

# An Online Computer Science Curriculum (Basics)

Introduction to Logic  
(Stanford)

Combinatorics  
(Princeton)

Learn to Program:  
Fundamentals  
(Toronto)

Introduction to  
Computer  
Science 1 (Harvard)  
and 2 (MIT)

CS 101  
Introduction to  
Computer Science  
(Udacity)

Computer  
Science  
101  
(Stanford)

*“equivalent”  
alternatives*

Learn to Program:  
Crafting  
Quality Code  
(Toronto)

CS 212  
Design of  
Computer Programs  
(Udacity)

*“equivalent”  
alternatives*

The Hardware/Software Interface (U Washington)

CS 215  
Algorithms:  
Crunching Social Networks  
(Udacity)

Algorithms Part 1  
(Princeton)  
*“equivalent”  
alternatives*

Algorithms:  
Design and Analysis,  
Part 1  
(Stanford)

# An Online Computer Science Curriculum (Core)

Algorithms  
Part 2  
(Princeton)

Algorithms:  
Design and Analysis,  
Part 2 (Stanford)

*“equivalent”  
alternatives*

Automata  
(Stanford)

Programming Languages  
(U Washington)

Compilers  
(Stanford)

Pattern-Oriented  
Software  
Architectures  
(Vanderbilt)

Design of  
Computer Programs  
(Udacity)

Software as a Service  
(UC Berkeley)

Introduction to  
Databases  
(Stanford)

Computer  
Architecture  
(Princeton)

Computer  
Networks  
(U Washington)

CS188.1x  
Artificial  
Intelligence  
(UC Berkeley)

CS373  
Artificial  
Intelligence  
(Udacity)

# An Online Computer Science Curriculum Tech/Soc

Writing in the Sciences  
(Stanford)

Internet History, Technology, and Security  
(Michigan)

Sci, Tech, Soc in China  
(Hong Kong)

Securing  
Digital  
Democracy  
(Michigan)

How to Build a Startup  
(Udacity)

Computational  
Investing  
(GaTech)

Online Games:  
Literature,  
New Media, and Narrative  
(Vanderbilt)

Information Security  
and Risk Management  
in Context  
(U Washington)

## Specialized and Tutorial

## Sciences, Humanities, Arts

MySQL Databases  
For Beginners  
(Udemy)

Differential  
Equations  
(Khan Academy)

few thus far, but enough  
to fill out some of a “major”

# An Online Computer Science Curriculum (Technical Electives)

Creative, Serious and Playful Science of Android Apps (UIUC)

Creative programming For digital media & Mobile Apps (U of London)

Web Intelligence and Big Data (IIT, Dehli)

Machine Learning (Stanford)

Machine Learning (U Washington)

Discrete Optim (Melbourne)

**customization**

Networked Life (U Penn)

Social Network Analysis (Michigan)

Software Defined Networks (U Maryland)

Malicious Software underground story (U of London)

Interactive **community** (MIT)

Gamification (U Penn)

AI Planning (Edinburgh)



Functional Programming Principles in Scala (Ecole Polytechnique)

Image and Video (Duke)

Heterogeneous Parallel Programming (Stanford)

Computational Photography (GaTech)

Cryptography (Stanford)

Applied Cryptography (Udacity)

Computer Vision (UC Berkeley)  
Computer Vision (Stanford/Michigan)

Computing for Data Analysis (Johns Hopkins)

VLSI CAD: Logic to Layout (UIUC)

Coding the Matrix: Linear Algebra CS applications (Brown)