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:

- **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.**

- **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.

- **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.

- **Accelerate with Petroleum Engineering:** Products made from hydrocarbons, like lubricants, fuel, plastics, and more make both gas and electric vehicles possible. For this session, hit the road with our Petroleum Engineering department as they demonstrate different applications of hydrocarbons with a high-performance vehicle.

Session Two:

- **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.

- **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.
• **Biomedical Application on a Respirator:** Join electrical engineering professor Bryce Hill for a captivating look at how electronic sensors can be used and combined in novel ways to solve complex problems, in this case to monitor patient respiration in a health care setting. From motion sensors to 3D laser scanning, the small form factor and affordability of technology that was formerly bulky and expensive opens a world of possibilities for engineers.

• **Working at Heights and Fall Protection Demonstration:** Keep the jobsite 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 jobsites safe. Occupational Safety and Health is a highly employable health science field with jobs available in numerous industries worldwide.

• **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!

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• **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.

• **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.

• **Surviving College Panel:** Learn the ins and outs of being a successful Montana Tech Oredigger from a panel of current students. Bring your questions!

• **Cybersecurity & Network Administration:** Sit down with our cybersecurity and network administration faculty to learn all about spear phishing emails and the security issues they cause. Students will get the opportunity to create their own phishing email and send it to a “victim”.

• **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!