13th Annual Super Science Friday

Keynote Speaker: Steve Belliveau, Getting Excited about Engineering

umflint.edu/k12
Welcome to the University of Michigan-Flint!

As the Vice Chancellor for Enrollment Management at the University of Michigan – Flint, I am pleased to welcome you to our campus for a day of interactive learning. Today is the 13th annual Super Science Friday. You will be joining 400 Genesee County Middle School students as they explore and learn more about the amazing world of science.

Since December, the University of Michigan – Flint faculty, staff and students have been working diligently to create fourteen experiential workshops that will inspire you about science. During your time with us, you may explore the properties of matter, learn about alternative energy, direct a robot or discover how crime fighters use science in their investigations. The presenters are all looking forward to answering your questions about their sessions and our university.

This year’s Super Science Friday will feature a special presentation by Steve Belliveau, an entertainer that explores science and magic. He has performed in schools and colleges all over America. He will entertain and educate us about science through his spectacular demonstrations.

We are confident you will learn new and exciting things during your time with us today. We hope the workshops motivate you to include the sciences in your future educational and career plans. Who knows? You might invent an alternative fuel source, cure a disease, or design a probe that will explore the depths of the universe. The possibilities are only limited by your imagination.

Have a great day and GO BLUE!

Kristi Hottenstein, Ph.D.
Vice Chancellor
for Enrollment Management

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PREPARE YOURSELF
FOR SOMETHING DIFFERENT!

Our keynote speaker this year is Steve Belliveau. Steve and the Getting Excited About Science program has been recognized by professional teaching organizations, the Chicago Tribune and WGN TV as being at the top of the field in science assemblies.

This is a science show with “wow” factor and lives up to its name. Hovercrafts, exploding balloons, and a human gyroscope are just a few of the amazing demonstrations used to help kids discover the science in the world around them. It is the perfect blend of teaching and entertainment.

The presenter skillfully combines his university science degree with his skills as an entertainer to present a general science show that captivates students.

We hope you’ll enjoy his show!
BLOOD, GUTS, & GORE: THE SCIENCE BEHIND SPECIAL EFFECTS MAKEUP
To create really accurate and effective special effects makeup, designers have to do research into the way the body responds to trauma. In this workshop we will explore the science behind bruises, black eyes, burns and blisters. Students will get to try different techniques on themselves.

SHELBY NEWPORT is an Associate Professor at UM-Flint and is the Resident Costume Designer. She also designs costumes and makeup professionally at Purple Rose Theatre, Tipping Point Theatre, and Flint Repertory Theatre. ADAM DILL is the Costume Shop Supervisor and Lecturer at UM-Flint. During the summer, Adam is the Costume Shop Manager for the Colorado Shakespeare Festival.

NEWSCASTERS FOR A DAY
In this workshop we will create an evening news segment by using a green screen, teleprompter, and camera. We will use video editing software to immerse two volunteer newscasters into their top stories.

BRANDON BLINKENBERG AND CARSON WAITES are instructional designers and media creators at UM-Flint’s Office of Extended Learning.

USING GEOSPATIAL TECHNOLOGY TO EXPLORE THE WORLD
Using geospatial technology, students will be guided through exercises showing the power of spatial data to understand the world around us.

TROY ROSECRANTS is the GIS Center Manager and is in charge of managing the projects/activities within the GIS Center.

BEHIND THE SCENES IN THE OPERATING ROOM: ANESTHESIA MAKES SURGERY POSSIBLE!
Nurse Anesthetists work to monitor your heart, blood vessels and breathing during surgery. They also keep you asleep, comfortable and pain free. Come visit us and get a basic overview of how anesthesia makes surgery possible! Students will be able to interact with mannequins and learn how anesthetists use airway equipment and breathing tubes to assist patients with their breathing during surgery.

JASON FLOWERS AND CHUCK GOODE are registered nurses and senior Anesthesia students in the UM-Flint/Hurley Medical Center Master of Science in Anesthesia program. They will graduate in August 2018.

HOW TO SAVE A LIFE
This workshop will allow the students to practice chest compression and ventilation for CPR, utilizing an AED and correct procedure for helping a patient that is choking.

DR. CAMPBELL joined the School of Nursing faculty at the University of Michigan Flint in the fall of 2017 where she is currently an Assistant Professor and teaches in the accelerated nursing program. She has been a nurse for over 30 years and has extensive experience in emergency medicine. Prior to joining the faculty at the University of Michigan Flint, Dr. Campbell practiced as a Clinical Nurse Specialist in the Emergency Department at Beaumont Health System in Royal Oak Michigan. Her interest in simulation began in 2013 to assist with improving patient safety and the critical thinking skills of the emergency department nurses. Dr. Campbell’s experience in simulation has been with the use of low and high fidelity as well as in-situ experiences. Dr. Campbell recently achieved her Certified Healthcare Simulation Educator certification. The primary focus of Dr. Campbell’s scholarship is utilizing simulation in assisting graduate nurses to safely transition into practice within the emergency department.

HIP KIDS ARE FIT KIDS
Meet with nurses to monitor your heart with an electrocardiogram, check your blood pressure, use a stethoscope to listen to your heart, and challenge your classmates in a fast round of health jeopardy all to the beat of “Just Don’t Stop the Music”.

SONJA MOREAU, MSN, RN is a Registered Nurse and full time faculty at the University of Michigan-Flint. She currently teaches students in the clinical setting. Sonya has been caring for patients in Genesee County for more than 30 years. The Hip Kids / Fit Kids presentation will be facilitated by Ms. Moreau and nursing students.

UNCOVERING THE MYSTERIES OF MAGIC WITH THE CHEM CLUB
This workshop will begin with the Chem Club Demo Squad performing a magic trick that will lead to a discussion of how chemists use their knowledge to describe, analyze, and create items that students experience on a daily basis. The students will then perform some chemical magic of their own!

The CHEMISTRY CLUB is an award-winning student chapter of the American Chemical Society consisting of students from a variety of majors that is dedicated to promoting chemistry while providing an enriching, fun experience for its members. The Demo Squad consists of club members whose passion is promoting the excitement of chemistry to the public through education with hands-on activities and demonstrations. They perform their lessons both on and off campus to a wide variety of audiences.
LIGHTS, SCIENCE, ACTION!!!
SCIENTIFIC EXPLANATIONS OF EXTRAORDINARY OCCURRENCES

Defying gravity, beautiful reactions, and fiery explosions are great reasons to be excited about chemistry. However, many people often mistake our science as magical. During this program, the Chemistry Club Demo Squad will do a little myth busting by showing some of our most popular chemistry and physics demos and discussing with a crowd why what they are seeing is explained by science instead of magic.

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THE BIGGEST EXPLOSIONS IN THE UNIVERSE
What do cake, donkeys, and the Empire State Building have in common? In order to make them, you must first have a universe filled with stars that create the necessary ingredients. Those stars have to explode in order to fill the Universe with those ingredients! In this activity, we’ll investigate the “ingredients” that make up the universe, how stars make them, and how they go out with a bang!

An astronomer by training, DR. RAJIB GANGULY is an Associate Professor of Physics at UM-Flint, with a specialty in black holes. He has used many telescopes including the Hubble Space Telescope in his adventures in understanding how the biggest black holes in the universe shape the very evolution of the galaxies in which they live.

TRAUMA DRAMA
Interactive presentation related to details of a trauma scenario.

LISA THERIAULT Hurley's level I trauma center presents additional reasons why we should strive to prevent traumatic injuries. Injuries are not always accidents; there is a component of choice, especially for preventing trauma in youth. Trauma Drama helps to enlighten young minds about these realities and help form the conscience, impacting the decisions leading to trauma. Hands-on exercises and the reality of an Emergency Department trauma code, also broaden their knowledge base.

BRAIN GAMES:
PHANTOM HANDS AND STICKY FINGERS

One job of psychologists is to figure out how our brains control our behavior. Our brains function well most of the time, but sometimes our brains can be tricked. Three interactive demonstrations will show different ways our memories and perceptions can deceive us—including accurately recalling a past event, making someone believe a rubber hand is actually their own real hand, and learning how to hit a target with sight-impairing goggles. Students will learn what these ‘tricks’ reveal about how the brain works. Come see if your brain can be tricked.

DRS. MILLER and MOLINARO are assistant professors in the Psychology Department. Their research and teaching interests focus on cognitive neuroscience, perception and legal psychology. Three separate, student-developed, demonstrations will be led by members of their research laboratories and students from their Capstone Experience in Psychology courses: Kathleen Berta, Jacob Champagne, Haley Dawson, Kelley Dubuc, Kathryn Fishwick, Madeline Hundley, Ashleigh Gray, Caitlyn Mansour, Morgan McFarlin, Kevin Michaels, Kaitlyn Petrone, Erica Perry and Emily Ware.

DESIGN YOUR OWN SOLAR POWERED CAR!

Students, in this workshop, will discover the science behind converting energy from the sun for our everyday usage. We will use the example of a solar powered toy car which the participants will assemble themselves. They will have access to devices for measuring both voltage and current produced by the solar panels. Students can experiment with various gear and pulley combinations as well as different solar cell positions to determine which is most effective. All supplies will be provided.

BIPLOB BARMAN is an Assistant Professor of Physics at UM Flint. His research work focuses on the interaction between laser radiation and semiconductor nanomaterials, useful for photovoltaic applications. All of his experiments are performed at a temperature of -441 degree (water freezes at +32 degree F), much lower than the coldest planet of our solar system Neptune, at -330 degree F.

CRIME SCENE INVESTIGATION:
THE CASE OF LOIS MCARTHUR

Tragic suicide or horrible murder? Students will use blood, hair, fiber, finger printing and handwriting analysis to solve this case.

THE MOLECULAR BIOLOGY CLUB is a student organization.
UNIVERSITY OF MICHIGAN-FLINT

AREAS OF STUDY

ARTS & SCIENCES
- Actuarial Mathematics
- Africana Studies
- Anthropology
- Applied Science
- Art and Design
- Art History and Criticism
- Art-Studio Art
- Biochemistry
- Biology
- Chemistry - General
- Chemistry
- Communication
- Computer Information Systems
- Computer Science
- Criminal Justice
- Dance
- Economics
- Energy & Sustainable Systems
- Engineering
- English, Specialization in Linguistics
- English, Specialization in Literature
- English, Specialization in Writing
- Environmental Science & Planning
- Environmental Science & Sustainability
- Fine Arts
- French
- French & International Studies
- French & Linguistics
- History
- Honors Program
- Human Biology
- Interdisciplinary Studies
- Mathematics
- Mechanical Engineering
- Molecular Biology & Biotechnology
- Music
- Music Education
- Music Performance
- Philosophy
- Philosophy, Emphasis in Ethics, Social & Political
- Philosophy of Neuroethics Program
- Physics
- Political Science
- Psychology, Applied
- Psychology
- Psychology, Research
- Public Administration
- Social Sciences, joint programs
- Sociology
- Spanish
- Spanish & International Studies
- Spanish & Linguistics
- Theatre
- Theatre Design & Technology
- Theatre Performance
- Urban & Regional Planning
- Visual Arts Education
- Visual Communications
- Wildlife Biology

PRE-PROFESSIONAL PROGRAMS
- Pre-Dentistry
- Pre-Law
- Pre-Medicine
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Veterinarian

EDUCATION & HUMAN SERVICES
- Early Childhood Education
- Elementary Education
- Secondary Education
- Social Work
- Substance Use Treatment & Prevention

MANAGEMENT
- Accounting
- Entrepreneurship and Innovation Management
- Finance
- General Business
- International Business
- Management
- Marketing
- Operations & Supply Chain Management
- Organizational Behavior & Human Resources Mgmt

HEALTH PROFESSIONS & STUDIES
- Clinical Laboratory Science/Medical Technology
- Health Care Administration
- Health Sciences
- Nursing
- Public Health
- Radiation Therapy
- Respiratory Therapy

GRADUATE PROGRAMS
- Accounting (MS)
- Anesthesia (DrAP)
- Anesthesia (MS)
- Applied Communication (MA)
- Arts Administration (MA)
- Biology (MS)
- Business (Post-Master’s Certificate)
- Business Administration (MBA)
- Business Certificate
- Computer Science and Information Systems (MS)
- Early Childhood Education (MA)
- Education (Ed.D.)
- Education Specialist (Ed.S.)
- Educational Administration (MPA)
- Educational Technology (MA)
- English Language and Literature (MA)
- Inclusive Education (MA)
- Leadership & Organizational Dynamics (MS)
- Liberal Studies (MA)
- Literacy Education (MA)
- Mathematics (MA)
- Nursing (Accelerated MSN)
- Nursing (DNP)
- Nursing Certificate in Adult Gerontology Acute Care
- Nursing Certificate in Psychiatric Mental Health
- Physical Therapy Certificate
- Physical Therapy Residency
- Physical Therapy (Entry-Level DPT)
- Physical Therapy (Post-professional tDPT)
- Physical Therapy (Ph.D.)
- Public Administration (MPA)
- Public Health (MPH)
- Social Sciences (MA)

SUPER SCIENCE FRIDAY is PART OF THE UM-FLINT K-12 PARTNERSHIPS PROGRAM.

Other K-12 Partnerships include:
- DEEP (Dual Enrollment Educational Partnerships)
- Carman-Ainsworth STEM Early College
- Genesee Early College (GEC)
- Grand Blanc Early College (GBEC)
- Byron Early College
- Clarkston Early College
- Southern Lakes Early College

For more information, please see umflint.edu/k12

Engaging minds. Preparing leaders.
**Schedule of Events**

8:00 am
**Arrival**

8:00 am - 9:00 am
**Campus Tour**

9:00 am - 10:00 am
**Workshop Session 1**

10:15 am - 11:15 am
**Workshop Session 2**

11:30 am - 12:30 pm
**Workshop Session 3**

12:30 pm - 1:30 pm
**Pizza Lunch in Recreation Center**

1:30 pm - 1:45 pm
**Dismissal/Load busses from Recreation Center**
CELEBRATING

13 YEARS

THIS EVENT WAS MADE POSSIBLE IN PART BY:

Frederick & Stella Loeb
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