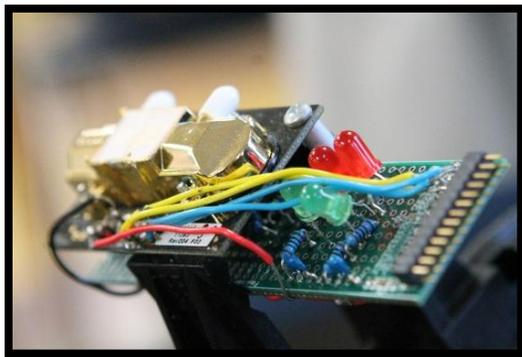




Expected Student Outcomes

1. Learn the project design and development process from beginning to end.
2. Practice project management technique.
3. Work as a coordinated small project start-up team.
4. Apply Physics, Space Physics, Chemistry, Math, Science and Engineering principles.
5. Interface with the local press.
6. Make technical presentations.
7. Design printed circuit boards.
8. Learn P-Basic programming via Stamp® kit.



Program Mentor Biography

Mr. Miller serves as the ISS project Advisor.

Mr. Miller graduated with honors from the University of Missouri with a Bachelor's Degree in Agricultural Engineering, with honors from the Naval Postgraduate School with Dual Masters Degrees in Mechanical Engineering and Mechanical Engineer. For 13 years he served as Engineering Duty Officer in the US Navy. He has



taught at Maranatha for 10 years.

Accolades

The Maranatha ISS Team has made many news appearances including the *Union Tribune* News station. The Team has been interviewed in newspapers such as *The 92127* and *The Pomerado News*, and News Channels like KUSI, and ABC San Diego News.

2016-2017

International Space Station Project



The International Space Station (ISS) Project allows for students to conceive, design, build, test, and integrate a MicroLab science experiment, to be launched to the ISS around April of calendar year 2017. This rare opportunity to send a project to space is only provided to a few high schools in the world.

The 1.5" x 1.8" x 6" MicroLab module contains a digital camera, a student programmed micro-controller and the scientific experiment, or payload. MCHS is partnered with The Applied Math, Science and Engineering Institute at Valley Christian High School in San Jose on this project.

The MicroLab will be in operation on the ISS for a minimum of 30 days. Experimental data will be downloaded to an astronaut's laptop and sent to earth for evaluation by the students.



Program Details

For more information:
www.maranathaiss.weebly.com

Why join?

- Extremely rare, out-of-this-world opportunity to send a project to the International Space Station--only a few high schools in the whole world have this opportunity!
- Work on a real-world engineering project
- Apply science, engineering, and math principles
- Learn project design and development process from beginning to end
- Gain exposure to electrical and mechanical engineering techniques and principles, software development, documentation, and public relations

Parent Mentors Needed!

For each student team position, parents are needed to coach and mentor students throughout the entire program. Contact Mr. Miller for more information.

What is required of an ISS Team Member?

- \$100 program fee, a small fraction of the cost for sending the project to the ISS
- Attend the weekly meetings (Once a week, in the evening)
- Attend at least one STEM fair during the year
- Be an ACTIVE member of the ISS Student Team, must be COMMITTED to the project and able to fulfill the requirements of your position for the team.
- Teams include: project manager, electrical engineering, mechanical engineering, software, public relations, scheduling and documentation--all positions require separate skill sets and teamwork.

Applying

- Freshman through senior standing during the 2016-17 school year.
- Applications for ISS are available for download at the MCS ISS website: www.maranathaiss.weebly.com. Students will be notified of their acceptance and team assignment(s).
- **Applications are due May 20th, 2016.**

