TechSavvy A program of AAUW

April 21, 2018 Gaylord, Michigan



Persistence, /pər-'si-stəns/ *noun*: firm continuance in a course of action in spite of difficulty or opposition.

TABLE OF CONTENTS

Workshop Schedule for Girls ·····	3 - 5
STEM Panel Presentation ·····	5
Schedule for Adults·····	6
Contact Information ·····	6
College Savvy Information ·····	7
Keynote Speaker ·····	8
Meet the Presenters ····	9-14
Meet the Volunteers ·····	15
Sponsors ·····	16

"Persistence proves to the person you're trying to reach that you're passionate about something, that you really want something." - Norah O'Donnell

TV Anchor, print and TV journalist

"Success is the result of perfection, hard work, learning from failure, loyalty, and persistence." - Colin Powell

Four-Star Army General, American Statesman, born of Jamaican immigrants in Harlem, New York City

2018 SCHEDULE - GIRLS

Time Activity Location

8:30-9:00 am	Check in and Breakfast	GHS Commons
9:00-9:20 am	Welcome (for girls and adults)	GHS Auditorium
9:30-10:20 am	Tech Workshop or College Savvy	UCG (see below)
10:30-11:20 am	Tech Workshop or College Savvy	UCG (see below)
11:30-12:20 pm	Tech Workshop or College Savvy	UCG (see below)
12:30-1:15 pm	Lunch	GHS Commons
1:30-2:20 pm	STEM Panel Presentations – recent college graduates and young STEM professionals (for girls and adults)	GHS Auditorium
2:30-3:15 pm	Savvy Skills Workshop	Assigned by grade; see below
3:30-4:15 pm	Keynote Speaker (for girls and adults)	GHS Auditorium
4:15-4:30 pm	Closing Remarks/Evaluations/Prizes (for girls and adults)	GHS Auditorium

Morning Tech Workshops / Room

Green is Not Over-reacting	U-111
Rollicking Robots	U-103
Marshmallow Fling	U-107
Drinking Fog	U-113
Light Up Your Brain with Science	U-111
Life's a Beach in Ancient Reefs!	M-111
"Invent" Your Future	M-109
Spark Your Interest	M-105
College Savvy	M-103

Afternoon Savvy Skills Workshops/ Room

Grade 6	U-111/112
Grade 7	M-103/105
Grade 8	
	Grade 7

Please visit the special exhibit

GREAT GIRLS IN MICHIGAN HISTORY
located in the University Center lobby

2018 TECH WORKSHOPS - GIRLS

Green is Not Over-reacting

Presented by Pam Spencer ANGUS Chemical Company Be Green and join the E-Team by exploring how companies use principles of Green Chemistry to help reduce waste from chemical reactions, and then test the E-factor of your own "reactions".

Rollicking Robots

Presented by Stacy Paul Owner of Array of Engineers Learn how persistence pays off while being introduced to the basics of robotics and have the opportunity to take a robot for a spin.

Marshmallow Fling

Presented by Teresa Collins Gaylord Middle School Learn how engineers approach a problem, then work in teams designing a catapult to see who can launch marshmallows the farthest.

Drinking Fog

Presented by Audra Morse Michigan Technological University Harvest water from fog and explore how harvesting can affect clean and safe water in communities with water challenges. Participants will design and test a model fog harvester.

Light Up Your Brain with Science

Presented by Lori Kindsvatter Gaylord High School Learn about electrical circuits by building a paper circuit to create your own LED light up card or display. Right brain meets left brain!

Life's a Beach in Ancient Reefs!

Presented by Amber Conner, Autumn Haagsma, Heather McCarren and Isis Fukai of Battelle Memorial Institute Explore the benefits of 420 million-year-old coral reefs found in northern Michigan using hands-on geologic techniques to locate, test, and analyze structures.

"Invent" Your Future

Presented by Denise Sylvester US Patent & Trademark Office

Learn about famous women inventors, what it takes to be an inventor, and how to protect your ideas. Then participate in an innovation challenge to modify or improve an existing invention.

Spark Your Interest

Presented by Tammi Ward Industrial Arts Institute Learn about the rewarding and high-paying opportunities available for girls in the welding industry. Meet Anna, a recent graduate who dreamed of becoming a "Woman Welder," and try out VRTEX, a Virtual Reality Welding Training Simulator.

College Savvy

Facilitated by Janice Lampert AAUW Gaylord Area Branch

Participate in hands-on activities from colleges, use your voice, put your best self forward, AND be eligible for nifty prizes.

2018 SAVVY SKILLS WORKSHOPS - GIRLS

6th Grade Girls: Yoga and the Science of Mindfulness

Presented by Amy Mertz and Erin Mann Co-owners Yoga-45 Sixth grade girls will gain understanding of mindfulness and how it can aid success in everyday life. Girls will also have a chance to learn and practice yoga postures designed to enhance well-being and quiet the mind.

7th Grade Girls: Rise Up

Presented by Luann Mabarak Kirtland Gaylord M-TEC Seventh grade girls will discover that the way females are portrayed in the media can impact their self-image and learn how to overcome any negative stereotypes.

8th and 9th Grade Girls: How to Persevere

Presented by Kristy Torsky Northern Family Intervention Services Eighth and ninth grade girls will learn how perseverance (the theme for this year's Tech Savvy event) is important to future success and gain valuable skills to boost their own perseverance.

STEM Panel Presentation (1:30–2:20 pm)

Meet a number of young women from northern Michigan who have chosen studies and careers in typically male-dominated STEM fields. Learn about their experiences, what led to their career choices, challenges they may have encountered along the way, and keys to their successes. Time will be allotted for Q & A with the audience. Questions are encouraged.

Moderator: Janice Lampert AAUW Gaylord Area Branch

Panelists: Lauren Bushong Amelia Mowry

Isis Fukai Ashley Switalski Rachel Kurzeja Taylor Whitman Heather McCarren

neather McCarrer

2018 SCHEDULE - ADULTS

Time	Activity	Location
8:30-9:00 am	Check in and Breakfast	GHS Commons
9:00-9:20 am	Welcome (for girls and adults)	GHS Auditorium
9:35-10:20 am	Anticipating College: Finding the Right Fit and Available Funding Luann Mabarak, KCC M-TEC Director/Academic Advisor Includes guidance for visiting college tables	M-101
10:30-11:10 am	Becoming College Savvy (visit College Savvy tables)	UCG Corridor
11:20-12:20 pm	Breaking Barriers D.J. Boehm, PhD - STEM Consultant Learn why females are under-represented in STEM careers and how to support girls pursuing STEM studies. Based on Why So Few? with research funded by the National Science Foundation.	M-101
12:30-1:15 pm	Lunch (girls and adults)	GHS Commons
1:30-2:20 pm	STEM Panel Presentation (for girls and adults)	GHS Auditorium
2:30-3:15 pm	STEM Opportunities, Available Resources, and Parent Networking Mary Fox, AAUW Gaylord Area Branch Learn more about STEM career opportunities as well as resources to further understanding. Engage in facilitated dialogue with other parents, sharing ideas for assisting girls in their journeys.	M-101
3:30-4:15 pm	Keynote Speaker (girls and adults)	GHS Auditorium
4:15-4:30 pm	Closing Remarks / Evaluations / Prizes (girls and adults)	GHS Auditorium

CONTACT INFORMATION

AAUW Gaylord Area Branch Membership Information at the University Center Information Desk

PO Box 1455 Gaylord, MI 49734 www.gaylord-mi.aauw.net aauwgaylord@gmail.com

COLLEGE SAVVY

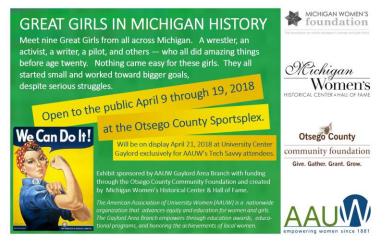
Tables Located in UCG-Central Corridor

COLLEGES / UNIVERSITIES / EXHIBITS

Ferris State University
Kirtland Gaylord M-TEC
Lake Superior State University
Michigan Technological University
North Central Michigan College

Great Girls in Michigan History ExhibitUCG - Entrance Lobby





KEYNOTE SPEAKER Nicolle Zellner PhD

GHS Auditorium 3:30-4:15 pm



Nicolle Zellner is a professor of physics at Albion College in Albion, MI, where she teaches introductory and advanced astronomy and physics courses. Nicolle's research interests focus on understanding the impact history of the Earth-Moon system and how those impacts affected the conditions for life on Earth. She studies lunar impact glasses to interpret the bombardment history of the Moon (and Earth), and a second project focuses on understanding how the chemistry of simple molecules is affected by impacts.

During the 2006-2007 field season, Dr. Zellner was a member of the ANSMET team that searched for meteorites in Antarctica. She spent two months there, and she and the team collected over 800 meteorites! Before coming to Albion College in 2005, she was a post-doctoral researcher at Lawrence Livermore National Laboratory's Institute of Geophysics and Planetary Physics. While there, she was also a Faculty Scholar associated with the Edward Teller Education Center. Nicolle was a member of the scientific ground crew during NASA's STS-67 Astro-2 mission in 1995.

Nicolle earned her PhD at Rensselaer Polytechnic Institute (2001), where she received the school's first Multidisciplinary PhD. Her undergraduate degree, with majors in Physics and Astronomy and a certification in Environmental Studies, is from the University of Wisconsin-Madison. She was an AAUW American Fellow, as well as a two-time Zonta Amelia Earhart Fellow. Her research has been supported by the American Astronomical Society and by the National Science Foundation and is currently supported by NASA. Check out Nicolle's blog at: http://campus.albion.edu/nzellner/

MEET THE PRESENTERS



Dr. D.J. Boehm

Dr. Boehm has a PhD in Cellular and Molecular Biology from the University of Michigan. She combined her love of science with communication skills in the medical device industry (Becton-Dickinson) to lead development of an instrument to detect deadly blood infections, edited a microbiology "best seller," and headed the Global Technical Services Team for 15 years. Embracing change, she moved to Pfizer pharmaceuticals where she led a human clinical trial team working on the important medicines Lyrica™ and Chantix™. She's an expert in large-scale change education. D.J. has served on several boards including United

Way of Washtenaw County, Ann Arbor Area Community Foundation, Ann Arbor Hands On Museum and the University Musical Society. Currently an independent consultant, D.J. and her husband are avid golfers and love the Gaylord area.



Lauren Bushong

Lauren Bushong was raised in Gaylord and is a fourth year student studying Materials Science and Engineering. In 2014, Lauren was honored as the Zonta Club of Gaylord's Young Woman in Public Affairs and was crowned the 50th Alpenfest Queen. For the past two summers, she interned for Nucor Steel in Arkansas and South Carolina. Currently Lauren is working as a Technical Services intern for EJ at the East Jordan Foundry.



Teresa Collins

Teresa Collins is a 1989 graduate of Michigan Technological University with a Bachelor of Science in Applied Mathematics. After college, she joined the U.S. Peace Corps and taught math in a small African village for two years. After returning from Africa, Teresa went back to Michigan Tech and became certified to teach math and physics. She has been a teacher in the Gaylord school district for 25 years, has a master's degree in teaching, and loves her job as an 8th grade math teacher. Teresa is married to Mike – also a teacher – and they have two children, Sam (21) and Maia (17).



Amber Conner

Amber Conner is a geologist at Battelle Memorial Institute in Columbus, Ohio. She has a Bachelor of Science in geology with previous oil field industry experience. She was a Seabee in the United States Navy and has traveled the world experiencing new cultures and environments. She loves hiking, biking, reading, writing books and continuing to gain knowledge and experience in the science field.



Isis Fukai

Isis Fukai is a research geologist at Battelle Memorial Institute in Columbus, Ohio. She received her Bachelor's degree in Geology from Oberlin College, and her Master's in Geology and Geochemistry from Louisiana State University. In addition to her academic research in metamorphic petrology and geochemistry, Isis has been involved in geologic CO² storage resource assessment at Battelle and the U.S. Department of Energy's National Energy Technology Laboratory. Her responsibilities include geologic characterization, petrophysical analysis, and static storage resource estimation. In her spare time, Isis enjoys gardening, mountain biking, and spoiling her dogs.



Autumn Haagsma

Autumn Haagsma is a research geologist at Battelle Memorial Institute in Columbus, Ohio. She has a Bachelor of Science in geology and physics from Central Michigan University and an Master of Science in geophysics from the University of Minnesota. Autumn works on carbon storage projects with an emphasis on the Midwestern United States. Her assignments include geologic characterization, 3D model building, and geostatistical analysis. She also enjoys reading, writing, and crafting in her spare time.



Lori Kindsvatter

Lori teaches physics and biology at Gaylord High School. She holds degrees from Michigan State University, Ferris State University and Central Michigan University in Medical Technology, Science Education and Biology. Prior to teaching, Lori worked in Research and Development at Dow Chemical and completed snake research at the CMU Biological Station on Beaver Island. Lori lives in Indian River with her husband, Chris, and her son, Kaleb, two dogs, a cat and four snakes. Her hobbies include hiking, biking, photography and anything to do with nature.



Anna Kohler

Anna grew up in Berrien County, Michigan, in a very close-knit family of 5 children who were home-schooled. She was drawn to create art through woodworking, metal welding and blacksmithing, taking great pride in her ability to create things with her hands. She joined the Comprehensive Industrial Welding program at IAI, where she participated in a student practicum experience at Moran Iron Works, and was recently asked to join their team as a Welding/Fabrication Intern.



Rachel Kurzeja

Rachel is a Project Engineer for General Mills at their Yoplait plant in Reed City, Michigan. She began working for General Mills in their Manufacturing and Engineering Associate (MEA) rotational program in 2015. During her time in the MEA program, Rachel held roles as Start-up Manager and Operations Team Leader. Rachel has a Bachelor of Science in Biosystems and Agricultural Engineering from Michigan State University.



Janice Lampert

Janice Lampert is co-owner of Sojourn Lakeside Resort with her husband Scott. She is an artist, and active community volunteer. She earned a Bachelor in Science in Art, with a concentration in Visual Communications from Illinois State University, where she also received a Varsity letter in swimming. She was the Creative Director for Denver Business Magazine, Gaylord Area Convention and Tourism Bureau, and a freelance Graphic Designer. This mother of three values problem solving through collaboration and creativity, and enjoys the restorative power in Nature.



Luann Mabarak

Luann is the Director/Academic Advisor for Kirtland Community College's northern site, the M-TEC in Gaylord where she blends her passions of positive thinking, servant leadership and compassion for others. She attained Master of Arts degrees in both Organizational Management and Counseling and is a Licensed Professional Counselor, HealthRHYTHMS Group Empowerment Drumming Facilitator and Certified Appreciative Inquiry Facilitator. Born with strong connections to nature, Luann credits some of her greatest lessons in life and leadership to her four-legged teachers.



Erin Mann

Erin Mann is a yoga instructor and a local business owner with a background in nonprofit administration. Yoga served as a lifeline for her while working with individuals reentering the community from the criminal justice system. For almost 20 years Erin was employed in careers serving vulnerable populations. Erin has a Bachelors of Science in Criminal Justice and a Masters in Public Administration and says she is a lifelong student, humbly learning from those around her. Her greatest teachers in life are her three amazing children and sweet husband.



Heather McCarren

Heather McCarren is a geologist at Battelle Memorial Institute in Columbus, Ohio with previous experience in the oil and gas industry. She has a Bachelors of Science in Geological Sciences and a Bachelor of Arts in Italian from Ohio State University. She earned her PhD at the University of California, Santa Cruz in Earth and Planetary Sciences. When not playing in the dirt, Heather enjoys making things, spinning yarn, weaving, knitting and drinking tea.



Amy Mertz

Amy graduated from Saint Mary's College, Notre Dame, IN with a Bachelor of Science in Biology and concentration in Chemistry and Education. She is a certified yoga instructor and co-owner of Yoga-45 where she is building a yoga community in Gaylord that fosters community and encourages growth, and her responsibilities include everything necessary to run a small business. Amy previously worked in health care, educating professionals on medications, public health and prevention. Amy is a substitute teacher, and volunteers her time with Guardian Gals and Otsego Recycling. She loves spending time with her family and participating in outdoor activities (especially paddle boarding and skiing).



Audra Morse

Dr. Morse is the Chair of the Civil and Environmental Engineering Department at Michigan Technological University. Her research focuses on water and wastewater treatment, specifically water reclamation systems and the fate of personal products in treatment systems. She has explored the prevention of biofouling in membrane systems and has a passion for engineering education. Dr. Morse earned Bachelor of Science and Master of Science degrees in Environmental Engineering, and a PhD in Civil Engineering from Texas Tech University.



Amelia Mowry

Amelia Mowry received her Masters degree in Information Science from the University of Michigan in 2012. She works as the Metadata and Discovery Services Librarian at Wayne State University. Her responsibilities include working with digital collections and databases.



Stacy Paul

Stacy is an engineer with a wide range of experience in the aerospace and high tech electronics industry. She owns her own company, Array of Engineers, a software/hardware embedded development and testing company. Stacy previously worked for Belcan Engineering in Grand Rapids where she developed software programs for airplane manufacturers Boeing and GE Aviation. A graduate of Johannesburg-Lewiston Area Schools, Stacy earned her Bachelor of Science in aerospace engineering from Embry-Riddle

Aeronautical University in Florida. Prior to returning to Michigan, Stacy worked as an aerospace engineer for NASA in Houston, TX.



Pam Spencer

Dr. Spencer is a scientist devoted to protecting human health and the environment. As a toxicologist, Pam provides consultation, conducts research and carries out assessments to help companies understand the human health and environmental safety of their products. She is currently the Senior Director of Regulatory and Product Stewardship at The ANGUS Chemical Company in the greater Chicago area. She received her doctorate from the Department of Toxicology, School of Public Health, University of Michigan, a Master of Science in Biology from Central Michigan University

and a Bachelor of Science from Saginaw Valley State University. Dr. Spencer is also a Diplomate of the American Board of Toxicology. She is passionate about promoting interest in STEM careers, particularly as it relates to the recruitment of women. She was an INSIGHT Into Diversity 2015 Inspiring Women in STEM National Award Recipient.



Ashley Switalski

Ashley is a senior at Kettering University who currently works for Corteva AgriSciences, the Agricultural Division of the DowDuPont Company. Through Kettering University's co-op program, she has completed rotations in a variety of fields including bioprocessing research and development, analytical spectroscopy, cellular biology, and material science. While at school, she participated in University Innovation Fellows and is the Master Alchemist for the Kettering Chapter of Alpha Chi Sigma. After graduating with a Bachelor of Science in Chemical Engineering in December of 2018, Ashley plans to pursue her PhD in Biochemical Engineering.



Denise Sylvester

Denise is a lawyer who serves as the Regional Outreach Officer for the Elijah J. McCoy Midwest Regional United States Patent and Trademark Office in Detroit, Michigan. In her role, Denise helps individuals and businesses protect their ideas and inventions. Ms. Sylvester received her Juris Doctor degree from Western Michigan University Cooley Law School, and holds Bachelor's Degrees in Environmental Studies and in International Affairs from the George Washington University. In her free time she serves as the Advocacy Director for Zonta International, District 15 (Michigan and Ontario, CA).



Kristy Torsky

Kristy is a family therapist at Northern Family Intervention Services and works in conjunction with human service agencies all across Northern Michigan to provide home-based, intensive therapy for children and families. As a Solution-Focused therapist, Kristy is able to help those in her care discover what is going right and how to accomplish more of it! She graduated with a Master of Arts in counselor education from Western Michigan University and did continuing education in SFBT at the University of Wisconsin-Milwaukee.



Tammi Ward

A native of the Indian River area and an alumna of Inland Lakes High School, Tammi earned her Bachelor of Arts in Business and Communications from Saginaw Valley State University in 1993. After more than 15 years in Workforce and Economic Development, Tammi joined the Industrial Arts Institute team in 2014. She brings a variety of experience to her role as Institute Operations and Student Services Manager. Tammi enjoys learning welding as a hobby and continues to explore opportunities to continue to develop her skill sets.



Taylor Whitman

Taylor is a 2016 graduate from Mio AuSable High School. She is currently a student at Kirtland Gaylord M-TEC studying welding and fabricating. She works at a small welding shop while attending school and has another full-time job lined up after she graduates. That job will allow her to travel the world!



MEET THE VOLUNTEERS

Planning Committee

Chair: Mary Fox	Margo Noss
Lisa Charles	Ursula Owens
Maureen Derenzy	Sheila Simpson
Marty Goodman	Brandy Solak
Janice Lampert	Amber Theriault
Kelly Lauster	Lisa Marie Tobin
Luann Mabarak	Mary Tomaski

Additional Tech Savvy Event Volunteers

Renee' Elias Kristin McCormick Jane Sekora
Jeanne Freymuth Pat Morse Barb Switalski
Jan Kellogg Lisa Patishnock Jane Urban
Paula Markham Brittany Stripp Carrie Wilkinson
Julie Marlette

This event truly would not have been possible without all of our volunteers. If we have missed naming volunteers who signed up after our program was assembled, we sincerely apologize.

We greatly appreciate all of your time and energy. Thank you!





AAUW Gaylord Area Branch thanks these sponsors whose generous contributions have made Tech Savvy possible:

Community Fund of the Otsego County Community Foundation Creating IT Futures Foundation Gaylord Community Schools Gaylord High School Culinary Arts Crew Judy Burkhardt's Transition Class at Gaylord High School **Kirtland Gaylord M-TEC** Lynn Henrikson Mary Kay Smith Sklarczyk Fund of the Otsego County **Community Foundation Otsego County Sportsplex Rotary Club of Gaylord** Saturn Booksellers **Tempest Enterprises LLC Treetops Resort & Spa University Center Gaylord Wayne State University Press Zound Industries**

Many in our town and the surrounding area believe in our goal to inspire girls toward STEM education and career opportunities. Thank you to everyone who had a part in supporting Tech Savvy.

Watch for 2019 Tech Savvy registration information opening in March 2019.