TechSavvy

A program of AAUW

The University of North Carolina at Greensboro
Sullivan Science Building

Saturday, March 28, 2015

Welcome

Dear Tech Savvy Participants:

We are very thankful to American Association of University Women (AAUW) for making this opportunity available to the Greensboro Community. We are one of 17 sites selected nationally to host this STEM&M (Science, Technology, Engineering, Mathematics and Medicine) event for girls in grades 6 through 9 and their parents/guardians to further their awareness about STEM&M education and career paths. The day also includes a "Savvy Skills" (critical non-technical skills) session for students.

This event was made possible with the collaboration of AAUW Greensboro Branch, University of North Carolina Greensboro (UNCG), the Joint School of Nanoscience and Nanoengineering, NC A & T State University, Guilford College, Guilford Technical Community College, Guilford County Schools, Girls Scouts Carolinas Peaks to Piedmont, and Grimsley FIRST Robotics. In addition to funding from AAUW, we are extremely thankful to other sponsors: Mattel Inc. and Dr. Kathy Loyd, UNCG, Syngenta, Lincoln Financial Group, HondaJet, Evonik and other donors recognized at the end of the booklet.

On behalf of the session leaders, speakers and volunteers, we welcome you to an exciting and informative day. We are helping these young girls to learn more about STEM&M education and careers, as well as important professional skills. They will be the future scientists, technology professionals, engineers, physicists, chemists and mathematicians!

Thank you for joining us this year. Feel free to talk to the program coordinators, the session leaders, presenters or volunteers if you have any questions during the event.

Get ready to learn, create and have fun!

Deepshikha Shukla, Ph. D.
Tech Savvy Co-Chair
The University of North Carolina at Greensboro
AAUW Greensboro Branch Member

Lakshmi Iyer, Ph.D.
Tech Savvy Co-Chair and IT is for Girls! Summer Program Director
The University of North Carolina at Greensboro
AAUW Greensboro Branch Board Member and STEM&M Director

Mrs. Mary Fran Schickedantz
Tech Savvy Co-Chair & Marketing coordinator
AAUW Greensboro Branch Board Member and Treasurer

SCHEDULE

Program for Girls - 2 STEM&M Sessions & 1 Savvy Skills Session

Time	Girl's Schedule	Adult's Schedule
8.15 to 8.50 am	Registration/breakfast (Lobby)	Registration/breakfast (Lobby)
8.50 to 9.05 am	Pre-survey (**Sullivan 101**)	Pre-survey (**Sullivan 101**)
9.10 to 9.30 am	Welcome by Cheryl Wheaton, President, AAUW-Greensboro Branch **Keynote Speaker** – Dr. Kathy Loyd (**Sullivan 101**)	Welcome by Cheryl Wheaton, President, AAUW-Greensboro Branch **Keynote Speaker** – Dr. Kathy Loyd (**Sullivan 101**)
9.40 to 10.50 am	STEM&M 1 (**See Page 7**)	(**Sullivan 200**) 9:40 – 10:15: Prepare your daughters for STEM&M Education - Panel 10:15 – 10:50: Financial Planning for college – Presentation by Wells Fargo
11:00 am to 12.10 pm	11:00 – 11:35: (Group 1) Savvy Skills/ (Group 2) College Savvy <**Groups 1 and 2 Switch Sessions**> 11:35 – 12:10: (Group 1) College Savvy/ (Group 2) Savvy Skills	Visit and experience STEM&M session (**See Page 7**)
12:15 to 1:00 pm	Lunch & Networking (Lobby)	Lunch & Networking (Lobby)
1:10 to 2:20 pm	STEM&M 2 (**See Page 7**)	(**Sullivan 2nd floor lobby**) 1:10 – 1:45: College/Career Corner (**Sullivan 200**) 1:45 – 2:20: Getting a view into your daughter's mind: Tips for navigating social, cognitive, and emotional changes during late childhood and adolescence - Panel
2:30 to 2:40 pm	Post survey (**Sullivan 101**)	Post survey (**Sullivan 101**)
2:40 to 3:00 pm	(**Sullivan 101**) Remarks by Deepshikha Shukla, Tech Savvy Co-Chair **Keynote speaker** – Dr. Patricia Reggio Summary and Upcoming Events – Dr. Lakshmi Iyer	(**Sullivan 101**) Remarks by Deepshikha Shukla, Tech Savvy Co-Chair **Keynote speaker** – Dr. Patricia Reggio Summary and Upcoming Events – Dr. Lakshmi Iyer
3:00 to 3:15 pm	Raffle/closing	Raffle/closing

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MORNING PLENARY SESSION

Sullivan 101

Welcome remarks by **Cheryl Wheaton**, the President of AAUW Greensboro branch.

Keynote Speaker – Dr. Kathy White Loyd, Mattel Inc. and Executive-in-Residence at Bryan School of Business and Economics, UNCG.

Kathy White Loyd founded Horizon Institute of Technology in 2002 and serves as its President. Dr. Loyd is a Founder of Rural Sourcing, Inc. and serves as its President. She served as the Chief Information Officer and Senior Vice President of Allegiance Corporation from 1996 to 1999. She served as Corporate Vice President and Chief Information Officer of Baxter International from 1995 to 1996, Vice President of Information Systems for AlliedSignal Corporation from 1993 to 1995 and Vice President of Corporate Services for Guilford Mills Inc., from 1991 to 1993. Dr. Loyd served as an Executive Vice President and Chief Information Officer of Cardinal Health Inc. from February 1999 to February 2003. Dr. Loyd served as an Associate Professor of the Bryan School of Business at the University of North Carolina at Greensboro. She has been an Independent Director of Mattel, Inc. since 2001. She serves as a Director of National Service Industries, Inc. and Certegy Ltd. She serves as Member of Advisory Board of Southern Capitol Ventures. She has served as a Director of Certegy, Inc. since June 2001 and as a Director of Novell, Inc. since December 1, 2003. She served as a member of Compensation Committee of Fidelity National Information Services, Inc. Dr. Loyd holds a BSE and MBA Degrees from Arkansas State University and also an Ed.D. in Business Education from the University of Memphis.

PROGRAM FOR ADULTS

Sullivan 200

Preparing your daughters for STEM&M Education - Panel
Moderator – Alice Haddy
Panelists – Carol Seaman, Promod Pratap, Robert Gantt, Susan Cardwell

With college acceptance rates shrinking and competition growing, students need to find creative ways to stand out amidst peers with equally hard-won grades and test scores. This is especially true in university-based STEM&M programs. We'll try to answer such questions as:

- What high school classes are "must-takes"?
- What standardized tests should your daughters take — and when?
- Are summer programs important? Why?

Your Financial Aid Journey in 5 Steps
Presenters - Corey Sturdivant, Market Relationship Manager, Wells Fargo

The cost of a college education has skyrocketed! Many parents with college-bound students feel completely overwhelmed. Most are not emotionally prepared for this big change, but even fewer are financially prepared as they contemplate the most expensive years of their lives. There's hope! You can afford college without jeopardizing your retirement. This session will briefly discuss the value of a college education, the steps of applying for financial aid and some helpful resources.

Getting a view into your daughter's mind: Tips for navigating social, cognitive, and emotional changes during late childhood and adolescence - Panel
Panelists – Thanujeni Pathman, Julia Mendez, Janet Boseovski

Developmental and clinical psychologists from UNCG with expertise in social development, cognitive development, and parental involvement in education, will lead a discussion geared towards parents of girls in late childhood and adolescence. Panelists will give a short presentation followed by a question and answer period.

PROGRAM FOR GIRLS

There will be several parallel sessions for the girls. In addition to the opening and closing sessions, each student will attend 2 STEM&M Sessions and the Savvy Skills session during the day.

STEM&M Sessions and Session Coordinator(s)

ANIMATION WITH MIT's SCRATCH - Eberhart 160
Mr. Rudolph Bedeley

CHEMISTRY - Gluep Anyone? - Sullivan 222
Dr. Gail Webster, Dr. Owen Jappen

Hi-TECH NURSING – Moore Nursing 429
Julie Kordsmeier RN, MSN, CPN, Susan Hensley Hannah RN, MSN, CPN

MATHEMATICS - Three Geometries is Better than One - Sullivan 233
Dr. Talia Fernós

NANOSCIENCE AND NANOENGINEERING – Natural Nanomaterials - Sullivan 139
Ms. Kimberley Riddick, Ms. Komal Garde, Ms. Roberta Maxwell

PHYSICS - Sullivan 355
Dr. Deepshikha Shukla

ROBOTICS – Sullivan 101; Demo on First Floor Lobby
Mr. Caleb Bradberry, and Grimsley FIRST Robotics Team

Project CS - Sullivan 227
Ms. Annie Xie

SAVVY SKILLS SESSION – Sullivan 201
Ms. Brandy Propst, Ms. Leona La Perriere and Ms. Yulonda Smith

COLLEGE SAVVY SESSION - Sullivan 200 and Second Floor Lobby
Dr. Deborah Greene

Animation with MIT's Scratch

Held in Eberhart 160 - Computer Lab (adjacent to Sullivan Building)

http://scratch.mit.edu

What is Scratch?

Scratch is a simple programming environment, designed so that it's easy to create animations and simple games. You're not going to use it to calculate the 10 billionth digit of pi, or to write a very involved game like Halo, but it allows you to do some really interesting things and share them easily. You can browse the Scratch website and look under "Featured Projects" to find programs that other students have created.

Who Uses Scratch?

Scratch is designed especially for ages 8 to 16, but is used by people of all ages. Millions of people are creating Scratch projects in a wide variety of settings including homes, schools, museums, libraries and community centers.

CHEMISTRY - Gluep Anyone?

Held in Sullivan 222

This hands-on workshop will give students the opportunity to learn about a common class of chemical compounds called polymers. Students will work in groups of two in a chemistry lab and synthesize polymers from different starting materials. We will also use commercially manufactured polymers and perform tests to compare the properties of these materials.

What are Polymers?

Many of the materials we use every day are plastics. Plastics are made of large molecules (atoms bonded together) that are similar in structure to a chain. Just as chains have many links joined together, polymers contain repeating units called "monomers" that are joined together.

What will we do?

We will spend about 10-15 minutes giving students some background information about the chemistry of polymers. The students will then make a polymer from polyvinyl acetate (glue) and borax. They will be encouraged to write observations about the product obtained. A second polymer derived from polyvinyl alcohol will be made and we will encourage the students to compare the two polymers produced. Next, students will be given a superabsorbent polymer and asked to perform an experiment to determine the amount of water that can be absorbed by the polymer.

Finally, if time permits, the students will complete a crossword puzzle about the session.

Materials that will be used:

Glue, water, borax, polyvinyl alcohol, graduated cylinders and other containers

Learning Outcomes

- Students will be able to describe the characteristics of a polymer.
- Students will be able to make observations during an experimental procedure.
- Students will draw conclusions from an experimental data.

MATHEMATICS - Three Geometries is Better than One

Held in Sullivan 233

People have spent thousands of years trying to prove something that seemed so obviously true and yet turned out to be false: that there is only one geometry, that of the plane. In fact, there are three models: the plane, a sphere and something that looks like a lettuce leaf. Come explore these interesting spaces. We will be using lots of papers, tape and scissors. No background is necessary.

You will explore geodesics and triangles in the three homogenous geometries by looking at cones of various angles. While cones are "locally flat" they globally can model many of the interesting properties of the three homogeneous geometries.

Materials that will be used:

Paper, scissors, tape, stapler

PHYSICS
Sullivan 355

DO you see how we see?

CENCO Model Eye

Many of us need eyeglasses and contact lenses to "correct" our vision. In this workshop we will investigate how an image forms on our retina and what defects of vision mean. What does it mean , for example, –

- to be nearsighted?
- to be farsighted?
- have astigmatism?

The CENCO model eye can be used to show nearsightedness, farsightedness, accommodation, astigmatism, the use of a magnifier, the effect of removal of the crystalline lens and the effect of varying pupil size.

PROCEDURE –
The eye model is a water-filled tank with a lens/cornea at one end with a slot for the crystalline lens behind it and a screen/retina at the other end. There are three positions for the screen, to represent normal, near-sighted, and far-sighted vision. A set of six lenses and one diaphragm are used to show various defects and corrections.

MATERIALS USED –

1. CENCO Model eye
2. Light source
3. Lens kit
4. Ruler

ROBOTICS

Held in Sullivan 101 & First Floor Lobby

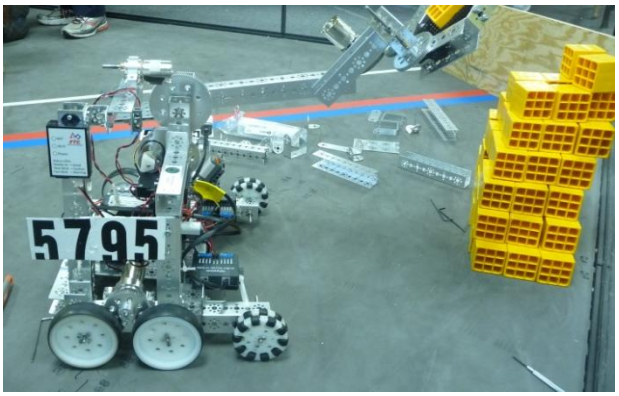
Learn how to design, build, and program your own robots!

Lego Mindstorm allows students to design, build and program complex autonomous robots even if the students have limited or no experience with robotics. Lego Mindstorm uses the familiar Lego bricks and also incorporates the Lego Technic bricks. These bricks allow students to build robots that have sensors and motors! More information about Lego Mindstorm can be found at: http://mindstorms.lego.com/en-us/default.aspx.

Demonstration by Grimsley FIRST Robotics Team

The Grimsley Robotics Club has 3 robotics teams this year: two First Tech Challenge (FTC) teams and one FIRST Robotics Challenge (FRC) team. Into their sixth year as a club, Grimsley Robotics has doubled in size, found a permanent location and developed connections within the community with companies such as Analog Devices, TE Connectivity and Honda Jet. We encourage everyone to join robotics and get more information about "FIRST" at www.usfirst.org

Find out how students like you can build robots



Student design, build and program complex autonomous and student controlled robots. This student led demonstration will give students the chance to build robots with LEGO bricks, participate in a team building robot brainstorming exercise and see student built robots. More information is available at:

http://www.lego.com www.USFIRST.org
www.NCFIRSTRobotics.org

Nanoscience and Nanoengineering Explorations - Natural Nanomaterials

Held in Sullivan 139

The hydrophobic effect

This workshop focuses on how nanotechnology has impacted the design and engineering of many everyday items, from paint to fabrics. Students learn about the hydrophobic effect and how similar properties can be introduced by reengineering products at the nano level. Students work in teams to develop a waterproof material and compare their results with nano waterproof materials developed recently by engineers and scientists.

The "Nano Waterproofing" lesson explores how materials can be modified at the nano scale to provide features such as waterproofing and stain resistance. Student "engineering" teams develop their own waterproofing technique for a cotton fabric and test their design against a fabric that has been altered through nanotechnology applications. Students learn how nanotechnology has impacted the manufacturing and use of fabrics.

As a result of this activity, students should develop an understanding of:

- Nanostructures
- Surface area
- Problem solving
- Teamwork

Materials that will be used:

♠ Student Resource Sheet
♠ Student Worksheets
♠ Microscope or camera scope

ProjectCSGIRLS

Held in Sullivan 227

ProjectCSGIRLS is the nation's largest computer science competition for middle school girls. We challenge participants to develop novel solutions to social issues using technology and computer science. At this workshop, learn about a variety of fascinating computer science topics, collaborate to create project ideas, and get feedback from peers and instructors. Some topics we'll cover are mobile app development, game programming, web design, artificial intelligence, and robotics.

Activity	Time
Overview of ProjectCSGIRLS and Learning How to Code	6 min
Mobile App Development and Game Programming	11 min
Artificial Intelligence and Neurocomputing	11 min
Bioengineering	11 min
Robotics and Autonomous Systems	11 min

Each 11 minute session consists of a 6 minute overview of the topic and ideas for applications, a 2 minute breakout session in which groups come up with ideas and a 3 minute period for the groups to present their ideas.

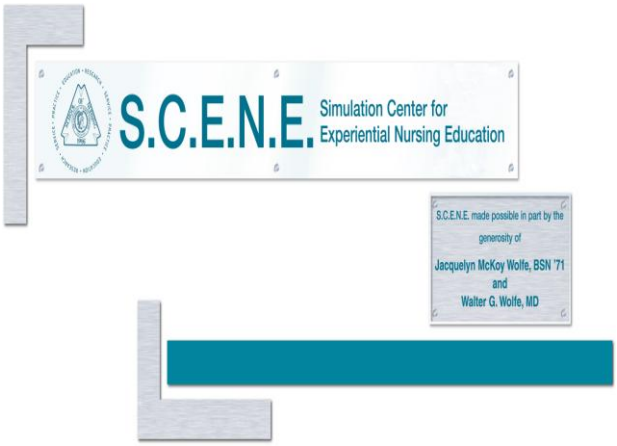
Materials that will be used:

- Projector to present the PowerPoint.
- Candy to reward the group with the best idea in each session.
- Paper and writing utensils for girls to jot down ideas.
- Camera to take pictures.

Hi-TECH Nursing

Held in Moore School of Nursing 429

Born to care: A day of Nursing



Simulate patient care clinical scenarios and experience how nurses make decisions that impact their patients' health and wellbeing. As you enter the SCENE (Simulation Center for Experiential Nursing Education) you will have the opportunity to view the anatomy of a person using the digital Anatomage table, listen to the heart and lung sounds of a 3G high fidelity simulator, and participate in a simulated resuscitation training. By working through each area, you will be able to witness firsthand how the ability to use technology is vital when caring for patients in today's health care centers.

Students will rotate among stations that will last approximately 15 minutes. First, the students will have the opportunity to spend time with the digital table that simulates dissection of a human being. Second station will guide students through how to listen with a stethoscope to heart and lung sounds while comparing findings on a patient monitor, and the Third station will have a "hands on" activity to simulate CPR training with manikins. All students will tour the control room that houses the hardware and software to run all 3G simulators.

Materials that will be used:

SCENE that includes three areas designed to simulate the hospital environment. Students will also have a tour of the control room for each 3G high fidelity simulator, the Anatomage table, and various supplies such as stethoscopes and electronic medical devices.

Savvy Skills Session for Girls

Held in Sullivan 201

Do you have the savvy skills that every girl should possess? During this session, we will highlight 10 savvy skills that every girl should possess and how to put them into action! STEM careers require individuals who are confident, well-spoken and have a strong presence. Through small group activities, you will learn how these personality traits will assist you as you work towards becoming a successful young woman. Participants will also learn how to highlight their strengths, maintain a positive digital identity and support other girls and women as we all strive to be savvy!

Participants will find partners or groups to interview one another. Each participant will receive a list of questions to ask their partner. Each participant will interview for 5 minutes. Then, the volunteers will debrief, provide feedback and answer questions with groups/partners about how they put their savvy skills in to action.

Presenters: Ms. Brandy Propst, Ms. Leona La Perriere and Ms. Yulonda Smith.

College/Career Savvy Session for Girls

Held in Sullivan 200 and Second Floor Lobby

Tech Savvy Bingo! This session will provide the opportunity for girls to ask questions to professionals in STEM&M fields as well as representatives from local colleges and universities. There will be bingo cards with pre-determined questions, but for girls who have their own burning questions, we will have blank bingo cards. This session will be a fun way to learn more about expectations, requirements, and opportunities for girls in STEM&M fields**.**

Presenters: Dr. Deborah Greene.

AFTERNOON PLENARY SESSION

Sullivan 101

Remarks by Deepshikha Shukla, Co-Chair, Triad Tech Savvy

Keynote Speaker – Dr. Patricia Reggio, Marie Foscue Rourk Professor and Head of the Chemistry and Biochemistry Department at UNCG.

Patricia Reggio is the Marie Foscue Rourk Professor and Head of the Chemistry and Biochemistry Department at UNCG. Dr. Reggio earned a B.S in Chemistry from Louisiana State University in New Orleans and then earned her PhD in Physical Chemistry from the University of New Orleans. She continued with post doctoral research and teaching positions. Her expertise in computational biochemistry and bio molecular dynamics is highly regarded and affords UNCG a leadership position with advanced degrees in the area of molecular biomedicine.

The Sullivan Science building houses the Department of Chemistry and Biochemistry and offers five undergraduate programs: the Bachelor of Science in Chemistry, the Bachelor of Science in Biochemistry, the Bachelor of Science in Chemistry with a Concentration in Biochemistry, the Bachelor of Science with a Concentration in Research and the Bachelor of Arts in Chemistry. A licensure program to prepare students to teach high school chemistry is offered. The Master of Science in Chemistry, Master of Science in Biochemistry and Ph.D. in Medicinal Chemistry are offered at the graduate level.

Summary and upcoming events – Lakshmi Iyer

Raffles

MEET THE PRESENTERS

(Names are in alphabetical order by last name)

Ms. Susan Cardwell (Panelist) is currently the school counselor for the STEM Early College at North Carolina A&T State University. She has been with the program since its inception in 2012 and with Guilford County Schools since 2007. Cardwell received a Bachelor's degree in Business and Economics from High Point University and a Master's degree in School Counseling from the University of North Carolina at Greensboro. She has over 25 years of experience as a counselor.

Rudolph Bedeley (Scratch Animation) is currently a first-year doctoral student in Information Systems in the ISSM department at UNCG. Prior to starting his Ph.D. program, Rudy earned his dual Master's degrees in Information System and Civil Engineering from University of Delaware, Newark, DE. Rudy has wealth of experience in both industry and academia. His current research interests include Business Intelligence, Big Data & Analytics and Data Mining.

Caleb Bradberry (Robotics) received his MBA and BBA in Management Information Systems from Marshall University. He is currently a doctoral student in Information Systems at UNCG. While earning his master's, Caleb worked as an ASP.NET developer. His research interests include emerging technologies, information security, and business intelligence.

Dr. Janet Boseovski (Panelist) earned her B.S. degree from the University of Toronto, her M.A. from McGill University, and her Ph.D. from Queen's University, Canada. She is an Associate Professor in the Department of Psychology at UNCG and is Co-Director of the D.U.C.K. Lab (Development and Understanding of Children's Knowledge). Janet's expertise is in developmental science, with particular interests in how 3- to 12-year-old children think and learn about the social and natural world. Her research has been supported by the National Institutes of Health and she is currently an editorial board member for the academic journals, Developmental Psychology and the Journal of Experimental Child Psychology.

Dr. Talia Fernos (Mathematics) earned a Ph.D. in 2006 from the University of Illinois at Chicago, and she joined the UNCG faculty in 2010. Upon completion of her PhD, she was awarded the NSF Mathematical Sciences Postdoctoral Fellowship. Dr. Fernós has organized conferences and established collaborations in several countries. Her research is centered around infinite groups, where she considers questions from both geometric and analytical perspectives.

Dr. Robert Gantt (Panelist) A native North Carolinian, Bob Gantt grew up in Greenville NC. He earned his Bachelors of Science degree in Business Administration from East Carolina University. Upon graduation, he was employed as an Assistant Buyer at J.B. Ivey and Company Department Store in Charlotte, NC. He left Ivey's and returned to ECU, where he completed his Masters of Arts in Education, with a concentration in Marketing and Business Education. After completing his graduate degree, Mr. Gantt became a Marketing Teacher Coordinator at Northern High School, Durham, NC.

After serving Durham in Marketing education for ten years, Bob became a Program Specialist III-VoCats for Guilford County Schools. In 2003, an opportunity for advancement opened in Durham Public Schools and he returned to serve Durham as the Coordinator of Career and

Technical Education and eventually was selected to serve as Director of Career and Technical Education for Durham Public Schools.
In 2008, he moved back to Guilford County Schools as the Assistant Director of Career and Technical Education, and subsequently advanced to his current position, where he serves as Director of Career and Technical Education. In this role, he is responsible for managing and leading technical programs that help students explore and prepare for success in 14 career clusters throughout Guilford County Schools middle and high schools.

Ms. Komal Garde (Nanoengineering) received her Bachelors in Biotechnology and masters in Nanoengineering, and presently is a PhD student in Nanoengineering. She volunteered to work with K-12 STEM students at the Greensboro County School Career Fair and North Carolina Science Festival, 2012 and was event management head for technical symposiums. Komal has also managed and supervised events. She is excited to be a part of this program which provides the opportunity for middle and high school girls to be inspired and motivated in science related fields.

Dr. Deborah Greene (College/Career Savvy) received her Bachelors of Arts in Psychology from Penn State University. She received her Masters in English from the University of New Orleans and her PhD in Education Studies from UNC-G. She is certified to be a school administrator, and currently she is enjoying teaching English to Speakers of Other Languages at Ferndale Middle School in High Point. She is thrilled to participate in this program which provides inspiration and motivation for middle and high school girls to pursue STEAM&M fields. Deborah is an AAUW Greensboro Branch member.

Dr. Alice Haddy (Panelist) received BS and PhD degrees in Chemistry from the University of Michigan, Ann Arbor. She has been a member of the faculty of the Department of Chemistry and Biochemistry at UNC-Greensboro since 1994 and presently holds the position of Professor. Her area of specialty is in physical chemistry with application to biological systems, particularly energy transduction. Her research centers on how plants make oxygen as a result of light absorption at photosystem II, one of the two major protein complexes that convert light energy into biochemical energy. Her research has received support from the National Science Foundation, the Dreyfus Foundation and Research Corporation. She has been a grant panelist for the National Science Foundation and has organized the Midwest/Southeast Photosynthesis Meeting and the Eastern Regional Photosynthesis Conference. She has served as her Department's Director of Graduate Study and authored the planning document for the Department's PhD Program in Medicinal Biochemistry. In 2011, she received the UNCG College of Arts and Sciences Teaching Excellence Award.

Ms. Susan Hensley-Hannah (Nursing) is a Clinical Assistant Professor and Simulation Co-coordinator of the SCENE (Simulation Center for Experiential Nursing Education). She received undergraduate degrees in Nursing and Psychology from the University of North Carolina at Charlotte in 1996. After working in cardiac and public health nursing, she received her Master of Science in Nursing with concentration in Education from the University of North Carolina at Greensboro in 2003. She began as faculty at UNCG in 2004. Her areas of interest are Community Health Nursing and Simulation, and she is a Certified Nurse Educator.

Dr. Lakshmi Iyer (Program Chair) is the Director of Graduate Programs in the Information Systems and Supply Chain Management Department in the Bryan School of Business and Economics at UNCG. She started the "Women in IT" initiatives in 2009 and has been serving as the director of "IT is for Girls" program at UNCG. This outreach program aims to increase middle and high-school awareness about education and career path in technology areas. Dr. Iyer has successfully organized day-long and week-long camps for students with several hands-on computing activities. She has also established relationships with area organizations that enabled field trips so participants interact with STEM&M professionals and learn about computing careers and use of technology in various STEM&M areas. In addition, over the past 5 years, she has helped raise $95,000 in grants and gifts for offering outreach programs for middle and high-school girls. She has a doctorate in a technology related area and has over 17 years of teaching experience. She is an AAUW Member, STEM programs' coordinator for AAUW Greensboro Branch, and serves as a co-chair for the Association of Information Systems Task Force for Women in IS.

Dr. Owen Jappen (Chemistry) is part of the Innovation Management Team at The Evonik Corporation in their superabsorbent polymer division based in Greensboro. He joined the company in 2013 after graduating from Stevens Institute of Technology with a Bachelors and Masters of Engineering in Chemical Engineering and currently serves on the Board of Trustees for the University. Jappen is Chair of the Piedmont-Triad Local Section of the American Institute of Chemical Engineers, a professional society aiming to promote interactions between Chemical Engineers and others in the chemical industry as well as to encourage younger individuals in pursuing careers in ChE and other STEM fields. Owen is a 2015 nominee for Discover-e's New Faces of Engineering Award and is also an adjunct faculty member at North Carolina Agricultural and Technical State University in the Chemical, Biological and Bioengineering Department.

Ms. Julie Kordsmeier (Nursing) is an Assistant Clinical Professor in the School of Nursing and a Clinical Simulation Co-Coordinator in the SCENE (Simulation Center for Experiential Nursing Education). She received her BSN from the University of Tennessee Health Science Center in Memphis and a MSN from the University of Central Arkansas, Conway. After teaching at the University of Central Arkansas, she relocated with her family in November 2003 to North Carolina. In January of 2004 she worked as a Research Assistant in the School of Nursing at UNCG and then become a full time faculty member in August 2004. Her area of interest is in the field of pediatric nursing and she is currently a Certified Pediatric Nurse. Other areas of interest include community health nursing, and clinical simulation. Currently, she is a first year doctoral student in the FNP/DNP program at Vanderbilt University, Nashville.

Ms. Leona La Perriere (Savvy Skills) After a wonderful and rewarding career of 28 years in the teaching profession, Leona "kicked it up a notch", and 12 years ago, became a nationally certified personal development and business coach. She is now CEO and founder of her own company - HEAR APPLAUSE! Personal Development and Leadership Coaching – offering her services as coach, leadership facilitator, speaker and author. Motivating, challenging, and helping people experience sustainable results and success are at the top of her list of favorite things to do. Leona is an active member of AAUW/Greensboro, a facilitator for AAUW's $tart $mart Program, President of Business & Professional Women of the Triad, and a facilitator for BPW/NC's Reality Store Program. As a coach and mentor to hundreds of young professionals, entrepreneurs and "collegpreneurs", Leona practices what she preaches: "Be pro-active, get out

of your comfort zone, challenge yourself to take actions with new ideas, and simply make great things happen!" Leona is an active member of AAUW Greensboro Branch.

Ms. Roberta Maxwell (Nanoengineering) was a first generation college student from rural eastern North Carolina when she received her Bachelor's from UNCG in 1982, attending on a full-ride Merit scholarship. She earned her Master's degree from UNCG in 1984, and began full time teaching as a lecturer in the Department of Biology at UNCG immediately upon graduation. During her 31 years teaching here, she has been nominated for numerous teaching awards, and last year was the recipient of the Anna M. Gove Teaching Excellence Award. Robin now holds the rank of senior lecturer, and is the Chairman of the Health Careers Advisory Committee, and Director of the Post-baccalaureate Pre-medical Program. While teaching at UNCG, she has also taught in the Physician Assistant Program at Wake Forest's Bowman Gray School of Medicine (where she also earned a teaching excellence award), and in the Clinical Laboratory Science program at Moses Cone Hospital. She has worked with a team on solving a bacterial contamination issue for a local manufacturing facility, where they successfully eliminated the contaminant, and helped redesign the process to prevent future incidents.

Dr. Julia Mendez (Panelist) is an Associate Professor in the Department of Psychology at the University of North Carolina at Greensboro (UNCG). She is a licensed clinical psychologist and received her doctoral degree in School, Community and Child Clinical Psychology from the University of Pennsylvania. Her research interests involve childhood mental health, risk and resilience among children, and children's school adjustment. She has directed several federally funded research projects funded by the Administration on Children and Families, Office of Head Start, examining parent engagement in education and children's social competence. Dr. Mendez is presently a core investigator for the National Research Center on Hispanic Children and Families (2013-2018) investigating factors related to early care access and utilization among Latino families, in particular immigrants in emerging communities. She is actively involved in university-community collaborations with local schools to foster resilient outcomes for children.

Dr. Thanujeni Pathman (Panelist): received her undergraduate degree from McMaster University, and her M.A. and Ph.D. from the Psychology Department at Emory University. She completed postdoctoral training at the Center for Mind and Brain at the University of California, Davis and is now an Assistant Professor in the Psychology Department at UNCG. Her research interests are in cognitive development and developmental cognitive neuroscience. Dr. Pathman and her students study how the brain develops and how children learn and remember. She speaks with parent groups several times a year. She is very interested in initiatives that help females and underrepresented groups in the sciences.

Dr. Promod Pratap (Panelist) received his MSc in Physics from the Indian Institute of Technology, Mumbai, India, and his PhD in Biophysics from Syracuse University. He has been a member of the faculty of the Department of Physics and Astronomy at UNCG since 1994 and is currently the Head of the Department. His research studies how the sodium pump, a membrane protein that uses metabolic energy to move sodium and potassium ions across the membrane against their concentration gradients. He uses fluorescence as a probe of the kinetics of various aspects of ion transport. His research has been supported by grants from the American Heart Association, the National Institutes of Health and the National Science Foundation.

Ms. Brandy Propst (Savvy Skills) is the coordinator of Academic Foundation and Mentoring at UNCG. Ms. Propst earned her Masters in Student Personnel Administration in Higher Education from UNCG.

Ms. Kimberly Riddick (Nanoengineering): Prior to undertaking her doctoral studies at the Joint School of Nanoscience and Nanoengineering as a Nanoengineering student, Ms. Riddick coordinated NC FIRST's FIRST Tech Challenge, a robotics competition platform designed to increase accessibility for minorities (female, ethnic, and socioeconomic). In this role she developed workshop curriculum for student participants and adult support. She also has industrial experience as a process engineer in pharmaceutical manufacturing.

Dr. Carol Seaman (Mathematics) is an Associate Professor of Mathematics and the Program Coordinator for Licensure in Secondary Mathematics for the Department of Mathematics & Statistics at UNCG. She is a member of the Mathematical Association of America (MAA), the National Council of Teachers of Mathematics (NCTM) and the Research Council on Mathematics Learning (RCML). Dr. Seaman is involved in preparing undergraduate students to teach high school mathematics and in developing K-12 mathematics teachers through grant-funded professional development and through graduate courses in mathematics and mathematics education at UNCG.

Mrs. Mary Fran Schickedantz (**AAUW Greensboro Branch Treasurer**) has been an involved member of AAUW Greensboro since the early 80's. She has served as Treasurer in both the local branch and the state AAUW as well as President of both. She is a retired Administrative Secretary for a local Swim & Tennis Club for 30 years keeping financial records and collecting membership dues. She has been a treasurer for the Greensboro Symphony Guild which continually held fundraisers. She is proficient with e-mail, Excel spreadsheets, QuickBooks and Quicken software as well. Mary Fran has middle and high school granddaughters and feels comfortable working with and encouraging girls at this age level. She has been a prime mover of technical awareness programs with the branch since 2008. Also, she has worked closely with Dr. Iyer from 2009 to the present to be a liaison between her excellent planning and the branch in its commitment to further STEM&M education/awareness in Greensboro.

Dr. Deepshikha Shukla (Physics) is a faculty member in Physics and has been a member of various "Women in Physics" groups at Ohio University, The George Washington University and The University of North Carolina at Chapel Hill. She has participated and helped organize several Regional Science Fairs and Physics Open Houses (aimed at raising science awareness of middle and high school students) as a graduate student and a postdoctoral fellow. Before coming to the US, Dr. Shukla regularly organized "Physics is Fun" workshops at high schools in India. She has designed/managed the Physics experiments/projects demonstrating some basic principles of Physics. This is the second year of her association with Tech Savvy. She has a doctorate in Physics and is an AAUW Greensboro Branch member.

Ms. Yulonda Smith (Savvy Skills) is Partner and Vice President of Walter Latham Digital, a multi-million dollar digital media company, Yulonda oversees partnerships with Netflix, Hulu, Google/YouTube and Paramount Digital Entertainment. She also works with comedians, animators, producers and writers to create original content for digital exploitation. Ms. Smith graduated from the University of North Carolina at Chapel Hill with a Bachelor of Arts degree in Communication Studies and Organizational Management. She went on to further her education

at Duke University, where she received her MBA. Make no mistake about it though; Ms. Smith is a "Tar Heel" through and through! She has spent the last 20 years of her life, mentoring and motivating, youth and young adults, fifteen of which have been with her church, Grace Family Worship Center, where she serves as youth pastor. She also serves on the leadership team for The Queen's Foundation, a North Carolina statewide nonprofit that teaches young women to be queens in life and servant leaders in their communities.

Corey Sturdivant (Financial Aid) has been in the student loan industry for over 15 years working initially with a lender of the Federal Family Education Loan Program and subsequently with the nation's second largest student loan guarantor. He has conducted numerous workshops throughout the Carolinas on the financial aid process, responsible borrowing, debt management and credit. Corey has been an Accredited Financial Counselor through the Association for Financial Counseling and Planning Education for 4 years. He is currently Market Relationship Manager with Wells Fargo's Education Financial Services Division responsible for North and South Carolina.

Mrs. Jane Terwillegar (Volunteer and Hospitality) is an AAUW member, an experienced educator and administrator, skilled with planning workshops for both students and adults, project planning, budgeting, project leadership, grant writing, grant evaluation, fund raising and teaching. Mrs. Terwillegar has served nationally as an elected member of Council, American Library Association (ALA) and for Executive Board of the American Association of School Librarians (AASL). She has also served as President of the Florida Association of Library Media Educators (FAME). During her tenure as Director of Library Media Services in Palm Beach County, she managed the multi-million dollar project of equipping school libraries with online research services and online catalogs, bringing all 155 district media centers up-to-date with current technology. She is an AAUW Greensboro Branch member.

Mrs. Laura B. Tew (Volunteer, Fundraising and Publicity) has degrees in chemistry, marketing, and non-profit management. She held technical and management positions in chemical manufacturing for over thirty-five years. After retiring in Greensboro in 2009, Mrs. Tew pursued several interests including master gardening, tax counseling, and women's advocacy. She is public policy chair of AAUW Greensboro Branch. She is committed to STEM&M education and careers. She believes that her personal experience and success are due in large part to influential mentors who encouraged her along the way. With Triad Tech Savvy, she is passing that tradition along to future generations.

Dr. Gail Webster (Chemistry) is an Associate Professor and Chair of the Chemistry Department at Guilford College in Greensboro, NC. She is a member of the American Association of University Women, the American Chemical Society (ACS) and is a member of the Women Chemists Committee (WCC). She has served on the WCC since 2007. Dr. Webster is involved in developing student-centered pedagogy for the POGIL (Process Oriented Guided Inquiry Learning) Project. She's facilitated numerous workshops for the organization and is a member of the POGIL Project Steering Committee. She is an AAUW Greensboro Branch member.

Ms. Annie Xie (ProjectCSGIRLS) is a high school junior at the North Carolina School of Science and Mathematics. Her interest in computer science caught fire in middle school when

she took her first online programming class in Python, and a second one in Java. For the past two summers, she was an AspireIT program leader for the "IT is For Girls" summer camp at UNCG, teaching middle school girls how to design and build Lego Robots, Scratch animations, and Kodu games. Since 2012, she has helped her tennis program move its tournament and ranking systems onto its website using languages such as PHP and MySQL. Over the past summer, Annie worked as a research assistant with a PhD student at NC A&T University to create programs that retrieve Amazon reviews and model the data using Python. She is also a volunteer and mentor at Handy Capable Network, where she has funded and led computer-building sessions for low-income middle school students that allow the students to build and keep their own computer. She hopes to major in computer science and one day work for an innovative company like Google.

Our special thanks and appreciation to middle and high-school students from Guilford County who are volunteering in various activities:
Sahana Giridharan, Sarayu Pai, Michalla Bate, Jewel Tinsley, Tarlon Khoubyari

MEET YOUR TECH SAVVY COMMITTEE AND VOLUNTEERS

Planning Committee

Deepshikha Shukla, Co-Chair and Curriculum Coordinator
Lakshmi Iyer, Co-Chair
Mary Fran Schickedantz, Co-Chair and Marketing Co-ordinator
Laura Tew, Fundraising and Volunteer Coordinator and Publicity
Jane Terwillegar, Marketing Coordinator and Hospitality
Gail Webster, Curriculum Coordinator
Kimberly Riddick, Curriculum Coordinator
Beth Walker, Volunteer Coordinator
Komal Garde, Volunteer Coordinator
Naomi Thomas, Volunteer Coordinator

We thank the Tech Savvy Volunteers/Speakers/Presenters

Alice Haddy
Annie Xie
Audrey Dentieth**
Ayomide Adeniyi
Rudolph Bedeley
Beth Walker**
Brandy Propst**
Caleb Bradberry
Carol Seaman
Charlotte Divitci**
Cheryl Wheaton**
Corey Sturdivant
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Susan Cardwell
Susan Hensley-Hannah
Susan Metz**
Tala Mirzaei
Talia Fernos
Tamika Bowers
Tarlon Khoubyari
Thanujeni Pathman
Tiffany Jones**
Tyra Callaway
Yulonda Smith

** Denotes AAUW Greensboro Branch Member

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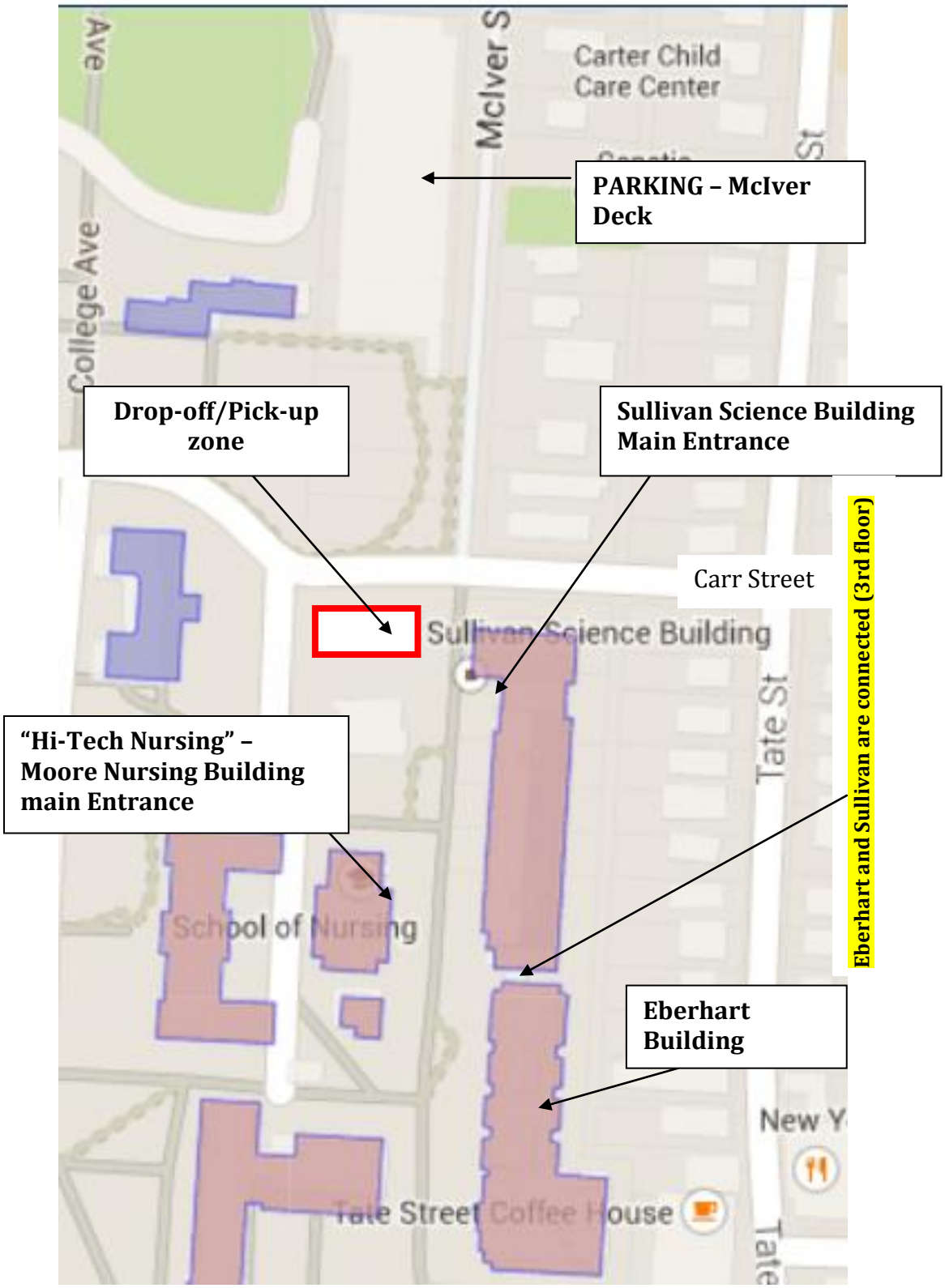
If you do not have a twitter account and would like to try it out, just go to www.twitter.com and open a new account using your unique email address. It takes just moments, and soon you will be a part of social media!

Women in Information Technology (WIIT) @ UNCG
wiit.uncg.edu
www.facebook.com/wemakeIT

NOTES

Area Map


Carter Child Care Center
McIver S
College Ave
PARKING – McIver Deck
Drop-off/Pick-up zone
Sullivan Science Building Main Entrance
Carr Street
Sullivan Science Building
Tate St
"Hi-Tech Nursing" – Moore Nursing Building main Entrance
School of Nursing
Eberhart and Sullivan are connected (3rd floor)
Eberhart Building
Tate Street Coffee House

TechSavvy
A program of AAUW

2015 Tech Savvy Sites

North Dakota	University of Jamestown	AAUW Jamestown (ND) Branch
California	University of California, Santa Barbara	AAUW Santa Barbara-Goleta Valley (CA) Branch
Utah	Dixie State University	AAUW St. George (UT) Branch
Hawaii	Windward Community College	AAUW Honolulu (HI) Branch
Virginia	Tidewater Community College	AAUW Virginia Beach (VA) Branch
Illinois	Triton College	AAUW Jane Addams (IL) Online Branch
Mississippi	Delta State University	AAUW of Mississippi
North Carolina	The University of North Carolina at Greensboro	AAUW Greensboro (NC) Branch
New York	SUNY Cortland	AAUW Cortland (NY) Branch
Michigan	University Center Gaylord	AAUW Gaylord Area (MI) Branch
Wisconsin	University of Wisconsin-Oshkosh	AAUW Appleton (WI) Branch and AAUW Oshkosh (WI) Branch
Ohio	Stark State College	AAUW
Pennsylvania	Edinboro University	AAUW Erie (PA) Branch
Connecticut	Trinity College	AAUW of Connecticut
Kentucky	Kentucky State University	AAUW Bluegrass Central (KY) Branch
Ohio	Ohio University	AAUW Athens (OH) Branch
Nebraska	College of Saint Mary	AAUW Omaha (NE) Branch

A membership discount is offered by AAUW (national membership only) so that Tech Savvy Committee members, volunteers and adult attendees can join AAUW at the special rate of $21.00 for the first year of national membership (March 28, 2015 to June 30, 2016). To avail the discount, go to http://www.aauw.org/national/join/ and enter the code M15TECHSAVVY in the blank. Then click Apply and follow directions to apply online. To apply with a check or cash, see Mary Fran Schickedantz. You may also fill the form, print and send it with $21 check to AAUW Greensboro Branch; P.O. Box 10754, Greensboro, NC 27404. We will send the check to AAUW for you.

IT is for Girls/We Make IT
AspireIT Outreach Program

Mon.-Fri., July 13-17, 2015

Exciting hands-on activities during the week-long summer camp at UNCG:

- ***Apply*** Computational thinking to solve social problems;
- ***Create*** animations and video games using MIT's SCRATCH software; Android mobile apps using Gaming App/Game Salad; video in Film Festival session;
- ***Design*** web pages;
- ***Explore*** computer and internet security; CS Unplugged Activities;
- Build Internet of things using Raspberry Pi and Arduino; LEGO® Robots
- ***Develop*** *Leadership Skills;*
- ***Attend*** field trips to local Businesses;
- ***Meet*** successful "Tech Divas" from UNCG & area firms to learn about career opportunities, plus interact with Aspirations in Computing Award Recipients and UNCG undergraduate & graduate students.

wiit.uncg.edu

Who: Rising Middle-school (rising 6th to 8th grade) Girls
Where: UNCG Bryan Building (Room 221)
When: Mon-Fri, July 13-17 from 8:30 AM - 4:30 PM daily
Cost: **$25 registration+$75 workshop = $100/student**
(after 5 pm Friday May 30th, 2014 fee will be $150 ($25 + $125 camp fee).)

Registration required; limit of 80 students.
Register online & see the tentative schedule at **wiit.uncg.edu**.

Platinum Sponsors: Lincoln Financial Group, NCWIT Aspirations in Computing, Pearson, Microsoft

Gold Sponsors: Google, ABCO Outstanding Automation Experience, HandyCapable Network, Analog Devices, Guilford County Schools, AAUW Greensboro Branch, UNCG

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