

ITHS CTE Academies Application, Placement, and Graduation Guidelines



To be accepted, preference will be given to the students that meet the following criteria:

- 90% attendance
- Average GPA of 75+ for all freshmen year classes
- Complete CTE Freshmen Preference Form
- Engage in the CTE Admission Committee Interview
- Submit 2 letters of recommendation from a teacher
- Sign CTE Program contract (Parent/Student) for 3 year commitment to the academy. Non negotiable.

To maintain academy membership, students must meet the following criteria:

- Pass each semester of their CTE Academy
- Maintain an overall 75+ GPA in all classes
- Maintain 90% attendance
- Pass Math Regents with 80+
- Pass ELA Regents with 75+

To graduate from any CTE Academy students must meet the following criteria:

- 54 units of Work Based Learning Experience
- Pass Academy Certification Exam
- Plan, Submit and Defend Exit Project
- Pass all 44 credits required for Regents Diploma (including all CTE class credits)

Computer Fundamentals

Students start their freshman year with the Computer Fundamentals class that teaches computer literacy and introduces them to the five academies. In Spring of freshman year, students will be asked to choose which field of study they wish to pursue for Sophomore through Senior year.



Career and Technical Education

Represents one of the most successful educational models used to ensure students graduate college and career ready. In the 21st century, New York City CTE high schools are outperforming traditional academic schools in terms of high school graduation rates, and providing a large number of students work-based learning opportunities like internships. Students in CTE programs complete the same courses as students (math, science, foreign languages, etc.) while also taking additional technical courses, some of which provide college credit or lead to industry-recognized credentials. No teenager should be expected to make a final decision about their future job. CTE allows students to begin learning about career opportunities so they can make informed decisions later in life.

Work-Based Learning (WBL)

- Connects classroom instruction to work and career
- Industry aligned in-person, hybrid and virtual experiences
- 54 hour WBL requirement over 3-year sequence for the CTE Diploma
- Activities: Workshops, College and Career fairs, Guest Speakers, Job Shadowing, Internships, Resume-Writing, Mock Interviews, 30-Second Pitches, Mentoring, Apprenticeships



THE ACADEMIES

- VIDEO PRODUCTION
- GRAPHIC DESIGN
- WEB DESIGN
- CYBER SECURITY
- ROBOTICS



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Our Vision

Information Technology High School prepares students to be independent thinkers and problem solvers who are college, career, and civic ready. Students will be nurtured to become self-sufficient members of our global community who are equipped with 21st-century technological skills.



CTE Departments

In line with our school mission, ITHS has a complement of Career and Technical Academies:

- VIDEO PRODUCTION ACADEMY
- WEB DESIGN ACADEMY
- GRAPHIC DESIGN ACADEMY
- CYBER SECURITY ACADEMY (pending approval)
- ROBOTICS ACADEMY (pending approval)

Robotics Academy

The Robotics Academy is a three-year program where students design and hand build robots that will compete in the NYC First Tech Challenge against other robots from other schools. The students will learn how to 3D model parts on CAD software, to 3D print, to design images using Adobe Illustrator, to laser cutting, and Cri-cut to create their own merchandise. They will attend two qualifying competitions, in addition to several other scrimmages or build sessions with other schools. ITHS partners with the NYC First Stem Center at Cornell Tech on Roosevelt Island to utilize their workshop that includes heavier machinery like drill presses, band saws, and sanding belts. The academy is gearing the students towards a certification in mechatronics by their senior year.

Semester	CTE Robotics Academy	
Fall-10th / Spring-10th	Intro Engineering & Design (1 period)	Simple Machines (1 period)
Fall-11th / Spring-11th	Complex Machines (2 periods)	3D Modeling/Printing (2 periods)
Fall-12th / Spring-12th	Sensors, Automation (2 periods)	Capstone Project (2 periods)

Video Production Academy

The Video production academy is a 3-year program divided into 3 classes – Elements of Video, Digital Video, and Video Production. These classes are aimed at teaching the skills necessary to succeed in the Video career field and have a better understanding of how video recording and editing is done professionally. Using state of the art computers with Adobe Creative Cloud and professional equipment, students learn the technical art of video production.

Students develop career and communication skills in video production using Photoshop, Premiere Pro & After Effects in preparation for their Adobe Certification

Students develop knowledge in storytelling, capturing and editing video and audio and finalizing content for distribution through emphasis on design, project management and video technology

Students use professional cameras, tripods, microphones, lighting, and green screen technology to learn how to effectively tell stories through video projects

Semester	CTE Video Production Academy	
Fall-10th / Spring-10th	Elements of Video (1 period)	Elements of Video (1 period)
Fall-11th / Spring-11th	Digital Video I (2 periods)	Digital Video II (2 periods)
Fall-12th / Spring-12th	Video Production I (2 periods)	Video Production II (2 periods)

Web Design Academy

The Web Design Academy is a three-year program that equips students with essential web development and design skills that can prepare them for a variety of technical careers. Through hands-on learning, students build websites and apps using HTML, CSS, JavaScript, and design and development tools like Adobe Creative Cloud, Figma and Github.

Core Skills Taught:

- HTML, CSS, JavaScript, and basic frameworks React and Bootstrap
- Website and Mobile App Development
- Digital design principles, wireframes, mockups, and graphics
- Debugging & Troubleshooting

Certification Outcome: Students prepare for the ITS HTML5 App Development Certification and earn a CTE Technical Endorsement.

Semester	CTE Web Design Academy	
Fall-10th / Spring-10th	Visual Design I (1 period)	Visual Design II (1 period)
Fall-11th / Spring-11th	Digital Design I (2 periods)	Digital Design II (2 periods)
Fall-12th / Spring-12th	Web Client Programming (2 periods)	Career Financial Lit. (2 periods)

Graphic Design Academy

The Graphic Design Academy is a three-year program that will teach the fundamentals of design, beginning through advanced typography, branding, packaging, motion graphics, and animation. The graduating student will produce a professional-quality portfolio suitable for working in the industry or for getting into a design college.

- Students develop knowledge in industry best practices and methods. The work is typically oriented towards real-world situations and exploring their creativity.
- Students will develop hand-drawing skills needed to effectively conceptualize ideas. They will use state of the art software from the Adobe Creative Suite (Photoshop, InDesign and Illustrator) to give digital life to those ideas.
- Students will test in Adobe Certification and in Career and Financial Management units.

Semester	CTE Graphic Design Academy	
Fall-10th / Spring-10th	Fundamentals of Design (1 period)	Designing with Type I (1 period)
Fall-11th / Spring-11th	Designing with Type II (2 periods)	Designing with Type III (2 periods)
Fall-12th / Spring-12th	Branding (2 periods)	Adv Design Project (2 periods)

Cyber Security Academy

Cybersecurity is a three-year program that will teach the fundamentals of data, privacy and privacy regulations, computing devices such as laptops, desktops and internet of technology (IOT), networking (ports and protocols), cyber security (encryption, passwords, penetration testing, identifying computer viruses). Students will develop the knowledge and skills through virtual lab simulations (labsimapp portal) on how to help people stay safe while their information is protected on the net. Students are expected to complete the program through an internship as well as taking and successfully passing the S+ certification exam.

Semester	CTE Cyber Security Academy	
Fall-10th / Spring-10th	Fundamentals of CS I (1 period)	Fundamentals of CS II (1 period)
Fall-11th / Spring-11th	Cybersecurity I (2 periods)	Cybersecurity II (2 periods)
Fall-12th / Spring-12th	Applications of IT & CS I (2 periods)	Applications of IT & CS II (2 periods)