

CAREERWISE RECOMMENDED ONLINE COURSE MENU



INFORMATION TECHNOLOGY

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Accelerate the skill development of your apprentice through targeted online courses. There are countless low-cost courses that will expand their knowledge and skill set. They are easy to access and teach a critical skill aligned to CareerWise competencies. There are numerous benefits in engaging youth apprentices in online courses, particularly while they are working remotely.

The courses outlined below focus on **information technology**. High quality online courses are widespread. IT apprentices can easily access coursework that provides them with the high-level skills they need to be job ready. Courses not only cover essential skills, but prepare apprentices for examinations to earn high-value industry certificates.

IT SUPPORT

[Google IT Support Certificate/Google+Coursera](#)

Online, Self-Paced: \$49/month through Coursera.

Approximately five to six months (suggested five hours/week).

Beginner Level, no prerequisites, HIGHLY recommended the apprentice takes the course in sequential order.

This five-course certificate, developed by Google, includes innovative curriculum designed to prepare you for an entry-level role in IT support. A job in IT can mean in-person or remote help desk work in a small business or at a global company like Google. If you've been tinkering with IT or are new to the field, you're at the right place. The program is part of Grow with Google, a Google initiative to help create economic opportunities for all Americans. This certificate comes with a shareable Certificate. Additionally, this certificate is recommended by the American Council on Education's (ACE) **ACE CREDIT**[®] for recognition of twelve college credits.

[Total: CompTIA A+ Certification \(220-1001\)/Udemy](#)

Online, Self-Paced: \$12.99 through Udemy.

17.5 hours of online instruction.

Beginner Level, No Prerequisites.

This course includes how to pass the CompTIA A+ Certification Core 1 exam, how to repair and configure mobile devices and computer hardware, what the cloud is and how it works, set up and configure basic networks, and how to troubleshoot hardware and network issues.



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Total: CompTIA A+ Certification (220-1002)/Udemy

Online, Self-Paced: \$11.99 through Udemy.

15 hours of online instruction.

No Prerequisites.

This course includes how to pass the CompTIA A+ Certification Core 2 exam, including operating systems (Windows, Mac, Linux, iOS, Android), securing devices, how to troubleshoot software and mobile issues, scripting basics, security concepts like malware, anti-virus, and networking security protocols, and how to use command-line tools.

Total: CompTIA Network+ Certification

Online, Self-Paced: \$10.99 through Udemy.

23 hours of online instruction.

No Prerequisites, recommended to have basic network familiarity and understanding of CompTIA A+ topics.

Once you complete the course, you will have the knowledge and confidence to pass the CompTIA Network+ Certification (N10-007) exam AND the skills to be a great network tech. This course is ideal as both a study tool and an on-the-job reference.

CODING

Python Basics/University of Michigan+Coursera

Online, Self-Paced: Free through Coursera.

Approximately 23 hours to complete, recommend 15 hours/week of study.

Beginner Level, No Prerequisites, recommended for those who are new to Python Programming.

This course introduces the basics of Python 3, including conditional execution and iteration as control structures, and strings and lists as data structures. You'll program an on-screen Turtle to draw pretty pictures. You'll also learn to draw reference diagrams as a way to reason about program executions, which will help to build up your debugging skills. The course has no prerequisites. It will cover Chapters 1-9 of the textbook "Fundamentals of Python Programming," which is the accompanying text (optional and free) for this course.

Python Essential Training

Provided through LinkedIn Learning, \$50 registration fee.

Approximately five hours of instructional content.

Beginner level.

Due to its power and simplicity, Python has become the scripting language of choice for many large organizations, including Google, Yahoo, and IBM. A thorough understanding of Python 3, the latest version, will help you write more efficient and effective scripts. In this course, Bill Weinman demonstrates how to use Python 3 to create well-designed scripts and maintain existing projects. This course covers the basics of the



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language syntax and usage, as well as advanced features such as objects, generators, and exceptions. Learn how types and values are related to objects; how to use control statements, loops, and functions; and how to work with generators and decorators. Bill also introduces the Python module system and shows examples of Python scripting at work in a real-world application.

Programming Foundations: Fundamentals

Provided through LinkedIn Learning, \$35 registration fee.

Approximately two hours of instructional content.

Beginner level.

This course provides the core knowledge to begin programming in any language. Simon Allardice uses JavaScript to explore the core syntax of a programming language, and shows how to write and execute your first application and understand what's going on under the hood. The course covers creating small programs to explore conditions, loops, variables, and expressions; working with different kinds of data and seeing how they affect memory; writing modular code; and how to debug, all using different approaches to constructing software applications. Finally, the course compares how code is written in several different languages, the libraries and frameworks that have grown around them, and the reasons to choose each one.

JavaScript Essential Training

Provided through LinkedIn Learning, \$35 registration fee.

Approximately five and a half hours of instructional content.

Beginner level.

JavaScript is a scripting language of the web. As the web evolves from a static to a dynamic environment, technology focus is shifting from static markup and styling—frequently handled by content management systems or automated scripts—to dynamic interfaces and advanced interaction. Once seen as optional, JavaScript is now becoming an integral part of the web, infusing every layer with its script.

Through practical examples and mini-projects, this course helps you build your understanding of JavaScript piece by piece, from core principles like variables, data types, conditionals, and functions through advanced topics including loops, closures, and DOM scripting. Along the way, you will also be introduced to some ES6 and the basics of JavaScript libraries.

HTML Essential Training

Provided through LinkedIn Learning, \$40 registration fee.

Approximately six hours of instructional content.

Beginner level.

HTML is the programming language that powers the web. And like any language, once you master it, you can begin to create your own content, whether that's simple websites or complex web applications. This course provides an in-depth look at the essentials: the syntax of HTML and best practices for writing and editing your code. Senior staff author James Williamson reviews the structure of a typical HTML document and shows how to section pages and format your content with HTML. Plus, learn how to create links and lists, and find out how HTML works with CSS and JavaScript to create rich, engaging user experiences. So, open a text editor, watch these videos, and begin learning to author HTML the right way.

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COMPUTER SCIENCE

[Computer Science: Programming with a Purpose/Princeton University+Coursera](#)

Online, Self-Paced: Free through Coursera.

Approximately 41 hours to complete, recommend 10 hours/week of study.

Beginner Level, No Prerequisites

This course covers the first half of our book Computer Science: An Interdisciplinary Approach (the second half is covered in our Coursera course Computer Science: Algorithms, Theory, and Machines). Our intent is to teach programming to those who need or want to learn it, in a scientific context.

[Introduction to Discrete Mathematics For Computer Science Specialization/UC San Diego+Coursera](#)

Online, Self-Paced: Free through Coursera.

Approximately 3 months to complete, recommend 13 hours/week of study.

Beginner Level, No Prerequisites.

Discrete Math is needed to see mathematical structures in the object you work with and understand their properties. This ability is important for software engineers, data scientists, security and financial analysts (it is not a coincidence that math puzzles are often used for interviews). We cover the basic notions and results (combinatorics, graphs, probability, number theory) that are universally needed. To bring the learners experience closer to IT-applications we incorporate programming examples, problems and projects in our courses.

OTHER

[Scrum: The Basics](#)

Provided through LinkedIn Learning, \$25 registration fee.

Approximately one hour of instructional content.

Beginner level.

If you've spent any time in the project management world, you've likely heard of scrum—the popular framework for managing complex processes. If this mysterious-sounding framework has piqued your interest, this course can help provide you with a basic understanding of what scrum is and how you can start implementing it at work. Follow scrum expert Kelley O'Connell as she walks through why scrum has taken the business world by storm, and how it asks you to organize your team and work. Plus, she explains how to manage your projects and measure how their progress, and set manageable improvement goals.