

New for
SPRING 2020!
All classes
online

LEARN FROM HOME

THE BEGINNER'S GUIDE TO FREE & LOW-COST TECH COURSES IN NYC

Where to log on to learn the skills
you need to jump start a tech career

Women.nyc is a comprehensive initiative to make New York City the best place in the world for women to succeed.

By working with partners who share our mission, women.nyc has rolled out groundbreaking programs that have a real impact, including salary negotiation workshops, career training, funding for small businesses and startups, grants for female creators, legal advice from the city's most respected law firms, and more.

So why a guide to free and low-cost tech training from women.nyc? Because there's a shortage of women in high-paying fields like web development, data science and cybersecurity – and there's no better time to learn these skills than now.

Last fall, we published the first version of this guide. Our spring 2020 update features only online classes, so you can explore different technologies or take the leap and enroll in a program, all from home.

The great news is that our city is rich in free and low-cost ways to learn these in-demand skills, offered by a host of government agencies, universities, private companies and nonprofits. Think you can make it in tech? We do. Here are dozens of places to start.

Good luck!



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To download this guide, go to women.nyc/tech-guide.

In these pages, you'll find everything from introductory sessions that lay out a field's career possibilities to in-depth bootcamps that connect you to job opportunities once you've built your toolkit.

While we've provided as much information on each course as possible, we did not vet each one. Make sure to contact each provider to understand if the class will best meet your needs.

Whether you're looking to explore a new field or take your current job in a new direction, understand that these courses are intended for beginners. Certain computer programs can be mastered in a matter of weeks, but you'll still need additional training to land that first job in your field. Regardless, these classes can get you started on your new career quickly and affordably.

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Introductory Basics
Career Track Bootcamps, Accelerators and Intensives

Even when the economy is in flux, tech skills are a solid bet. By taking the first steps toward breaking into the fast-growing fields of web development, cybersecurity and data science and analysis, you could position yourself to score a high-paid entry-level job or make a mid-career pivot. Here, some recent industry forecasts.

WEB DEVELOPMENT

National growth forecast: 13% between 2018 and 2028

What you'll do: Shape a web site's design and appearance or write code to build digital tools and apps that can accomplish certain tasks.

Skills needed: Languages such as: HTML, CSS, JavaScript, Ruby and/or Python.

Starting salary: \$76,000 (per Glassdoor)

CYBERSECURITY

National growth forecast: 32% between 2018 and 2028

What you'll do: Help companies cope with and prevent data hacks and breaches.

Roles include: security operations center analyst, cybersecurity support technician, network security specialist or penetration tester.

Skills needed: Knowledge of security standards and how to test for vulnerabilities in a system.

Starting salary: \$85,000

DATA ANALYSIS & DATA SCIENCE

National growth forecast: 30% between 2018 to 2028

What you'll do: Help businesses grow or work more efficiently. A data scientist uses math, machine learning and programming to analyze patterns and predict the future, while a data analyst studies known statistics and data points to create new insights.

Skills needed: Programming languages, such as Python and R. Other skills: understanding of mathematics, statistics, Excel, database structures, modeling and SQL, a database management language. Data visualization and presentation.

Starting salary: Data analyst: \$60,714; data scientist: \$98,214 (per Glassdoor)

FIND THE RIGHT TECH TRAINING FOR YOU

It can be hard to know which training type best suits you, but a few simple considerations can help you make the best choice.

CONSIDER YOUR NEEDS

Tech careers aren't for everyone. If you don't have coding experience, get started slowly with some free online classes. You'll be introduced to the mechanics so you can better decide if you want to learn more. Once you are sure you want to pursue this career path, enroll in courses to sharpen your skills and then an in-depth bootcamp that jump starts a career in a new field, or boost your current career with a new suite of skills.

CONSIDER YOUR GOALS

What would you like to get out of your training? Would you just like to know more about a certain technology or sector, or are you hoping to make a shift in your current job or even change careers? If you're hoping your training will lead to job opportunities, [careers site Dice suggests](#) you find out what percent of students graduate on time and how many are working in the field for which they trained. You can ask your school for these metrics or, as Dice points out, review data compiled by the Council for Integrity for Results Reporting.

As you research courses, get creative. Multiple sites (such as [Switchup](#) and [Course Report](#)) review classes and bootcamps. The New York Tech Talent Pipeline has a downloadable checklist, [Choosing a Tech Bootcamp: Things to Look For](#), to help you evaluate your options. And don't overlook connecting with people in person. If you can, reach out to alumni from programs you're considering. These simple conversations can help build your network while giving you the advice you need to plot your next career move.



For Coding Newbies

Introductory Basics

DASH BY GENERAL ASSEMBLY

A series of short, interactive projects walks beginners through the basics of HTML, CSS and JavaScript to create a functioning site.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: N/A

Info: <https://dash.generalassemb.ly/projects>

INTRODUCTION TO HTML/CSS

This beginner-level course takes you from a blank page to a functioning website, including writing valid HTML, adding links and images, applying CSS styles, and positioning elements.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: N/A

Info: <https://www.girldevelopit.com/materials/html-intro>

SKILLCRUSH CODING CAMP

Get introduced to HTML, CSS, Javascript and Wordpress and learn about the career opportunities in tech. Participants are given access to Skillcrush's Coding Camp Slack community for additional support.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: N/A

Info: <https://learn.skillcrush.com/skillcrush-free-bootcamp/>



Web Development

Introductory Basics

CSS, HTML

INTRODUCTION TO HTML

Master the basics of HTML5 in this course offered by Codecademy, a New York-based company specializing in interactive online tech courses.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 7+ hours

Info: www.codecademy.com/learn/learn-html

Website: <https://www.codecademy.com/learn>

INTRO TO HTML & CSS IN NYC

Learn how to hand code a webpage from scratch with this digital course from New York-based tech training company Noble Desktop covering the foundations of HTML and CSS.

Hours: Self-directed

Who's eligible: Anyone

Cost: \$150

Duration: 3 hours

Info: <https://www.nobledesktop.com/classes/html-intro#overview>

Website: <https://www.nobledesktop.com/>

LEARN CSS

Learn to set up file structures, edit text and colors, and create attractive layouts in this class, offered by Codecademy, a New York-based company specializing in interactive online tech courses.

Hours: Self-directed

Who's eligible: Anyone. Introduction to HTML is recommended as a prerequisite

Cost: Free

Duration: 15+ hours

Info: www.codecademy.com/learn/learn-css

Website: <https://www.codecademy.com/learn>

JAVA

JAVA PROGRAMMING SERIES

Learn Java programming at your own pace with this package of instructor-led online courses from Lehman College. The series bundles two courses (Introduction to Java Programming and Intermediate Java Programming), teaching participants to write their own programs, how to save data using sequential data files and how to organize that information.

Hours: Self-directed

Who's eligible: Anyone

Cost: \$199

Duration: 12 weeks; six weeks for each of the 2 courses

Info: www.ed2go.com/lehmance/online-courses/learn-java-programming

For more upcoming dates: www.ed2go.com/lehmance/

JAVASCRIPT AND RUBY

CODING BOOTCAMP PREP

Learn to code with this full-stack, self-paced course that teaches two languages (Ruby and JavaScript) and job-hunting skills. The course, provided by the Flatiron School, also offers on-demand support and tools for connecting in real-time to students and instructors.

Hours: Self-directed

Who's eligible: Anyone. The class can act as an introduction for beginners or a prep-course for those eyeing a competitive coding bootcamp

Cost: Free

Duration: 75 hours

Info: www.flatironschool.com/free-courses/coding-bootcamp-prep

Website: www.flatironschool.com

Email: info@flatironschool.com

Phone: 888-958-0569

FRONT END DEVELOPER SUITE

Lehman College bundles together three online courses to teach students how

to use CSS3, HTML5 and JavaScript to build responsive websites optimized for smartphones, tablets and desktops.

Hours: Self-directed

Who's eligible: Anyone. Some experience in HTML recommended

Cost: \$299

Duration: 12 weeks

Info: www.ed2go.com/lehmance/online-courses/front-end-developer-suite

For more upcoming dates: www.ed2go.com/lehmance/

INTRODUCTION TO JAVASCRIPT

Learn the basics and gain an understanding of the differences between client-side and server-side JavaScript. The course is one of several pre-recorded webinars offered by Noble Desktop, a New York-based tech training company.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 2 hours

Info: www.nobledesktop.com/seminars/intro-to-javascript

Website: www.nobledesktop.com

Email: hello@nobledesktop.com

INTRODUCTION TO JAVASCRIPT

This course lays the foundation for using JavaScript in any environment. It's offered by Codecademy, a New York-based company specializing in interactive online tech courses.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 35+ hours

Info: www.codecademy.com/learn/introduction-to-javascript

Website: www.codecademy.com

INTRO TO JAVASCRIPT

Master JavaScript basics and get introduced to functions, structures (such as arrays and objects) and jQuery.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 50+ hours

Info: www.flatironschool.com/free-courses/learn-javascript

Website: www.flatironschool.com

Email: info@flatironschool.com

Phone: 888-958-0569

INTRODUCTION TO JAVASCRIPT

This class covers JavaScript and basic programming concepts like variables, data types, and functions, if/then statements, arrays and loops. Students should be familiar with HTML and CSS.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 8 hours

Info: <https://www.girldevelopit.com/materials/intro-js>

Website: www.girldevelopit.com

INTRO TO RUBY ONLINE

Explore the basics of Ruby with this immersive online course that helps you build your own online game. The course, provided by New York-based Flatiron School, offers on-demand support, an open-source curriculum and real-time collaboration.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 30+ hours

Info: www.flatironschool.com/free-courses/learn-ruby

Website: www.flatironschool.com

Email: info@flatironschool.com

Phone: 888-958-0569

PYTHON

INTRODUCTION – PYTHON

Learn Python programming fundamentals, including reading and writing functions as well as data types, such as numbers, strings, lists, and dictionaries. This course is offered through Baruch College Continuing and Professional Studies.

Location: Remote/Online until further notice, usually in-person at Baruch College, 55 Lexington Ave, Manhattan

Hours: Tuesdays, 6:15 p.m. to 9:15 p.m.

Who's eligible: Anyone

Cost: \$545

Duration: 5 sessions

Deadline: Check site for future dates

Info: <https://registration.baruchcaps.com/baruch/course/course.aspx?C=3880>

Website: www.baruchcaps.com

Phone: 646-491-6687

LEARN PYTHON 2

This Codecademy course is a great intro to both fundamental programming concepts and the Python programming language.

Hours: Self-directed

Who's eligible: anyone, a little basic coding experience is recommended

Cost: Free

Duration: 25 hours

Info: <https://www.codecademy.com/learn/learn-python>

Website: <https://www.codecademy.com>

GOOGLE'S PYTHON CLASS

Google for Education offers a free Python class that includes written materials, lecture videos and lots of code exercises to practice.

Hours: Self-directed

Who's eligible: anyone, a little basic coding experience is recommended

Cost: Free

Duration: 2 - 3 hours

Info: <https://developers.google.com/edu/python>

Website: <https://developers.google.com/edu>

Career Track Bootcamps, Accelerators and Intensives

NYC WEB DEVELOPMENT

FELLOWSHIP

The NYC Tech Talent Pipeline's Web Development Fellowship, a full-time, 17-week immersive training program, is designed to prepare New Yorkers with no previous professional web development experience for careers in Web Development at salaries of \$65,000 or more. Offered in partnership with Fullstack Academy, this project-based program, worth \$17,000, is offered free of cost to eligible applicants.

Location: Remote/Online until further notice, usually at Fullstack Academy, 5 Hanover Square 11th floor, Manhattan

Who's eligible: 18 years and older.

Participants must earn less than \$50,000 a year, be a New York City resident and be authorized to work in the U.S. Unemployed New Yorkers are eligible. Participants must not have prior professional (paid) experience in web

development or be currently working as a developer

Cost: Free, including materials; laptops and Metrocards are provided for students in need

Duration: 17 weeks

Deadline: 2020 applications have closed; check back for the next cohort

Info: www.fullstackacademy.com/nyc-fellowship

Email: nycfellowship@fullstackacademy.com

ACCESS LABS INITIATIVE

This coding bootcamp, a partnership between WeWork and the Flatiron School, offers an immersive software engineering curriculum in which you'll learn in-demand languages such as HTML5 and CSS, JavaScript, SQL and Ruby. According to the Flatiron School, graduates of this program now work at top tech companies including Google, IBM and Microsoft.

Who's eligible: 18 or older. Must earn \$35,000 a year or less

Cost: \$0 upfront. Once employed, graduates pay a tuition of \$17,000 in monthly increments of 10 percent of their income

Duration: 15 weeks

Deadline: Rolling. New cohorts start every 3 weeks. Each cohort comprises around 20 students.

Info: www.accesslabs.org

Email: info@flatironschool.com

Phone: 888-958-0569

PURSUIT FELLOWSHIPS

Accepted fellows can choose from two tracks, iOS mobile development or full-stack web skills. Each track offers two phases: Pursuit Core, in which students learn fundamentals in computer science, coding, and testing by working collaboratively and building real-world projects; and the longer Pursuit Advance, which offers graduates career support. According to Pursuit, a social-impact organization based in Long Island City, current graduates work at Pinterest, Spotify, LinkedIn, Uber and a host of other companies.

Location: Remote/Online until further notice, usually at 47-10 Austell Place, 2nd Fl, Long Island City

Who's eligible: NYC residents 18 or older with demonstrated need, with an annual salary of no more than \$45,000. Women,

underrepresented minorities, and people without college degrees are encouraged to apply.

Cost: \$0 upfront. Once employed at a tech job earning more than \$60,000, participants pay 12 percent of their income for 3 years

Duration: Four years total; 10 or 12 month intensive training course, followed by three years of one-on-one career and professional support.

Deadline: Check website

Info: www.pursuit.org

TECHHIRE OPEN CODE—

WEB DEVELOPMENT

Learn programming fundamentals, product development, and web development. This program includes job search assistance and career counseling. It is one of two job-training tracks offered by LaGuardia Community College's TechHIRE Open Code.

Who's eligible: Participants must be authorized to work in the U.S. full-time; not be currently attending college; be

unemployed or underemployed (not working full-time); be 17-29 years old; have a high school diploma or the equivalent and meet all federal selective service requirements.

Note: LaGuardia TechHire OpenCode is part of a national study to test if offering individuals skills training and extra support services helps students complete training and find employment in middle-high skill jobs. Students must consent to participate in this study to be enrolled in the program.

Cost: Free

Duration: 6 to 9 months, depending on track

Deadline: Applications are accepted on an ongoing basis. Up to four cohorts will be held in 2020

Info: www.laguardia.edu/techhire-opencode

GRACE HOPPER PROGRAM (GHP)

This engineering program immerses cis women, trans women, and non-binary individuals into the in-demand language of JavaScript, preparing them for careers

as full-stack software engineers. The program, administered by Fullstack Academy, teaches front-end and back-end development, plus computer science fundamentals through lectures, hands-on workshops, and portfolio projects. GHP's network of instructors, speakers, students and grads provide a one-of-a-kind support group for participants after the program ends. Since its inception in 2016, GHP has trained more than 500 software engineers and its graduates have been hired at top companies such as Google, Facebook, LinkedIn and more.

Skill level: Intermediate. Applicants need to be familiar with concepts like variables, loops, conditionals, functions, recursion, and general problem solving. Admission involves a rigorous assessment and interview process (which mimics the interview process for a tech job).

Location: Remote/Online until further notice, usually in-person at Fullstack Academy, 5 Hanover Square, Floor 25, Manhattan

Hours: Weekdays, 10 a.m. to 6 p.m.

Who's eligible: Cis women, trans women, non-binary individuals

Cost: \$3,000 deposit, which is subtracted from \$19,910 total tuition costs. The remaining \$16,910 is deferred to be paid back in nine monthly installments after a graduate secures a full-time, in-field position

Duration: 17 weeks, comprising remote and in-person phases. Remote phase, 4 weeks, 25+ hours per week; In-person phase, on campus, 13 weeks, 45+ hours per week

Deadline: Rolling. Seven cohorts offered each year. Check website for 2020 dates

Info: www.gracehopper.com/apply

Website: www.gracehopper.com

Email: info@gracehopper.com

Phone: 646-828-7156



Introductory Basics

HACKING 101: INTRO TO CYBERSECURITY

This free online course from The Flatiron School was developed by SecureSet, ranked as one of the best cybersecurity bootcamps according to SwitchUp. This course covers the basics of cybersecurity, including how virtualization works and why it's important, over eight video lessons and a practice lab.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: N/A

Info: <https://flatironschool.com/free-courses/intro-to-cybersecurity>

FULLSTACK ACADEMY

HACKING 101

This video-based online course provides an introduction to the cybersecurity industry, and what it's really like to work in the field. Watch hackers in action to learn what techniques the good guys are using to fight the bad guys, and explore the different career paths open to cybersecurity professionals. This class is a good introductory course for someone interested in attending Fullstack's Cyber Bootcamp.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 6 hours

Info: <https://cyber.fullstackacademy.com/prepare/hacking-101>

FULLSTACK ACADEMY

INTRODUCTION TO HACKING

This beginner-level workshop teaches participants some of the history and theory behind modern cryptography, and then dives into a 'hands-on' lab where students get a chance to use real-world encryption tools that cybersecurity professionals use every day. This class is another great primer for someone interested in attending Fullstack's Cyber Bootcamp.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: 3 hours

Deadline: Sign up for a session on June 6 or July 11 from 10am – 1pm

Info: <https://www.eventbrite.com/e/workshop-introduction-to-hacking-tickets-104979231708>

Career Track Bootcamps, Accelerators and Intensives

FULLSTACK ACADEMY

CYBERSECURITY BOOTCAMP

The Cyber Bootcamp is a 17- or 26-week training program that launches participants into careers in cybersecurity that pay around \$85K a year. There's no higher education requirement—just a high-school diploma and the “grit” required to succeed in the program.

The bootcamp combines technical cybersecurity skills training and hands-on experience in simulated cyberattacks with professional development like resume help, networking guidance, and an exclusive in-house job fair for students.

Location: Remote/Online until further notice, usually in-person at Fullstack Academy, Floor 25, 5 Hanover Square, Manhattan

Hours: 35+ hours a week for full-time day program. 10+ hours per week for part-time evening program

Who's Eligible: Participants must be authorized to work in the U.S. full-time, and have a high school diploma or equivalent, basic computer skills (including keyboarding and working with files and folders) and a demonstrated interest in technology

Cost: \$17,910 full time, \$15,980 part time

Duration: 17 weeks full time, 26 weeks part time

Deadline: Rolling application, next cohorts begin April 7 (part-time), June 29 (full-time)

Info: <https://cyber.fullstackacademy.com/>

PER SCHOLAS TRAINING IN

CYBERSECURITY

Participants learn job-related skills (Introductions to Unix/Linux, preparation for Cisco CCNA Cyber Ops certification) as well as receive professional development training in this hands-on program from IT non-profit Per Scholas.

Location: Remote/Online until further notice, usually in-person at 804 E. 138th St., 2nd Floor, Bronx; 630 Flushing Ave., 6th Floor, Brooklyn

Hours: Weekdays, 9 a.m. to 4 p.m.

Who's eligible: 18 or older and authorized to work in the U.S. Applicants may qualify if they are unemployed or underemployed, and/or receive public benefits, such as subsidized housing or income support

Cost: Free (hardware and materials also provided)

Duration: 17 weeks

Deadline: Admissions are rolling. Six cohorts each year (24 students in each cohort) Application process includes an entrance exam (the Test of Basic Adult Education) and an interview

Info: <https://perscholas.org/apply/cybersecurity#overview>

Email: psadmissions@perscholas.org

Phone: 718-991-8400

TECH FUNDAMENTALS

This training course combines hands-on instruction with career prep. It is provided by NPower, a national non-profit that trains veterans and young adults for technology careers.

Location: Remote/Online until further notice, usually in-person at one of its two NYC campuses – 50 Greene Ave., Brooklyn; or 315 East 105th St, Suite 104, Harlem

Who's eligible: 18 to 25-year-olds.

Participants must be legally authorized to work in the U.S.

Cost: Free

Duration: 23 weeks total: 16 weeks, hands-on training; 7 weeks, paid internship

Deadline: Rolling admissions. Next start date: July 2020 (Virtual interviews have commenced)

Info: <https://www.npower.org/apply/tech-fundamentals/>

Email: info@npower.org

Phone: 212-564-7010



Data Science & Analysis

Introductory Basics

DATA ANALYTICS WITH EXCEL

POWERPIVOT

Learn to use Excel to analyze and manipulate data imported from a range of databases with online course offered through Baruch College's division of Continuing and Professional Studies.

Hours: Saturdays, 9:30 AM-3:30 PM

Who's eligible: Anyone. Basic Excel knowledge is necessary

Cost: \$399

Duration: 3 sessions

Deadline: Check website for future dates; next course starts July 25, 2020

Info: <https://registration.baruchcaps.com/baruch/course/course.aspx?C=3988>

Website: www.baruchcaps.com/

Phone: 646-491-6687

GET STARTED IN DATA SCIENCE

Gain an understanding of the skillsets data scientists need and Python's role in this field. This online seminar is offered by Noble Desktop, a New York-based tech training company.

Hours: Self-directed

Who's eligible: Anyone

Cost: Free

Duration: One session

Deadline: Live session on April 8, 2020 from 5-6:15pm. Contact for future dates

Info: www.nobledesktop.com/seminars/get-started-in-data-science

Website: www.nobledesktop.com

Email: hello@nobledesktop.com

Phone: 212-226-4149

Career Track Bootcamps, Accelerators and Intensives

DATA SCIENCE BOOTCAMP PREP

Get introduced to the data science industry with this online course that covers Python and machine learning as well as fundamental data types. The course, provided by the Flatiron School, also offers on-demand support and tools for connecting in real-time to students and instructors.

Hours: Self-directed

Who's eligible: Anyone with intermediate skills

Cost: Free

Duration: 75 hours

Deadline: N/A

Info: www.flatironschool.com/free-courses/data-science-bootcamp-prep

Website: www.flatironschool.com

Email: info@flatironschool.com

Phone: 888-958-0569

PER SCHOLAS DATA

ENGINEERING

In this course from IT non-profit Per Scholas, participants will learn how to extract, scrub and manipulate real-time and warehouse data through hands-on classroom activities, case studies and more. Ultimately, students learn how to properly define a problem, design tests that yield valid solutions and prepare large sets of data for effective and efficient use by analysts. Career counseling and connections to employment are included.

Hours: Monday - Friday, 9:00am – 5:00pm

Who's eligible: Anyone with intermediate skills, a bachelor's degree and U.S. work authorization

Cost: Free

Duration: 12 weeks

Deadline: Applications for our next cohort are open now; apply today for next year's classes

Info: <https://www.platformbyps.org/nyc/de>

Website: <https://perscholas.org/apply>

Email: psadmissions@perscholas.org

Phone: 718-991-8400

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