ATCS - Who are we?

A Diverse Group

○ Builders
○ Competitors
○ Advocates
○ People who serve
○ Innovators
○ Learners

Though we are all different, we are united by excitement about technology.
We are **Builders** and **Innovators**

Buildings tools and applications is part of our DNA.

We don’t just learn computer science, We DO computer science.
We are **Competitors**

- Fun challenge.
- Sharpen our skills.
- Go beyond the curriculum.
- Travel to cool places!
Some Recent Competition Successes

- American Computer Science League (2019 - 2nd in Nation)
- Girls Go CyberStart (2019 – 1st in NJ)
- picoCTF
- CyberPatriot
- Congressional App Challenge
- USA Computing Olympiad
We **Serve** the Community

**Generation Coders**
- 100% student run club
- Provide CS learning opportunities throughout the county
- Future: Liberty Science Center!

**Girls TECH Camp**
- Week long summer camp for middle school girls
- For girls, by girls
- Encourage female involvement in STEM
BCA students have organized, planned, and run a variety of large-scale hackathons, local hack days, and CS events -- providing computer science opportunities to high school and middle school students throughout our region.

Supported by Sponsors, like:
We are **Learners**: Core Curriculum

Guiding Principles

- Students gain a broad, comprehensive understanding of how computers work.
- Continuously updating core curriculum to align with best practices and latest research.

### Current Curriculum

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<tbody>
<tr>
<td>Intro to Computer Science (5 hrs / wk)</td>
<td>AP Computer Science + Data Structures (4 hrs / wk)</td>
<td>Tri 1: Math Foundations of CS Tri 2: Functional Programming &amp; Lambda Calculus Tri 3: Computational Theory (4 hrs / wk)</td>
<td>CS Capstone (2 hrs / wk)</td>
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We are **Learners**: Optional Electives

- Assembly Language (6502)
- C Programming
- Computer Security/Hacking
- Relational Databases
- Machine Learning
- Artificial Intelligence
- Processor Design and Architecture
- Web App Development (HTML, CSS, Flask, JS)
- Plus you can take any electives from the other academies!
Frequently Asked Question

I have not programmed before. Can I still succeed in ATCS?

YES!

In a typical 9th grade class:

- 50% have little to no coding experience.
- 35-40% have a bit of experience
- 10-15% have significant experience

** Interest in technology and in using technology is the key!
ATCS - We are a Community