Python is a widely used high-level programming language. In recent years it has developed to become a prevalent modeling and problem solving tool in science and research. Moreover, it has become an industrial strength language. Python supports multiple programming paradigms including object-oriented and functional programming. The success of this programming language is based on a large and comprehensive standard library and thousands of third-party modules. Both, Python's standard library and the community-contributed modules provide fast problem solving algorithms for data analysis in all research fields including climate and environmental research.

This course aims to give a comprehensive introduction to Python. It is adapted to applications in climate and environmental research. If possible sample applications are chosen from your field of research. This course is intended for PhD students with none or little previous knowledge of Python. However, to attend this course you should be familiar with the basic concepts of programming and you should know at least one other programming language.

Program

Day 1
- Basic Concepts of Python Language
- Elementary Data Types, Expressions and Operators
- Elementary Statements and Functions
- Data File Handling

Day 2
- Classes and Objects
- Exception Handling

Day 3
- The Python Standard Library (3-4 selected topics)

Day 4:
- NumPy / SciPy (eventually: Matplotlib)

Day 5:
- Special Interest and own examples

Registration
Please register via online form until 15 March 2016.