UCLouvain

linge1225

2023

Programming in Economics and Management

4.00 credits	22.5 h + 22.5 h	Q1

Teacher(s)	Saerens Marco ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	This course has the following objectives: • Mastering the basic concepts of object-oriented programming languages. • Introduction to the Python programming language. • Solving practical problems by programming.
Learning outcomes	**At the end of this learning unit, the student is able to :** At the end of this course, students should be able to: 1 • Write a program in Java. • Analyze a problem and find a solution through programming. • Undertake a small project in Python.
Evaluation methods	Evaluation: • A written exam will take place during the review session (usually on-site). This exam will focus on solving practical programming problems in Python (writing methods and classes). Note that we are not asking that the student knows by heart the syntax of Python: students will be allowed to use a quick reference guide (the one provided by the Professor) during the examination.
Teaching methods	Practice based on online exercices (Inginious) and coding exercices in a computer room. Remedial actions are organized on site with the assistants, or online.
Content	Contents of the course: • Fudamentals of programming in Python. In particular, basic concepts of programming languages, used in object-oriented programming, illustrated on the Python language (objects, variables, expressions, control structures, data types (arrays, lists, etc), methods, etc). The focus will be on the construction of programs based on practical problems to be solved. Only a synthesis of the theoretical concepts will be presented; we therefore ask the students to read and already understand the covered topics before each course. • Contents of the practical sessions: Practical sessions (tutorials and exercises, two hours each week), based on the theoretical content, will be organized on-line or on-site all along the period. During these sessions, the students are asked to solve exercises with Python on the Inginious online system, some inspired by the book by Swinnen. Many other online Python exercices are also available. Questions & answers sessions will also be organized on site if possible. • Practical organization: These exercises are available on the Inginious platform. Students should have read (and understood) the corresponding material before in order to solve the problems.The precise information is available on Moodle.
Inline resources	The different resources are available on Moodle (slides, synthesis slides, videos, etc). In particular, the book "Apprendre à programmer avec Python 3" of Swinnen will be used as reference book.
Faculty or entity in charge	ESPO

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Approfondissement en statistique et sciences des données	APPSTAT	4		
Bachelor : Business Engineering	INGE1BA	4		
Minor in Statistics, Actuarial Sciences and Data Sciences	MINSTAT	4		
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	4		