Engineering
Title: Egg Drop Challenge. Using a variety of materials, teams will work together to create a method to protect their egg from a high drop.
Marissa Campobasso, President, Society of Women Engineers, SIUC

Engineering
Title: Light Math
This workshop focuses on how mathematics helps researchers to understand light phenomena. Laser light will be used in the demonstration of a hologram and an optical fiber.
Mohammad Sayeh, SIU Engineering

Geology
Title: The Eagle has landed: Remembering the Apollo 11 moon mission, 50 years later.
Astronaut Neil Armstrong took humanity’s first steps on the moon on July 20, 1969. The Apollo 11, was the first successful manned mission to land on the moon. Since then numerous space missions have been undertaken to study Earth’s natural satellite. Learn about past, present and future missions to the moon as well as U.S. plans for use of the moon as a staging point for human flight to Mars and beyond.
Liliana Lefticariu, Department of Geology, SIUC

Medicine
Title: The Art and Science of Histotechnology.
Ever wonder how tissues are prepared for microscopic analysis? What is needed to change a biological specimen from an animal or human into a microscope slide that can reveal clues to chemical exposure, trauma, disease or death? Learn how tissue specimens are processed, sectioned and stained to unlock the secrets of cellular structure.
Maureen Doran, Histological Technologist, Saffron Scientific Histology Services, LLC

Mathematics
Reimaging the Paper Crane Game! Learn how getting crafty with paper can touch someone’s heart or even land you among the stars! See how origami can be used to make compact collapsible solar panels and heart stints while getting a chance to get hands on and try to fold paper all the way to the moon! Experience how mathematics and geometry come together to bring the second dimension into the third by folding your own flowers, animals, and 3D geometric shapes.
William Holt, Math Club; Roshini Gallage, AMS Grad Student Chapter, SIUC

Mathematics
Title: Fun with Math. Participate in fun games using Mathematics and Geometry to solve the puzzles. Be amazed while printing an object with a 3-D printer. SIU Admissions and Engineering will be available to answers SIU questions.
Math Professors, SIUC; Jennifer Horton, Morris Library; Admissions, Engineering, SIUC

Plant Biology
Title: Botanical Bioinformatics Workshop
In this workshop, you will explore datasets of plant gene expression in different tissues of a small flowering plant (Arabidopsis thaliana). By converting these genes into numbers, we can compare expression across tissues using linear regression and hierarchical clustering. This lets us answer the question "Leaf, stem, root, sepal or stamen, which plant tissue is most like a flower petal?" and get a comprehensive, quantitative answer from the genes themselves.
Matt Geisler, SIU, Plant Biology

SIU MATH WORKSHOPS
TUESDAY, MARCH 19, 2019
Psychology
Title: TBA
Kathleen Schmidt, Psychology, SIUC

Title: The Basics of Neuroscience.
The brain is complex and fascinating! Neuroscience is the study of the brain and its impact on behavior and how people think. Neuroscience affects all human functions and contributes to a better understanding of different conditions such as traumatic brain injury or Alzheimer’s disease. A short presentation about neurons, synapses, and regions of the brain and their functions will be a part of this workshop. The workshop will also include an interactive tour of the Operant Learning lab and the Restorative Neuroscience lab. Both labs are neuroscience based and focus on examining treatments for traumatic brain injury. Students will be able to experience different parts of the laboratories by working at different interactive stations.
Jennica Young, Brain and Cognitive Sciences Program, SIUC

STEM Education
Title: Math & 3-D Design
Students will learn about the integration of 3D Design in Secondary Mathematics education.
Stephanie Ellis, STEM Education Research, SIUC

More workshops to be added…