

NEW TECH HIGH @ COPPELL RECOMMENDED SEQUENCE OF COURSES



Computer Science I

* AP Computer Science A

* Mobile App Development

* Computer Programming II

***Advanced Courses**

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Association JAVA SE 8 Programmer	Certified Computing Professional	Computer Programming/Programmer General	Management Information Systems, General	
Oracle Certified Database Associate	Cloud Technology Associate Certification	Computer Software Engineer		
Microsoft Technology Associate, Introduction to Programming Using Python, HTML or CSS	AEM 6 Developer	Computer Science		
Microsoft Technology Associate, Introduction to Programming Using Java or JavaScript	Certified Software Analyst	Information Science/Studies		

*Includes Level I and Level II Certificates

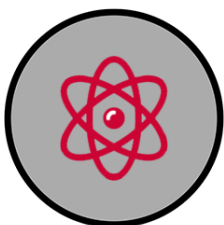
For more information on postsecondary options for this programs of study, visit TXCTE.org

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	%GROWTH
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developer, Applications	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
Exploration Activities: Technology Student Association (TSA); National Technical Honors Society (NTHS)	Work Based Learning Activities: Obtain Industry based certification.

The programming and Software Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.



Successful completion of the Programming and Software Development program of study will fulfill requirements of a Business and Industry or STEM Endorsement.

Approved Statewide Program of Study - September 2019



COURSE INFORMATION

Computer Science I

7201Y 7201 A and B)

Grades: 9-12

Level: 2

Credit: 1

Prerequisite: None

CTSO Membership Opportunity: TSA - Technology Student Association- \$25 Dues

Computer Science I is intended as a first course for those learners beginning the study of computer science. Learners will use Java to investigate computing tools that are used every day, and foster creativity and innovation through opportunities to design, implement, and present solutions to real-world problems. Learners will learn the problem-solving and reasoning skills that are the foundation of computer science. Learners will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results.

AP Computer Science A

7203Y (7203 A and B) (.5 credit will be added to the student's transcript at the end of each semester upon successful completion of 7203 A and B)

Grades: 11-12

Level: 4

Credit: 2

**Prerequisite: Algebra I and Computer Science I
(Programming Language: Java)**

Required Fee for AP exam (\$25)

CTSO Membership Opportunity: TSA - Technology Student Association- \$25 Dues

This class will provide you the elements of computer hardware and software and their roles in a computer system at an AP level. You will gain an understanding of the concept of an algorithm (a step-by-step sequence of instructions) and be able to implement algorithms using if-else statement and loops. You will learn the key OOP (Object- Oriented Programming) concepts: classes and objects, inheritance and event-driven computations. You will also learn common sorting and searching algorithms: Sequential Search and Binary Search, and Selection Sort, Insertion Sort and Mergesort, one- and two- dimensional arrays, Array-Lists and many more. All of the above allow you to acquire skills in designing software solutions to problems from various application areas. This course will also prepare you to take the AP Computer Science exam in May. Please note that this AP curriculum is taught at a college level.

Mobile App Development

7292Y 7292 A and B)

Grades: 10-12

Level: 3

Credit: 1

Recommended Prerequisite: AP Computer Science

Certification possibility & required fees: App Development w/Swift- Level I (\$25)

CTSO Membership Opportunity: TSA - Technology Student Association- \$25 Dues

Mobile Application Development will foster students' creativity and innovation by presenting opportunities to design, implement, and deliver meaningful projects for use on iOS mobile devices. Students will collaborate with one another, their instructor, and various electronic communities to solve problems presented throughout the course. Students will identify task requirements, plan search strategies, and use software development concepts to access, analyze, and evaluate information needed to program mobile devices.

Computer Programming II

7218Y (7218 A and B)

Grades: 10-12

Level: 3

Credit: 1

Recommended Prerequisite: Mobile Application Development

Certification possibility & required fees: MTA Software Development Fundamentals (\$25)

CTSO Membership Opportunity: TSA - Technology Student Association- \$25 Dues

In Computer Programming II, students will expand their knowledge and skills in structured programming techniques and concepts by addressing problems that are more complex and developing comprehensive programming solutions. Students will identify project software needs and requirements. Students will demonstrate knowledge of the software development environment and software design process. Students will design and code software solutions using object oriented and event driven programming techniques. Students will demonstrate knowledge of software testing and perform quality assurance testing.

Coppell ISD offers career and technical education programs in Business, Marketing, Arts, AV Tech & Communications, Engineering, Computer Science and Health Science. Admission to these programs is based on grade level and prerequisites met.

It is the policy of Coppell ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.

It is the policy of Coppell ISD not to discriminate on the basis of race, color, national origin, sex, handicap, or age in its employment practices as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended.

Coppell ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

For information about your rights or grievance procedures, contact the Title IX Coordinator, at 200 S. Denton Tap Rd.; Coppell, Texas 75019, 214-496-6000, and/or the Section 504 Coordinator, at 268 Southwestern Blvd; Coppell, Texas 75019, 214-496-6938.

El Distrito Escolar Independiente (Independent School District, ISD) de Coppell ofrece programas de educación técnica o profesional en las áreas de comercio, mercadeo, artes, tecnología y comunicación audiovisual, ingeniería, informática y ciencias de la salud. La admisión a estos programas se basa en el nivel de estudios y el cumplimiento de los requisitos.

Es política del ISD de Coppell no discriminar en sus programas vocacionales, servicios o actividades en función de la raza, color, origen nacional, sexo o discapacidad, tal como lo exigen el Título VI de la Ley de Derechos Civiles de 1964, enmendada, el Título IX de las Enmiendas Educativas de 1972 y la Sección 504 de la Ley de Rehabilitación de 1973, enmendada.

Es política del ISD de Copell no discriminar en sus prácticas laborales en función de la raza, color, origen nacional, sexo, edad o discapacidad, tal como lo exigen el Título VI de la Ley de Derechos Civiles de 1964, enmendada, el Título IX de las Enmiendas Educativas de 1972, la Ley de Discriminación por Edad de 1975, enmendada, y la Sección 504 de la Ley de Rehabilitación de 1973, enmendada.

El ISD de Coppell tomará medidas para garantizar que la falta de conocimientos del idioma inglés no sea un impedimento en la admisión y la participación en todos los programas educativos y vocacionales

Para obtener información sobre sus derechos o procedimientos de quejas, contacte al Coordinador del Título IX, ubicado en 200 S. Denton Tap Rd.; Coppell, Texas 75019, a través del teléfono 214-496-6000; o a la Coordinadora de la Sección 504, ubicada en 268 Southwestern Blvd; Coppell, Texas 75019, a través del teléfono 214-496-6938.