STEM EXPO – Wisconsin Science Olympiad, Friday, April 6th, 2018

Team Registration, starting at 9 am in Union Ballroom (Union, 1st floor)

Lecture Visits (for high-school students only)

9:00-9:50 am	Chemical Science, CHM 190
11:00-11:50 am	General Chemistry I, CHM 190
11:00-11:50 am	Astronomy, PHY 137
12:00-1:00pm	Joint Biomedical Seminar, EMS E250
12:30-2:20pm	Surveying Lab – Civil Engineering, EMS E170
1:00-1:50 pm	General Chemistry I, CHM 190
2:00-2:50 pm	Chemical Science (with focus on organic chemistry), CHM 190

STEM Expo

12:00-3:30pm **Union Ballroom**

Come see glassblowing demonstrations and student research posters. Participate in a variety of hands-on activities.

UWM Honors College (for high school students)

12:30-1:30 pm	An Honors College STEM Experience with Professor Chuck Wimpee!, Union 280

Campus and Specialty STEM Tours

Campus Tour times will be announced.

12:00 pm	Tour the Thomas Greene Geological Gallery, LAP 168
12:00 pm	Tour of the High Resolution Transmission Electron Microscope Lab, Starts in Union Ballroom
12:30 pm	EMS (Engineering & Mathematical Sciences) Tour, Starts in Union Ballroom
12:30 pm	Campus Tour (45 min), Union Ballroom

12: 30 pm	Tour of the Electron Microscope Lab (1-hour tour, meet in front of Union Ballroom 10 minutes prior to starting time), Room: Lapham SB72
1:00 pm	Greenhouse Tour, Starts in Union Ballroom
1:00 pm	Tour of the High Resolution Transmission Electron Microscope Lab, Starts in Union Ballroom
1:00 pm	Tour of Shimadzu Laboratory for Advanced and Applied Analytical Chemistry KIRC 2nd floor
1:00 pm	Planetarium Show: *Life of a Star*, Manfred Olson Planetarium, Physics Building
1:00 pm	Tour the Thomas Greene Geological Gallery, LAP 168
1:30 pm	Tour of Shimadzu Laboratory for Advanced and Applied Analytical Chemistry KIRC 2nd floor
1: 30 pm	Tour of the Electron Microscope Lab (1-hour tour, meet in front of Union Ballroom 10 minutes prior to starting time), Room: Lapham SB72
1:30 pm	Campus Tour (45 min), Union Ballroom
2:00 pm	Tour of the High Resolution Transmission Electron Microscope Lab, Starts in Union Ballroom
2:00 pm	UWM Greenhouse Tour, Starts in Union Ballroom
2:00 pm	EMS (Engineering and Mathematical Sciences) Tour, Starts in Union Ballroom
2:00 pm	Tour the Thomas Greene Geological Gallery, LAP 168
2:00 pm	UWM Planetarium Show: *Life of a Star*, Manfred Olson Planetarium, Physics Building
2:30 pm	Campus Tour (45 min), Union Ballroom
2: 30 pm	Tour of the Electron Microscope Lab (1-hour tour, meet in front of Union Ballroom 10 minutes prior to starting time), Room: Lapham SB72
3:00 pm	Tour of the High Resolution Transmission Electron Microscope Lab, Starts in Union Ballroom

For 6th-8th Grade only:

12:30 -1:30 **and** 2-3pm	UWM's TRIO and Pre-College Programs will be offering 2 sessions for 6-8th graders interested in demonstrating the 21st century STEM skills needed to succeed in school, work and life. In teams of 4-5, students will earn points by collaborating to problem-solve and display creative solutions to four unique challenges. The team with the most points by the end of the event will be declared the winner! Union 240
2:00 pm	Tour of Shimadzu Laboratory for Advanced and Applied Analytical Chemistry KIRC 2nd floor

Hands-on Interactive STEM activities/workshops and demonstrations

12:00-12:50 pm	Electrifying Times with IEE, EMS W270
12:00-12:50 pm	Glowing Chemistry, CHM 284
12:00-12:50 pm	The Ooey-Gooey Side of Chemistry, CHM 285
1:00-1:50 pm	Detective Science: The Case of the Vandalized Wall, CHM 297
1:00-2:00pm	Metal Casting in the UWM Foundry, EMS W365
2:00-2:50 pm	Electrifying Times with IEEE, EMS W270
2:00-2:50 pm	Glowing Chemistry, CHM 284
2:00-2:50 pm	The Ooey-Gooey Side of Chemistry, CHM 285
3:00-3:50 pm	Pipe Dreams: Water System Design with Engineers without Borders, Union 280

Special Research Presentations, Bolton Hall B52 (no sign up required)

Noon-1pm

Science Bag Presentation **by Bart Adrian (Mathematical Science):**

"Lightning and Electricity – Shocking Truth"

Are you ready for a shock? This program is charged up with facts about one of Nature's most dazzling displays of power! Sparks will be flying as you learn about the principles of static electricity. Become acquainted with Volta, Ampere, and Ohm—three scientists whose names are immortalized in one law of physics. Discover the process of one lightning flash—as live volunteers demonstrate how electrons cooperate to build the world's most incredible ladder—and then look out as heat, light, and the sound of thunder follow!

Student Research Talk

1 pm-1:20 pm

Shima Mehrvar: "Optical Imaging of Diabetic Wounds: A Medical Innovation through Electrical Engineering"

1:30 pm -2:30 pm

Science Bag Presentation **by Xiaohua Peng, Associate Professor, Chemistry & Biochemistry**

"Out of Africa? Migration of Modern Humans"

Where are we from? Do we have a common ancestor? How closely related are members of the human family? In this program, we will apply DNA sequencing to unravel the genealogical history of the human species and trace the migration route they took to populate the globe. In this show, you will learn how to reproduce this evolutionary picture using mitochondrial DNA, Y chromosomes, and micro-satellite DNA.

Student Research Talk

2:45 pm-3:15 pm

Anahit Campbell: "Kidney blockage detection made quick, simple, cost-effective."

4:00 -5:30 pm **Opening Ceremony** **Wisconsin Room/Student Union**

Special Presentation

Schlitz Audubon Center - Raptor Program Show

The Raptor Program not only features raptors such as hawks, owls, eagles, and falcons, but also other birds of prey such as the Turkey Vulture and American Crow. Learn about these powerful birds and their enormous impact on our ecosystem. See the birds up close and personal!

CHM	Chemistry Building
EMS	Engineering and Mathematical Sciences
KIRC	Kenwood IRC
LAP	Lapham Hall
LUB	Lubar Hall
PHY	Physics Building
NWQ	Northwest Quandrant

Union Ballroom: 1st floor of Student Union
Wisconsin Room: 2nd floor of Student Union