Saint Francis University
STEAM Day 2026 Presentations
Tuesday, November 24, 2026
Sessions begin at 9:30 am, 10:30 am, 11:30 am, and 12:30pm

STEAM Day Featured Presentations – JFK Auditorium				
9:30am	**10:30am**	**11:30am**	**12:30pm**	**12:30pm**
Feature #1 **From Saint Francis to Neurosurgery:** **A Career in Brain Science and Patient Care**	**Feature #2** **Atoms, Spies, and Immortality — The Job I Have Didn't Exist When I Picked My Major**	**Feature #3** **Day in the Life: STEAM Student Panel**	**Feature #4** **How to Write a Pennsylvania Poem (in Pennsylvania after Pennsylvania Poets)*** ***In JFK Lounge**	**Feature #5** **Careers in Medicine**
Dr. James Burke, MD, PhD '88 *Neurosurgeon, UPMC*	*Suzanne Yoakum-Stover, Ph.D. Executive Director, Institute for Modern Intelligence, Chief Scientist, Mission Focus AI Researcher, SingularityNet.io*	*Moderator: Ms. Abrielle Brown, Biology/Pre-Med (2027); Panelists: Ms. Ava Cioffari, Biology (2029); Mr. Richard Kirsch, Chemistry (2029); Mr. Gavin Ross, Chemistry (2027); Ms. Aubrey Ruddek, Biology (2029), Mr. Nathaniel Scritchfield, History (2027)*	*Dr. Matthew Ussia, '99* *Director of First Year Writing and Teaching, Associate Professor, Duquesne University*	*Dr. Nicholas Lanciano, MD* *Neurologist, Conemaugh Physician Group*
Dr. Burke has known since the age of 13 that he wanted to become a neurosurgeon. After earning his degree in Biology from Saint Francis College, as it was then known, he completed an MD/PhD in physiology and biophysics, followed by a neurosurgical residency at the University of Pittsburgh. He ultimately returned to the area, building a career caring for patients in the same community that helped shape him. In this conversation, Dr. Burke will reflect on his journey from Saint Francis to neurosurgery, the people and experiences that influenced him along the way, and the lessons he has learned from a career at the intersection of science, medicine, and patient care.	Suzanne Yoakum-Stover earned a doctorate in experimental atomic physics — and then spent her career writing code. She built and led the team behind a system that unified data at a scale most organizations never encounter and now uses that same technology to help move longevity research from fruit flies toward humans. None of those jobs existed when she chose her major. This talk is about the one skill that carried across all of it: finding the right way to represent a problem. Along the way — what's real in today's AI and what's being sold, why the tools you learn matter less than the ideas that outlive them, and what to do when the career you built ends without your permission.	What is it like to be a college student in a STEAM major? What are classes like, the workload, the schedule, the challenges? What clubs and activities are available? How do I prepare for a job, med school, or graduate school? What do you do for fun? Hear answers to these questions and more from current STEAM students and ask your own questions.	Whether you're from here or just visiting, love it or hate it, this workshop will explore the poetry of place using the landscape, history, and people of Pennsylvania as inspiration. Using examples from real life Pennsylvania poets, we will explore how capturing a sense of place in poetry, from traditional to more experimental forms participants will be taught how to shape your memories and experiences into poetry.	A physician will discuss their life and career and offer advice to aspiring healthcare professionals.

Saint Francis University
STEAM Day 2025 Presentations

Tuesday, November 24, 2026

Sessions begin at 9:30am, 10:30am, 11:30am, and 12:30pm

1. A Hands-on Intro in Therapeutic Gardening — **Hoophouse** — **9:30am,10:30am & 12:30pm**

Dr. Timothy Bintrim, Professor of English, Coordinator of Sustainability Minor, SFU

When extended care residents and other institutionalized persons have access to gardens, biophilia elevates their mood, reduces their need for medication, and encourages social interactions, flexibility, and fine motor skills. For the past five years, students at SFU have been using our high-hoop greenhouse to maintain a therapeutic garden at Maple Heights, a skilled nursing facility that is our community partner. This session, held in the SFU Hoophouse near Torvian Dining Hall, offers a hands-on introduction to sensory plants, winter gardening, and vegetative propagation. Participants will clone ice plant, tradescantia, and geranium to take with them. They will also forage for edible flowers and various mints and learn how therapeutic gardening can enhance careers in occupational or physical therapy, gerontology, psychology, nursing and physician assistant science, as well as botany, ecology, and teaching.

2. Artificial Selection: Blame Humans, Ask Chickens — **Science Center 133** — **9:30am**
Science Center 115 — **10:30am**

Dr. Gail Drus, Associate Professor of Biology; ZAAS 307 Animal Care Students, SFU

Take a selfie with a chicken! In this session, visitors will interact with live chickens, observe their features up close, and learn how genetics and selective breeding shape the traits we see in animals today. Using simple visual tools, visitors will also explore how scientists track characteristics from one generation to the next and understand why certain traits appear and persist.

3. Atmospheric Carbon Removal with Mine Waste — **Science Center 024** — **9:30am**

Dr. Joel Bandstra, Professor of Environmental Engineering, SFU

Although mining is a necessary activity to sustain a modern society, earth materials newly exposed to the atmosphere release contaminants such as the acid mine drainage that plagues our region of Pennsylvania. Not all mined minerals, however, will produce contaminants. Some rocks can even remove carbon dioxide from the atmosphere thereby offering a mechanism to reduce global climate change. In this talk we will examine rocks that produce pollution and rocks that can remove carbon. We will also conduct an experiment with household items to demonstrate the carbon dioxide removal process.

4. Aviation Maintenance — **Science Center 024** — **11:30am**

Mr. Justin Grant, Instructor of Aviation Maintenance; Mr. Christian Zanin, Instructor of Aviation Maintenance, SFU

Have fun with sheet metal and learn about the exciting career of Aviation Maintenance with hands-on projects and demonstrations.

5. Beyond the Clinic: The Invisible Forces of Public Health — **Sullivan 119** — **12:30pm**

Dr. Lisa Wisniewski, Assistant Professor of Public Health; Senior Public Health students, SFU

Public Health extends far beyond medical institutions, vaccines, and emergency response. Do you have a desire to improve the health of individuals? Then come and explore how public health prevents disease, promotes wellness, and works behind the scenes to build a healthier society while we engage in interactive games!

6. Bookbinding and Printing for Beginners — **DiSepio 211** — **9:30am & 11:30am**

Dr. Lisa Beiswenger, Assistant Professor of English, SFU

In this session, participants will learn about the origins of the printing industry in Europe, learn the fundamentals of bookbinding by making a simple sewn pamphlet, and try their hand at setting print and printing.

7. Cheetah Conservation in Africa — **Science Center 115** — **9:30am & 12:30pm**

Dr. Lane Loya, Professor of Biology; BIOL 322 Field Biology Students, SFU

Is it possible to save the cheetah from extinction? Last winter, a group of Saint Francis University students and faculty traveled to the Cheetah Conservation Fund in Namibia to explore this question. They will share what they learned about the future of the cheetah and discuss their field experiences in this session.

8. Chemistry Degrees Open a World of Possibilities **Science Center 230** **12:30pm**

Dr. Rose Clark, Professor of Chemistry, SFU

We will discuss using your Chemistry Degree to go to Pharmacy, Medical, Law, Ph.D. Research schools and more. A chemistry degree challenges you to think critically, which is important for your future! We will also have several fun chemistry experiments to explore and discuss.

9. Chemistry ROCKs! DIY Chemistry Experiments for Curious Minds **Science Center 219** **10:30am & 11:30am**

Dr. Edward Zovinka, Professor of Chemistry; CHEM 324 Students, SFU

Think chemistry is just textbook equations? Think again! Join our session and experience just how much fun unlocking the secrets of science can be.

10. Creative Digital Art **Large Practice Room, Connors Family Fine Arts Center** **11:30am & 12:30pm**

Mr. Brian Dumm, Adjunct Associate Instructor of Visual Arts, SFU

Digital photography, digital drawing, and digital painting are the foundation for this mixed media session designed to get you thinking creatively about images and graphics. Students will complete a fun, original portraiture project based on their own photos, and enhanced with digital drawing and painting tools. Create a unique profile picture for your social media account, or simply have a blast experimenting with colors, shapes and textures that help tell the story of you!

11. Cryptography: Making and Breaking Secret Codes **Science Center 028** **10:30am & 11:30am**

Dr. Kevin Slonka, Associate Professor of Computer Science & Cyber Security, SFU

What if you could send a message that everybody could see but only a few could read? Find out how to encrypt and decrypt basic messages in this session. Coded messages are used by spies, diplomats, and the intelligence community, but also used on almost all Internet transactions. Make and break some simple codes in this session and learn some of the theory behind codes.

12. CSI Loretto: Help Forensic Chemists Solve a Crime **Science Center 225** **9:30am, 10:30am & 11:30am**

Dr. Ashley Smith-Diemler, Associate Professor of Chemistry; R.O.C.K student leaders, SFU

Work together with the CSI Loretto team to solve a crime. You will review the evidence collected from the crime scene to identify the suspect who committed the crime. This analysis will require creativity, attention to detail, and collaboration with your peers and the CSI team. Bring your curiosity to compare fiber, hair, and blood (simulated) evidence to help us catch the perpetrator!

13. Disastrous Floods and the Demise of Steel in Johnstown **Schwab 102** **10:30am**

Dr. Pat Farabaugh, Professor of Communications, SFU

Learn more about the history of the steel and coal industry in the Johnstown region, as well as the causes and the science behind the three major floods that have hit this city. In this session, author Pat Farabaugh will talk about his latest book - "Disastrous Floods and the Demise of Steel in Johnstown" - and the process of writing and publishing a book.

14. Do You Have the Right Moves?
Exploring Human Performance Through Motion Capture **DiSepio 119** **9:30am & 10:30am**

Dr. Kristofer Wisniewski, Associate Professor of Exercise Physiology; Dr. Michelle Giles, Assistant Professor of Exercise Physiology; Mr. Tyke Steiner, Assistant Professor of Exercise Physiology; Ms. Brianna Toth, Clinical Instructor of Exercise Physiology; Dr. Mark Boland, Clinical Professor of Physical Therapy; Exercise Physiology Students, SFU

The greatest opponent an athlete faces on the field of play is an injury. The fortunate thing is that many of these injuries are AVOIDABLE! Proper movement mechanics during training and participation in sports can minimize the risk of serious injuries. We can leverage technology to analyze movement patterns in individuals of all ages. Learn how to move efficiently and effectively to not only reduce your risk of injury but improve your performance in competition.

15. Does the Declaration of Independence Matter Today? **DiSepio 201** **10:30am**

Dr. Denise Holladay Damico, Professor of History; Mr. Randall Frye, Engagement and Stewardship Manager, SFU

We recently celebrated "America 250," the 250th anniversary of the Declaration of Independence. Join us for an interactive discussion about the meaning(s) of the Declaration of Independence in today's world.

16. Explore the Keirn Family WWII Museum **WWII Museum, 2nd Flood of Library** **9:30am, 11:30am & 12:30pm**

Ms. Carol Stoltz, Librarian for Access Services, Director of the Keirn Family WWII Museum; Mr. Alex Fry, Student, SFU

Explore history up close with a guided tour of the Keirn Family World War II Museum. Led by SFU history majors, this tour features artifacts, photographs, and memorabilia that tell the stories of soldiers and civilians from World War II. Discover rare military equipment and gain a deeper understanding of the global impact of the war through this interactive experience, perfect for high school students interested in history.

17. Fireworks, Projectiles, and Rainbows: What Chemists Do for Fun **Science Center 223** **9:30am & 10:30am**

Dr. Pedro Muíño, Professor of Chemistry, Master of Explosions, SFU

See that chemistry is behind most technologies we currently use, from our space program to our kitchens and from construction to demolition. They will also show that a good chemist never misses an opportunity to set something on fire (safely, of course).

18. Hands-On Nursing Olympics: Think, Act, Compete! **ELC Skills Lab G31** **9:30am, 10:30am & 11:30am**

Dr. Amy Kowalski, Clinical Assistant Professor of Nursing; Dr. Jessica Gregg, Associate Professor of Nursing; Dr. Kim Forst, Clinical Associate Professor of Nursing; Dr. Christin Mearns, Clinical Assistant Professor of Nursing; Ms. Megan Komar, Instructor of Nursing, SFU

During your visit, you'll get the chance to step into the role of a nurse through our Olympic-Style Nursing Activity Session! This fun, hands-on event will let you test your skills in a series of quick challenges designed to showcase teamwork, problem-solving, and basic healthcare techniques. From relay-style activities to interactive stations, you'll experience what it's like to think on your feet just like a nurse—all while competing in a lighthearted, engaging atmosphere.

19. Innovate for Inclusion: The Art and Science of Switch-Adapted Toys* **Saint Margaret Hall 010: OT Lab** **10:30am**

Dr. Jen Misiura, MOT, OTR/L, Clinical Assistant Professor of Occupational Therapy; Dr. Cassie Grassmyer, Ed.D., Assistant Professor of Education, Field Experience Coordinator, SFU

Can a simple switch transform the way a child plays? Join us to find out! In this interactive session, you'll explore how STEAM principles are used to modify mainstream toys for children with disabilities, making play more accessible, engaging, and inclusive. Try your hand at toy adaptation, meet students and faculty from Occupational Therapy and Education, and discover how innovation, creativity, and teamwork can create meaningful opportunities for every child. You will leave this session with an understanding of how small switches can lead to big possibilities and inclusive play. *Signed waiver by parent/guardian required

20. Insights and Advice from Pre-Medicine Students **DiSepio 213/214** **9:30am & 10:30am**

Dr. Kate Criswell, Assistant Professor of Biology; Dr. Sue Reimer, Professor of Biology and Pre-Medicine Program Coordinator; Pre-Medicine students, SFU

Interested in medicine, optometry, dentistry, veterinary medicine, or pharmacy? Join us as we have a panel discussion featuring Saint Francis University Premedicine students. Learn how they chose a school, what courses they are taking, and how they are planning their path to medical school.

21. It's the Power of the Wind **Science Center 015** **11:30am**

Mr. Michael Sell, Director of the Institute for Energy, SFU

How much electricity can one wind turbine produce? Why are they built on the tops of mountains? Attend this session to discover one of the world's fastest-growing energy resources. Learn about the advantages and challenges of wind energy then experiment with model wind turbines to test different blade designs and see how much electricity you can generate from the power of the wind.

22. Join the Red Wolf Pack: An Introduction to SFU Admissions and Financial Aid **JFK Lounge** **10:30am**

Dr. Bobby Anderson, Assistant Vice President of Enrollment Management, SFU

Saint Francis University is one of the premier institutions in the Northeast, touting 1) nationally recognized academic programs, 2) amazing opportunities in internships, study abroad, research, and more, 3) NCAA Division III Athletics, and 4) exceptional outcomes for graduates including very impressive graduate school and career success! Getting into SFU is easier than you think, and the financial aid is very generous...let us show you how you can "Become that Someone" you always believed you could be...at Saint Francis University!

23. Making Sense of Our Sensory Systems **Library 203, Sensory Room** **9:30am & 10:30am**

Dr. Erin McConnell, OTD, OTR/L, Assistant Professor of Occupational Therapy, Academic Fieldwork Coordinator; Dr. Julie Nagle OTR/L, Associate Professor of Occupational Therapy, SFU

This interactive session explores how our sensory systems influence learning, behavior, emotions, and everyday activities. Through engaging discussions, hands-on activities, and a sensory pattern self-assessment, participants will identify their own sensory preferences. The session will also feature a sensory room experience where participants can interact with equipment designed to provide visual, auditory, tactile, vestibular, and proprioceptive input. Attendees will learn practical strategies for supporting sensory needs, reducing stress, promoting self-regulation, and creating environments that support learning and well-being.

24. Meet the Animals of the Biology Department **Science Center 130** **9:30am & 10:30am**

Dr. Justin Merry, Professor of Biology; SFU Animal Care Student Team, SFU

Come meet the animals that make their homes in the Biology Department at SFU! Current students will introduce you to our resident corn snakes, crested gecko, White's tree frog, red-eared slider turtle, and more!

25. Movie Mind Games: Why Movies Make Us Feel **DiSepio 201** **9:30am**
DiSepio 213/214 **11:30am & 12:30pm**

Dr. Brennan Thomas, Professor of English, SFU

Get ready to see movies in a whole new way! In this fast-paced 50-minute session, students will examine unforgettable scenes from action/adventure, horror, drama, sci-fi, and comedy films. They'll uncover how directors use sound, visuals, dialogue, pacing, and storytelling to make our hearts race, minds wonder, or sides ache with laughter. Discover why some scenes thrill us, scare us, move us, or make us laugh—and why they stay with us long after the credits roll!

26. Reset Your Brain: Music for Stress, Focus & Calm
Large Practice Room, Connors Family Fine Arts Center **9:30am & 10:30am**

Mr. James Donovan, Assistant Professor of Fine Arts, TEDx Speaker, Multi-Platinum Recording Artist, SFU

High school life can come with a lot—stress, racing thoughts, pressure, distractions, and feeling mentally overloaded. In this interactive session, you'll learn simple ways to use music, rhythm, movement, and mindfulness to help reset your brain, regulate your nervous system, quiet a busy mind, improve focus, and feel more grounded. We'll make music together, experiment with rhythm and drumming, and practice a technique you can use anytime your thoughts feel like they're moving too fast. You'll also experience how making music with other people can reduce stress, shift your energy, and create an immediate sense of connection. No musical experience is needed. This is a relaxed, hands-on session designed to give you practical tools you can use to feel calmer, more focused, energized, and connected.

27. SFU Esports : Unlocked! **Luke Trotz Esports Arena (Lower JFK)** **10:30am, 11:30am & 12:30pm**

Mr. Caleb Burkett, Esports Coordinator; Mr. Carmen Lefour, Esports Graduate Assistant; Members of the SFU Esports Team, SFU

Students can visit the state-of-the-art Luke Trotz Esports Arena and play a variety of games including Super Smash Bros. Ultimate, Rocket League, Valorant, and more! In addition, staff and students will be present and available to discuss the Collegiate Esports experience (including possible scholarships) and steps to join the team.

28. STEAM Careers and You! **Schwab 302** **10:30am**

Ms. Beth McGregor, Director of Career Services; Mr. Andrew Stopko, Associate Director of Employer Relations & Internships; Ms. Becky Cacciotti, Assistant Director of Career Services, SFU

Today's STEAM professionals create virtual worlds, design amazing machines, invent new materials, construct earth-friendly buildings, and engineer cutting-edge air vehicles. Over the next 20 years, the science, technology, engineering, arts, and math (STEAM) field is projected to grow significantly. You have the chance to be the innovators, educators, and researchers who will change the world. In this session we'll explore careers and majors in the STEAM field and how your personality, interests, skills, and values might fit in a STEAM career. Get started on exploring and preparing for a STEAM career of the future!

29. Stump a Professor: Debate about God, Politics, and Morality **Schwab 302** **9:30am & 11:30am**

Dr. Gregory Stacey, Assistant Professor of Theology and Philosophy, SFU

In this event, students will sit with a Saint Francis University professor. The first person sitting in the chair can cross-examine the professor on a subject matter of the student's choice. Once the student leaves the chair another student can take his/her place for a new debate!

30. The Fake that Becomes Real: Theatre Prop Tricks
Resinski Black Box Theatre, Connors Family Fine Arts Center 12:30pm

Ms. April Beiswenger, Director of Theatre, SFU

Theatre props are an amazing art form that helps to create reality for a production. Whether fake food, special objects, or fun tricks, props enhance the actors' and audiences' enjoyment of a production. In this session, you will be able to see how props are created!

31. The New Pig Innovation Challenge **Science Center 024** **12:30pm**

Ms. Karissa Steck, Product Support Specialist; Mr. Tyrel Merritts, Instructional Designer; Ms. Ellie King, New Pig Corporation

The Innovation Challenge is a fun, hands-on activity that brings innovation to life through teamwork, experimentation, and rapid problem-solving. Participants learn to identify key project assumptions, test ideas quickly, and improve their designs through iteration. Along the way, they experience both the scientific method and the innovation process in action, proving that failure is often the first step toward success.

32. Think Before You Click: A Crash Course in Cyber Security **Science 005** **12:30pm**

Mr. Michael Zambotti, Assistant Professor of Cyber Security, SFU

Everything from your phone to hospitals to power grids are online, making cybersecurity one of the fastest-growing and most important fields in STEAM. This session will explore how hackers target people, what real-world cyber threats look like and actionable steps you can take to protect yourself. Students will also investigate the wide range of careers in cybersecurity: From ethical hacking to digital forensics and learn how to get started in the field.

33. Tour of the Saint Francis University Campus **Admissions Welcome Center** **9:30am & 10:30am**

Ms. Victoria Ivock, Associate Director of Admissions; Bell Tower Student Ambassadors, SFU

SFU students will lead a walking tour of the Saint Francis University Campus including classrooms, Library and Learning Commons, DiSepio Institute for Rural Health and Wellness, Science Center, residence hall, and other key locations on campus. During the tour, they will talk about college experience and life on campus.

*9:30am Tour departs from DeGol Arena after welcome.