ĐẠI HỌC ĐÀ NẴNG
TRƯỜNG ĐẠI HỌC CÔNG NGHỆ THÔNG TIN VÀ TRUYỀN THÔNG VIỆT - HÀN
Vietnam - Korea University of Information and Communication Technology

Python Programming

Thu Huong Nguyen, PhD
Si Thin Nguyen, PhD

KHMT
Computer Science

http://vku.udn.vn/

About Authors

Thu Huong Nguyen

PhD in Computer Science at Université Côte d'Azur, France

Email: nthuong@vku.udn.vn

Address: Faculty of Computer Science, VKU

Si Thin Nguyen

PhD in Computer Science at Soongsil University, Korea

Email: nsthin@vku.udn.vn

Address: Faculty of Computer Science, VKU

Course Plan

➔ Study time:

- Lectures: 2 teaching period for 50 minutes per week
- Practical tutorials: 2 teaching period for 50 minutes per week

➔ Assessment:

- Mid-term exam in practice (8th week)
- Final exam in practice

Course Content

Chapter 1: Introduction to Python and Jupyter Notebook

Chapter 2: Python Basics

Chapter 3: Object-Oriented Programming in Python

Chapter 4: Introduction to Python Libraries

Chapter 5: Numeric Computing with Numpy

Chapter 6: Data Manipulation with Pandas

Chapter 7: Data Visualization with Matplotlib

Course Objectives

- ➔ Obtain knowledge and understanding of the fundamentals of writing computer programs in Python.
- ➔ Obtain knowledge and understanding of the use of several Python libraries in Data Science and AI.
- ➔ Implement the fundamental knowledge of Python programming and relevant libraries for Data Science and AI to solve the real world problems.

Learning & Teaching Resources

- Slides
- Practice material
- Links:
  - https://www.codecademy.com/learn/learn-python-3
  - https://www.w3schools.com/python/
  - https://realpython.com/
- Books:
  - José Unpingco, Python Programming for Data Analysis, Springer 2021.
  - HUNT, John. A beginners guide to Python 3 programming, Springer 2019.
  - HUNT, John. Advanced Guide to Python 3 Programming, Springer, 2019.
  - Jake VanderPlas, Python Data Science Handbook, O'reilly, 2017.
  - Wes McKinney, Python for Data Analysis, 2018