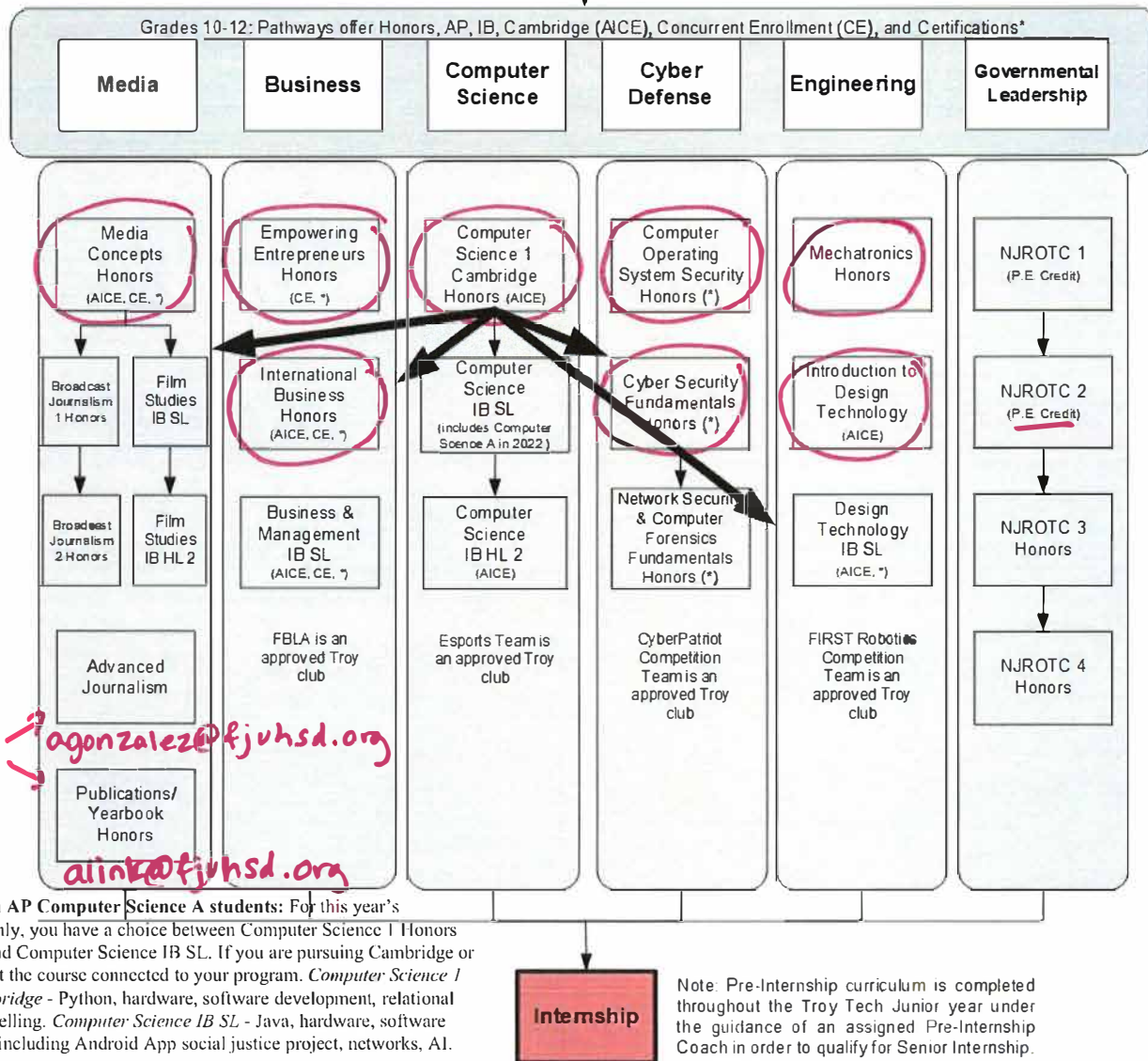


# Troy Tech Pathways 2021-2022

## AP Computer Science Principles



Current 10th AP Computer Science A students: For this year's registration only, you have a choice between Computer Science 1 Honors Cambridge and Computer Science IB SL. If you are pursuing Cambridge or IB, then select the course connected to your program. *Computer Science 1 Honors Cambridge* - Python, hardware, software development, relational database modelling. *Computer Science IB SL* - Java, hardware, software development including Android App social justice project, networks, AI.

Troy Tech courses are year-long. This chart shows courses available in each pathway. The courses that must be taken in sequence are noted with a connecting arrow.

**Troy Tech Internship is a Summer Course - listed on your transcript with a summer grade.** Breakfast/Fall Event and Fair are expectations. Internships can be completed virtually or in-person.

**Important Internship Dates for Troy Tech Juniors** (Information is on Google classroom, sent by email and [preinternship.troyhigh.com](mailto:preinternship.troyhigh.com)):

**Tues, Mar 16, 2021** Mandatory Intern/Parent Virtual Meeting (receive evening times/links and summer/fall internship forms by email)

**Thurs, April 29, 2021** Troy Tech Fair for 2020 Seniors – Virtual viewing available. Google Exploration Form Due

**Fri, April 30, 2021** Mandatory Junior Internship Virtual Meeting (student only)

**Tues, June 1, 2021** Summer Internships Start/Mandatory Student Only Meeting 8am (virtual available)

**Wed, July 7, 2021** Latest date to complete Summer Internship. All paperwork due by 12:00 noon

- Summer Interns must start the first week of summer school and intern a minimum of 25 hours and maximum of 40 hours per week consecutive weeks until the 150 hours have been completed. **Summer Interns may not interrupt their Internship tenure for vacation or any other purposes.** You may not exceed an 8-hour workday. **August 2021-May 2022** Fall/Spring Internship term is also an option.
- Any programs or out-of-area internship considerations should be approved by Mrs. Downum-Bonnett [Ldownum@fjuhsd.org](mailto:Ldownum@fjuhsd.org)
- Lists of past Troy Intern contacts are on Google classroom ("stream"). Coaches are available to you. Emails should be specific – include your full name, city where you live, interest area, and resume. Contact Mrs. Downum-Bonnett with questions or concerns.
- Prescreened sites: Anaheim Regional Medical Center, Boeing, Discovery Cube, NOC Selpa, Parker, Peraton, PHH Health, & UCI Medical Orange.
- If students have other FJUHSO courses to take this summer (for remediation), FJUHSO has limitations (15 units max) for summer courses; Internship is 10 units. Any questions or concerns, contact your counselor and/or Downum-Bonnett.



# Troy Tech

Grade 9:  
AP Computer  
Science Principles

Grades 10-12: Pathways offer Honors (H), AP, IB, Cambridge (AICE), Concurrent Enrollment (CE), and Certifications\*

## Media

Media Concepts H  
(AICE, CE)\*  
Broadcast Journalism  
H 1 & 2  
Film IB SL & HL 2  
Advanced Journalism  
Yearbook H

## Business

Empowering  
Entrepreneurs H  
(CE)\*  
International Business  
H (AICE, CE)\*  
Business &  
Management IB SL  
(AICE, CE)\*

## Computer Science

Computer Science 1  
H Cambridge(AICE)  
Computer Science IB  
SL (and CS A 2022)  
Computer Science IB  
HL 2 (AICE)

## Cyber Defense

Computer Operating  
System Security H\*  
Cyber Security  
Fundamentals H\*  
Network Security &  
Comp Forensics  
Fundamentals H\*

## Engineering

Mechatronics H  
Introduction to Design  
Technology (AICE)  
Design Technology IB  
SL (AICE)\*

## Governmental Leadership

Naval Junior Reserve  
Officers Training  
Corps (NJROTC) 1  
NJROTC 2  
NJROTC 3 H  
NJROTC 4 H

Senior Internship

Choosing a pathway can be a tough decision – ALL the pathways are excellent, rigorous, and expertly-designed by Troy's own teachers. See [troytech.troyhigh.com](http://troytech.troyhigh.com) for additional information and course catalog.

### Media

- Adobe Certified Associate (ACA), **Troy Productions**, **Omnia daily broadcast**, **Oracle newspaper**, Illium yearbook. All American HS Film Festival NY, OC Artist of the Year, OC Journalism Education Assoc. Concurrent enrollment, IB and Cambridge.
- The pathway starts with Media Concepts Honors and progresses to fiction (IB Film SL & HL) or non-fiction (Broadcast Journalism Honors 1 & 2). For those interested in publications, Oracle and Illium are available; enrollment available through application & interview.

### Business

- Concurrent enrollment options up to 9 college credits and 3 certifications each year in Microsoft Office and Business, IB and Cambridge. **FBLA** 2<sup>nd</sup> at state finals 2019 & annual national competition.
- **NEW course: Empowering Entrepreneurs Honors** will include project-based learning about entrepreneurship in a global world.
- Students collaboratively assess business objectives, develop critical thinking and problem solving skills by working with real world case studies, and evaluate decisions for today's multicultural markets.

### Computer Science

- 4 years of honors programming. AP, IB and Cambridge exams qualify for college credit. Recognized #1 CS program in the world by College Board. Programming contests Wittry, Cal Poly Pomona, and more. **Competitive Esports**.
- Computer science develops students' computational and critical thinking skills and shows them how to create, not simply use, new technologies. This fundamental knowledge prepares students for the 21st century, regardless of their ultimate field of study. [www.code.org](http://www.code.org)
- Computer Science 1 Honors Cambridge can precede additional computer science courses or lead to advancement in ALL pathways.

### Cyber Defense

- CompTIA certifications. Largest competitive program in the US with 300+ students. CyberPatriot National Champions 2019, Girls Go Cyber State Champions 2019.
- Computer Op Sys includes IT certification and IOT. Cyber Security Fundamentals includes computer hardware, troubleshooting, and hardware/software certification. Both of these classes are open to all students. Network Security is about networking fundamentals; Cyber Security Fundamentals is a prerequisite.

### Engineering

- SolidWorks CSWA certification, IB and Cambridge. **FIRST Robotics Team** participates in annual OC and LA build competitions.
- Students learn the design process from start to finish as they design using SolidWorks software and then build using the power tools in the classroom's workshop. Mechatronics combines mechanical + electrical + computer technologies.

### Governmental Leadership

- Largest CA NJROTC 275 cadets. Three Service Academy Appointments and seven ROTC scholarships 2020. Underwater Robotics team qualified for the International SeaPerch Challenge. Most Outstanding Program CA and Arizona 2020.
- Students gain peer leadership experience and form strong bonds. For 9-10th grade, NJROTC counts as P.E. units toward graduation.

### Senior Internships

Students complete the program with a 150-hour experience (virtual or in-person) at a business site or university with a professional mentor. Over 400 seniors earn internship credit each summer. To locate Internships, students network with professionals through family member contacts, required job-shadowing experiences, and current Interns. Each Intern is guided by his or her Troy Tech Advisor during junior and senior year, who has access to a database of over 1,000 active mentors.