



Greetings from STEM@SVSU

STEM@SVSU was a busy place to be again this summer with the STEM Innovators High School Camp, Chief Science Officers Leadership Training Institute, SMEKplus camps, and more outreach activities both on and off campus. Many of our fall programs are already underway – the Chief Science Officers will soon visit Covenant Hospital for their Fall Cabinet Meeting in October, STEM Resource Kits are available for checkout through our office, and we are proud to partner with Nexteer Automotive, the Great Lakes Bay Manufacturing Association and the Girl Scouts Heart of Michigan office to offer the Automotive Engineering Badge Fest in November again this year!

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As the fall season brings changes, our office has experienced some changes as well. After 8 years with STEM@SVSU, I am leaving Saginaw Valley State University to become the Science and Instructional Technology Coach at the Bay-Arenac ISD. It has truly been an honor and a privilege to work with all of you! I'm excited to continue working with many of you to advance STEM initiatives throughout Bay and Arenac counties. Please be patient as STEM@SVSU navigates through these changes in the coming weeks; current programming such as the Chief Science Officers (CSO), SMEKplus camps, and others will continue. STEM@SVSU is thrilled to welcome Jake Lounsbury as the Interim STEM Outreach Coordinator; many of you may already know him from his work with the CSO program. You can learn more about Jake on page 2.

Watch our website www.svsu.edu/stem, Facebook, and Instagram pages for the most updated information and opportunities available. As always, please contact us with any of your STEM support needs. We wish you all the best this school year!



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Keep in touch with STEM@SVSU on social media!



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Meet Jake Lounsbury

After graduating from Western Michigan University, I began my teaching journey at the Saginaw City School District, concentrating on 7th and 8th grade science at North Middle School. Beyond imparting academic knowledge, I took pride in coaching the school's Girls Basketball and Track teams. My dedication extended to the Michigan National Guard, where I served as a Cavalry Scout for nearly a decade, including a combat deployment to Kandahar, Afghanistan. Upon returning, I resumed teaching in Bridgeport, Michigan, immersing myself in 8th grade science, writing, and various school extracurriculars. My passion for STEM led me to international engagements with the Chief Science Officers community, and now, I am thrilled to join STEM@SVSU, eagerly anticipating my collaboration with everyone in the region.

You can contact me at jtlounsb@svsu.edu.



Updates from the MiSTEM Network

My name is Dr. Betsy Diegel, and I began as the new MiSTEM Director for Region 10 back in April 2023. I quickly became aware of the numerous assets, brilliant teachers and dedicated educational leaders we have committed to moving our region forward in areas of equity, access, and 3P (problem, project, place) learning. I am looking to put together a teacher/leader workgroup this fall that is targeted toward creating a 3P project that can be taken back to each of your schools. Please reach out to me if you are interested. In alignment to 3P, MiSTEM is providing support to Math in the Mail, science/engineering student leadership networks, 3P activities led by teachers, Middle Michigan Career Quest, and many others for 2023-2024.

Sharing your perspective, expertise, and passion for 3P learning is very important to MiSTEM Region 10 forward. I value your input and appreciate you taking the time to complete the survey found at the QR code below. Thank you!



I would love to be invited to any gatherings supporting STEM and 3P at your schools and in our community. My contact information is as follows:

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STEM Stars

STEM@SVSU is excited to partner with MiSTEM, East Central Michigan Region again this year to recognize STEM Stars from the Great Lakes Bay Region (Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Midland, Saginaw counties). A STEM Star may be a K-12 classroom teacher, Robotics Coach, STEM Coordinator, or someone else in your district/ISD who makes incredible contributions to STEM education. Districts may nominate more than one individual; however, priority will be given to nominees who have not been previous recipients of the award. All nominations will be reviewed by a committee and those selected will receive a \$250 award to enhance STEM education in their classroom or program, as well as a 3D printed keepsake.



The nomination link will be posted on our website www.svsu.edu/stem on November 6th and all nominations are due by December 11th. Awardees (and nominators) will be notified via email by Friday, January 12th. We can't wait to read about all the STEM Stars in our region this fall!

Mark Your Calendars for Upcoming STEM Events:

A.H. Nickless Innovation Award Competition team registration & abstract – due by 4 pm October 27th. For more information – ahninnovationaward.com

Girl Scout Automotive Engineering Badge Fest – November 11th

Hour of Code – December 8th

Girl Scout STEMpalooza – February 17th

SMEKplus Jr. 2024 – July 16th-18th

SMEKplus Sr. 2024 – July 23rd-25th



STEM@SVSU Family Night Activity Kits Available for Checkout

Are you planning a STEM Family Night at your school this semester? We have STEM activity kits available for checkout on a first come, first served basis! The cost is just \$5 per kit and includes all of the materials needed for your students and their families. Complete the online STEM Family Night Activity Checkout Form on our website at least 3 weeks prior to your event.



Girl Scout Automotive Engineering Badge Fest

Calling all Daisy, Brownie, and Junior Girl Scouts! Register now through the Girl Scout Heart of Michigan Office for the Automotive Engineering Badge Fest at SVSU, taking place on Saturday, November 11th from 8:30 am – 12:30 pm. Explore the engineering design process, learn about simple machines, create and test prototypes, and manufacture your own set of vehicles. Thanks to Nexteer, Girl Scouts Heart of Michigan, and the Great Lakes Bay Manufacturing Association for partnering with us for this event!





Another STEMazing Summer!

Read on for our summer highlights. Many thanks to all who have participated in or supported these programs.

STEM Innovators Camp



Our summer full of programming kicked off with the STEM Innovators Camp. From June 19th through June 22nd, High School students constructed water-powered bottle rockets, explored nutrition and health sciences, soldered smart cars, and more! Not only did students learn about physics, engineering, and health science, they also designed their own product to solve a real-world problem and pitched their idea to judges. This Shark Tank experience was four days of innovation, learning, and fun!

Thank you to AT&T and the Herbert H. & Grace A. Dow Foundation for sponsoring this camp!



Little Architect's Camp

STEM@SVSU partnered with the Bay County Historical Museum for their Little Architects camp July 17th through July 20th. Led by former STEM@SVSU Student Employee Lissa, students learned about the world of architecture and the engineering process! Kids ages 6-12 had a STEMazing time as they learned to design and create structures using both architecture and STEM skills!





Science and Mathematics Extravaganza for Kids (SMEKplus)

This year's SMEK Jr. theme was Under the Big Top and 88 students in 2nd – 4th grades investigated circus themed activities like balloon jousting, glow in the dark oobleck, circus food and drink creation, and bubble exploration. The theme for SMEK Sr. was Out of This World! 58 campers in 5th – 8th grades explored concepts of energy, gravity, inertia, motion and more during our Outer Space-themed camp. Students that attended participated in launching rockets, navigating rovers, testing gravity and exploring Newton's laws of motion and more. Campers had a BLAST and can't wait to TAKE OFF at next year's SMEK camps!



Thank you to our partners who provided scholarships this year: Alpha Delta Kappa (Alpha Sigma Chapter), the Carol M. Shuler Mathematics and Science Camp Scholarship, the Kiwanis Club of Midland, and the SVSU School and University Partnership Office.



SAVE the Date for SMEK 2024!

SMEKplus Jr. (current 1st – 3rd grade students):
July 16 – 18, 2024

SMEKplus Sr. (current 4th – 7th grade students):
July 23 – 25, 2024





Chief Science Officers Program Kicks Off Another Year!

Who better than the youth in the Great Lakes Bay Region to lead STEM events and impact their communities in unique, innovative ways? The Chief Science Officers program, a world-wide initiative that draws middle and high school students to leadership in STEM, encourages students to do just that through leadership training, preparing youth to lead an event or project, and interactions with STEM professionals in the region. The program encourages youth to actively promote STEM in their schools and communities through an action plan, or an event and project that expands the impact of STEM in some capacity. Examples of these youth-led action plans include career nights, STEM clubs, STEM professional panels, STEM field trips, informational STEM-themed announcements, advocating for more sustainable practices in schools, and more. Each school that participates in the program receives a grant to assist with the financial aspects of putting on an event which educates CSOs on how to budget and creatively use resources. In addition to budgeting and coordinating professional events, CSOs gain knowledge about communication, leadership, teamwork, and problem-solving.



CSOs who have successfully been in the program for at least a year had the opportunity to “level up” and challenge themselves to make a bigger impact in a Level Two session. All of the sessions at LTI were led by experienced CSOs who participate on the Leadership Council for the Great Lakes Bay Region, further highlighting how youth can effectively educate peers in their communities. This year, the GLBR CSOs experienced a new addition to LTI. A career and communication session, organized by the Great Lakes Bay Regional Alliance, was a welcome addition that enriched the knowledge of career resources in the region.

Through interactions with other CSOs and STEM professionals during LTI, CSOs have the opportunity to share new knowledge with their communities. They also visit local STEM businesses twice each year for CSO cabinet meetings and will be meeting at Covenant Healthcare in October to learn more about medical careers available in the region and share that information with their peers



Before a CSO can begin organizing their action plan, they are required to attend a regional Leadership Training Institute (LTI). On August 8th and 9th of this year, CSOs from the eastern half of the Great Lakes Bay Region attended the LTI at Saginaw Valley State University. Students participated in sessions that taught them about action planning, networking with professionals, sharing their vision, teaching others through hands-on STEM demonstrations, and more.

Keep in touch with GLBR CSOs on social media!

[@GLBRCSOs](#)[@GLBR_CS0](#)[@glbr_cso](#)

Participating School Districts:

Bangor Township Schools, Bay City Public Schools, Bridgeport-Spaulding Community School District, Carrollton Public Schools, Diocese of Saginaw (Nouvel Catholic Central Middle and High Schools), Essexville-Hampton Public Schools, Frankenmuth School District, Freeland Community School District, Hemlock Public School District, Merrill Community Schools, Midland Public Schools, Lutheran Schools, Missouri Synod (Valley Lutheran High School and Bethlehem Lutheran School), Pinconning Area School District, Saginaw City School District, Saginaw Township Community Schools, and Swan Valley School District.



STEM Student Spotlight: Ren Short

Ren Short is a second-year student at SVSU, majoring in Ecology, Evolution, and Organismal Biology with minors in Psychology and Geography. As a student at Ionia High School, Ren was involved in the National Honors Society, and an active community volunteer. Ren is part of the Honors program at SVSU and recipient of the Thompson and MEA scholarships, as well as the Founder's, Valley Housing, Biology Club, and the Michigan Competitive scholarships. They continue to volunteer in Saginaw through the Temple Theatre and the Saginaw Children's Zoo.

What are your interests (in and out of STEM fields)?

Since I was very young, I have always loved studying prehistoric life, including dinosaurs of course! Museums are one of my favorite places to go to, and I love learning. I also like to crochet and play video games, but most of my free time revolves around paleontology and paleoecology. My dream job includes spreading STEM education and getting future generations excited about learning and science, possibly as a college professor discussing biological classifications, or a museum tour guide telling kids that birds are modern dinosaurs.

What should local K-12 educators share with their students about opportunities in STEM studies at SVSU?

I think K-12 teachers should share any and all resources that they can for STEM education for all ages, and make sure that students know that STEM education is accessible and achievable. SVSU has incredible opportunities for students including undergraduate research, hands-on experiences, and opportunities like my job where I can put my STEM knowledge to use in a real-life setting and make an impact.

What are the highlights of your current (or past) STEM experiences?

I've been heavily involved in STEM my whole life, especially since my mom is an IT professional. Being a woman in tech, she has always inspired me to pursue my dreams despite any obstacles I may face. She has encouraged my love for science from an early age and has helped me build my skills in STEM. Through my job with STEM@SVSU, I have been able to be a positive influence of STEM in the community, just like my mom was for me.



Why did you decide to attend SVSU and pursue a STEM-related major?

Regardless of the college I decided to go to, I would have chosen some biology-related major. What ultimately convinced me to attend SVSU was the tour of the biology department during the Presidential Scholarship Competition. I absolutely fell in love with campus, but I was still intending to attend MSU because my mom works there, and I would've received discounted tuition. However, the scholarships that SVSU offered me were much better! All this considered, nothing compared to the sense of belonging that I felt when I was here. The size of campus was a huge factor, especially when the professors in the biology department made me feel welcomed and excited to learn from them. I felt that I could easily talk to any faculty here, and I was much more comfortable here than anywhere else. I hope to pursue a doctorate in Ecology and use the skills that I develop here at SVSU to be a professor. I believe that SVSU has and continues to teach me how to be successful in any STEM career, but also to be excited about STEM and get students as excited about STEM as I am. I want to say thank you to everyone who supported me to this point - friends and family, my peers and professors, my coworkers and employers, and, above all, my STEMtastic mom.