

# Registration Info

Registrations will only be accepted accompanied by the enclosed liability/release form and are taken on a first-come basis. Workshops will not be assigned without the enclosed forms or payment. To secure your spot in the workshop, please mail or bring your registration to the Continuing Education office at: 1500 N University Dr., Waukesha, WI 53188.

Girls MUST be between the ages of 11-14. This program is primarily funded by sponsors and all workshops are held by professional specialists who are volunteering their services for the day to specifically engage this age range in the STEM fields. Because of this, unfortunately, if your daughter is "almost" 11 years, she will need to wait to join our GEMS until next year.

Workshop choices are not guaranteed. Though we will do our best to place girls in their top four choices, in order to accommodate everyone we cannot guarantee spots in workshops. Each year, we strive to encourage young girls to pursue their interests in STEM fields by presenting them with the opportunity to speak to and learn from those who have already attained success in their field. We hope to present them with the opportunity to make connections with new people and those like-minded individuals to encourage friendships and personal connections. For this reason, we are unable to honor requests for girls to be put in the same workshops as a friend.

Registrations will not be accepted without the enclosed liability form and workshop choice insert completed.  
We appreciate your understanding!

Workshop assignments are final. Please be aware that changes to workshops cannot and will not be made once they are confirmed.

## GEMS UPCYCLE CONTEST

Winner of this contest, will go home with a \$50 VISA giftcard!

Join us for our GEMS Upcycled Contest! All girls attending the conference will have the chance to create an upcycled item that is useful in every day situations. All entered items must be brought on the day of the conference in order to be considered for voting. Items will be voted on during lunch and the winners will be announced at the end of the day.

### BE CREATIVE!!

#### Rules:

- Must be your own creation.
- One entry per person. No shared entries.
- Must be made of at least 75% reused/recycled materials.
- Must be an item that can be useable.

### Questions?

We're happy to help!  
[www.waukesha.uwc.edu/ce](http://www.waukesha.uwc.edu/ce)  
262-521-5460  
email: wakce@uwc.edu


### A BIG thank you to our 2017 Sponsors!

American Association of University Women (AAUW)  
SPX Transformer Solutions  
RW Baird Financial Group

UW Waukesha is proud to bring  
you our 9th Annual GEMS  
Conference for girls ages 11-14  
Saturday, May 6th,  
2017

9:00am-3:30pm

A great day with.....  
....exciting workshops  
....fun prizes  
....a student panel  
....a parent session  
....a special luncheon  
....and so much more!

 UNIVERSITY OF WISCONSIN  
**Colleges**  
SOUTHEAST REGION  
Continuing Education  
in cooperation with UW-Extension  
Serving Sheboygan, Washington, and  
Waukesha Counties

## Girls' Schedule of Events

- 8:00-8:45 am~ Check-in at UW Waukesha  
9:00-10:15 am~ Welcome Presentation & Student Panel  
10:25-11:15 am~ Session I  
11:25 am-12:15 pm~Session II  
12:15-1:20 pm~Lunch  
1:30-2:20pm ~Session III  
2:30-3:20pm~ Session IV  
3:20-3:30pm ~ Wrap-up and pick-up

Girls will have the opportunity to ask current college students any questions they may have! All of our student panel participants are college students attending local schools in our area. Our student panelists will reveal some valuable tips and tricks for being a successful college student! You will find out what other students have done to apply to college, how they set up their class schedule, if they work, if they live at home, and anything else you can think of to ask!

### Parent Morning

- 9:00-10:15 am~Welcome Presentation with girls  
10:15-11:00 am~College Prep 101 with Kathleen Folbrecht  
11:00-11:45 am ~Keeping Your Teen Safe Online” with Officer Brady Esser

This year, the parent program will discuss higher education options, a suggested timeline for college preparation, what your student can do now and throughout high school, and how to apply for scholarships. We'll talk about all of that! Parents will also have the opportunity to participate in a workshop catered to one of the biggest growing issues in an adolescence's life today; social media. Join Waukesha Police Officer, Brady Esser, as we explore ways that you can help to keep your children safe, while still allowing them the freedom to use social media! Bring your questions!

Please RSVP for this learning opportunity!

\_\_\_\_\_ Yes! I would like to attend the parent session.

\_\_\_\_\_ No, I will not be able to attend the parent session.

## Workshops

### 1. Stranger than Science Fiction

Every day we are discovering and learning more about objects in our universe that are stranger than science fiction. One such object is the black hole. You will learn how they are formed, how they can turn you into spaghetti, and even mess with space and time itself. We will be working with a model of space-time and how it responds to a black hole. Finally, have you ever wondered where the atoms in your body came from and how old they are? Well, you are in for another shock from our universe!

### 2. Future Engineers

We take robotics to the next level! Be among the first to engineer with the newly released LEGO EV3! This state-of-the-art programmable “brain” allows students to build and program their own robots. With four input ports and three output ports for following your commands, students can build, customize, program, and/experiment with their own amazing robots!

### 3. Egg Projected Structure Challenge

How far do you think you can extend an egg from the wall using only string, paper, and masking tape? Join the American Society of Civil Engineers and learn about how projected structures (or “cantilevers”) work in bridges and buildings around you! Then, use your new skills and knowledge to build a projected structure of your own and see how far you can project an egg from the wall!

### 4. Squishy Circuits

“It’s alive!!! Mua-ha-ha!” Did you know that electricians can make a lot of dough? Learn how to create a simple circuit out of insulated and conductive play dough, then connect your creation to a battery to watch it light up with an LED bulb! \*Insert mad scientist laugh!\*

### 5. Reptiles and Amphibians, Oh My!

What makes an amphibian different from a reptile? What are the different types or groups of reptiles? Come prepared to bust myths and misinformation about these misunderstood animals, and learn all about the diversity of reptiles, what they eat, where they live, how they defend themselves, and much more!

### 6. Great Odin’s Raven, It’s All About Vikings!

Come and learn all about the group known as the Vikings, great seafaring explorers who raided and traded all throughout Europe from the 8th century all the way up to the 11th century. Learn about their culture, habits, and explorations through time, and even participate in your own Viking burial excavation!

### 7. Extract Your DNA!

You’ve probably heard of DNA, but you can’t see it or can you? DNA, or deoxyribonucleic acid, contains the information that makes us who we are and is nestled safely in our cells, but isn’t visible to the naked eye. In this workshop, you’ll get to extract your own DNA from your cells and then create a keepsake necklace that contains your own DNA that you can actually see! Seeing is believing.

### 8. Science of Baking

Ever wonder how muffins and cakes rise or maybe why they don’t? Learn about the science and function of certain ingredients in baking and what happens if the wrong ones are used. You will have the opportunity to make your own muffins and learn the science behind the deliciousness of a popular treat!

### 9. What’s Behind Those Criminal Minds?

Think you have what it takes to learn mind control?!! Well, it’s sorta like that for psychologists who look for personality patterns and study somebody’s personality profile for suspicious cues that can help benefit private investigators, or even help people resolve some of their issues. We will test your handwriting and speech patterns to match them with certain personality types. And what does your presence on social media say about your personality? Learn about the superpowers of psychologists!

### 10. Engineering with Computers

Learn how to draft your own 2-D and 3-D computer models, just like engineers. Study the basics of CAD (Computer Aided Design) by designing a 3-D model of a camera using the professional computer software Autodesk Inventor in “Engineering with Computers”.

### 11. Mini Medical School-Hematology Lab

Welcome to your first day of mini medical school! Today, we’ll be learning about hematology - the study of blood and related diseases. In this workshop, you’ll learn about the components and functions of blood, create a candy blood model, and interpret data to diagnose patients with blood disorders.