



# Kids' Tech University

## Bowling Green State University

**KTU** is a science outreach program that provides a true university experience for children who as of Sept 30, 2018 are between the ages of 9 and 12. Morning sessions feature a talk and extended question period with the invited speaker. The afternoon sessions include a series of hands-on activities, relevant to the program dates's topic, guided by undergraduate, graduate students and faculty. Because these activities are conducted in a university setting, and sometimes using equipment used in our teaching labs our program provides a true university learning experience. 2019 marks the 8th season for Kids Tech University@BGSU.

### GENERAL INFORMATION

- 110 children will be accepted into the program
- For enrollment information, please visit <http://kidstechuniversity-bgsu.vbi.vt.edu/>
- Registration is on a "first-come, first-served" basis that is open to children satisfying the age restriction, regardless of academic achievements, and living within a one-hour drive of the BGSU campus. A waiting list will be available after registration is full for a county or for the program.
- In order to keep up with the costs of providing a quality program, there will be a registration fee of \$100.00 per child, payable upon registration. Some scholarship support will be available.

<http://kidstechuniversity-bgsu.vbi.vt.edu/>



## KTU SCHEDULE

February 09, 2019

**Dr. Jennie Gallimore Dean of the College of Technology,  
Architecture and Applied Engineering, BGSU**

*"Can you ride your bike and Snapchat at the same time?"*

We interact with all types of technology and systems every day. For example, your cell phone, dishwasher, bike, car, and airplanes. How hard are they to use? Does the technology make your work easier? Is it fun to use? Is it safe? When we design technology, we need to consider the capabilities and limitations of humans so they can easily and safely use it, otherwise people won't buy it or use it, or accidents can occur. What are some of the factors about humans that we should consider when we design something? Can a three-year-old do the same things a 12-year-old can do? Human Factors is the study of designing things for people. Examples of "human factors" include our memory, our size and strength, how we perceive things in the world, vision and hearing, and many others.

FEBRUARY 16, 2019

**Dr. Mary-Jon Ludy Associate Professor, Food and Nutrition,  
BGSU.** " \* P S Z S V MW Q 6 V I % H Z I R R X E V W S M R V G L J W G M I R G I

Although people often think that flavor and taste are the same, that is a myth. Taste comes from five basic qualities. These include sweet, salty, sour, bitter, and umami. While taste is part of flavor, most of what people call taste actually comes from smell. People can detect a trillion different odors. Another component of flavor comes from irritation. Examples are the bite of carbonated beverages and the coolness of mint candies. Collectively, these components that make up flavor – taste, smell, and irritation – are called the "chemical senses." If you have ever wondered why you have different food preferences than your friends and family members, the way that your body recognizes and perceives the chemical senses is part of the answer.

March 2, 2019

**Dr. Jeff Snyder, Director School of Earth environment and  
Society, BGSU.**

*"Lakes as recorder's of Earth's past climate "*

Lakes form on the Earth's surface from a variety of different processes. Once a lake forms, sediments begin accumulating on its floor, potentially providing a continuous record of a lake's history. These sediment archives offer clues to climates of the past. Traces of organisms that once lived in a lake and its surroundings commonly occur in these sediments.

Observations with a scanning electron microscope reveal an amazing beauty hidden within what we perceive as just mud. Diatoms, a single-celled algae with a cell wall made of silica, have a particularly spectacular diversity of forms. This presentation will demonstrate how diatoms offer clues to the history of the 3.6 million-year-old Lake El'gygytyn in arctic Russia. Lessons from climates of the past provide an important perspective to understand current and future climate trends.

March 30, 201

**Dr. Jack Schultz, Executive Director of Research  
Development, University of Toledo, and Adjunct Research  
Professor in Environmental Sciences, University of  
Toledo.,** "Plants are just very slow animals"

Many of us think of plants as part of the furniture, because they don't jump around. But plants do a lot of the same things animals do; it's just hard to see them behaving. Plants can smell, taste, hear themselves being eaten by insects, defend themselves against enemies, identify their relatives, communicate with each other, hunt for food, and more. A lot of what plants do involves chemistry, some of which we humans have adopted as flavors and fragrances. Our favorite perfumes include an alarm call that plants use when attacked by insects. And the familiar wintergreen taste and odor, is a signal plants use when infected by bacteria or fungi. Many plants collaborate with insect 'bodyguards', who come to their rescue when enemies attack. All life on earth depends on the success of plants, and they are successful in part because they can react to things even though they're rooted in the ground.

**Registration is online at the Kids' Tech University@BGSU  
website**

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