ABOUT US

XLR8 Lynchburg Regional Governor's STEM Academy — is the 16th regional Governor's STEM Academy offering programs in science, technology, engineering and mathematics (subjects known collectively as "STEM") for High School Juniors and Seniors in Virginia's Central Virginia region.

Located on the campus of Central Virginia Community College — XLR8 offers academic and technical training related to careers in engineering, mechatronics, biotechnology, health science, and cybersecurity.

MATRICULATION

CVCC	Radford University
Centra College of Nursing	Randolph College
Concord University	Sweet Briar College
George Mason University	University of Kentucky
James Madison University	University of Lynchburg
Liberty University	UNC-Charlotte
Old Dominion University	University of North Dakota
Mary Washington University	University of Virginia
Montana Tech	Virginia Military Institute
Norfolk State University	Virginia Tech

OUR PARTNERS

Amherst County Schools
Appomattox County Schools
Bedford County Schools
Campbell County Schools
Lynchburg City Schools
AECOM
AIC
AIT
Appalachian Power
AMG
AMTI
BWX Technologies
Centra and Centra PACE
Central VA Community College
CloudFit Software
Delta Star
EDM
Framatome
Harris Corporation
Liberty University
Lynchburg Morning Rotary Club
Lynchburg Regional Business Alliance
Master Engineers & Designs
Moore's Electrical
Sharptop Co.
Stone Blue Airlines
Successful Innovations, Inc.
Sweet Briar College
Swissomation
Union Bank
VDOT
Verizon Foundation
Workforce Investment Board
Wegmann USA
Wells Fargo

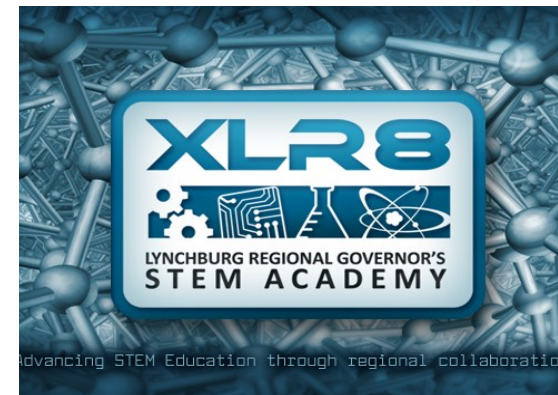**Please contact us for information on becoming a STEM Academy Partner or Sponsoring a STEM Academy Event**
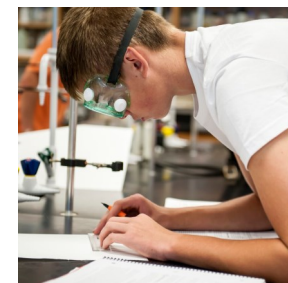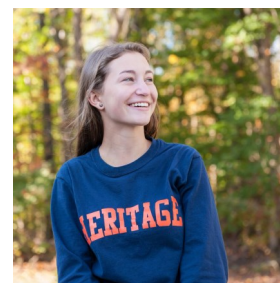

XLR8 STEM ACADEMY

3506 Wards Road
Lynchburg, VA 24502

Phone: 434-832-7731
Email: scash@xlr8academy.com

XLR8 STEM ACADEMY

Program Information

QUICK FACTS

The STEM Academy is housed on the campus of Central VA Community College (CVCC)

All STEM Academy students are Dual enrolled students at Central VA Community College

Students can earn up to 44 college credits for their classes

Students can earn up to two Career Studies Certificates from Central VA Community College.

STEM Academy classes are weighted courses for Grade Point Average calculations on base school transcripts

Parents/Guardians or student must provide transportation to internship locations in the spring of senior year

STEM Academy operates during the morning hours from 8:00am- 11:00am

STEM Academy is a partnership between CVCC, all five public school divisions, higher education and local business and industry leaders.

OUR CURRICULUM

Junior Year -Mechatronics/Biotechnology

- Intro to Engineering Design
- Principles of Engineering
- Statistical Reasoning
- Precalculus I or Applied Calculus I
- College Chemistry for Engineers
- Student Success Skills

Senior Year– Mechatronics

- Blueprint Reading
- Industrial Safety-OSHA 10
- Digital Electronics
- Applied Calculus I & Precalculus II or Calculus I and Calculus II
- College Physics
- Internship

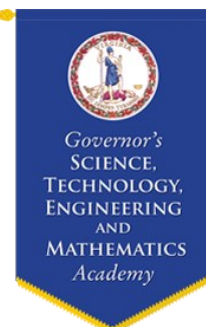## Senior Year-Biotechnology/Health Science

- Medical Terminology I
- Digital Electronics (Biotech)
- Principles of Psychology or Developmental Psychology (Health)
- Applied Calculus I & Precalculus II or Calculus I and Calculus II
- Human Anatomy and Physiology
- Internship

OUR CURRICULUM

Junior Year -Cybersecurity

- Intro to Computer Applications and Concepts
- Intro to Network Concepts
- Software Design
- Network Security Basics
- Statistical Reasoning
- Precalculus I or Applied Calculus I
- Student Success Skills

Senior Year–Cybersecurity

- Network Attacks, Computer Crime and Hacking
- Legal Topics in Network Security
- Applied Calculus I & Precalculus II or Calculus I and Calculus II
- College Physics
- Internship

LEARNING ENVIRONMENT

All instructors at the STEM Academy are CVCC college professors

Students enjoy more freedoms and are responsible for their own learning and time management

Multidisciplinary connections between science, technology, engineering, mathematics and health science are emphasized

Students learn critical thinking, creativity, innovation and real-world problem solving skills through hands-on project based learning

Students are able to meet and network with local business and industry leaders

Students are able to participate in a semester long internship experience with a local company