

Entry level Algorithms and Programming

TU Delft has introduced Digital Skills in form of programming and algorithm development in the bachelor curriculum.

Content of the bachelor course IAPP (introduction to algorithms and programming in python):

- understand and use basic programming concepts (conditional statements, loops, variables, arrays, indexing, input/output, functions)
- develop simple numerical algorithms
- use basic functions of Python and write own functions
- display results in a graphical form (plotting)
- perform code debugging

The content is of basic BSc level, and can be covered with online material available from different sources:

- <https://www.learnpython.org/>
 - Elements from 'Learn the Basics'
 - Variables and Types
 - Lists
 - Basic Operators
 - String Formatting
 - Basic String Operations
 - Conditions
 - Loops
 - Functions
 - Modules and Packages
- Video lectures from Collegerama (LB1260)
 - Lectures 3 and 4
 - Exercise material using Jupyter Notebooks
- Self-assessment via BrightSpace quizzes and Jupyter Notebooks:
 - Practice quiz
 - Quiz Part I and II