



Saint Anne S.T.E.M. Academy



The future is already here, and it's been driven by rapid advances in Science, Technology, Engineering, and Mathematics (STEM).

In order for graduates to excel in the evolving economy, they'll need the competitive advantage that a STEM-based education provides. STEM education creates critical thinkers, increases science literacy, enables a generation of innovators, and inspires global leadership.

Our academy offers students the opportunity to bundle courses in STEM-focused pathways and provides them with the foundation they'll need to successfully continue in related post-secondary disciplines, or careers in STEM-related sectors.



Frequently Asked Questions:

1. What is S.T.E.M.?

S.T.E.M. stands for Science, Technology, Engineering, and Math. With the rapid advancements in these areas there is a critical need to focus on it education.

2. Who should take S.T.E.M.?

S.T.E.M. is a program which begins in Grade 9 for students who excel in areas of science and want to participate in an enriched classroom environment.

3. How is it different from regular academic programming?

S.T.E.M. begins in Grade 9 with specified Math, Science, Geography, and Integrated Technology classes focusing on enrichment activities and cross-curricular projects with a focus on technology and environmental issues. Grade 10 continues with a STEM-based theme focused on reducing our carbon footprint. STEM students ultimately move on to an engineering, science, math or technology pathway in grades 11 and 12.

4. Are there specific courses students must take?

Students in this pathway will be in S.T.E.M. designated classes beginning in Grade 9, and continuing in Grade 10. The senior grades will focus on partnerships with the college and university to offer various enrichment opportunities for students based on the respective pathways.

Climate Crusaders (Grade 9 WECDSB Initiative)



- As part of the WECDSB S.T.E.M. academy, students in grade 9 will be working on environmental initiatives within their community, along with the University of Windsor
- Students will work on these initiatives in both Science and Geography classes
- As Climate Crusaders, our students will benefit from:
 - Enhanced levels of student engagement and environmental literacy;
 - Hands on 'real time' experiential learning by engaging in action-based research;
 - Connecting with and advocating on behalf of their communities;
 - Becoming critical and systems thinkers in applying the acquired STEM knowledge and skills; and
 - Communicating their findings in a variety of ways within their class, school, and community.

Potential Enrichment Activities:

- Fighting Island
- Point Pelee
- Science Olympiad
- Waterloo Math Competition
- First Robotics competitions
- Silicon Valley trip
- GIS Lab
- Centreline
- Skills Ontario Competition
- UWindsor Engineering Outreach
- Tomatosphere
- S.T.E.M. outreach with elementary schools
- Dual Credit classes with St. Clair College and UWindsor
- Specialist High Skills Major
- Working with ERCA
- Manufacturing Day
- C.A.R.S.
- C.A.M.M.
- Reko Tool & Mould
- The Henry Ford



STEM Program

Grade 9

Student course selection must include:

- *STEM Science*
- *STEM Geography*
- *STEM Integrated Technology*
- *STEM Math*

Grade 10

Student course selection must include:

- STEM Science
- STEM Math
- STEM Computer Studies; or
- STEM Computer Engineering; or
- STEM Manufacturing

Grade 11 & 12

6 courses consisting of:

- Science, Physical Geography, Geo-Technology, Technology, Mathematics, or Bioethics

Various opportunities:

- to earn Dual Credits through St. Clair College and/or UWindsor
- to participate in a Specialist High Skills Major program
- to earn certifications
- to participate in co-operative education program