

**Программа учебной дисциплины
Программирование для всех (начало работы с Python)
(преподается на английском языке)**

Число кредитов	3
Контактная работа (час.)	2
Самостоятельная работа (час.)	114
Курс	3
Формат изучения дисциплины	С использованием онлайн-курса

I. ЦЕЛЬ, РЕЗУЛЬТАТЫ ОСВОЕНИЯ ДИСЦИПЛИНЫ И ПРЕРЕКВИЗИТЫ

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.

II. СОДЕРЖАНИЕ УЧЕБНОЙ ДИСЦИПЛИНЫ

- Chapter One - Why we Program?

These are the course-wide materials as well as the first part of Chapter One where we explore what it means to write programs. We finish Chapter One and have the quiz and first assignment in the third week of the class. Throughout the course you may want to come back and look at these materials. This section should not take you an entire week.

- Installing and Using Python

In this module you will set things up so you can write Python programs. Not all activities in this module are required for this class so please read the "Using Python in this Class" material for details.

- Chapter One: Why We Program (continued)

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 ...

- Chapter Two: Variables and Expressions

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

- Chapter Three: Conditional Code

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".

- Chapter Four: Functions

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.

- Chapter Five: Loops and Iteration

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.

III. ОЦЕНИВАНИЕ

Порядок формирования оценок по дисциплине

Оценка за итоговый контроль выставляется по 10-балльной шкале.

Оценивание проводится в форме собеседования после предъявления студентом результатов тестирования.

Оценка в ведомости	Результат изучения курса
10	Total = 100%
9	90% =< Total < 100%
8	80% =< Total < 90%
7	70% =< Total < 80%
6	60% =< Total < 70%
5	55% =< Total < 60%
4	50% =< Total < 55%
3	Total < 50 %
0	Не представлено подтверждение результатов изучения курса

V. РЕСУРСЫ

Доступ к дисциплине -

<https://www.coursera.org/learn/python?specialization=python>