Computer Science & Robotics

CSC350  Programming Fundamentals
CSC450  App Development
CSC470  Introduction to Discrete Math and Programming
CSC500  AP Computer Science
CSC600  Computer Science R&D
   Original research or the development of large software projects
PHY420  Robotics
   Creating independent robots capable of complex behavior
Post-AP  Honors Seminar in Computer Science
   Rotating topics may include Machine Learning, Data Structures & Algorithms, and Full Stack App Development

Student Leadership

HackNEHS 2016-2017  PA students organized hackathons in Boston for over 200 area high school students.

PACTF Cybersecurity Competition 2016-2018  PA students organized and delivered an online cybersecurity competition to over 1,000 high school teams worldwide. https://en.wikipedia.org/wiki/PACTF

CS Contests & Competitions

ACSL (American CS League) All-Star Contest
Fitchburg State University HS Programming Contest
NACLO (North American Computational Linguistics Olympiad)
National Center for Women & Information Technology
   Aspirations in Computing Award for Massachusetts
PicoCTF “Capture the Flag” Cybersecurity Competition
St. Anselm College HS Programming Contest
Technovation Challenge
USACO (United States Computing Olympiad)
WPI High School Programming Contest

CS Clubs & Community Engagement

Computer Science Club
   Python development, writing  Android phone apps
Technovation Challenge
   All female teams build apps for international competition
Techmasters Club
   Computer assistance and training for students and faculty
3D–VR Club
   3D graphics and virtual reality using Oculus Rift
Makers Club
   3D design and printing using MakerBots
Coding Circle
   CompSci collaboration with elementary students at the Boys & Girls Club of Lawrence
Robotics Coursework

PHY420
A hands-on, project-based course exploring the process of creating an independent robot capable of complex behavior.

Robotics Contests & Competitions

Robotics Club
Students design hardware and software for functioning mobile robots for participation in local and national competitions.

FIRST Robotics
Students design prototypes and build robots for FIRST Robotics competitions.

VEX Robotics
Students design, build, and compete with robots for VEX robotics competitions.

Facilities

Phillips Academy’s makerspace, nicknamed “The Nest,” is a place for members of the community to come together to explore, collaborate, create, and share. Dedicated to providing a positive learning space, The Nest encourages new perspectives, new ideas, and new ways to learn.

The Nest offers hands-on learning and guidance to anyone who walks through the door. It has equipment that can’t be found anywhere else on campus, including a laser cutter, vinyl cutter, and several 3-D printers. NestED, the makerspace’s speaker series, invites makers, educators, artists, and innovators to speak, demo their projects, and provide inspiration.