

Praxis Preparation Course

FOR TEACHERS

This teacher-focused course equips educators with the foundational knowledge and confidence they need to pass the Praxis Computer Science Exam, a key step in earning certification to teach computer science. Developed to align with exam standards, this self-paced, interactive curriculum provides real-world context and coding practice to deepen understanding. Course modules include:

Computing & Society

- Impacts of Computing
- Computer Innovations
- Legal, Ethical, and Accessibility Issues
- The Digital Divide and Cyberbullying
- Crowdsourcing and Impacts of the Internet

The Internet & Networks

- How the Internet Works
- Network Topologies, Routing, and Protocols
- Search Engines, Bandwidth, and Redundancy
- Cybersecurity, Encryption, and Personal Data Protection

Algorithms & Computational Thinking

- Algorithm Design and Visualization
- Abstractions and Problem-Solving
- Linear vs Binary Search
- Efficiency Testing
- Sequential vs Parallel Computing

Core Computer Science Concepts

- Computer Hardware and Software
- Programming Languages and Debugging
- Data Structures and Logical Thinking
- Overflow, Roundoff Errors, and External Libraries

Information & Data Representation

- From Electricity to Bits
- Binary Representation: Text, Images, Sound, and Video
- Data Compression: Lossless and Lossy

Python Programming Foundations

- Syntax, Variables, Input/Output, and Data Types
- Conditional Logic and Loops
- Strings, Lists, and Functions
- Simulations, Randomization, and Object-Oriented Programming
- Advanced Topics: Stacks, Recursion, and Iteration

The Praxis Prep Course is Ideal for:

- Teachers preparing for the Praxis 5652 Computer Science Exam
- Districts looking to expand certified CS instructors
- Educators transitioning into STEM or CS roles

Interested in access to this course? [Reach out here!](#)

