



Choose one option from each of our breakout sessions to get a full day of hands-on activities (Note that some popular and/or space-limited options are repeated in multiple sessions):

Session One:

- **How to Win at Jeopardy using Data Analytics:** Interested in starting your own business or playing a pivotal role in the corporate world? Don't miss this interactive session where you will learn how to create your own app and apply it to business use, while learning more about Tech's Business and Information Technology program.
- **Electrical Engineering Session:** Join Electrical Engineering faculty and put your skills to the test as you learn binary code and program a wheeled robot to follow a line on the floor. Students interested in learning more about electrical engineering, robotics, and computer science are encouraged to join!
- **Origami and Math:** We invite you to join the department of mathematical sciences for a hands-on session exploring origami - the art of paper folding. In this session you will be guided by mathematics faculty and students through a few paper folding exercises based on precise geometrical rules. You will discover how paper folding can be fun, and at the same time with surprising practical applications - such as in deployable solar panels of satellites. *No previous experience with origami is necessary.*
- **Nursing Simulation:** Nursing simulation is a bridge between classroom learning and real-life clinical experience. The nursing department will demonstrate use of a computerized mannequin that performs human functions to create a realistic clinical environment and give students an opportunity to explore a variety of healthcare scenarios.

Session Two:

- **Undergraduate Research Speech Competition:** Attend this session to learn about the kinds of research students can participate in and how the experience can help resumes stand out from the pack. Attendees will hear from current students in an "elevator speech" competition, and choose two winners.
- **Exploring the World of Occupational Safety and Health:** Keep the job-site safe from hazardous exposure, injury, and illness with our Occupational Safety and Health program. Harness-up and join our OSH professors in the fall protection simulation lab. Learn hands-on how to work from extreme heights and keep job-sites safe. Occupational Safety and Health is a highly employable health science field with jobs available in numerous industries worldwide.
- **From Games to Autonomous Vehicles:** In this session, students will turn a classic game competition into an app, while learning about the various roles Computer Scientists, Software Engineers, and Data Scientists play in developing games. Students will also get the chance to learn about job opportunities and making connections between computer science and real-world problems.

- **Unmanned Vehicles and Sensor Technology Application in Earth Science and Engineering:** Don't miss this hands-on presentation where geological engineering professor, Xiaobing Zhou, demonstrates the remote sensing capabilities of unmanned aircraft systems (UAS) commonly known as drones. See how these high-tech aircraft perform data collection and analysis, model geological characterization of sediment, and apply remote sensing in hydrology and climate science.
- **Campus Tour:** Take a tour of our beautiful campus with current Tech students! Explore our high-tech laboratories and learn about all the best spots to study, eat, and relax. Wear your walking shoes and layer up for our variable Montana fall weather!

Session Three:

- **Cadaver Lab Dissection:** Are you interested in learning more about the anatomy and physiology of the human body? Witness and interact with human cadavers and participate in a hands-on dissection of various animal organs in our Cadaver Lab interactive session. In addition, students will have the opportunity to learn more about our Biological Sciences, Chemistry, and Exercise and Health Sciences programs. Students must have a Cadaver Lab Acknowledgement Form on file to attend this session!

If you wish to partake in the cadaver lab experiential learning session please fill out and email our Cadaver Lab Acknowledgement Form, found on your PURL page, to Shelby at sbaker3@mtech.edu. **Students under the age of 18 will need a parent or guardian to sign the form.**

- **Metallurgy – Forging Careers:** The Metallurgical & Materials Engineering department educates students on the processes used in the production of materials used in manufacturing, construction, science, and industry. In this session, learn about how materials can be manipulated through an interactive forging and casting demonstration.
- **Have a Blast with #ModernMining:** Learn how the mining industry provides the quality of life we enjoy and has a BLAST while doing it. Many Mining Engineers specialize in ensuring that rock can be safely fragmented and extracted from the ground. We will explore blasting, the most common form of rock fragmentation, and get to see what happens when chemical energy is released. Students will also get to see the scale of modern mining (we have the biggest toys) and learn about the importance of safety in mining through a virtual reality (VR) experience.
- **Campus Tour:** Take a tour of our beautiful campus with current Tech students! Explore our high-tech laboratories and learn about all the best spots to study, eat, and relax. Wear your walking shoes and layer up for our variable Montana fall weather!
- **Highlands Campus Tour:** Interested in one of our associates or certificate programs? This tour will give you a peek into the incredible hands-on lab spaces at Highlands College. Attendees must have their own transportation to 25 Basin Creek Rd.