



## Certificate Program in Python for Algorithmic Trading

### Example Study Plan

#### Remarks:

- the table is just an **example** of how the different topics can be combined into a 12-week study program
- week 1 refers to the **starting week of the program**, i.e. to **calendar week 40** from Monday, 02. October 2017
- it assumes an effort of some **10-12 hours per week** for watching the videos, reading the materials and self-study
- the column **Certificate Program** contains the main elements/videos of the program, found under the same name on the Quant Platform
- the column **OSBC** shows the respective session from the Online Summer Bootcamp that covers the topics in a rather concise fashion
- the column **Flagship Algorithmic Trading** points to the respective recorded videos of this online class where appropriate; here, basically no new material is presented, just an alternative presentation is provided
- the column **Python Infrastructure** refers to resources that cover topics in the context of Linux and Python infrastructure, environments, best practices, etc.; these topics are important for setting up a proper development environment and processes
- the column **Reading Material** refers to the written materials & codes found in the *Finance with Python* and *Python for Algorithmic Trading Courses*
- under **Live Sessions** you find the planned live sessions for the respective week; they will be announced by email invitations in general one week before they take place; they cover **selected important topics** or present **new/updated material** not yet available on the Quant Platform
- the single recordings of the **Financial Data Science** class can be watched as desired or if some special topics are of particular interest (eg stochastics with Python)
- on the Quant Platform you also find a training class called **Webinars, Talks & Special Topics** – here, you find already some videos that you can watch if your time allows, such as a recent talk given in London about **Performance Python** or a webinar about **Bitcoin Mining**; we will add more videos here over the course of the program
- if you have **questions**, please use the **User Forum** on the Quant Platform.

WEEK	Certificate Program	OSBC	Flagship Algorithmic Trading	Python Infrastructure	Reading Material	Live Sessions
1	Finance with Python 1 Finance with Python 2	Session 1	Python Programming from Scratch		Finance with Python Chs 1-3 Python for Algo Trading Ch 1	<b>02. October 2017: Intro &amp; Overview</b>
2	Finance with Python 3 Finance with Python 4		Numerical Computing with NumPy	Python & Linux Infrastructure (optional: Windows & SSH)	Finance with Python Chs 4-6 Python for Algo Trading Ch 2	self-study/review
3	Financial Data Science 1		Working with Financial Data		Python for Algo Trading Ch 3 Python for Algo Trading App	<b>17. &amp; 20. Oct 2017: OOP Intro &amp; Apps</b>
4	Financial Data Science 2		Data Analysis with pandas	Environments & Docker Containers	Python for Algo Trading Ch 3	<b>23. October 2017: OOP Backtesting</b>
5	Vectorized Backtesting	Session 1	Mastering Vectorized Backtesting		Python for Algo Trading Ch 4	<b>30. October 2017: Python Envs &amp; Tools</b>
6	Event-based Backtesting 1 Event-based Backtesting 2		Event-based Backtesting	Python Tool Chain	Python for Algo Trading Ch 6	self-study/review
7	Regression-based Prediction Classification-based Prediction	Session 2	Predicting Market Movements		Python for Algo Trading Ch 5	self-study/review
8	Deep Learning-based Prediction	Session 2	Predicting Market Movements	Python Best Practices 1	Python for Algo Trading Ch 5	self-study/review
9	Real-Time Data Handling Streaming Visualization	Session 3	Working with Real-Time Data		Python for Algo Trading Ch 7	self-study/review
10	Eikon & Oanda	Session 4		Python Best Practices 2	Python for Algo Trading Ch 8	tba
11	Interactive Brokers Gemini	Session 5			Python for Algo Trading Chs 9-10	tba
12	Automation	Session 6			Python for Algo Trading Ch 11	tba
13	<b>Live Trading Competition</b>					
14-16	<b>Final Project preparation</b>					