U.R.E. program in Summer 2013, look for more information in the Honors Weekly Updates in the spring semester.

Speak OUT

Compiled by: Megan Fick, *Honors Junior*

What is the topic of your current research project?

Melissa Koontz, Senior,
“Fascinating First Graders”

“For my capstone project, I will be gathering information concerning what 1st graders think about pro-social behaviors in themselves and how those perceptions are similar to or different than those of their teacher and parents. I will also be measuring growth in their understandings of these behaviors after having classroom discussions and activities on the topics. The grant money I have been awarded will be used to purchase children’s books about pro-social behaviors.”



Grant Innerst, Sophomore,
“Counting techniques of Open-Air Events”

“I am currently working on three different undergraduate research projects right now. Currently I am working on a mathematical modeling problem having to do with the Shippensburg Corn Festival. My advisor, Dr. Ben Galluzzo, and I are trying to accurately count the number of people that attend the event. In addition to this project, I work on two other research projects with Dr. Mike Long. For one I evaluate how efficiently amusement parks are at getting people through roller coasters in comparison to what the manufacturer says they can. For the other I look at Latin Squares, Cubes, and Hyper-Cubes to find symmetry and other interesting properties. We also want to prove these properties up to n dimensions.”

Shannon Lee, Junior,
“Identification of Bacterial Isolates Using rRNA Gene sequence analysis.”

“I am identifying bacteria based on their rRNA gene sequences along with Dr. Lucinda Elliott, Dr. William Patrie, Luke Perry, and Chris Batties. We are isolating DNA from various bacterial isolates, amplifying the DNA, sequencing the DNA, and comparing the sequences to the NCBI (National Center for Biotechnology Information) database to figure out the identities of each bacterial isolate.”



Scott Karper, Honors Alumni,
Graduate Student-Classics Department, The University of Pittsburgh

“My current research—undertaken with the intent of penning a Master’s thesis—is a narratological exploration of the influence of the Greek historian Thucydides upon the Roman historian Sallust, and his portrayal of the Catilinarian Conspiracy, with particular focus on the latter author’s depiction of human nature. An increased emphasis on research in the humanities is the difference between undergraduate and graduate training in the humanities. Students interested in pursuing graduate studies in the humanities, in addition to reading works of history or literature for pleasure, should genuinely enjoy—and desire to produce—research, an activity which becomes ever-more-rewarding as an occupation.”

Rachel Aleardi, Junior,
“The Effect of Dietary Habits and the Use of Xylitol on Biofilm Formation (Plaque) in the Oral Cavity.”

“This research project will constitute the collection and analysis of samples from the oral cavities of human volunteers. Deductions will be made concerning the impact of dietary habit on the amount and variance of oral bacteria present. Using the most prevalent flora obtained from the volunteers we will explore the effectiveness of xylitol use in congruence with assigned-dental hygiene routines.”



No photo available of
Tracy Migliori

Tracy Migliori, Senior,
“In-Country, at Home: The Vietnam War as Seen by the Cumberland County.”

“I am currently researching the impact of the Vietnam War on Shippensburg University, how its experience compared to that of Dickinson College, and how they both compared to the United States as a whole. I am utilizing newspaper archives from both Shippensburg and Dickinson in order to better understand the student, faculty, and community’s opinions and understanding of the war.”



By John Watts, *Honors Sophomore*

In April, I attended a portion of the Celebration of Undergraduate Student Research. As I walked through the rows and rows of charts, posters, and well-dressed people, I was quite surprised to find that some of the research projects lacked a certain creative element to their hypotheses and correlations. I saw projects ranging from calculations for roller coasters and shorelines to promotional strategies, but there was one key element they were missing. Now before I go any further, I want to say that this is not a harsh criticism or a complaint against the projects featured in the Celebration of Undergraduate Student Research. I simply felt there were things that could be done to add a little pizzazz to the presentations. As such, I've compiled a list, which is as follows:

- 1) Less wordiness in the title for the project. Yes, the super long title is very descriptive and a bystander knows more or less exactly what they're getting themselves into if they ask about the project, but a good course of action is to keep your title short and leave it somewhat open to interpretation. For example, would your attention be effectively captured if you passed by a poster entitled "Investigations into political instability and corruption: A multidisciplinary study of the political system of the United States, with a critique on the judicial proceedings in response to allegations of political corruption", or would you be more interested in a project entitled: "Politicians are criminals... and we can prove it!" Personally, I believe that the second option is much more interesting because not only does it effectively communicate the same point as the first option, but it is also more succinct and bold, which is guaranteed to draw in a much larger crowd.
- 2) More relaxed environment. I know that the ability to be professional is important when displaying work whether it is research, designs, or even simple, regular coursework. However, a relaxed student is more inclined to present their research adequately. Essentially, professionalism is important, but people don't need to take it so seriously. The celebration should be for the benefits gained from the research, not necessarily for how professional or serious the researcher acts.
- 3) More bears. Bears are far superior to any other land animal. As such, bears should be shown the proper respect in undergraduate research. For example, for a physics related project, instead of calculating the amount of energy generated by falling liquids, such as water, try calculating the amount of energy generated by falling bears. Furthermore, calculations should be made to find a correlation between velocity and how enraged a bear is at the time of its descent. This project can easily become a multidisciplinary project by studying the causes of rage in bears and the biological and environmental impact of enraged, falling bears. Not only is this project interesting, but it is also very versatile in regards to what information can be gleaned from the experiments.

My suggestions on how to conduct undergraduate student research are by no means the only ways to conduct research, and I will not be offended if they are not necessarily taken to heart. However, if I see a relaxed, simple presentation on social patterns of enraged bears, I will be proud to say that I have contributed to the narrative of undergraduate student research for Shippensburg University.

Until next time, adieu.

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In addition to presenting, Plank also had the pleasure of participating in a panel discussion about "What Makes a Winning Honors Newsletter?" On behalf of the HSO Media Committee, she accepted the third-place award in the student produced, electronic division of the NCHC newsletter contest. "One of my favorite aspects of the conference is the opportunity to connect with students and faculty from other universities," Plank said. "We spent some time with the Honors Program Director and a student from West Chester University."

"Having the opportunity to interact with faculty and students from Honors Programs across the country is one of the most beneficial parts of the NCHC conferences," Aaron said. "We got the chance to hear about the successes and struggles of the other programs, compare them to our own program, and collaborate on ways to overcome these challenges. It is so inspiring to come back from the conferences and have so many great ideas to try!"

Along with the incredible opportunities that come along with presenting at the National Honors Conference, Aaron and Plank also had the chance to explore Boston during their free time. "Last year we spent time exploring the American Southwest at the NCHC conference in Phoenix, Arizona," Plank said. "Boston's culture is completely different. We enjoyed walking the Historic Freedom Trail which included sites such as the Paul Revere house and the site of the Boston Massacre. In addition, we got to visit Cambridge during the Harvard-Yale game, which provided for an exciting atmosphere."

"Boston was a beautiful city," Aaron agreed. "I loved getting to experience the city culture. The city is so full of life, and there are people from many backgrounds all coming together in one area."

"There are many ways to get involved with the NCHC, whether it is presenting undergraduate research at a poster presentation or round table discussion, doing an invited presentation, or becoming a student member. Attending a national or regional conference is an incredible learning experience, and I strongly encourage all Honors students to get involved," Plank said. "You will not regret it."



On Thursday, November 15, students had the opportunity to hear from a professor who is new to the Shippensburg scene, and, of course, to get some free pizza. Dr. Anca Lasc is originally from Romania, and if you are not familiar with Romania, it is the country in which Transylvania is located. Dr. Lasc earned her Ph.D. in Los Angeles, and she specializes in Art History, which is “the history of art,” so if you sign up for one of her classes, don’t fear a class asking you to make impossible drawings and sculpting like a pro. She regularly teaches Art History I, II, III, and Modern Art, along with Art Appreciation. All of these classes can fulfill a category B requirement, so if you aren’t an artist or performer and you need a gen ed, you might consider her classes.

Dr. Lasc hopes to offer an Honors course in the future. The details have not been decided, so there is still time to weigh in on what you would like to take if an Honors Art History class interests you. The Honors class would most likely be an Honors general education class offered as Art History I, II, III or Modern Art. Art History I covers ancient and medieval periods, and Art History II covers the Renaissance and Baroque periods. With either of these classes, she hopes to offer an optional study abroad component outside of the class. Art History I might be accompanied by a trip to Venice and Rome while

Art History II would be accompanied by a trip to Paris and London. She says, “It is always good to see these pieces in person, as sometimes you can be deceived by their size if you just look at them on a slide,” and of course, art is better experienced in such centers of culture and up close rather than in a classroom.

A handful of students attended, some just for the pizza, but others for personal interest. Nick McClure came “because I scheduled her for Art Appreciation in the spring; it seemed like a good opportunity to get a potential preview of the class.” The event did give an introduction to some art concepts and she had syllabi available for those interested in her courses. Dr. Lasc also presented us with some traditional pieces of art and debunked our previous beliefs that they are simply art. Two examples include the Mona Lisa as a marriage contract, and the Sistine Chapel ceiling as propaganda. Nicole Nicholson attended because of previous art history experience, “I took AP Art History and I thought it would be interesting to check out.” You can contact Dr. Lasc at alasc@ship.edu if you have an interest in any of her classes or a potential Honors course.

By Katie Benedict, *Honors Sophomore*

{ Honorable Mention }

Thank you to **Krista Bussewitz** for organizing November’s Honors Read book discussion featuring *A Conservative Walks Into a Bar: The Politics of Political Humor* by Dr. Alison Dagnes.

Congratulations to our December graduates: **Eric Hofmann, Tracy Migliori and Michael Myett**.

Thank you to **Nicole Nicholson** and **Ashley Stuck** for representing the Honors Program at the University Open House in October.

Congratulations to **Miranda Aaron, Rachel Aleardi, Teresa Cleary, Grant Innerst, Melissa Koontz, Shannon Lee, Jacob Lutter, Kelsey Mengle, Tracy Migliori, Holly Plank, and Christopher Silvia** for winning University Undergraduate Research Grants for 2012-2013.



Honors Students Participate in National Undergraduate Research Experience

By Madelyn Moyer-Keehn, *Honors Freshman*

During the summer of 2012, Jacqueline Maguire and Jacob Lutter participated in two prestigious Research Experience for Undergraduates (REU) programs through the National Science Foundation. These opportunities are given to a small number of students at universities throughout the United States. Both Macguire and Lutter are majoring in chemistry and minoring in mathematics.

Maguire found out about REU programs through her professors and other students at Shippensburg. Her program placed her at Texas A&M University where she had a hands-on experience with computational organic chemistry. Macguire’s research group, led by Dr. Steven E. Wheeler, concentrated primarily on the stacking of organic compounds. A graduate student, Jacob W. G. Bloom, mentored Macguire and taught her how to utilize the computer programs for their research. Her research was entirely computer-based, with the idea that when a reaction goes well in the programs, others will test it in a lab. This lessens costs in lab experiments because experiments can be pre-tested by computational chemists to test their effectiveness before being tested in a lab setting. Macguire specifically researched carbon nanotubes, which function as conductors for heat and electricity. Macguire will be presenting her research at a national conference for the American Chemical Society in New Orleans in April of 2013.

Lutter’s program took place at James Madison University, which is located in Harrisonburg, Virginia. He studied triblock copolymers and how they work with positively charged ions to alter the temperature at which the substances change phases. After completing his research, Lutter presented his findings at a research conference at James Madison University.

REU projects are hosted each summer at universities across the United States. They are designed to provide undergraduate students with research experiences in fields supported by the National Science Foundation. For more information, please visit http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&org=NSF.

The University Undergraduate Research Grants Program

By Amanda Schwartz, *Honors Sophomore*

It is no secret that the Honors Program has many bright and talented students. This fact is highlighted by the number of Honors students that received coveted research grants through Ship's Undergraduate Research Grant Program. This program provides financial support for undergraduates that are conducting research projects or other scholarly activities to help them better understand the scientific process, develop their analytical skills, and become better researchers. This year, the Honors Program had eleven students receive grants that range anywhere from hundreds to even thousands of dollars. The Undergraduate Research Program granted over \$60,000 this year, which shows how dedicated Shippensburg University is to supporting its students and their research. The Honors Program grant recipients and their project titles include:

Miranda Aaron, a senior early education major from Eagleville, \$183, "Implementing Special Education Strategies at the Pathways of Learning School in Santo Domingo, Dominican Republic."

Rachel Aleardi, a junior Biology major from Narvon, \$673, "The Effect of Dietary Habits and the Use of Xylitol on Biofilm Formation (Plaque) in the Oral Cavity."

Teresa Cleary, a junior Biology major from Dallastown, \$641, "Comparison of the Roles of Vision and Pheromone Detection in Courtship Behavior of *Drosophila melanogaster*."

Grant Innerst, a sophomore Mathematics major from Red Lion, \$1,190, "Counting techniques of Open Air Events."

Melissa Koontz, a senior early childhood education major from Harrisburg, \$230, "Fascinating First Graders": A Triangular Study of First Graders' Articulation and Demonstration of Key Prosocial Behaviors."

Shannon Lee, a junior biology major from Lansdale, \$1,525, "Identification of Bacterial Isolates Using rRNA Gene sequence analysis."

Jake Lutter, a senior chemistry major from New Freedom, \$1,498, "Synthesis of Novel Magnetic Anisotropic Single-Molecule Magnets."

Kelsey Mengle, a sophomore chemistry major from Carlisle, \$843, "Processing of Aerogels in Microtiter Well Plates as a Basis for Multichannel Chemical Sensing."

Tracy Migliori, a senior History major from Schnecksville, \$342, "In-Country, at Home: The Vietnam War as Seen by the Cumberland County."

Holly Plank, a senior Earth Science and secondary education major from Camp Hill, \$657, "Environmental Education: Improving Scientific Literacy through Inquiry"

Christopher Silvia, a sophomore Political Science and Psychology major from Gouldsboro, \$945, "This Lesson is a Joke: Does Political Satire Inform?"

Honors SNAPSHOTS



Honors students participated in service project by helping package Operation Christmas Child shoe boxes at a local church.



While attending the National Honors Conference in Boston, Miranda Aaron and Holly Plank, had the opportunity to visit Harvard University.

Attention Students!

*Honors Spring Reception
and General Meeting*

Tuesday, January 29th
Tuscarora Room - 3:30pm

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Editor's Corner

As the end of the semester approaches, students are rushing to complete assignments and professors are trying to complete lectures before everyone goes on break. Through all of this craziness it is difficult to think about adding something else-- like student research-- to the mix. Student research though can help students stand out when searching for jobs or applying to graduate school after graduation. All Honors students are required to complete a major research, creative or service-learning project, known as the capstone project, during their senior year. Our intent with this issue of the *Honors Chronicle* is to help students explore different options for doing undergraduate student research and encourage you to pursue undergraduate research at Shippensburg. If you have any questions about the research opportunities featured in this issue, feel free to contact us or the student currently involved in the research project. Good luck with your research and with finals! Have a joyous Holiday Season!

-Hannah and Megan
