



S.T.E.M. at SHA

(Science, Technology, Engineering, Math)
Made Possible by a Grant from the Oishei Foundation

Through a generous grant from the Oishei Foundation, SHA offers a STEM Honors Track. The STEM Honors Track allows selected students the opportunity to accelerate their studies in the areas of math and science through summer course work. Girls will typically graduate with at least two AP courses in both math and science. In addition, the Honors program involves exposure to STEM professions and topics through quarterly cohort activities and the Senior Summer Experience. Selection is competitive and based on demonstrated aptitude in math and science. We have formed an Advisory Committee to help vision the program.

Sequencing for STEM Honors Track:

- *Summer between 9th and 10th grade:* Pre-AP Chemistry
- *10th grade:* AP Chemistry
- *Summer between 10th and 11th grade:* Pre-AP Calculus
- *11th grade:* AP Calculus AB
- *Summer between 11th and 12th grade:* Senior Summer Experience in STEM *
- *12th grade:* AP Calculus BC and/or AP Statistics *and* AP Physics and/or AP Biology

In addition, there are quarterly cohort activities during 10, 11, and 12th grade. These have included a WE@RIT two-day workshop, tour and hands-on activities at the BNMC and Jacobs Institute, and Moog.

Advisory Committee:

Leonard Epstein, PhD., SUNY Distinguished Professor and Chief, Behavioral Medicine, University at Buffalo; Sean Gartland, Vice-President, Moog; Patricia Haberman, DDS; Private Practice and Clinical Assistant Professor, Dept. of Restorative Dentistry, University at Buffalo; Jennifer Hess, Assistant Dean and Director of Advisement and Admissions, School of Pharmacy, University at Buffalo; Dennis Horrigan, CEO, Catholic Medical Partners; Candace Johnson, President and CEO, Roswell Park Cancer Institute; Mariusz Kozik, PhD., Chair of Chemistry, Canisius College; Marnie LaVigne, CEO, Launch NY; Walter Ludwig, COO, Kenmore Mercy Hospital; Pamela Marcucci, Manager, Program Development, Jacobs Institute; Sr. Terri Miklitsch, OSF, Senior Academic Advisor, School of Engineering, University at Buffalo; Sue Nowicki, Director of Engineering, Northrup Grumman; Andrea Pasioka, Director of Actuarial Services & Underwriting, Independent Health; Phil Snyder, Principal, Stieglitz Snyder Architecture; and Ann Wegrzyn, Vice President, National Fuel Gas

***2015 Senior Summer Experience:** Included Architectural and Engineering Tour of Conventus, UB Medical School, and Children's Hospital; Laboratory Techniques and Practices at UB Behavioral Medicine; Actuarial and Data Analytics Lecture at Independent Health; Gross Anatomy Lab at D'Youville College; Shadowing Matt Graziano, PA; MASH Tour at Kenmore Mercy Hospital; Behind the Scenes Tour of UB Engineering; National Grid Women in Engineering Day; Launch NY Entrepreneurial Experience; and UB Pharmacy Hands On Tour.

Additional STEM Opportunities/Full School Benefits:

The grant has also allowed us to invest in our Science Olympiad Team and Rocketry Club, purchase a 3D Printer, and add courses in AP Statistics, AP Calculus BC, Introduction to Engineering, iPad Digital Photography, Critical Thinking (in STEM) for all our Sophomores, and 3D Design and Computer Animation.