University of Gdańsk

Subject card

Subject name and code	Introduction to Programming, PG_00188606		
Field of study	English Studies		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	4.0
Learning profile	academic	Assessment form	credit
Conducting unit	Division of Corpus Linguistics and Glottodidactics -> Institute of English and American Studies -> Faculty of Languages -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr Aleksandra Chmarzyńska	
	Teachers		

Lesson types							
	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	60.0	0.0	0.0	0.0	60
	E-learning hours included: 0.0						

Learning activity and number of study hours					
	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	60	4.0	36.0	100

Subject objectives	The aim of the course is to familiarize students with basic programming techniques and methods, using the Python programming language as an example.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[FAMU2_W12] Knows and understands the main development trends in literature, in particular with regard to research into English-language literature.	The Student knows and understands selected issues in the field of programming.	[SW5] implementation of a problem task
[FAMU2_K02] Is prepared to recognise the importance of knowledge and skills in English Studies in solving cognitive and practical problems and to seek the advice of a supervisor in their chosen place of work in the event of difficulty in solving problems on their own.	The Student is ready to recognize the importance of knowledge and skills in programming in solving practical and cognitive problems and to seek the opinion of an academic teacher in case of difficulties with independently solving problems.	[SK5] implementation of a problem task
[FAMU2_K01] Is ready to critically evaluate the extent of their knowledge and skills, in particular in the field of English-language linguistics and literature and English.	The student is prepared to critically evaluate the extent of their knowledge and skills in programming.	[SK5] implementation of a problem task
[FAMU2_U10] Can independently plan and implement their own lifelong learning and guide others in this area within the framework of English philology and their chosen field of professional activity.	The Student is able to independently plan and carry out lifelong learning and guide others in the field of programming.	[SU5] implementation of a problem task
[FAMU2_U04] Can select and apply information and communication techniques (ICT) during the acquisition and processing of information for research and professional purposes within the framework of English Studies.	The Student is able to select and apply information and communication technologies (ICT) in the field of programming.	[SU5] implementation of a problem task

Subject contents

- The concept of a program. Installation and introduction to the Python language environment.
- Basic variable types.
- The concept of functions in programming.
- Controlling a program using conditional statements in programming.
- Loop structures in Python: for and while loops.
- Advanced data structures: lists, tuples, sets, and dictionaries.
- Input-output operations and file handling in Python.
- The concept of algorithms and flowcharts.
- Basic search and sorting algorithms.
- The divide and conquer technique in programming.
- Basic text algorithms.
- The concept of recursion in programming.
- Managing libraries in Python.
- Regular expressions in Python.
- Handling text files in Python.
- The JSON format and its use in Python.
- Application of libraries: numpy, nltk, matplotlib, seaborn, pygal, spacy.

Prerequisites and co-requisites

ATTENDANCE AT CLASSES IS MANDATORY, UNLESS THE STUDENT HAS OBTAINED THE DEAN'S APPROVAL TO FOLLOW AN INDIVIDUAL STUDY PLAN.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Assessment project (task-based)	51.0%	100.0%

<table>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>P. Broda, D. Smołucha, Informatyka. Podrecznik czesc II, Wyd. Operon, 2006.

M. Dawson, Python dla kazdego. Podstawy programowania, Wyd. Helion, 2010.

T. Gaddins, Python dla zupełnie poczatkujacych, Wyd. Helion, 2019.

E. Grubiel, G. Hardt-Olejniczak, E. Kołczyk, H. Krupicka, M. M. Sysło, Informatyka czesc I, Wyd. WSiP, 2002.

A. Sweigart, Automatyzacja nudnych zadan z Pythonem. Nauka programowania, Wyd. Helion, 2015.

A. Szepietowski, Matematyka dyskretna, Wyd. UG 2004.

P. Wroblewski, Algorytmy, struktury danych i techniki programowania, Wyd. Helion, 2010.</td></tr>
<tr><td>Supplementary literature</td><td>T. H. Cormen, Ch. E. Leiserson, R. L. Rivest, Wprowadzenie do algorytmow, Wyd. Naukowe PWN, 2012.

P. Krugiołka, Linux. Jak dostroic bestie do swoich potrzeb, Wyd. Helion, 2012.

E. Matthes, Python. Instrukcje dla programisty, Wyd. Helion, 2016.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">1. Concept of a program. Installation and introduction to the Python environment:
• What is a computer program?
• What are the steps to install the Python environment
• Introduction to IDEs (e.g., PyCharm, VS Code, Jupyter Notebook).
1. Basic variable types:
• What are the basic data types in Python (int, float, str, bool)?
• What operations can be performed on different data types?
• Exercise: Write a program that takes integer inputs from the user and performs basic arithmetic operations.
1. The concept of functions in programming:
• How to define functions in Python?
• What are arguments and return values in functions?
• Exercise: Write a function that calculates the factorial of a number.
1. Controlling the program using conditional statements in programming:
• How do if, elif, and else conditional statements work?
• Exercise: Write a program that checks if a number is even or odd.
1. Loop structures in Python: for and while loops:
• How do for and while loops work?
• Exercise: Write a program that displays numbers from 1 to 10 using both types of loops.
1. Advanced data structures: lists, tuples, sets, and dictionaries:
• What are the differences between lists, tuples, sets, and dictionaries?
• Exercise: Write a program that sorts a list of numbers and removes duplicates.
1. Input-output operations and file handling in Python:
• How to open, read, and write text files in Python?
• Exercise: Write a program that saves user data to a text file.</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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