

BIOENG-601

**Python Bootcamp**

Bois Justin

Cursus	Sem.	Type
Biotechnology and Bioengineering		Obl.
Computational and Quantitative Biology		Obl.

Language of teaching	English
Credits	2
Session	
Exam	Multiple
Workload	60h
<b>Hours</b>	<b>40</b>
Courses	20
Exercises	20
<b>Number of positions</b>	<b>25</b>

**Frequency**

Every year

**Remark**

Next time: Summer 2019

**Summary**

An intensive, hands-on, pragmatic introduction to computer programming. Students learn basic concepts like data types, control structures, string processing, functions, input/output. They perform simulations, write scripts, and analyze and plot biological data. Python is the language of instruction.

**Content**

Greetings doctoral students and postdoctoral fellows in the biological sciences! Addressing the big questions in biology increasingly requires help from computers. We are therefore excited to offer the fifth edition of our Caltech course for graduate students, BE/Bi/NB 203: Introduction to Programming for the Biological Sciences Bootcamp - for the second time at EPFL!

Our aim is to bring you up to speed with programming skills that you can immediately put to use in your research. Because intensive, hands on training is a great way to learn practical skills efficiently, we are offering this course as a weeklong summer bootcamp. All you need to bring is yourself, your laptop, and a power supply. A typical day in the bootcamp is as follows:

8-noon (with 15 minute break in the middle): Hands-on instruction

noon-1: Lunch with research talk from EPFL faculty highlighting use of computation in biology

1-6 (with a 15 minute break in the middle): Hands-on instruction followed by exercise session

You can check out the Caltech version of the bootcamp here: <http://justinbois.github.io/bootcamp/>

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This course is for biology Postdocs, PhD, and Master students who want to use Python programming in their work.

Requirements: Students should bring their own laptop for Python installation.

Minimum 10 participants

Maximum 25 participants

**Keywords**

Python Bootcamp

**Learning Outcomes**

By the end of the course, the student must be able to:

- Use python to analyze biological datasets

**Resources**

### Websites

- <http://justinbois.github.io/bootcamp/>