

STEM ACADEMY REQUIREMENTS

Purpose:

The Living Word Lutheran High School STEM Academy exists to challenge and develop students with interests and aptitudes in Science, Technology, Engineering, and Mathematics. The accentuated rigor within the academy will prepare students for improved standardized testing, provide an exceptional foundation for higher education in these areas, while fostering critical thinking in today's modern society of STEM fields. Students will gain advanced experience in an environment that fosters success by focusing on the 3 C's:

Coursework – a series of rigorous academic courses featuring honors sections, as well as AP and dual credit courses

Community Engagement - a practicum in applying one's gifts and accentuating learning through real-world experiences

Capstone Project - a culminating project demonstrating a level of expertise achieved by the student in their respective academic field

Qualifications:

To be eligible for the STEM Academy, freshman students must meet the following qualifications and submit an application by May 15.

- Minimum cumulative grade point average of 3.0
- Minimum 3.5 grade point average in STEM courses relating to Science, Math, and Technology.
- Recommendation to the Academy by one Academy panel member and one additional LWLHS faculty

Requirements:

1. Submit application by May 15
2. Review of application by Academy Panel
3. Annual review by Academy Panel of progress in Coursework, Community, and Capstone requirements
4. Complete coursework and submit Community and Capstone documentation to Academy Program Director, Mrs. Dobler
5. Maintain cumulative GPA of 3.0 or higher and Academy GPA of 3.5 or higher

STEM ACADEMY REQUIREMENTS

REQUIREMENT	CLASSROOM	COMMUNITY	CAPSTONE
<p>Coursework – 6 STEM credits</p> <ul style="list-style-type: none"> Minimum of TWO (2) AP Courses in either Math, Science, or Technology: <i>Statistics, Calculus AB, Chemistry, Biology, or Computer Science.</i> Choose and complete TWO (2) additional credits in STEM field courses: <i>Pre-Calculus, Physics, Anatomy & Physiology, Robotics, Computer Aided Drafting and Design (CAD), Astronomy, Mobile App Development, Adv. Algebra2/Trig., AP Computer Science, CSC 150: Foundations of Computer Sci., PHAR 105: Intro to Pharmacy, or Winterim internship or shadow in a STEM area.</i> 	X		
<p>Community Experience</p> <ul style="list-style-type: none"> Participation in a minimum of (2) Academy-approved events per year with an emphasis in STEM. Appropriate venues would be elementary school partnerships (middle school math contests, science fairs, technology/STEM aid), STEM camps or seminars (fees may apply), internships or job shadowing in a STEM field, etc. At the conclusion of each event, a written reflection is required. 		X	
<p>Senior Project</p> <ul style="list-style-type: none"> Coordinate and execute a showcase involving STEM elements leading to solving modern, real-world, problems or to increase awareness. (e.g. energy alternatives, economic models, modern technological software, mathematic models and predictions, theorized science, etc.) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Perform a service, such as engineering, constructing, or integrating a product, method, or model of your own design and creation that has been researched or communicated to be in specific need. This service should be thoroughly tested and have rationale behind its own efficiency in how STEM components have been used. (scientific experiments, mathematical blueprints, newly designed apps or technology, etc.) 			X