Course Catalog

Ellipsis Education provides full-year computer science curriculum for K-12. The curriculum offers grade level differentiated learning pathways, aligns with all state and national computer science standards, and is continually updated to reflect changes in computer science.

Computer Science Foundations (K-2)

Engage your students with courses that fuel their interest. Coding lessons use ScratchJr, an introductory block coding language, perfect for emergent and early readers.

Kindergarten
Explore foundational computer science skills. Learn programming concepts including algorithms, loops, and debugging. Discuss internet safety, growth mindset, respecting differences, and STEM careers.

1st Grade
Acquire foundational coding skills with free play and criteria-driven exploration. Review loops, triggering blocks, and debugging. Discuss self monitoring screen time, giving peer feedback, and STEM careers.

2nd Grade
Expand foundational computer science skills and apply to progressively challenging projects. Discuss strategies to keep information safe and how modern technology has changed the way we live.

Computer Science Fundamentals (3-5)

Inspire your students with courses that spark their creativity. Coding lessons use Scratch, a block based coding language, ideal for the transitional and fluent reader.

3rd Grade
Explore fundamental computer science skills with coding and debugging projects. Expand understanding of variables, loops, and conditionals. Discuss internet safety, real-world technology, and STEM careers.

4th Grade
Establish fundamental computer science skills. Understand concepts like variables, parameters, and comparison operators. Discuss ethical Internet behaviors and problem solving strategies, and STEM careers.

5th Grade
Reinforce fundamental programming concepts and experiment with advanced coding. Understand the applications of booleans, loops, and arrays. Evaluate online activity and the impacts of computing on society.

Computer Science Applications (6-8)

Motivate your students with courses that connect to their world. Coding lessons use line based languages JavaScript, HTML, CSS, and Java to explore programming options.

Intro to CS Applications
Examine fundamental computer science concepts with JavaScript. Integrate conditionals, loops, and arrays in functions to enable user actions on a website. Discuss ethical online behavior and STEM careers.

CS Applications JavaScript
Use JavaScript and design best practices to solve realworld problems. Expand understanding of concepts including functions, conditionals, and arrays. Discuss collaboration and problem-solving techniques.

CS Applications Java
Deepen existing computer science skills using Java Explore loops, objects, methods, and classes to build applications like a fitness tracker. Discuss incorporating feedback and physical security measures.

High School Computer Science (9-12)

Empower your students with courses that expand their skills. Coding lessons include JavaScript, Java, and Python skills to develop websites, programs, and games.

JavaScript
Explore computational thinking and computer scienceprinciples using JavaScript, HTML, and CSS.Develop websites that integrate data and interactive elements. Discuss trends, ethics, and impacts of technology.

Python
Expand core computer science skills with Python. Learn programming concepts like comments, methods, and print functions. Discuss data manipulation, ethical online behavior, and various STEM career opportunities.

Java
Demonstrate computer science skills using Java. Learn object oriented programming with loops, objects, methods, and classes. Explore the importance of digital and physical security in relation to cybersecurity.

Game Development
Engage with game development processes through line coding. Learn game theory, game psychology, and constructs like nodes and trees. Discuss ethical behavior and STEM careers in the gaming industry.