



# Special Edition Newsletter

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Summer 2015

## Summer Bridge 2015

### Eagle STEM Summer Bridge Program Highlights

by Mary Abell, Carol Inglis, Rachel Law

#### Special points of interest:

- Visit with Winthrop's new President

#### INSIDE THIS ISSUE:

Summer Bridge Experiences	
Mentor's Comments	1
President's Visit	2
Faculty Comments	3
Lab Experiences	4
Student Comments	5
Collaboration Workshop	6
Rope Course	7

The first Winthrop Eagle STEM Scholars Summer Bridge Program to transition high school students to college began 6/23/2015 and ended 7/31/2015. Ten students participated in the approximate six week long program of academic and team building activities. These high achieving applicants were selected from underrepresented minority, first generation college or financial needs groups. Nine were from the state of South Carolina and 1 from New Jersey. Five are biology majors, 2 are chemistry majors, 2 are computer science majors, and 1 is a math major. Five are in the Honors Program and 4 are Palmetto Fellows.

Three Winthrop graduates from the first Eagle STEM Cohort Fall 2011, Ian

Deas, Brianna Murray and Jabari Robinson, who are minority students with acceptances to graduate programs at Auburn, Vanderbilt, and the University of Florida, served as Peer Mentors. They stayed with the students for the duration of the program. All students resided in Phelps Residence Hall and were allowed home visits every other weekend.

A comprehensive program was outlined including classes, workshops, speakers, peer instruction and shadowing in SURE labs. The summer bridge program was planned by the team of Dr. Pat Owens, Dr. Takita Sumter, Dr. Chasta Parker, Dr. Kathie Snyder, Dr. Cliff Harris, and Rachel Law.

See **HIGHLIGHTS** page 8

### What did the Mentors Think About Summer Bridge?

Ian Deas - I believe the Eagle STEM Summer Bridge experience was essential for the academic success of incoming scholars. The ability to take classes together before the start of their fall semester not only prepared them for the academic rigors of Winthrop STEM majors, it also helped to develop a strong cohort relationship

that is critical to success in STEM fields.

The relationships that they have created with program staff, professors, and even Dr. Mahony of Winthrop will benefit them far beyond their under-



Deas

See **MENTORS** page 2

## Visit with Winthrop's New President

The Eagle STEM Summer Bridge Scholars were honored to have Winthrop's President, Dan Mahony, spend time discussing the program and his plans for Winthrop shortly after he assumed his new position.



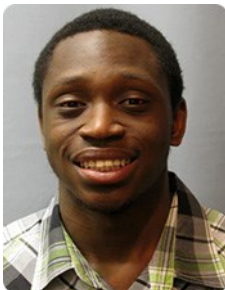
Dr. Mahony



### MENTORS continued from front

graduate years. It was a pleasure to mentor the next cohort of Eagle STEM Scholars and to assist them when necessary. I have learned much from them as well and I am confident that they will excel in the future. ■

Jabari Robinson - I really enjoyed being a Peer Mentor for the Eagle STEM Summer Bridge Program. The Summer Bridge allowed incoming freshmen to get a real taste of college so that they can be more prepared coming in the fall semester. Being able to pass on helpful and realistic advice on how to not only survive, but be successful in their four years was thrilling for me. I believe that these ten students will do great things while they are at Winthrop, and the Summer Bridge Program was a huge component to their future success. ■



Robinson



## Faculty's Comments on the Summer Bridge Program

Doctor Cliff Harris - "This summer was a very exciting period in our program's history as we were able to take the next step towards becoming one of the nation's premier STEM scholarship programs. The summer bridge program was a great success, and was well received by all parties. The students were able to get off to a very strong start academically, and also in terms of networking and research exposure. The skills and lessons learned will undoubtedly distinguish them from their peers moving forward in their academic careers. I can already see the growth and preparedness of our scholars, and I anticipate a bright future for our program." ■

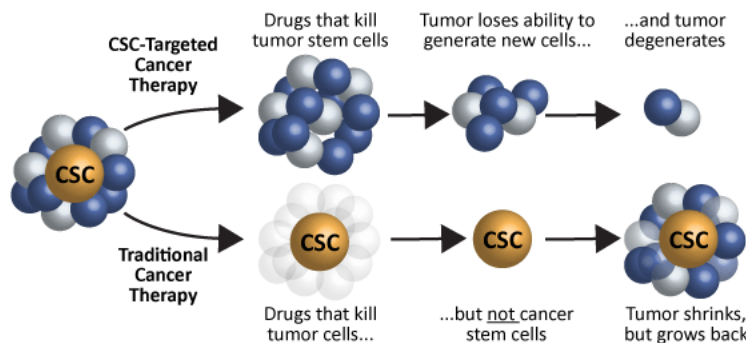


Harris

Doctor Kristen Abernathy allowed students to shadow in her SURE lab. "In the Mathematics Cancer Research Lab, students used ordinary differential equations to model the interaction between cancer stem cell, tumor cell, and healthy cell populations. With this model in place, students ran numerical simulations with Mathematica and performed a basic stability analysis. Students were able to establish conditions on biological parameters that would ensure a locally stable cancer persistence state, in which the healthy cell population is eradicated, as well as a coexistence state between all three cell populations." ■



Abernathy



[http://www.macrogenics.com/Platforms-cancer\\_stem\\_cells\\_csc.html](http://www.macrogenics.com/Platforms-cancer_stem_cells_csc.html)

Doctor Jason Hurlbert - "Both of the students that I had were very eager to jump on to the lab bench. The first student was able to identify a condition suitable for the expression of protein and was able to grow 6L of cells, purify the recombinant protein and analyze the results by gel electrophoresis. The second student transformed a couple of Escherichia coli strains with a plasmid encoding a recombinant protein and then quantitate her results. Both students were well prepared and it was obvious that the Bridge Program had a significant impact on them and had helped them get ready for college chemistry. I asked both students to consider coming back to the lab for a CHEM108H experience in the Spring semester." ■



Hurlbert

Doctor Takita Sumter - "This program provides students with the essential skills needed to succeed in college. They participated in a shadowing experience in my lab as a first exposure to the research activities in the sciences and were then able to present primary research of interest to them. The oral presentations were very impressive and covered a broad range of topics." ■



Sumter

# Summer Bridge Lab Experiences



## What did the Students Think About Summer Bridge?

**Jordan Lawson** - I really loved Summer Bridge. It was the most fun I've had so far away from home. Being here was essential for how I survived the first few weeks of college. I learned all the little details from where buildings are on campus to when it is the best time to go somewhere in order to beat the crowd. I believe this gave me a clear advantage. If you want to take college seriously, don't hesitate when an offer as good as STEM Summer Bridge comes up. "If you can make it, it'll make you." ■



Lawson

**Rex Tuttle** - In my opinion, Summer Bridge was an experience that helped me find a quick footing into college. Taking a basic class allowed me to get the feel for how a class would be run and how much effort was needed. It also helped me find a group of friends before the possibility of being overwhelmed by the fall semester. ■



Tuttle

**Hunter Sellers** - *"Most beneficial thing that we could have done to get us ready for the fall."*

**Theodora Sanoullis** - The Summer Bridge Program was an amazing experience to better prepare me for college. Starting my networking as an incoming freshman was such an honor as an Eagle STEM Scholar. Having a strict schedule was tough, but so worth it in the end with 6 extra college credits that were free. Mandatory study halls every night was a great idea. The discipline I received throughout the 6 weeks has carried with me to my first semester. I now practice better study habits and note-taking. Yes, it was definitely worth giving up my summer! ■



Sanoullis

**Sarai Ortega** - *"Really liked it.. It will give us an edge"*

**Brittney Haney** - I thought Summer Bridge was a wonderful idea and I loved the SURE research labs, but I do wish we would have had more time in them as well as more time in general. The program definitely helped prepare me for college because I already knew some of the professors and what was expected of us. The program was certainly worth giving up my summer because of the research labs, opportunities to get to know some of the professors, and the connections we formed as a cohort. ■



Haney

**Ashley Di Falco** - I thought Summer Bridge was a great experience. It was an intense 6 weeks that benefitted most of us. Summer Bridge prepared me for college by dealing with work load, fast paced courses, and time management. The summer bridge program was worth giving my summer up because I am ahead of the game and have the general knowledge for my chemistry class refreshed, unlike most of my classmates. ■



Di Falco

**Jaris Cochran** - *"Very beneficial, received 6 credits, making friends, better perspective, mentally prepared"*

**Sydney McCall** - *"Liked the SURE Lab, the open book for computer science and the length of time."*

**Tanisha Moore** - The Summer Bridge was a fun and interesting experience. At first, yes it was scary leaving home and knowing I had to spend my entire summer at Winthrop, but as it went along I had a lot of fun, made new friends, and experienced many new things! It has helped me prepare for college because many of the things that incoming freshmen may go through, I have already experienced. But when I went through it, I had support from friends and staff who never let me down. I do think it was worth giving up my summer because I got free college credit, many learning experiences, and just had a good time overall! ■



Moore

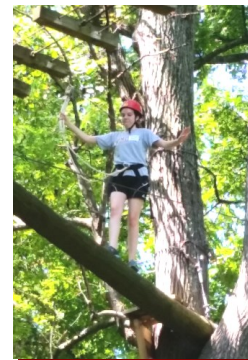
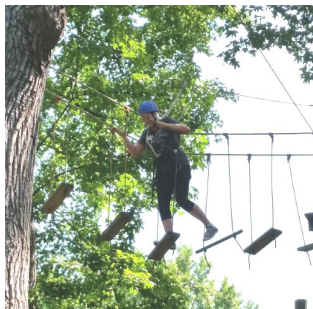
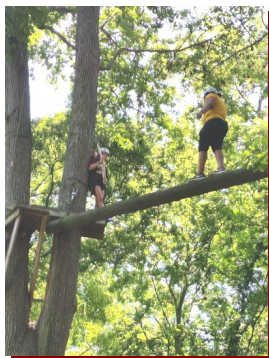
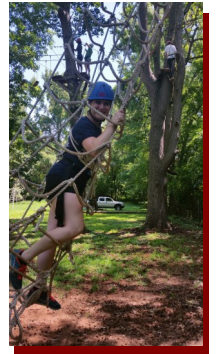
## Collaboration Workshop

Led by  
Robert Johnson, President & CEO, Interactive Communication Systems, Inc.



# Team Building / Ropes Course

Led by  
Geoff Morrow, Director Winthrop Outdoor Education Center



**HIGHLIGHTS** continued from front

In addition to their classes, students participated in several workshops as listed below to help prepare them for academic success during the upcoming semester and throughout their time at Winthrop.

- Academic Expectations & Integrity – Carol Inglis, Program Assistant, Former High School Chemistry Teacher, Winthrop Alumnae, Former Eagle STEM GA
- Academic Success – Amy Moore, Winthrop Alumnae, Butler HS, Charlotte, NC Chemistry Teacher, Former Eagle STEM GA
- Collaboration – Robert Johnson, Duke University Corporate, Business Consultant, UNC BS Chemistry
- Time Management, Short & Long Term Goals – Kim Howard, Assistant Director, Academic Success Center (ASC), USC Alumnae
- Career Opportunities – Dr. Ray Robertson, Ph. D. Cellulose Derivatives, Hoechst Celanese Research Associate
- Study Strategies – Kim Howard, ASC

The two classes for credit were CSCI 151H, taught by Dr. Chlotia Garrison and Dr. Will Thacker, and CHEM 104H, taught by Dr. Cliff Harris. Students also

participated in a writing workshop, taught by Dr. Marilyn Montgomery, and a lab techniques class, taught by Dr. Kathie Snyder.

After the students completed their lab techniques class, each student had the opportunity to shadow in two Summer Undergraduate Research Experience (SURE) research labs. Dr. Kristin Abernathy, Dr. Eric Birgbauer, Dr. Nick Grossoehme, Dr. Cliff Harris, Dr. Jason Hurlbert, Dr. Julian Smith, Dr. Matt Stern, and Dr. Takita Sumter each volunteered their time to allow the summer bridge students to participate in their labs.

The peer mentors played a key role throughout the summer, planning peer instruction and social activities. During peer instruction, the peer mentors covered a wide range of topics to better prepare the students for their freshmen year at Winthrop.

Social Activities included lunches off campus, laser tag, bowling, movies, ropes course / team building (Geoff Morrow, Director, Winthrop Outdoor Education Center), a cookout sponsored by Remedy Church, and a trip to Riverbanks Zoo.

As a result of the summer bridge program, these ten incoming freshmen feel better prepared and ready to start their freshmen year at Winthrop. ■

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### Eagle STEM Scholars Program

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We're on the Web  
[eaglestem.winthrop.edu](http://eaglestem.winthrop.edu)

The Eagle STEM Scholars Program was formed as a result of the INBRE II diversity initiative to effectively matriculate more students from diverse groups into biomedical science Ph.D. programs. Winthrop, because of its diverse population of students, is uniquely poised to increase the number of under-represented minority, low income and first generation undergraduates in South Carolina who matriculate into Ph.D. biomedical science, bioengineering, biochemistry, biology and chemistry programs. It is taking steps to move over the next two decades towards national leadership in this area.