TS⁶
TECH SAVVY!

Tech Savvy Girls without Limits…
Anything, Anywhere!

Tapping into Our Technological Future…
Girls Exploring Science, Technology, Engineering, and Math

Featuring fun, exciting, hands-on workshops to inspire success and career exploration for 6th to 9th grade girls in Western New York.

SATURDAY, MARCH 12, 2011
8:15 AM TO 4:00 PM
SUNY BUFFALO NORTH CAMPUS
STUDENT UNION

www.aauw.buffalo.edu
e-mail: AAUWT56@cs.com
telephone: 716-559-3037

Individual registration deadline is Feb. 23.
Groups must register by Feb. 18.

Paper and Online Registration Methods available. For online form, see http://www.aauw-nys.org/Buffalo/techsavvy-form.htm

SPONSORSHIP & SUPPORT

AAUW

This conference is presented by AAUW Buffalo Branch, Inc.*

PRAXAIR

Making our planet more productive.

The Buffalo Branch is grateful for significant funding from Praxair, Inc. through the Praxair Foundation.

WTS

The Buffalo Branch proudly acknowledges our host and co-sponsor, the School of Engineering and Applied Sciences, University at Buffalo

*Funding for this conference was provided by the Educational Projects & Charitable Accounts, AAUW Buffalo Branch, Inc. from proceeds from the Branch's Annual Book Sale.

Significant financial support for Tech Savvy was provided by our major sponsor for six years… the Praxair Foundation.

The Buffalo Branch is grateful for the support of the School of Engineering and Applied Sciences, State University of New York at Buffalo and their fifth annual gift towards the welcome reception for our keynote speaker and workshop presenters and for the support of WTS, Inc.

There are 2 ways to provide information — online or via the form in this brochure.

1. If submitting online, use this brochure to choose workshops.
2. Fill out form online at http://www.aauw-nys.org/Buffalo/techsavvy-form.htm
3. Submit the form using the Submit button. Then, Print the Summary Page.
4. Mail in the printed Summary page with parent/guardian signature and payment immediately. This must be received within a week of your online registration.

Everyone will receive a confirmation/reminder card the week before the program.

Note new address!
AAUW Buffalo Branch
P.O. Box 894
Cheektowaga, NY 14225-0894

One Tech Savvy! student
will win a new computer!
FREQUENTLY ASKED QUESTIONS

Who is AAUW?
The American Association of University Women advances equity for women and girls through advocacy, education, philanthropy, and research. AAUW is partnering with Praxair, UB’s School of Engineering, WTS, Inc., and many others in Western New York to provide this opportunity.

Who is invited?
Girls in grades 6 through 9 are invited. Adults are also invited. Students may already have an interest in science, math, or technology, or this may be a great way to open up new possibilities for a student. Students should be interested in learning & ready to have fun for the day. There are also specially planned activities for parents, teachers, counselors, youth leaders, and other adults.

Important Safety Note: Attendees may not wander around campus; attendees are restricted solely to buildings where assigned Tech Savvy activities are in progress and must follow the directions of all volunteer staff and workshop leaders.

I'm a student. Why should I attend?
Math and science can be fun and interesting! This is a great chance to meet professionals—many fabulous women—who can share information on their careers. This year’s conference is all about de-mystifying science and math. Believe us, U R a Tech Savvy girl!

Also, you’ll meet other young women whose futures also have no limits. Just like you! At the end of the day, you’ll have knowledge and special prizes that will help you do anything, anywhere!

I’m a student. How many workshops will I take?
Will I attend my favorite workshops?
You will participate in two (2) Tech Savvy workshops plus the College Corner activities. Write the number of your top five (5) choices. If your choices are full, we will place you in another exciting workshop. (We think all workshops may help you discover careers that you may not have considered before!) Be sure to indicate all choices and send your registration in before the due date.

Last year, all students who gave five choices and who registered by the due date received workshops that they had selected. Please note that students must attend workshops at the times assigned—no switching. In order to be fair to all, it is not possible to accommodate entire groups in the same workshop at the same time. Requests for a specific workshop at the same time as a specific other attendee will not be honored. Remember, workshops are a great way to meet new friends!

In this year’s College Corner, you’ll get a chance to gain admission to Tech Savvy University. You’ll also earn a raffle ticket for a chance to win a free computer! Most importantly, you will meet college representatives and learn what’s needed to apply to college!

This year, we have new Savvy Skills workshops, where you will have fun learning some skills like negotiating, confidence, interviewing, critical thinking, and business etiquette! Cool!

I’m a parent, grandparent, or guardian. Why should I attend?
We all know that women definitely can succeed in technology-related careers. However, society often sends messages of “pink careers,” discouraging girls from math and science. The adult workshops will offer the chance to discuss these issues and provide practical information and resources on helping your child to be Tech Savvy!

There are two informative 11AM sessions for adults, filled on first-reserved basis. You’ll leave the day with more tools to help your child succeed! (Please note that parents do not attend student workshops. Student workshops are designed to provide a learning opportunity for small groups.) There are also fabulous prizes for adults.

I’m a teacher, counselor, youth leader, or other interested adult. Why should I attend?
You already know that it takes a village...Join us for the day. Besides the opportunity to discuss the issue with other professionals and parents, you’ll leave with valuable research, training, and resources to help you promote equitable education for all students. This year, we are offering a special session on spatial skills development—just for educational professionals. If you’re looking for concrete ways to help develop your students’, Tech Savvy has it! There are also fabulous prizes for adults.

I don’t have transportation to UB’s North Campus.
Shuttle service is provided by the University at Buffalo from the South Campus to the North Campus. (Also, parking is provided at both campuses.) Shuttles will leave the South Campus at 8:00 am and will return from the North Campus at approximately 4:00 PM. For planning purposes, please indicate on your registration if you plan to take the shuttle. In order to discourage no-shows, the $1 fee guarantees your shuttle registration and will be returned when you arrive at the event via the shuttle.

How do I register or get more information?
There are two ways to provide registration information. You may complete the registration form on-line (http://www.auwu-nys.org/buffalo/techsavvy-form.htm). Alternatively, you may register by completing form in this brochure, detach, and mail. Either way, you must mail in your online confirmation or the hand-completed form along with the $1 fee to the address listed. If you register online, you must send the form and payment via mail within a week of your online registration or your registration will be subject to cancellation.

Online registration is preferred in order to increase accuracy of information, and those who register online will be eligible for a special prize drawing.

The conference is limited to 750 participants; so please register early. For information before the week of the conference, please call AAUW and leave a voice mail at 559-3037. Calls will be returned as soon as possible. Please note that this is a voice mail system. We cannot return calls on the day before and day of the conference. Before the end of the conference, you can also email us at aauwt6@cs.com. Also, please check the website at http://www.auwu- nys.org/Buffalo/techsavvy-info.htm to get more information on the program.

What is the registration fee & when is the registration deadline?
The registration fee is $15.

A limited number of scholarships are available in cases of financial need. If financial need exists, please send a letter indicating the need for a scholarship along with your registration form. Registrations must be received for processing before the conference. The number of registrations often exceeds the number of students accepted, so register early. Individuals must register by February 23. Groups of five or more must register by February 18.

A SPECIAL MESSAGE FOR GIRLS...
Who is the Tech Savvy girl? U R!
It’s time to take a new look at math and science. You may discover something that you didn’t already know.

Tech Savvy girls can do anything! You probably know that mathematicians solve problems, but did you know that they are critical to launching the spacecrafts? You may think that engineers drive trains, but do you know that they also create bionic limbs… and lipstick! Science seems a little boring? Well, it’s the science that helps to find cures for diseases, solve crimes, and help us all to get better. Did you think technology careers just keep you at a computer? Technologists play a major role in designing fashions… and the newest cell phones.

Tech Savvy girls can go anywhere! Literally anywhere! From our own backyard to faraway countries. They take treks outdoors, work in labs, or in offices… even in the highest levels of management!

This year at TS6, Tech Savvy girls will have the chance to explore some fabulous career possibilities with some extraordinary workshop leaders… and they will have some fun. If you’re ready to take a new look at science and math, join us on March 12, 2011 because, whatever you want to do, wherever you want to go, Tech Savvy is 4 u!

DIRECTIONS

For those proceeding directly to the SUNY Buffalo NORTH Campus:
If you are traveling on Route 33 (the Kensington Expressway), take Route 33 to I-90 East and proceed to I-290 West. Follow directions below for I-290**.

If you are traveling on I-190 South, follow I-190S to I-90 East and proceed to I-290 West. Follow directions below for I-290**.

If you are traveling on I-190 North, follow I-190N to I-290 East. Follow directions below for I-290**.

**If you are traveling on the I-290 (Youngerman Expressway), take exit 5B (Millersport Highway North). When you exit onto Millersport Highway, proceed through one traffic light, pass the Maple Road exit and continue to the next exit, Flint Road, to UB’s North Campus. Once on campus, follow Flint to Augsburger; take left onto Augsburger. Go to Hadley; take right onto Hadley. Go to White Road; take right onto White Road. From White Road, take a right into the Furnas Parking Lot. (The Furnas Lot is just before White Road ends…If you reach Lee Road, you have just passed the Furnas Lot.) Proceed to the far side of the lot to park. The Student Union is just across the street from the parking lot.

If you are traveling on the I-990, take Exit 1 (UB Exit). Once on campus, take a right onto the John James Audubon Parkway to Flint Road. Take a left onto Flint Road. Follow Flint to Augsburger; take left onto Augsburger. Go to Hadley; take right onto Hadley. Go to White Road; take right onto White Road. From White Road, take a right into the Furnas Parking Lot. (The Furnas Lot is just before White Road ends…If you reach Lee Road, you have just passed the Furnas Lot.) Proceed to the far side of the lot to park. The Student Union is just across the street from the parking lot.

If arriving at the SUNY Buffalo SOUTH Campus and taking the Shuttle to the North Campus:
UB’s South Campus is located at the corner of Main Street (Route 5) and Bailey Avenue (Route 62). Please proceed to the Main/Bailey Lot. (Parking spaces are available at the Main/Bailey lot.) In order to ride the shuttle, please proceed to the center of the Main/Bailey Lot and convene in the shuttle shelter.

Please note that the shuttle will leave the Main/Bailey Lot at 8:00 am. You must be present at the shuttle shelter by 7:45 am in order to be transported to the North Campus.

Note: For planning purposes, you must indicate on your registration form (by checking the box where indicated) whether or not you plan to take the shuttle from the South Campus. Please include $1 for the shuttle fee. If no indication is made, we will assume that you will not take the shuttle and that you will arrive at the North Campus via your own transportation.

NFTA Service
The NFTA MetroRail provides service to the UB South Campus. There is an NFTA Metro Bus stop near the Main/Bailey Lot.

Parking on Campus
We ask all attendees parking on the North Campus to park in Furnas Lots, near the Student Union. Disability parking is available at the Furnas Lots.

Please note that UB and all Tech Savvy sponsors are not liable for your car or property or person while parked in lots on campus and while attending the events on campus. By taking the shuttle, you assume responsibility for your own safety.

Note: This brochure represents the program schedule, activities, and speakers as of the time of printing. The conference details may change without notice.
Note about Allergy Alert: Many workshops, including those noted, may make products. Please utilize care and observe your allergy/health concerns in all workshops! Students are advised to bring any products home to parents before consuming.

Workshop 1  Candy Land
Chemical engineers process chemicals and make— and improve— just about everything around you. In this workshop, learn about what polymers are and how we use them in our everyday lives. We will also learn how to make gum drops, a polymer that you can eat! (Note: Allergy Alert)
Tife Bamgboye, Mechanical Equipment Engineer, Praxair Inc.

Workshop 2  What’s Beneath Your Feet & How Did It Get There?
You’ll dig this workshop as you dig for fossils and learn about paleontology!
Jerald C. Bastedo, Executive Director, Penn Dixie Paleontological and Outdoor Education Center

Workshop 3  Engineering with People in Mind
How do engineers design and produce things that we all use? You’ll try exercises which show why technology must be designed with people in mind.
Ann Bisantz, Ph.D., Associate Professor of Industrial Engineering, SUNY Buffalo

Workshop 4  Your Fav. Genes (not Jeans) Putting the Puzzle Together
Everyone has a favorite pair of jeans. Learn about genes in this fun chromosome mapping exercise!
AnneMarie Block, Ph.D, FACMG, Director, Cytogenetics Lab, Roswell Park Cancer Institute

Workshop 5  Pharmacist are Fun!
Pharmacists help their patients to better understand and use their medications, and pharmacists are in more places than you may think. Join us for a fun workshop on an important career.
Karen Brim, RPh., Disease State Management/ Utilization Management Pharmacist, Independent Health

Workshop 6  Constructing Safety Lessons from the Three Little Pigs
Remember those pigs who constructed out of hay, sticks, and bricks? Well, today’s construction safety engineer goes a lot of thought to doing things the right way and the safe way. Learn about how safety plays a role in construction—and everyday life!
Elen Gawan, Construction Safety Engineer, Global Hydrogen, Praxair, Inc.

Workshop 7  Robotics
An overview of robotics/mechatronics, virtual reality/haptics, and virtual prototyping.
Coordinated by Venkat N. Krovi, Ph.D., Associate Professor, Department of Mechanical and Aerospace Engineering, SUNY Buffalo

Workshop 8  Renewing Your Environment!
Learn about ways to sustain your environment through renewable energy.
Laurie Kutina, Project Manager & Environmental Scientist, Ecology & Environment

Workshop 9  Sparking a System
Ever think about your telephone? Telecommunication exists because of an intricate system. Learn about the importance of systems—and their limitations—in this hands-on workshop.
Gemma Lanthier, Communications Electrician, aircraft mechanic & officer, Air Force Reserves (ret)

Workshop 10  Combating Breast Cancer
Learn about innovative research to understand breast cancer and to develop chemo preventive therapies for this issue affecting many women.
Patricia Masso-Welch, Ph.D, Scientist, Biotechnology Program, UB Medical School

Workshop 11  Special Delivery
Network engineers build and maintain computer networks. In this workshop, learn about network routing as we simulate the delivery of mail to different destinations.
Kathleen Murphy, Service Manager, Operational Support Services, University at Buffalo

Workshop 12  Smart Teenagers Finish Rich
A lesson in investing your hard-earned dollars.
Michelle Norris, financial industry specialist and AAUW Buffalo Branch Treasurer

Workshop 13  Let’s Get Physical!
Experience the thrill of listening to a human heartbeat and the whoosh of air moving through lungs. See first-hand what eardrums look like, and find out why the doctor always makes you say, "Ah-hah!" Get your mask and gloves on as you learn to prep for surgery, and test your knowledge of healthy habits!
Shelia Novelli, Physician’s Assistant specializing in Primary Care, Bertrand Chaffee Hospital

Workshop 14  Hot Company!
You are the president and CEO of your own company, faced with tough decisions. Learn about decision making while maintaining integrity in this fast paced, competitive game.
Suzanne Novelli, Investment Advisory Representative, Park Avenue Securities & Marketing Director, Alliance Advisory Group, Inc.

Workshop 15  Fashion Design
Fashion design is fun and uses lots of technology. In this workshop, you’ll design your own fashions and learn basic concepts of store planning and design.
Elaine Polvinen, Professor & Coordinator, Fashion Textile Technology, Buffalo State College

Workshop 16  Math is not just what you think it is.
Math is not just what you think it is. This math class is heavy in technology and computers, so be prepared for a fun, unique experience with two excellent female students in the National Science Foundation-funded URG to Compute program.
John Ringland, Associate Professor & Director of Undergraduate Studies, Department of Mathematics, SUNY Buffalo. Joaquin Carbonara, Ph.D, of Buffalo State College, and students

Workshop 17  Building Your Future & Creating Beautiful Architecture
Want to design your dream house? Interested in architecture? From the smallest shed to the tallest skyscraper, science and engineering work together to make all buildings work. This workshop will focus on how buildings work and how you can use science and engineering to create an architectural masterpiece.
Heather Stapel, Mechanical Engineer, Cannon Design

Workshop 18  Talk to the... Lip!
Make your own lip balm in this workshop where you’ll learn a little about chemistry, math, science, and packaging engineering. (Note: Allergy Alert)
Kristie Struzik, Product Engineer, Moog

Workshop 19  Crystals Are a Girl’s Best Friend!
From snow and ice, to gems and minerals, to drugs, teeth and bones, crystals are everywhere! Let’s explore the different types and shapes of crystals and try to grow some.
Marina Tsianou, Assistant Professor, Department of Chemical and Biological Engineering, University at Buffalo, SUNY

Workshop 20  Primarily Primates
A little monkey-business is allowed in this workshop! Learn about primate behavior and behavioral data collected.
Jade Wieczkowski, Assistant Professor, Department of Anthropology, Buffalo State College

STUDENT CONFERENCE SCHEDULE
8:00 - 8:45 Registration - Pickup T-Shirts & Light Breakfast
(Students are asked to wear T-shirts during the day!)
8:45 Welcome & Instructions
9:30 - 12:30 Tech Savvy Workshops & College Corner
12:30 - 1:00 Lunch
1:00 Convene in Student Union Lobby for Savvy Skills Workshops
1:15 - 2:15 Savvy Skills Workshops
2:30 - 3:45 Inspirational Address, Door Prizes & Computer Raffle & Turn in Evaluation Forms

THE COLLEGE CORNER EXPERIENCE
Tech Savvy University & Do You Know?
Ready to go to college? It’s not too early to plan!

NEW THIS YEAR! SAVVY SKILLS WORKSHOPS!
Tech Savvy Girls know that there are some other things that every savvy girl needs to know! So, this year, you are invited to a “networking lunch” or to a fashion show or to a fun presentation where you will work with some fabulous, smart, savvy women! (Students do not need to choose a particular Savvy Skills workshop: these five workshops will be assigned at registration.)

Business Etiquette, Deborah A. Kocks, founder, Power Keys, Inc.
Confidence & Presence, presented by Dr Barbara Nevergold and Dr. Peggy Brooks-Bertram, founders, Uncrowned Queens
Critical Thinking, presented by Junior Achievement of Western New York
Negotiating, presented by Karen Ginnane, Site Director, Praxair Technology Center
Work-appropriate Fashion & Interviewing Skills, presented by the Gap, directed by Heather Hutter, manager McKinley Mall Gap

INSPIRATIONAL ADDRESS
Learn how Susan Chapman negotiates success without limits!

Our confirmed keynote speaker is Susan Chapman, Senior Vice President of American Express. Ms. Chapman is in charge of Global Real Estate & Workforce Enablement. She knows how important science and math are...Her engineering background and combination of lots of experiences take her all over the world building ---- building real estate, building business, and building better ways for people to work better! Not only is Ms. Chapman tech savvy and she is, well, just savvy! So, look out, girls... You’re about to meet and learn from a woman whose career has no limits!
for success in science, technology, engineering, and math (STEM) for educational professionals. Teachers will leave this training with concrete ways to help their STEM and proactive ways to address. This research "comes to life" as you hear from a special panel with expertise in education, industry, and innovative gender-specific initiatives.

Fostering a career with no limits begins with understanding the realities for girls and women in STEM fields—and the wonderful opportunities that exist! We’ll begin the day with a realistic, yet optimistic, view so that you can help your girl(s) to pursue their future with no limits!

Quick Byte & Resources
Lunch & learn… While you enjoy your lunch, learn more about scholarships — and about AAUW and other local resources available to you and your child. Adults will have a chance to visit these resources, speakers, and colleges after lunch.

Special Panel Presentation
AAUW’s Why So Few research report highlights important findings about barriers for girls in STEM and proactive ways to address. This research ‘comes to life’ as you hear from a special panel with expertise in education, industry, and innovative gender-specific initiatives.

Adults will attend one of two morning workshops listed below:
(Note: Teachers attending the Spatial Skills training will not attend these workshops.)

Planning for College 101
It's not too early! Two presentations on preparing now for your middle school girl’s future college years: both academically and financially. Presentations from Jody Douglass, Head of School, Buffalo Seminary, and Suna Combs, Student Finance Counselor, Hilbert College.

Helping Your Child to Engineer Her Life
Help to lead the child in your life to success through mentoring and role models, led by Drs. Kerry Collins Gross and Terry Mulchitz from UB's School of Engineering and Applied Sciences.

Special Offering for Educational Professionals
Spatial Skills Development Workshop
9:30am — noon & continuing 1:00pm — 2:30pm

Findings in AAUW’s research report Why So Few indicate that one of the largest and most persistent gender gaps in cognitive skills is found in the area of mental rotation where boys consistently outperform girls. However, such skills have been shown to be easily improved with training. More and more, research suggests that spatial thinking is important for success in science, technology, engineering, and math (American Educator, Summer 2010). Helping Western New York educators assist girls is a high Tech Savvy priority, and this year, the conference will offer a special four-hour workshop to help teachers assist their students in developing critical spatial skills.

Leading the half-day workshop will be Sheryl Sorby, Ph.D., Mechanical Engineering, of Michigan Technological University. Dr. Sorby has extensive experience in the development of software and curricula to help students develop spatial skills and has conducted workshops for students and educational professionals. Teachers will leave this training with concrete ways to help their students-- both girls and boys-- to improve spatial skills.

 Teachers, counselors, and other educational professionals may attend this workshop at no additional cost—fees included in your Tech Savvy registration!