



Career Academies  
of the Wake County Public School System



# Southeast Raleigh Magnet High School

## NAF Academy of Engineering Newsletter

VOLUME 5, ISSUE 1

NOVEMBER 2017

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Notice of Non-Discrimination: In compliance with federal law, Wake County Public School System administers all education programs, employment activities and admissions without discrimination against any person on the basis of gender, race, color, religion, national origin, age or disability.

## New Principal, New Theme & a Grant!

We began the school year by welcoming our new Principal, Dr. Stephanie Smith. She is a big supporter of our academies and our students. I hope you get a chance to meet her soon.

Our new theme is SRMHS - University Connections, School of Design, Arts and Engineering. Yes that's a mouthful, but it really explains our mission. We have a staff member who is responsible for reaching out to universities and making those connections.

In September we learned that, along with three elementary schools, we received the \$14,900,000 MSAP Grant. With the grant we are planning to do some building renovations by converting the locker bays into collaborative work spaces. We also will add a lot of technology, like 50" HD TV's for presentations and a high tech prototyping lab in the engineering wing.

This issue includes the events of last Spring as well as this from this semester. Last semester was chock full of OLEs as well as Lenovo in the Classroom day and culminated with an awesome senior graduation banquet.

This semester we have had more parents join our Academy Advisory board, making it the strongest ever. They are helping with fundraising, securing internships, court-ing new industry partners and much more. Remember, anyone is welcome to attend any board meeting, so come on out., John Geraghty - NAF Academy of Engineering Coordinator

Help the Academy raise money when you shop.

When you do your holiday shopping make sure you use Smile Amazon as we will get .5% of sales.

<https://smile.amazon.com/ch/46-0953611>

### Important Dates:

**EXAMS:** Dec. 7 - 15, check the schedule to see when your actual exam will take place.

### Advisory Board Meetings:

Jan 10th - 7:30 am

Feb 8th - 6:00 pm

Mar 7th - 7:30 am

Apr 11th - 7:30 am

May 9th - 7:30 am

**Senior Banquet** - May 22nd

**Graduation** - May 24th

# Spring 2017 - Activities

## NAF Academy of Engineering CLASS OF 2017

Off they go to:

NCSU  
NC A&T  
ECU  
UNC  
Virginia Tech  
Wake Tech  
National Guard



In May, the advisory board sponsored a wonderful senior banquet. There was lots of food, a guest speaker and \$3500 awarded in scholarships.

Lenovo VP - Michael Saad was a wonderful guest speaker who gave the students a lot to think about.





# Spring 2017 - Activities

On April 2nd the FIRST Robodogs competed in the State competition at Campbell University. They accumulated enough points to qualify for a trip to Houston to compete in the World Championships.



“This program is transforming lives and communities,” said Marie Hopper, President of FIRST North Carolina, adding, “Showing parents and students the enormous potential for well-paying jobs and meaningful careers is creating a ripple effect that will go far into the future.”



“FIRST provides the opportunity for high school students to work on real, complex engineering design projects. It is a great preparation for pursuing an engineering degree in college.”

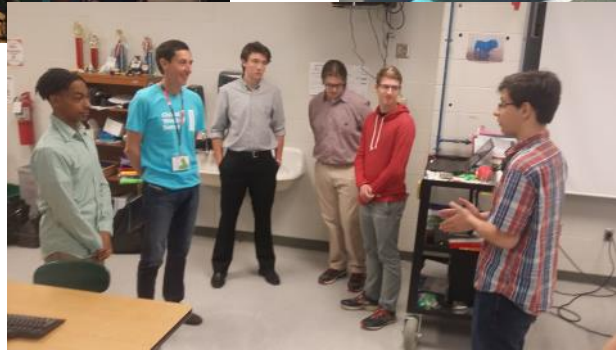
Jenna Carpenter  
Dean of the College of Engineering at  
Campbell University.



# Spring 2017 - Activities

## Lenovo in the Classroom

In April Lenovo brought 60 employees out to the school to participate in a variety of events including classroom career discussions and mock interviews. Fun was had by all.



## Fuller Elementary - STEM Day



Also in April three students volunteered to go to Fuller Elementary for their STEM Day. Sydney Brown, Mariah Lassiter and Martin Cabrera-Lopez taught students about problem solving, engineering and careers. Then they led them in a problem solving activity where they had to transport a cargo (Lego piece) along a fishing line as far as possible given the provided materials.



# Spring 2017 - Activities

## Harris Nuclear Plant OLE

Also in April the POE students went on an OLE to the Shearon Harris Nuclear Plant in New Hill. They toured their material science lab where they learned about failure analysis. They also got to do a scavenger hunt around the visitor's center.



AJ practicing to be a security guard.



## Girls Power Tech

We brought five students to Cisco where they participated in Girls Power Tech.



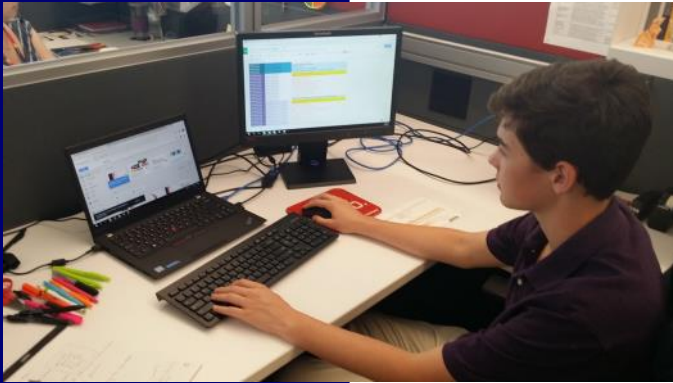


Lenovo Internships

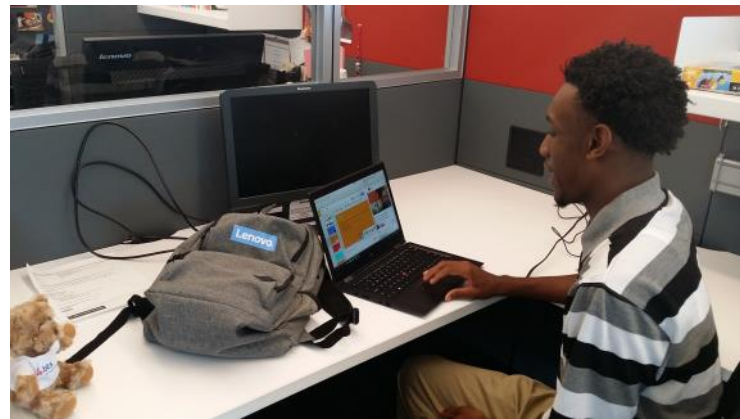
# Summer Internships

We had 6 students selected to participate in the internship program at Lenovo.

Jordan Parrott



Akeem Blalock-Cotton

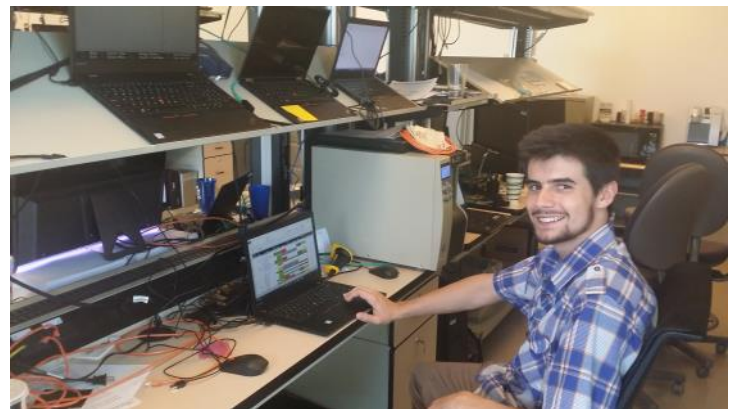


Allen Gaines



Kendra Canegata

Caleb Via



Amon Ferrell - not pictured

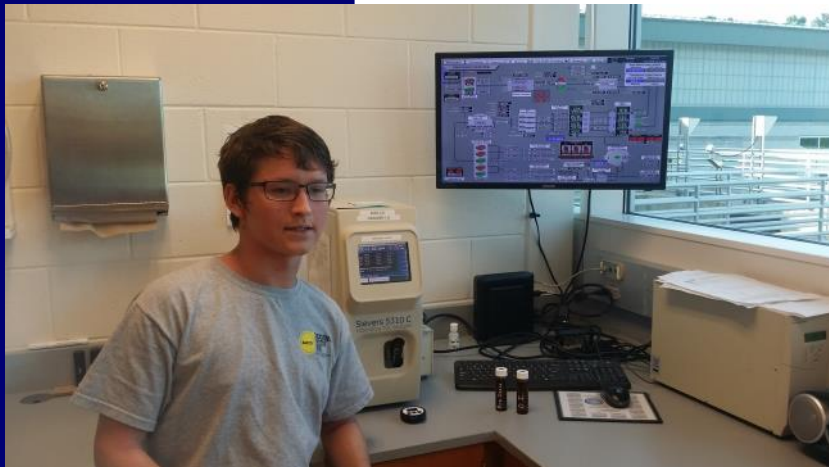
# Summer Internships - Continued

## Other Internships

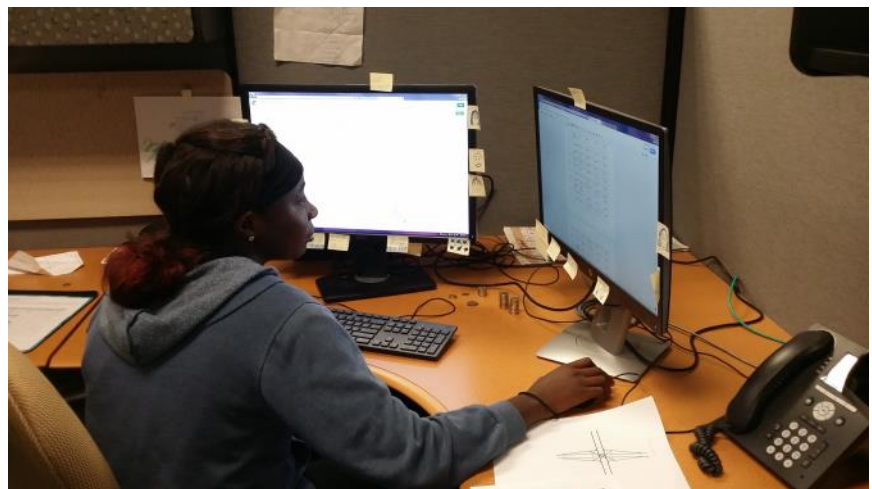
Other internships included Michael Webb at Extreme Networks



Seth Dilday at the Dempsey Water Treatment plant in Garner.



And Jordan Gary at the Dept. of Transportation.





Delta's National Flight Academy

# Summer Experiences

Each summer **Junior Achievement of Eastern North Carolina** sponsors students to attend the National Flight Academy in Pensacola Florida. In the summer of 2016 we had only one student selected, Akeem Blalock-Cotton, but this past summer we had four. Tyree Jones, McKenzie Belt, Logan Bennett and Max Perreault were selected to attend this awesome experience.

The attendees were housed on a mock aircraft carrier complete with sirens and other sound effects to make the experience feel very real. They learned about flight planning and how to fly in a flight simulator. Be on the lookout for applications for next summer.





# Fall Activities

## Junior Achievement of Eastern NC

In August, **Junior Achievement of Eastern North Carolina** held their volunteer appreciation breakfast. They asked if Max Perreault would talk about his experience this summer at the Delta National Flight Academy. He spoke in front of over 200 people and did a great job.

He then schmoozed with the president of Delta RDU.



Also in August **Junior Achievement** set up a nice OLE to **Microsoft** where the students learned about SWAY, their presentation software.



## Microsoft OLE



## College and Career Fair

Over 350 students took advantage of our annual College and Career day organized by Ms. Frazier. Students went around to over 50 booths representing various colleges, businesses and the military.

Thank you to the Presenters:

- Verizon
- Siemens
- Eaton
- Zaxby's
- SECU
- DA Everett Construction
- NCSU
- ECU
- Meredith
- Fayetteville State
- Winston-Salem State
- NC A&T
- US Marines
- US Navy
- National Guard

# Fall - Activities





Selling SRMHS

From the end of September through January we are traveling the county recruiting at middle schools. Our Magnet Coordinator, Ms. Audette organizes everyone including; the marching band, chorus, dance team, VEX robotics, and student leaders to entertain the 8th graders. The highlight of these events are the student leaders who talk about all of our unique programs, like our academies.

We visit:

- Centennial
- Moore Square
- Heritage
- Ligon
- Carnage
- Martin
- West Lake
- Lufkin Rd
- Zebulon

Our students are also great at the Talks and Tours.

# Fall Activities - Recruitment



Ms. Audette opens up the recruitment visit to Moore Square Middle School.

Gabriel Adamson talks about the Engineering Academy and the VEX Robotics club.



The band kicks off the recruitment trip to Heritage Middle School

Michael Mann and other school leaders talk about our unique programs in front of 300 8th graders at Heritage Middle School.



Families gather for a talk and tour at SRMHS



Off-Site Learning Experiences

Delta Airlines

# Fall Activities - OLEs

In October Junior Achievement set up a GREAT OLE to Delta Airlines to investigate how commercial airlines work.





## STEM Expo

In November Ms. Sutton and I took over 30 students to the STEM Expo in RTP.

Students participated in the STEM fair, where they networked with business professionals and college representatives.

They also participated in speed mentoring. But their favorite rotation was the food truck rodeo.



# Fall Activities - OLEs



MetLife

Once again **Junior Achievement** set up a great learning experience at MetLife. We brought 19 students to the **MetLife Global Technology Center** in Cary. Students learned about how the company is not just about selling insurance. They are cutting edge with their technology and app development.

They had the opportunity to eat lunch with some employees and network.

After lunch they learned a little coding using Khan Academy.

# Fall Activities - OLEs



MetLife's Vice President Binu Thomas entertained the students by giving them some great advice.





# Fall - Experiences

## WRAL

The SRMHS Brain Game team, coached by Mr. Remy, competed on Nov. 11. Three of the four team members were Engineering Academy students; Jack Gelm, Thomas Mansfield and Seth Dilday. The fourth team member was a Bio-Med Academy student Maddie Fry. Their game will be aired on WRAL on Dec. 16th at 11:00am.



Seth, Thomas and Maddie getting ready for their match. Jack was the alternate.

From the student's viewpoint.



Mark Roberts was a really good host who made them feel very comfortable.

## Lunch and Learn

Our Academy Advisory board Chairman, Dennis Stafford, invited three engineers from Siemens to come talk to our students during our first Lunch-n-Learn on October 13th. Our students were very impressed with their knowledge.



**NAF**Learn more at  
[NAF.org](http://NAF.org)

# NAF Update

I attended the NAF summer conference in Dallas this past July. While there, I attended workshops and learned some good ideas about Advisory Boards, Internships, Fundraising and much more.

This semester I have been working on our annual NAF Academy Assessment. This is a rigorous process we have to go through which involves data collecting and evaluating how our academy functions.

**History of NAF:**

The National Academy Foundation (NAF) started with an Academy of Finance in 1982 in New York. Currently there are 667 NAF Academies serving 82,000 students in 38 states. In 2014 – 97% of NAF students graduated and 93% went on to higher education. SRMHS became a NAF Academy during the 2013-2014 school year.

**Benefits of being a NAF Certified School:**

Access to a network of partner companies: Cisco, KMPG, Verizon, Lenovo, HP, EMC2 , AT&T etc. NAFTrack Certification

**Other NAF Academies in WCPSS:**

Apex - Academy of Information Technology

Enloe - Academy of Health Sciences

Sanderson - Academy of Finance

**NAFTrack Certification**

Students can get NAFTrack certified if:

Earn a B or better in all Academy classes

Score a 5 on the PLTW end of course assessment

Complete a PAID internship of at least 120 hours

**Benefits of NAFTrack Certification:**

- Pre-interview and resume support as well as post interview feedback and coaching.
- Guaranteed job interview and priority hiring
- Potentially higher starting salary
- Potentially expedited advancement in the hiring process
- Priority hiring among equally qualified applicant pools
- Paid high school and college internship opportunities



## **Scheduling information:**

In a few months students will be selecting their classes for the upcoming school year. I wanted to give you the course sequence and which specialization courses will be offered when so you can plan ahead.

9th Grade - Introduction to Engineering Design

10th Grade - Principles of Engineering

11th Grade - Choice of Specialization Course - Only 2 offered each year.

Aerospace Engineering

Civil and Architectural Engineering

Digital Electronics

12th Grade - Engineering Design and Development

That is how it should work in a perfect world but we all know nothing is always perfect. Therefore some students may have to take POE as a junior and depending on which specialization course you want, you may have to double up one year. Here is the specialization course rotation for your future planning.

2017-18 - AE and DE (no CEA)

2018-19 - DE and CEA (no AE)

2019-20 - CEA and AE (no DE)

2020-21 - AE and DE (no CEA)

As always, let me know if you have any questions.

### **Key for the Academy Acronyms**

PLTW - Project Lead the Way

IED - Introduction to Engineering Design

POE - Principles of Engineering

DE - Digital Electronics

AE - Aerospace Engineering

CEA - Civil Engineering and Architecture

EDD - Engineering Design and Development

NAF - National Academy Foundation

CDC - Career Development Coordinator

CA - Career Academy

CDF - Career Development Facilitator

## Here are some ways that you can volunteer:

Present to classes:

A specific Engineering topic

Their Career in Engineering

Job Readiness - Interviewing, Resume writing, Soft Skills

Help in class with projects.

Judge EDD projects - May 2018

Be a Mentor/e-mentor for internships, grad projects or other

Be a Tutor for students who are struggling

Participate in fundraising events

Chaperone field trips

Help with after school clubs - FIRST, Vex Robotics

**Contact me if you are interested in getting more involved at SRMHS.  
*[jgeraghty@wcpss.net](mailto:jgeraghty@wcpss.net)***

### Important Links and Information

Mr. Geraghty - [jgeraghty@wcpss.net](mailto:jgeraghty@wcpss.net)

Mr. Barnes - [abarnes4@wcpss.net](mailto:abarnes4@wcpss.net)

Mr. Meserve - [smeserve@wcpss.net](mailto:smeserve@wcpss.net)  
<https://mrmeservesclass.weebly.com/>

Mr. Welker - [mwelker@wcpss.net](mailto:mwelker@wcpss.net)  
<http://welkersclass.weebly.com/>

Follow the Engineering Academy on Twitter  
[@SEengAcademy1](https://twitter.com/SEengAcademy1)

<http://southeastraleigheab.weebly.com/>



## **SPRING 2017 “A” HONOR ROLL**

2019	Belscher, Emma
2018	Gelm, Jack
2019	Mansfield, Thomas
2020	Parrott, Jake
2018	Parrott, Jordan
2020	Snell, Lundy
2020	Williams, Breeyonna

**CONGRATULATIONS!!!!**

**SRMHS - NAF Academy of Engineering Honor Roll**

## SPRING 2017 “A / B” HONOR ROLL

2019	Absillis, Tanguy
2018	Adamson, Gabriel
2020	Bellamy, Michael
2020	Belt, Mackenzie
2018	Bennett, Logan
2018	Blalock-Cotton, Akeem
2020	Boylan, Emmarose
2019	Brown, Sydney
2018	Bryan, William
2018	Canegata, Kendra
2019	Chaverra Cordoba, Yeiry
2020	Collins, Jason
2019	Cooper, Burns
2020	Cruz-Martinez, Jaheel
2018	Cullen, Shane
2019	De Guzman, Zachary
2018	Dilday, Seth
2019	Eckhoff, Nathan
2018	Gaines, Allen
2018	Gary, Jordan
2020	Guerra Quesada, Natalia
2018	Hargrove-Raphael, Nile
2020	Harris, McLean
2020	Hill, Emari

2019	Howard, Justin
2019	Kaheel, Abanoub
2020	Kneeley, Hyatt
2019	Mann, Michael
2018	McKenzie-Perry, Kiara
2020	Medina Martinez, Luis
2018	Mitchell, Roman
2020	Moore, Coleman
2020	Murphy, Chance
2018	Orsak, Nathaniel
2019	Otis, Gabriel
2019	Protz, Andrew
2020	Ray, Rogerick
2020	Rodgers, Zyon
2019	Russel, Brandon
2018	Spiliopoulos, Aaron
2019	Toms, Tyler
2018	Via, Caleb
2018	Wainaina, Steven
2018	Walker, Essence
2018	Webb, Michael
2020	Webb, Ryan
2020	Williams, Brian

# CONGRATULATIONS!!!!

SRMHS - NAF Academy of Engineering Honor Roll