Testi del Syllabus

Resp. Did. **Matricola: null**

Anno offerta:	**2025/2026**
Insegnamento:	**2020005 - INTRODUCTION TO PROGRAMMING**
Corso di studio:	**D720 - FOUNDATION COURSE IN ENGINEERING AND SCIENCE**
Anno regolamento:	**2025**
CFU:	**6**
Settore:	**NN**
Anno corso:	**1**
Periodo:	**Ciclo Annuale Unico**

Testi in italiano

Lingua insegnamento	English
Contenuti	PART 1: Basics of Computer Architecture [4h]. Central Processing Unit. Memory. Input/Output Devices. PART 2: Data Representation [6h]. Binary System. Character Encoding. Data Types. Memory Representation. PART 3: Fundamentals of Programming [4h]. Introduction to High-level Programming Languages. Compiled and Interpreted Languages. PART 4: Introduction to the Python Programming Language [14h]. Scalar Values and Operations. Control Flow. Lists and Dictionaries. Handling Files. Functions. PART 5: Implementing Simple Algorithms in Python [20h]. Algorithms for Manipulating Common Data Structures
Testi di riferimento	“Introduction to Computer Science”, OpenStax, available online: https://openstax.org/details/books/introduction-computer-science “Introduction to Python Programming”, OpenStax, available online: https://openstax.org/details/books/introduction-python-programming
Obiettivi formativi	At the end of the course, the student will be aware of the basic notion of programming. The student will know the procedural programming paradigm and will be able to implement basic algorithms in Python language
Prerequisiti	None
Metodi didattici	Lectures; Lab and practical classes
Altre informazioni	--
Modalità di verifica dell'apprendimento	Exam: Self-evaluated tests during the course. The final exam consists of a laboratory exercise in which the student must write code to implement a given set of steps. Assessment of learning is expressed as a suitability judgment (Pass/Fail); numerical grading on a thirty-point scale is not applied.

Obiettivi per lo sviluppo sostenibile

Codice	Descrizione

Testi in inglese

	English
	PART 1: Basics of Computer Architecture [4h]. Central Processing Unit. Memory. Input/Output Devices. PART 2: Data Representation [6h]. Binary System. Character Encoding. Data Types. Memory Representation. PART 3: Fundamentals of Programming [4h]. Introduction to High-level Programming Languages. Compiled and Interpreted Languages. PART 4: Introduction to the Python Programming Language [14h]. Scalar Values and Operations. Control Flow. Lists and Dictionaries. Handling Files. Functions. PART 5: Implementing Simple Algorithms in Python [20h]. Algorithms for Manipulating Common Data Structures
	“Introduction to Computer Science”, OpenStax, available online: https://openstax.org/details/books/introduction-computer-science “Introduction to Python Programming”, OpenStax, available online: https://openstax.org/details/books/introduction-python-programming
	At the end of the course, the student will be aware of the basic notion of programming. The student will know the procedural programming paradigm and will be able to implement basic algorithms in Python language
	None
	Lectures; Lab and practical classes
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	Exam: Self-evaluated tests during the course. The final exam consists of a laboratory exercise in which the student must write code to implement a given set of steps. Assessment of learning is expressed as a suitability judgment (Pass/Fail); numerical grading on a thirty-point scale is not applied.

Obiettivi per lo sviluppo sostenibile

Codice	Descrizione