

Lingnan University
Department of Philosophy

Course Title	:	Programming for the Humanities
Course Code	:	PAI3003
Recommended Study Term	:	Term 1, Third Year
No. of Credits/Term	:	3
Mode of Tuition	:	Sectional approach
Class Contact Hours	:	3 hours lecture per week
Category	:	Required course
Prerequisite(s)	:	NIL
Co-requisite(s)	:	NIL
Exclusion(s)	:	NIL
Exemption Requirement(s)	:	NIL

Brief Course Description

This course is intended for humanities majors interested in learning about computer programming and the basics of artificial intelligence, with an emphasis on applications to topics in digital humanities, such as writing simple programs to help you analyze data sources (e.g. quantitative or text-based data) that enhance overall critical thinking skills. Through a sequence of coding exercises in the programming language Python, students will learn the fundamentals of algorithms and philosophical logic. Skills learned will be applicable to real-life tasks and future academic studies.

Aims

The course is divided into three parts. The first third will cover philosophical and mathematical concepts required for understanding the foundations of coding. The second third will cover the essentials of Python syntax and coding procedures. The last third will cover practical programming skills with applications to digital humanities and real-life tasks. Example exercises can include writing programs to determine the frequency of words in a document as a means of automating the estimation of topics in large text documents, or writing a simple spell-checker that corrects for commonly mistyped words. Along the way, introductory concepts in artificial intelligence and philosophy of logic will be taught.

Students will be taught concepts to the level that they can create their own programs by first understanding the fundamentals of computer science through a philosophical lens. Students' assessments will then test and enhance their retention of material through applications. Analysis and evaluation of core concepts in programming, such as For Loops and If Statements,

will then lead to the creation of real-life programs relevant to humanities.

Learning Outcomes (LOs)

On completion of the course, students will be able to:

1. Provide knowledge of algorithms design in the programming language Python
2. Learn philosophical logic and concepts
3. Practice critical thinking
4. Learn and practice algorithm design enabling the creation of one's own

Indicative Content

- Boolean logic with philosophical examples
- Philosophy of Information and Data Analysis
- Programming: For Loops
- Programming: If Statements
- Programming: Lists
- Programming: While Loops
- Programming: Functions
- Programming Applications: Thinking about definitions
- Programming Applications: Dataset construction and analysis
- Programming Applications: Topic analysis of texts
- Programming Applications: Simple spell checker
- A preview of machine learning

Teaching Method

The course will be delivered by lectures and in-class exercises. Students are expected to do readings from the core textbooks ahead of time and to bring their laptops to class to perform in-class programming exercises. Students will use the free cloud-based Python environment <https://www.online-python.com/> to run their code.

Measurement of Learning Outcomes

Learning Outcomes	Assessment Methods		
	In-class assignments	Midterm examination	Final examination
LO1: Provide knowledge of algorithm design in the	✓	✓	✓

programming language Python.			
LO2: Learn philosophical logic and concepts.	✓	✓	✓
LO3: Practical critical thinking.	✓	✓	✓
LO4: Learn and practice algorithm design enabling the creation of one's own.	✓	✓	✓

Assessment

In-class assignments	: 20%
Midterm examination	: 30%
Final examination	: 50%

Required/Essential Readings

- Heinold, Brian. 2012. *A Practical Introduction to Python Programming*. URL: https://www.brianheinold.net/python/A_Practical_Introduction_to_Python_Programming_Heinold.pdf. Accessed August 24, 2024.
- Magnus, P.D. 2017. *forallX: An Introduction to Formal Logic*. URL: <https://www.fecundity.com/codex/forallx.pdf>. Accessed August 24, 2024.
- Monfort, Nick. 2021. *Exploratory Programming for the Arts and Humanities*. 2nd Ed. MIT Press.
- Open Logic. 2024. URL: <https://builds.openlogicproject.org/open-logic-complete.pdf>. Accessed August 24, 2024.

Important Notes

1. Students are expected to spend a total of 9 hours (i.e. 3 hours of class contact and 6 hours of personal study) per week to achieve the course learning outcomes.
2. Students shall be aware of the University regulations about dishonest practice in coursework, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations and Course Work. In particular, plagiarism, being a kind of dishonest practice, is “the presentation of another person’s work without proper acknowledgement of the source, including exact phrases, or summarised ideas, or even footnotes/citations, whether protected by copyright or not, as the student’s own work”. Students are required to strictly follow university regulations governing academic integrity and honesty.

3. Students are required to submit writing assignment(s) using Turnitin.
4. To enhance students' understanding of plagiarism, a mini-course "Online Tutorial on Plagiarism Awareness" is available on <https://pla.ln.edu.hk/>.
5. Students must adhere to the University's guidelines and practices when using Generative Artificial Intelligence (AI) tools. The official documents "Guidelines for Using GAI Tools at Lingnan University" and "Best Practices for Ethical and Responsible Use of GAI Tools in Course Assessments" can be found here: <https://www.ln.edu.hk/tlc/generative-artificial-intelligence/gai-guidelines-best-practices>.

Programming for the Humanities
In-Class Assignments Rubric (20%)

Assessment Categories	Excellent (A)	Good (B)	Pass (C)	Fail (F)
Quality	All assignments were completed. Evidence of consistent good effort.	Most assignments were completed. Evidence of good effort in those completed.	Several assignments were completed with good effort.	Very few assignments were completed with good effort.

Programming for the Humanities
Midterm Examination Rubric (30%)

Assessment Categories	Excellent (A)	Good (B)	Pass (C)	Fail (F)

Problem	The student has excellent command of the material, especially advanced material.	The student understands the material well but perhaps cannot answer more advanced questions.	The student grasps the essentials of the material but struggles with more advanced material.	The student has no understanding of what is required to pass the course.
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Programming for the Humanities
Final Examination Rubric (50%)

Assessment Categories	Excellent (A)	Good (B)	Pass (C)	Fail (F)
Problem	The student has excellent command of the material, especially advanced material.	The student understands the material well but perhaps cannot answer more advanced questions.	The student does not understand the necessities of the material but can still pass.	The student has no understanding of what is required to pass the course.