

Introduction to Programming Using Python – Class Series Syllabus

Overview

“Introduction to Programming Using Python” is a three-part class series that teaches you basic concepts of computer programming, and the Python programming language. The class series also provides excellent learning resources that help you continue learning and preparing for a Microsoft Technology Associate (MTA 98-361) certification exam. This class series does not provide the certification exam, nor does it require you to take the exam after the class series. (Learn more about Certifications at KCLS at kcls.org/certify.)

The three-part class series meets on three consecutive weeks and requires you to do some work before each class. See “Class Series Schedule” below. Please refer to the KCLS Calendar for dates, times, and locations specified in the event description.

The class series is facilitated by KCLS Tech Tutor Volunteers who generously donate their time and expertise to help library patrons learn. Questions or concerns regarding any aspect of the class series, including content or equipment, can be directed to instruction@kcls.org or 425.369.3389.

Class Series Schedule

It is highly recommended that you complete the pre-class work, and attend all three classes.

Week 1 – Programming Basics

Before class, complete the following reading/viewing:

- 4 videos in the “Programming Basics” section of the [What is Programming](https://1.kcls.org/2JKQBwc) (<https://1.kcls.org/2JKQBwc>) video course. (Requires library card number; if you don’t have one, get one at https://kcls.org/faq/library-cards/#faq_1774)
- Chapter 1 “The Way of the Program” in *Think Python: How to Think Like a Computer Scientist* (<http://greenteapress.com/thinkpython2/html/index.html>)
- Optional – [Turtle Academy](https://turtleacademy.com/lesson/1), Lesson 1 - Logo’s Turtle (<https://turtleacademy.com/lesson/1>)

In class:

1. “What is Programming?” conversation/review
2. Create account at Pythonanywhere.com
 - a. go through “beginner” tutorial
 - b. complete exercises in sections 1.4, 1.5, and 1.9 of *Think Python*
3. Glossary review (section 1.8) and questions

Week 2 – Variables, Expressions, and Statements

Before class, complete the following reading/viewing:

- 7 videos in the “Variables and Data Types” section of the [What is Programming](#) video course. (Requires library card number.)
- Chapter 2 “Variables, Expressions, and Statements” in [Think Python: How to Think Like a Computer Scientist](#)
- Optional – [Turtle Academy](#), Lesson 11 – Variables

In class:

1. “What are variables, expressions, and statements?” conversation/review
2. Pythonanywhere.com
 - a. complete exercises in section 2.10 of *Think Python*
3. Glossary review (section 2.9) and questions

Week 3 – Functions & GMetrix

Before class, complete the following reading/viewing:

- "[Introduction to Languages](#)" and "[Python](#)" videos. (Requires library card number.)
- Chapter 3 “Functions” in [Think Python: How to Think Like a Computer Scientist](#)
- Optional – [Turtle Academy](#), Lesson 12 - Procedure

In class:

1. Complete exercises in sections 3.14 of *Think Python*
2. Create GMetrix account and activate access
3. Glossary review (section 3.13) and questions

Resources for Continued Learning

This series provides a baseline from which you can continue learning. It is recommended you continue the video course, book, and practice portal used during the series, as well as further explore the following free resources:

- Lynda.com (Requires library card number.)
- GMetrix.net (Get access code: <https://kcls.org/gmetrix-code-request-form/>)
- [Python.org](#)
- [Pythonanywhere.com](#)
- [Introduction to Programming Using Python](#) – Course on edX



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