Mansfield Christian Career Academy Program
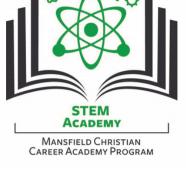
STEM Academy

STEM Academy
Mansfield Christian
Career Academy Program

OUR MISSION: Expose students to the STEM related professions through mentoring relationships, curriculum enhancements, and engaging internship experiences with the ultimate goal of providing insight to God's calling on their lives.

THE ACADEMY PROGRAM

The Mansfield Christian Career Academy Program is designed to provide MCS students with the opportunity to explore career options during their junior and senior year. MCCAP promotes exploration of various careers within a specific discipline, allowing students to consider the unique gifts and talents that God has given them and how they can best use those abilities to bring glory to Christ.

THE APPLICATION PROCESS

Students will apply during the second semester of their sophomore year. The process follows:
- Submit a complete application with teacher references.
- Interview with the Director.
- Once accepted, schedule required classes.

REQUIREMENTS

- Students must pass each course to advance to the next course in the program. The courses will be offered at MCS during the regular school day.
- Academy Experience: students will complete 40 hours of hands-on experience with a community member in one or more STEM-related professions. This requirement will be met over the course of two years.

COURSES

Science Technologies & Engineering 1
1 semester
Fall, Junior Year

Science Technologies & Engineering 2
1 semester
Spring, Junior Year

Computer & Information Technologies
1 semester
Fall, Senior Year

CAPstone Project
1 semester
Spring, Senior Year

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MCCAP Liaison:
Mr. Wesley Courser
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COURSES

Science Technologies & Engineering 1: Students will be exposed to fields such as engineering, industrial design, and manufacturing and will explore the engineering process, manufacturing operations, production, and safety protocols. Students will explore STEM professions with guest speakers, lectures, labs, and mentoring throughout program.

Science Technologies & Engineering 2: Students will study CAD Design, 3D printing, and aviation, including CAD software, industry standards, and unmanned aircraft. Students will use technology to solve real-world, challenging problems and will have the opportunity to take their FAA Drone Pilot License test.

Computer & Information Technologies: This course will introduce students to the fields of cybersecurity, programming, information technology, and robotics.

CAPstone Project: Students will research an area of interest related to a STEM profession and learn about the application and interview process.

MENTORSHIPS

Students will be matched with a Christian mentor who works in a STEM profession that aligns with the student's interest. The MCCAP Liaison will work with the student to secure a mentor committed to the student's growth and development. This mentoring relationship will be developed throughout the junior and senior year during monthly meetings. The student will keep a journal detailing notes from mentoring meetings.

OPPORTUNITIES

Integrated into each course will be opportunities for students to explore vocational options. Professionals will be invited to class sessions to share their experience and impact in the STEM field, Professions for exploration include, but are not limited to: engineering, aviation, IT, manufacturing, industrial design, computer design, cyber security, robotics, and programming.

DISTINCTIONS

Students who complete all STEM Academy requirements will have the honor of wearing a green cord at graduation. The student's official transcript will also recognize this distinction.

FEES

The cost for MCCAP is $200 per year. Once accepted into the program, placement is confirmed with full payment within three weeks of billing.