

London Interdisciplinary Social Science Doctoral Training Partnership Advanced Research Methods in Social Sciences

Course Code & Title	LISS373 - Introduction to programming using Python				
Convenor(s)	Lina Kramer				
Institution	King's College London		Department	Department of Political Economy	
Academic Year	2023-24		Term	Summer term	
Number of sessions	4	Research Platform	Quantitative Research (QuT)	Length of Session(s)	2.5h
Day, Date			Start : End	Room Location	
8 th , May 2024 15 th , May 2024 22 nd , May 2024 29 th , May 2024			09:00 am to 11:30 am	Via Zoom	
Enrolment Links:	Available to book on SkillsForge from Tuesday 2 April 2024 . Click to log in and register: https://training.kcl.ac.uk/kcl/#he/dev/eventDetails,;em,providerCode=LISS,providerOrgAlias=kcl,number=373 ,; Questions? Visit our Training FAQ here: Frequently Asked Questions - LISS DTP (liss-dtp.ac.uk)				

Course Description:

This course is designed for PhD students of the social sciences who wish to learn how to program using Python, a general-purpose programming language that is more and more used in research settings. The course introduces students to an Integrated Development Environment (IDE) interface and the basics of programming with Python. Each session covers a series of topics in the form of short lectures with interactive elements. All sessions finish with a self-test and exercise which ought to be completed before the next session. By the end of this course, students will have gained introductory-level programming skills in Python.

Course outline:

Session	Lecture topics		
8 th May 2024	 Introduction to Python 		
09:00 - 11:30	 Installing Python and an IDE 		
	 Basic features of an IDE interface 		
	 Data types and common operations 		
	 Assigning variables 		
15 th May 2024	 Lists and common list methods 		
09:00 - 11:30	 Tuples and common tuple methods 		
	 Dictionaries and common dictionary methods 		
	 Importing packages, variables and data files 		
22nd May 2024	If statements		
09:00 - 11:30	For loops		
	While loops		
	 And / Or statements 		
29 th May 2024	 Functions 		
09:00 - 11:30	 Objects and Classes 		
	 Data analysis and visualisation 		



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Eligibility: You must be a PhD student or ESRC postdoctoral fellow at either King's College London, Queen Mary University of London, or Imperial College London, using social science methodologies, and be based in a department that does not already offer such training.

The course does not assume any prior programming knowledge.

Pre-course preparation: No pre-course preparation is necessary.

Nonetheless, here are some free online resources to explore at your leisure:

- Python for Non-Programmers
- Python Beginners Guide
- Introductory Books
- Python Standard Library
- Python FAQs

Number of students:

- Minimum number required to run: 5
- Maximum number of places available: 40