## **STEMM @XPO**

**NOVEMBER 14, 2025** 

## **BREAKOUT SESSIONS**

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### WRITE CODE, CATCH BANANAS AND SAVE THE WORLD

In a mysterious land—a bad gorilla has stolen the "Code Monkey's" bananas. Learn to write simple code phrases to guide the monkey across the screen to retrieve his missing fruit. Along the way, you will meet friends, like "Trusty Turtle," who will help you on your journey. Join us and learn real programming while playing a fun game.

LOCATION: Room 113 | West Hall

PRESENTERS: Doug Streitenberger & Students | ESCC Computer Programming

**SPONSOR:** Edison State Community College

### **USE YOUR SUPERHERO POWERS**

Come and see if you can beat "Mo the Motoman" robot weld and if you can outsmart "Jo the Fanac" robot in a game of tic-tac-toe. Use your superhero intelligence to program an industrial robot and watch it run. See if you can outsmart the robots or if they are smarter than you.

LOCATION: Room 421 | East Hall-Engineering Lab

PRESENTERS: Dave Barth | ESCC Electrical Engineering Program

SPONSOR: Edison State Community College

### **CAN YOU SEE SOUND?**

Have you ever wondered how you can hear different sounds? Ever wonder how your brain recognizes noise? Can you see noise? We'll discover how it all works—and we will make a bunch of noise too! Come learns how this all ties to a fun and interesting career in healthcare as a Medical Assistant.

LOCATION: Room 333 | South Hall

**PRESENTERS**: Yvonne Koors | ESCC Medical Assistant Program

SPONSOR: Edison State Community College

#### BUNGEE CHALLENGE – THE ULTIMATE DROP

Get ready for a hands-on, brain-powered adventure! In this breakout session, we'll take a playful trip down memory lane, using classic toys from the past to tackle a modern-day engineering challenge. You'll work in teams to design and test a bungee jump ride for an action figure or barbie doll, using math and physics to fine-tune the perfect drop. Will your figure survive the plunge? There's only one way to find out!

LOCATION: Room 511 | Emerson Center

PRESENTERS: Lisa Hartwig & Students | ESCC Math Department

**SPONSOR**: Edison State Community College

### OWN YOUR OWN COFFEE SHOP

Own Your Own Coffee Shop Do you have what it takes to run a coffee shop? You will become the owner of a virtual coffee shop. Buy raw ingredients including cups, coffee, milk and sugar – mix them accordingly. Set a selling price and determine how to strike a balance between customer satisfaction and profit. Your mission is to earn as much cash as you can within 14 virtual days. How have your business choices affected your success? Can you become the next Starbucks®?

LOCATION: Room 202 | West Hall-2nd Floor

PRESENTERS: Sandra Streitenberger, Accounting Students | ESCC Accounting Program

SPONSOR: Edison State Community College

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### HELP EDDIE—HE'S SICK AND HE CAN'T GET UP!

Come and play with "Eddie"—our human patient simulator. "Eddie" is a mannequin who can breathe and talk. "Eddie" is sick and needs your help. Use a stethoscope to listen to his heart and lungs. Explore nursing and join us for some fun, interactive activities.

LOCATION: Room 020B | North Hall

PRESENTERS: Michelle Dancer | ESCC Nursing Program

**SPONSOR**: Edison State Community College

### THE MISSING LAB RESULTS" ESCAPE ROOM

The school's health sciences lab has just completed a breakthrough screening study identifying early signs of cancer in at-risk patients. However, the results have gone missing, and the lead researcher vanished before a major presentation to a national health board. You and your team have to recover the encrypted files, interpret key results and unlock the secure system before the opportunity to revolutionize early detection is lost.

LOCATION: Rooms 209 & 211 | West Hall – 2<sup>nd</sup> Floor

PRESENTERS: Robyn Feitshans, Harley West, Karen Droesch, Lauren Henry, Hunter Curtis, Dana Puterbaugh

SPONSOR: Wayne Healthcare

### FROM CORN TO ICE CREAM—AGRICULTURE IS MORE THAN FARMING

Ever wonder what makes a corn kernel grow or what lies beneath the ground you walk on? Join us and learn about the agriculture "circle of life." Follow a kernel of corn from the time that it is planted—until the time it turns into something delicious to eat. We will explore the technology and science that agriculture uses to create many of the products you use every day—and we will wrap up with a sweet treat.

LOCATION: Room 458 | East Hall

PRESENTERS: Brad Lentz & Agribusiness Students | ESCC Agriculture Program

**SPONSOR**: Edison State Community College

### "ROLL" INTO CREATIVE CODE

Curious about coding? Join us for a session where you can learn how to operate, drive and perform basic coding with Sphero Bots. These programmable robot balls are designed to inspire creativity and curiosity through coding and play. Complete hands-on activities and gain confidence in coding.

LOCATION: Tech Lounge | East Hall PRESENTERS: Bethany Royer-DeLong

SPONSOR: OSU | Miami County Extension Office

### MED LAB TECH—IS IT FOR YOU?

Are you curious? Are you a problem-solver? When you have a question—do you just have to find the answer? Then a career in Medical Laboratory Technology may be a good fit for you. We will explore the physical and chemical properties of urines and how they relate to diseases. Come and explore this essential and ever-changing diagnostic profession.

LOCATION: Room 344 | South Hall

PRESENTERS: Vickie Kirk & Hannah Shirk | ESCC Medical Lab Technician Program

SPONSOR: Edison State Community College

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### **BRAVE THE WINTER WONDERLAND**

Think you can survive one of nature's fiercest snowstorms in Winter Wonderland? Design and build a stormproof house made entirely of sugary holiday treats. Your creation must withstand a full-on blizzard-avalanches, structural stress, and more. Use your engineering mind to craft a strong foundation, sturdy roof, and snow house ready for extreme conditions. Bring your creativity and problem-solving skills to see if your design can stand up to the storm.

LOCATION: Room 116 | West Hall

**PRESENTERS**: Leslie Brown, Janell Miller, Taylor Schmitmeyer, Lauren Martin, Katie Hamilton, Amanda Akers, Maria Vanderhorst, Jordan Rapking, Beth Mescher, Bethany Menke, Sarah Pinchot, Gail Sease, Vivian Nietkamp,

**Brooke Fullenkamp** 

**SPONSOR**: Midmark Corporation

### GET A CLUE—EVER THOUGHT ABOUT BEING A CRIME SCENE INVESTIGATOR?

Trigger warning: This session will include collecting evidence from a crime scene scenario and may include simulated bodily fluids and trace evidence commonly collected from sites of criminal offenses. Participants will handle actual equipment and supplies used by investigators to collect forensic evidence. Dive into the exciting world of crime scene investigation (CSI) and learn how forensic scientists and investigators gather and analyze evidence from crime scenes to solve cases and ensure that the truth comes to light.

LOCATION: Room 442 | East Hall

PRESENTERS: Laura Fox | ESCC Criminal Justice Program

**SPONSOR**: Edison State Community College

### AI PARTNERS: USING AI FOR CREATIVE THINKING

This session will demonstrate a variety of AI tools and methods to become more creative and critical thinkers. We will write, solve problems, create posters and signs, make comics, tell stories and more.

LOCATION: Room 321 | South Hall

PRESENTERS: Brian Leingang | ESCC English Department

**SPONSOR**: Edison State Community College

### RACING BRISTLEBOTS-ON YOUR MARK. GET SET. GO.

Join this fun activity where tiny robots made from toothbrush heads zoom around in races. It's like a mini robot Grand Prix! The bots are powered by vibrations and it's all about speed and agility. Build your own bristlebot and get ready for some high-speed toothbrush action.

LOCATION: Room 455 | East Hall

PRESENTERS: Marissa Hill | ESCC Career Pathways Advisor

**SPONSOR**: Edison State Community College

### "TINY HUMANS, BIG RESPONSIBILITIES!"

Think watching a baby is easy? Think again! In this hands-on crash course, you will learn how to safely hold, soothe, feed, and change a tiny human – plus what to do when things don't go as planned. From diaper disasters to calming cries, you will gain real-world skills while exploring the science, health, and problem solving behind infant care. Get ready for tiny humans and big responsibilities – with giggles, surprises, and STEMM in action!

LOCATION: Room 115 | West Hall

PRESENTERS: Regina Duff, Jennifer Heitkamp, Danielle Gebhart

SPONSOR: Wayne Healthcare

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### A BREATH OF FRESH AIR

In respiratory care, professionals help patients with breathing difficulties by using specialized equipment and techniques. Learn how to intubate a manikin, which simulates placing a tube into a patient's airway to ensure that they can breathe properly and then connect the "patient" to a ventilator. In this hands-on session, you will get to experience these critical procedures and understand how they help maintain proper oxygen levels and support patients in need of respiratory assistance.

LOCATION: Room 503 | Emerson Center

PRESENTERS: Drew Dukes | ESCC Respiratory Program

SPONSOR: Edison State Community College

### CAN YOU HELP SAVE CASPER THE DOG?

Interested in working with animals? A career in veterinary medicine may be an option. Come visit with current Veterinary Technology students and perform CPR on a canine manikin and apply a bandage or splint. Learn the difference between fleas, ticks and mites—with the naked eye and under the microscope.

LOCATION: Room 314 | South Hall

PRESENTERS: Elizabeth Bingham & Vet Tech Students | ESCC Veterinary Technology Program

SPONSOR: Edison State Community College

### **HIGH FIVE ROBO STYLE!**

Get ready to flex your creativity and your fingers in this hands-on STEMM adventure! In this exciting session, you'll design and build your very own robotic hand using simple materials and engineering principles. Explore how tendons, joints, and movement work together as you bring your invention to life. Whether you're a future engineer or just love building cool stuff, this activity will have you high-fiving your inner inventor!

LOCATION: Room 453 | East Hall

PRESENTER: Dr. Caitlin Borden | Early Childhood Education Program

**SPONSOR**: Edison State Community College

### **DESTRUCTION ANALYSIS: THE SCIENCE OF BREAKING POINT**

Put materials to the ultimate test! In this hands-on session, you'll perform a tensile test to see just how much force it takes to pull metal apart. Discover the principles of material science, analyze stress and strain, and witness the dramatic moment when a sample reaches its breaking point. It's destruction with a purpose-science at its most powerful.

LOCATION: Room 421 | East Hall - Engineering Lab

PRESENTER: Tom Looker | Mechanical Engineering Program

**SPONSOR**: Edison State Community College

### SPAGHETTI SHOWDOWN: THE MARSHMALLOW TOWER CHALLENGE

Think you can build under pressure? In this fast-paced team challenge, you'll race against the clock to construct the tallest freestanding tower using only spaghetti, tape, and one marshmallow – balanced right on top. Collaboration, creativity, and engineering skills are your key to victory in this fun, high-energy competition! Highest tower wins.

LOCATION: Room 331 | South Hall

PRESENTERS: Rick Kremer

**SPONSOR**: Crown Equipment Corporation

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### **ESCAPE WITH COPELAND**

Escape Rooms" provide fun and creative puzzles you must solve to get through barriers. Our "Escape" will challenge you to use different STEMM related technologies – computers, scanners, math, engineering, science, etc. – to find the clues that you need to solve the puzzle. Come "Escape" and have fun with us.

**LOCATION**: Room 223 | West Hall – 2<sup>nd</sup> Floor

PRESENTERS: Kelli McEldowney, Missy Grimes, Savita Maladkar, Sarah Huelskamp, Liz Miller & Mackenize

Hamilton

SPONSOR: Copeland

### **ESCAPE THE PHYSICAL THERAPY GYM – PHYSICAL THERAPY ASSISTING**

In this session students will use critical thinking, problem solving, communication, teamwork, and experiential learning to ESCAPE the Physical Therapy room. Students will work in teams to gather clues at each of the Physical Therapy Assisting activities to "Escape the Physical Therapy Room" by the end of the session. Activities include visual simulation, stroke simulation, balance challenges, an obstacle course, and designing an exercise program based on patient case scenarios. Do you have what it takes to Escape?

LOCATION: Room 010A & 010B Pavilion | North Hall

PRESENTERS: Sarah Young & Erynn Hanford | Physical Therapist Assistant Program

**SPONSOR**: Edison State Community College

### "KNOW THE BEAT: BLOOD PRESSURE & PULSE POWER"

Why Your Heart Matters: A hands-on look at blood pressure and pulse. Did you know your heart beats about 100,000 times a day? In this session, you will learn how to check your blood pressure and heart rate, key signs of your health. High blood pressure, the "silent killer", can cause serious harm without symptoms. Learn to understand your numbers, take control of your health, and explore nursing- a career that saves lives through critical thinking, skilled hands, and a caring heart. Your future in healthcare could start today.

**LOCATION**: Room 307 | South Hall

**PRESENTERS**: Jessica Burton, Erika Millsaps, Ashley Brown **SPONSOR**: Reid Health – Hospital & Healthcare System

### CAD/CAM/CNC PRODUCTION

In this hands-on session, we'll showcase how quickly and efficiently a CAD/CAM package can take a concept from design to machining on a CNC machine. Participants will collaborate to choose an engraving design, use CAD/CAM software to generate the "G" code program, and then bring the concept to life by manufacturing the final product on a CNC machine.

LOCATION: Room 421 | East Hall - Engineering Lab

PRESENTERS: Steve Sykes, Mike Rowe | Engineering Program

**SPONSOR**: Edison State Community College

### **NUTRITION FEEDS YOUR FUTURE: PERSONALLY, AND PROFESSIONALLY**

Join us to explore how food, nutrition, and health are connected! Discover how what we eat impacts our well-being, and learn about career pathways in fields such as dietetics, dietetic technology, culinary arts, food science, and more!

**LOCATION**: Room 120 | West Hall **PRESENTERS**:

SPONSOR: Premier Health Dietetic Internship

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### **EXPLORE THE MYSTERIES OF THE BLACK BOX**

In this engaging session, students will delve into the fascinating world of computer hardware by dismantling a desktop computer. Guided by an experienced instructor, they will gain hands-on experience as they carefully take apart components, such as the CPU, motherboard, RAM modules, and hard drive. This interactive exploration not only demystifies the inner workings of a computer but also fosters a deeper understanding of technology. As screws are turned and wires disconnect, students will uncover the intricate connections that power our digital world.

LOCATION: Room 443B | East Hall

**PRESENTER**: Rich Valerio | Cybersecurity Program **SPONSOR**: Edison State Community College

#### **ADVENTURES OF SAM THE SOYBEAN!**

Have you ever wondered how your favorite foods are created? Come follow the life of Sam the Soybean and gain perspective of turning a raw product into delicious food. We will explore the edible oil process through a guided interactive activity and see who can create the best product from Sam's life! Come join us to take home your product and a Cargill sweet treat!

LOCATION: Room 121 | West Hall

PRESENTERS: Sarah Wyenandt, Abbi Carlisle

SPONSOR: Cargill Incorporated

### **OOBLECK – STATES OF MATTER VIOLATION**

Have you ever made oobleck? Oobleck is made by mixing cornstarch and water in the right proportions to create a unique consistency. It can flow like liquid or behave like a solid. After creating your oobleck mixture, you will experiment, observe and record data about the substance. Students will then draw conclusions about the matter. Oobleck can be messy, so it's a good idea to wear an old shirt. Have fun exploring the fascinating properties of oobleck.

**LOCATION**: Room 241 | West Hall – 2<sup>nd</sup> Floor

PRESENTER: Kiala Clarke | ESCC Chemistry Department

**SPONSOR**: Edison State Community College



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