

New Fabrication Lab construction begins

By BETTY LIU
Editor-in-Chief

As many have no doubt noticed, there is a large construction project taking place next to the Art Garden by the Reynolds building. This is to be the site of the new fabrication lab, an engineering lab that offers equipment for students interested in pursuing fields such as robotics and other more hands-on fields of



Photo courtesy of Chichi Zhu

Construction on the Peter T. Haughton Fabrication Lab began in mid-June and will finish mid-September.

science and engineering.

The concept of a fabrication lab, or "fab lab" for short, is well-suited for a STEM school like NCSSM. Joe LoBuglio, NCSSM instructor of engineering, describes the lab as "a maker's space for students to bring creations to life." Indeed, the lab seems to be a dream come true for engineers and other visionaries.

The new lab will come well-stocked, offering a variety of tools ranging from regular hand tools to computer controlled cutting machines. The lab also offers machines such as a 3-D Printer and a laser cutter, both of which can be used by students after some training.

The planning for the lab began late in 2012, with construction beginning during

Duke University where he earned a bachelor's degree in mathematics and public policy in 1993. Two years later, Haughton also earned a B.S. in engineering from North Carolina State University.

After graduating from North Carolina State University, Haughton went on to work at IBM in Hillsborough, NC, before returning to his education. In 2002, Haughton became a part of the Massachusetts Institute Program, Leaders for Manufacturing (LFM), and graduated with a master's degree in business from the Sloan School of Business.

Throughout his life, Haughton was a talented woodworker and mechanical engineer, often designing innovative furniture for his friends and relatives. He also harbored a lifelong love of Legos, which he collected from all over the world. After his passing, a group of his classmates from NCSSM raised a significant amount of money to contribute to the construction of the fabrication lab and suggested honoring Haughton in the name.

A reunion for this class will be held sometime in October, where there will also be a ribbon-cutting ceremony to celebrate the completion of the new lab.

Immigration crisis looms, Congress falters

By ADAM HUDSON
Staff Writer

Since 2012, increasing numbers of unaccompanied children from Central American countries have immigrated to the US. While originally most of these children were from Mexico, in recent years, their origins have been from other, more southern countries such as Honduras, Guatemala, and El Salvador.

More than 50,000 of these children, most of whom are unattended by adults, have arrived at the country's borders since October of 2013, ten times more than the number of immigrants from 2009. This influx is thought to be caused by violence and strife in Central America, from which the children are fleeing.

These children do not avoid law enforcement, but rather turn themselves in, hoping to be allowed citizenship. Unfortunately, due to a 2008 law that requires a court hearing for all illegal underage Central American immigrants before they are deported, these children may be forced to stay in limbo for years by the country's insufficient processing facilities, awaiting

a hearing. Immigration courts and other facilities have been overwhelmed by the surge of child immigrants and are unable to give them trials quickly.

In order to solve this problem, President Obama has called for nearly \$4 billion of emergency funds to be directed at processing these immigrants, saying that the crisis is an "urgent humanitarian situation."

This money would be spent setting up more detention facilities and hiring immigration judges and Border Patrol agents, among other things. Republican lawmakers accuse the president of not enforcing the immigration law strictly enough and therefore oppose the appropriation of funds for this problem.

According to one member of the House Appropriations Committee, a Republican, the president was irresponsible and "is requesting a \$3.7 billion bailout from the taxpayers to rectify his mistakes."

Conservative politicians also feel that this use of funds does not address the underlying cause of the crisis with proper policy changes, such as ensuring that illegal

immigrants show up at their hearings. Senator McCain went so far as to call for the repeal of the 2008 law requiring hearings, which was implemented to fight human trafficking, stating that all illegal immigrants should be immediately deported.

On the other end of the political spectrum, Craig Fugate, Administrator of the Federal Emergency Management Agency, under the US Department of Homeland Security, took a more humanitarian approach, reminding fellow politicians that they were dealing with a "large number of small children, without their parents... hungry, thirsty, exhausted, scared, and vulnerable."

Possible policy changes suggested by lawmakers include making it easier for illegal child immigrants to become citizens, along with the aforementioned proposed repeal of the 2008 legislation.

In whatever way the lawmakers choose to address this crisis, it is imperative that they remember to act empathetically in favor of all people, without the lens of xenophobia coloring their vision.

Students excel in Summer Research

By REBECCA LIU
Opinions Editor

While many students were vacationing, perusing Netflix, doing their required summer service learning, or even going on college visits, about 90 of NCSSM's residential and online students decided to sacrifice a vast swath of their summer—every day from 8 AM to 5 PM, June 13 to July 25—to participating in NCSSM's Summer Research and Internship program.

Students conducted research and internships at a number of prestigious institutions and companies, such as Lenovo, the National Institute of Environmental Health Sciences (NIEHS), Engineering World Health (EWH), Duke University, and UNC-CH, NC State, NC Central University (NCCU), Meredith College, and NCSSM, to name a few.

Many of these opportunities were found and arranged by Sarah Shoemaker, the research and mentorship coordinator. She has expanded the program from last year, when there were approximately 70 students.

This year, many new

followed.

The students who participated found their experiences very rewarding. Teresa Meng, a current senior who studied DNA Polymerase III of E. Coli at NIEHS, stated that she enjoyed her research, and that that it was a "valuable experience." She continued, saying that during her internship she "learned a lot about biotech," and that she "starting thinking more about grad school and medical school" because of the seminar programs NIEHS would provide for their interns.

When asked about his research experience, Auston Li—who interned at Lenovo, testing the power usage of Next Generation Thinkstation Computers—claimed that "[his] time at Lenovo was very impactful." He elaborated further, describing how he was "exposed to a corporate working environment, high caliber computer technology, as well as many skilled Development Lab workers."

He was very impressed by the software and programs he used, and concluded that "if offered a similar opportunity, it



Photo courtesy of Nina Sannes

Seniors Alyanna Ridimann (left) and Nina Sannes (right) pose in front of Duke University's Nuclear Reactor. Students used similar facilities to conduct their summer research.

opportunities were added, such as a chance to research at NCCU, or at EWH.

Jonathan Bennett, physics instructor, was the faculty sponsor of the students interested in conducting their own research in the field of physics on NCSSM's very own campus. Bennett also helped sponsor the students conducting research at NCCU.

Michael Bruno, chemistry instructor, was the mentor for Chemistry research on NCSSM's campus.

The students who participated in the summer research and internship program shared their research experiences at the Summer Research Symposium on July 25.

Many parents, mentors, NCSSM staff, and students of the NCSSM Summer Leadership program were in attendance. The symposium began with a poster session, where 14 of the students presented their research. A series of concurrent talks

would be one that [he] would take in a heartbeat."

Michael An and Seth Teague, two of the seniors who had the fortune of researching at NCCU under Dr. Marvin Wu, researched the synthesis of graphene. Michael An spoke passionately about his research, describing graphene, his methods and goals for growing it. He also emphasized how much he learned at NCCU.

"I certainly learned some lab and analytical techniques, such as SEM and Raman microscopy, in my time at the lab," An said. "I became familiar with the process of determining the sources of error in these situations, and I believe that such a skill is useful for any research student."

An also stated that he is unfortunately unable to continue this project during the school year, but says: "I think that the program is good for people with little experience in research who are interested in physics."