UNIVERSITY OF MICHIGAN

Programming for Everybody (Getting Started with Python)

This course is part of **Python for Everybody Specialization**

Instructor: Charles Russell Severance

3,459,838 already enrolled

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7 modules
Gain insight into a topic and learn the fundamentals.

4.8 ★
(232,599 reviews)

Beginner level
No prior experience required

Flexible schedule
2 weeks at 10 hours a week
Learn at your own pace

98%
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What you'll learn

- ✓ Install Python and write your first program
- ✓ Describe the basics of the Python programming language
- ✓ Use variables to store, retrieve and calculate information
- ✓ Utilize core programming tools such as functions and loops

Skills you'll gain

Computational Thinking | Programming Principles | Python Programming | Development Environment | Computer Programming | Software Installation

Details to know

Shareable certificate
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Taught in English
30 languages available

Assessments
9 assignments[1]
AI Graded see disclaimer

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There are 7 modules in this course

This course aims to teach everyone the basics of programming computers using Python. We cover the basics of how one constructs a program from a series of simple instructions in Python. The course has no pre-requisites and avoids all but the simplest mathematics. Anyone with moderate computer experience should be able to master the materials in this course. This course will cover Chapters 1-5 of the textbook "Python for Everybody". Once a student completes this course, they will be ready to take more advanced programming courses. This course covers Python 3.

Read less

Chapter One - Why We Program

Module 1 • 1 hour to complete

Module details

This module contains course-wide materials as well as the first part of Chapter One where we explore what it means to write programs. Throughout the course, you may want to come back and look at these materials. In the third module, we will return to Chapter One and submit the first assignment.

What's included

5 videos 3 readings 1 assignment

Hide info about module content

5 videos • Total 37 minutes

Welcome to Class - Dr. Chuck
•
6 minutes

Welcome from the Creator of Python - Guido van Rossum
•
1 minute

Why Program
•
11 minutes

Hardware Overview
•
10 minutes

Python as a Language
•
7 minutes

3 readings • Total 18 minutes

Course Overview and Resources
•
3 minutes

Pre-Course Survey
•
10 minutes

Industry Voices and Office Hours
•
5 minutes

1 assignment • Total 10 minutes

Programming Concepts Check-In
•
10 minutes

Installing Python

Module 2 • 1 hour to complete

Module details

In this module you will set things up so you can write Python programs.

What's included

1 video | 5 readings | 1 assignment | 1 app item

Hide info about module content

1 video • Total 3 minutes

Demonstration: Using the Python Playground
•
3 minutes

5 readings • Total 40 minutes

Important: Using Python in this Class
•
5 minutes

Choosing a Text Editor
•
10 minutes

Installing and Using Python - Windows/macOS
•
10 minutes

Taking Screen Shots for Assignments - Windows/macOS
•
5 minutes

Industry Voices: Eben Upton - Raspberry Pi
•
10 minutes

1 assignment • Total 10 minutes

Installing Python
•
10 minutes

1 app item • Total 60 minutes

Python Code Playground
•
60 minutes

Chapter One: Why We Program (continued)

Module 3 • 2 hours to complete

Module details

In the first chapter, we try to cover the "big picture" of programming so you get a "table of contents" of the rest of the book. Don't worry if not everything makes perfect sense the first time you hear it. This chapter is quite broad and you would benefit from reading the chapter in the book in addition to watching the lectures to help it all sink in. You might want to come back and re-watch these lectures after you have finished a few more chapters.

What's included

4 videos | 2 readings | 1 assignment | 1 app item

Hide info about module content

4 videos • Total 25 minutes

Elements of Python
•
6 minutes

Writing Paragraphs of Code
•
9 minutes

Demonstration: Doing the "Hello World" Assignment
•

5 minutes

Face-to-Face Office Hours: Milan, Italy

•

3 minutes

2 readings • Total 20 minutes

Submitting Programming Assignments

•

10 minutes

Industry Voices: Daphne Koller - Building Coursera

•

10 minutes

1 assignment • Total 20 minutes

Quiz: Chapter 1

•

20 minutes

1 app item • Total 60 minutes

Assignment: Write Hello World

•

60 minutes

Chapter Two: Variables and Expressions

Module details

Module 4 • 3 hours to complete

In this chapter, we cover how a program uses the computer's memory to store, retrieve and calculate information.

What's included

7 videos 3 readings 2 assignments 2 app items

Hide info about module content

7 videos • Total 41 minutes

Constants, Reserved Words & Variables

•

5 minutes

Variable Names and Assignment

•

7 minutes

Numerical Expressions

•

6 minutes

Variable Types

•

13 minutes

Writing Comments in Python

•

3 minutes

Your First I-P-O Program

•

3 minutes

Office Hours: Mountain View, CA

•

0 minutes

3 readings • Total 22 minutes

Where Is the Worked Exercise for Assignment: Welcome Message?

•

2 minutes

Worked Exercise: Pay Calculator

10 minutes

Industry Voices: Pooja Sankar - Building Piazza

10 minutes

2 assignments • Total 30 minutes

Quiz: Chapter 2

20 minutes

Expressions Check-In

10 minutes

2 app items • Total 120 minutes

Assignment: Welcome Message

60 minutes

Assignment: Pay Calculator

60 minutes

Chapter Three: Conditional Code

Module details

Module 5 • 3 hours to complete

In this section we move from sequential code that simply runs one line of code after another to conditional code where some steps are skipped. It is a very simple concept - but it is how computer software makes "choices".

What's included

4 videos 2 readings 1 assignment 2 app items

Hide info about module content

4 videos • Total 35 minutes

Conditional Statements, Part 1

13 minutes

Conditional Statements, Part 2

7 minutes

Conditional Statements, Part 3

9 minutes

Office Hours: Seoul, South Korea

4 minutes

2 readings • Total 20 minutes

Worked Exercise: Exercise 3.2

10 minutes

Industry Voices: Massimo Banzi - Arduino

10 minutes

1 assignment • Total 20 minutes

Quiz: Chapter 3

20 minutes

2 app items • Total 120 minutes

Assignment: Overtime Pay Calculator

60 minutes

Assignment: Write Conditional Statements

60 minutes

Chapter Four: Functions

Module 6 • 2 hours to complete

Module details

This is a relatively short chapter. We will learn about what functions are and how we can use them. The programs in the first chapters of the book are not large enough to require us to develop functions, but as the book moves into more and more complex programs, functions will be an essential way for us to make sense of our code.

What's included

4 videos 1 reading 1 assignment 1 app item

Hide info about module content

4 videos • Total 23 minutes

Using Functions

9 minutes

Building Functions, Part 1

6 minutes

Building Functions, Part 2

5 minutes

Office Hours: Manila, Philippines

1 minute

1 reading • Total 10 minutes

Industry Voices: Guido van Rossum - the Early Years of Python

10 minutes

1 assignment • Total 30 minutes

Quiz: Chapter 4

30 minutes

1 app item • Total 60 minutes

Assignment: Build Functions

60 minutes

Chapter Five: Loops and Iteration

Module 7 • 3 hours to complete

Module details

Loops and iteration complete our four basic programming patterns. Loops are the way we tell Python to do something over and over. Loops are the way we build programs that stay with a problem until the problem is solved.

What's included

7 videos 5 readings 2 assignments 1 app item

Hide info about module content

7 videos • Total 46 minutes

Loops and Iteration

9 minutes

Definite Loops
•
6 minutes

Finding the Largest Value
•
8 minutes

Loop Idioms
•
8 minutes

Finding the Smallest Value
•
10 minutes

Office Hours: Paris, France
•
0 minutes

What's Next - Dr. Chuck
•
2 minutes

5 readings • Total 47 minutes

Worked Exercise: Exercise 5.1
•
10 minutes

Industry Voices: Guido van Rossum - the Modern Era of Python
•
12 minutes

Please Rate this Course on Class-Central
•
10 minutes

Post-Course Survey
•
10 minutes

Keep Learning With Michigan Online!
•
5 minutes

2 assignments • Total 30 minutes

Quiz: Chapter 5
•
20 minutes

Loops and Iterations Check-In
•
10 minutes

1 app item • Total 60 minutes

Assignment: Find the Largest and Smallest Numbers
•
60 minutes

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Instructor

Instructor ratings **4.8** ★ (58,083 ratings)

Charles Russell Severance
University of Michigan

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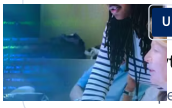

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★ 4.8 232,599 reviews

5 stars	85.62%
4 stars	12.66%
3 stars	1.25%
2 stars	0.18%
1 star	0.25%

HJ

★ 5 · Reviewed on May 4, 2021

This is the best course I've taken by far! The instructor does well at explaining the concepts and makes it interesting. I really enjoyed this course and am excited to continue forward. Thank you!

SI

★ 5 · Reviewed on Nov 12, 2021

After completion of thin course . I am fully excited to learn more courses on it. Here each ad every content is very clearly explained I'm very happy and thanks a lot COURSERA (founders)and team.

SF

★ 5 · Reviewed on Jan 5, 2021

So easy to learn with the videos and tutorials! I have gone through 2 other coding classes and haven't been able to finish because I get stuck and this one has been 100x better in helping me learn :)

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Frequently asked questions

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When you enroll in the course, you get access to all of the courses in the Specialization, and you earn a certificate when you complete the work. Your electronic Certificate will be added to your Accomplishments page - from there, you can print your Certificate or add it to your LinkedIn profile.

Is financial aid available?

Yes. In select learning programs, you can apply for financial aid or a scholarship if you can't afford the enrollment fee. If fin aid or scholarship is available for your learning program selection, you'll find a link to apply on the description page.

More questions

Visit the learner help center

Financial aid available, learn more

[1] Some assignments in this course are AI-graded. For these assignments, your data will be used in accordance with Coursera's Privacy Notice.