Career & Technical Education
Programming & Software Development

Level 1
- Fundamentals of Computer Science

Level 2
- AP Computer Science Principles
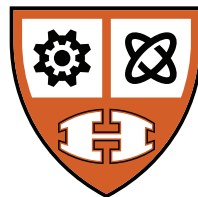- Computer Science I
- Game Programming & Design

Level 3
- AP Computer Science A
- Computer Science II
- Mobile Application Development

Level 4
- Computer Science III
- Practicum in STEM

Certification(s)

- Oracle Certified Associate Java SE 8 Programmer

Student Organization

TECHNOLOGY STUDENT ASSOCIATION

CAREER & TECHNICAL EDUCATION **HUTTO ISD**
COMPUTER SCIENCE

Career & Technical Education
Teaching & Training

Level 1
- Principles of Education & Training
- Principles of Human Services

Level 2
- Human Growth & Development
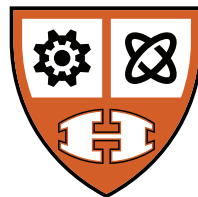- Child Development

Level 3
- Instructional Practices

Level 4
- Practicum in Education & Training

Certification(s)

- Education Aide I

Student Organization

FCCLA
Family, Career and Community Leaders of America

CAREER & TECHNICAL EDUCATION HUTTO ISD
EDUCATION

Course Information – Programming & Software Development

Course Title	Credits	Prerequisites	Course Description
Fundamentals of Computer Science	1.0	None	Fundamentals of Computer Science is intended as a first course for those students just beginning the study of computer science. Students will learn about the computing tools that are used every day. Students will foster their creativity and innovation through opportunities to design, implement, and present solutions to real-world problems. Students will collaborate and use computer science concepts to access, analyze, and evaluate information needed to solve problems.
AP Computer Science Principles	1.0	None	The course introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.
Computer Science I	1.0	Algebra I	By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts.
Game Programming & Design	1.0	None	Game Programming and Design will foster student creativity and innovation by presenting students with opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve gaming problems. Through data analysis, students will include the identification of task requirements, plan search strategies, and use programming concepts to access, analyze, and evaluate information needed to design games.
AP Computer Science A	2.0 (Math & LOTE)	Computer Science I or AP Computer Science Principles	AP Computer Science A is an introductory college-level computer science course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures.
Computer Science II	1.0	Algebra I and either Computer Science I or AP Computer Science Principles	Computer Science II will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems.
Mobile Application Development	1.0	Algebra I	Mobile Application Development will foster students' creativity and innovation by presenting opportunities to design, implement, and deliver meaningful projects using mobile computing devices. Students will collaborate with one another, their instructor, and various electronic communities to solve problems presented throughout the course. Through data analysis, 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 Science III	1.0	Computer Science II or AP Computer Science A	Computer Science III will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems.

Course Information – Teaching & Training

Course Title	Credits	Prerequisites	Course Description
Principles of Education & Training	1.0	None	Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self- knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.
Principles of Human Services	1.0	None	Principles of Human Services is a laboratory course that will enable students to investigate careers in the Human Services Career Cluster, including counseling and mental health, early childhood development, family and community, personal care, and consumer services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.
Human Growth & Development	1.0	None	Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.
Child Development	1.0	None	Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.
Instructional Practices	2.0	One Credit from the Education & Training Cluster	Instructional Practices is a field-based (practicum) internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators or trainers in direct instructional roles with elementary-, middle school-, and high school-aged students.