



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

13.SEP-27.OCT.2023

SAP OVERVIEW

This SAP aims to give an initial introduction to programming for undergraduate and postgraduate students with some knowledge of a programming language and is oriented to engineering applications.

We will use the Python programming language (<https://www.python.org/>), which is an object-oriented, high-level programming language with dynamic semantics. It is open-source and available for all major platforms. Python is being used by a large and supportive community of users. Since Python supports modules and packages, programme modularity and code reuse are encouraged. Many Python modules and packages have been made available by contributors, expanding Python capabilities and applications.

LEARNING OUTCOMES

At the end of this RUN-EU SAP, you will be able to:

- Develop abstract thinking skills and acquire fundamental concepts associated with programming language.
- Learn the basic steps of developing a programme as a solution to a problem.
- Design and analyse algorithms for problem-solving.
- Understand the principles of structured programming.
- Understand the elementary concepts of Python programming language.
- Analyse and interpret programmes coded in Python programming language.
- Develop programmes using the Python programming language.
- Understand the structure and organisation of structured data and use the most appropriate data structures when solving a problem.
- Develop applications following the fundamentals and best practices of structured programming.

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Organised by: Polytechnic of Leiria
TUS

DATE From **13 September to 27 October 2023**
Face-to-Face Week: Polytechnic of Leiria, Portugal
23-27 October

MODE OF DELIVERY Blended

LANGUAGE OF INSTRUCTION English

ECTS CREDITS 3

ACADEMIC RECOGNITION

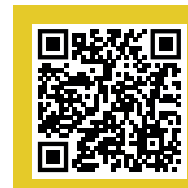
To be defined by each home higher education institution. Generally, most students will have this SAP certified in their diploma supplement, as a minimal condition.

ELIGIBLE PARTICIPANTS

All RUN-EU undergraduate and postgraduate students.

HOW TO APPLY

Fill in the application form (**QR or website**)



DEADLINE FOR APPLICATIONS

12 July 2023

CONTACT DETAILS

carlos.campos@ipleiria.pt / sajjad.sajjadi@tus.ie



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

13.SEP-27.OCT.2023

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SELECTION CRITERIA

Background, motivation, wide representation of subject areas/fields and balanced participation of RUN-EU member institutions

A maximum of 20 students will be selected for this programme

The selection team will also take steps towards ensuring a diverse and representative group of students.

LEARNING AND TEACHING STRATEGY

Active learning, learner-centred teaching, collaborative methods.

Problem solving tasks, discussions, project work, role play, presentations, peer teaching/learning

Live sessions (whole class/group work), independent (group/individual) work + mentor support, site visits in Portugal.

Platform: Teams

COURSES LEADERS | LECTURERS

Ana Lemos (Polytechnic of Leiria)

Carlos Campos (Polytechnic of Leiria)

Paulo Madeira (Polytechnic of Leiria)

Sajjad Sajjadi (TUS)

PHYSICAL MOBILITY | SCHOLARSHIPS AVAILABLE

The selected students will receive travel grants based on the travel distance and the subsistence costs in the country the SAP is offered in.

Travel

IPCA – Polytechnic of Leiria: €40

Austria – Portugal: €330

Finland – Portugal: €470

Hungary – Portugal: €380

Ireland – Portugal: €270

The Netherlands – Portugal: €330

Subsistence

The subsistence grant for Portugal is €460

MEANS AND CRITERIA FOR ASSESSMENT

Active participation

Learner portfolio

Final presentation

Reflection

CERTIFICATION

The participants who successfully complete this RUN-EU SAP will receive a Certificate of Participation and a Transcript of Records jointly issued by the organising institutions.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

PROGRAMME AT A GLANCE

WEEK 1 - 13-14.SEPTEMBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00		
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00		
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00		
WEDNESDAY 13/9												WELCOME & OPENING SESSION	
												SAP PRESENTATION	
TUESDAY 14/9												LECTURE	

WEEK 2 - 18-21.SEPTEMBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00		
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00		
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00		
MONDAY 18/9												LECTURE	
TUESDAY 19/9												TEAM WORK	
THURSDAY 21/9												LECTURE	



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

PROGRAMME AT A GLANCE

WEEK 3 - 25-28.SEPTEMBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 25/9												TEAM WORK
TUESDAY 26/9												TEAM WORK
THURSDAY 28/9												LECTURE



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PROGRAMME AT A GLANCE

WEEK 4 - 2-4.OCTOBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 2/10												TEAM WORK
TUESDAY 3/10												TEAMWORK
WEDNESDAY 4/10												LECTURE



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

PROGRAMME AT A GLANCE

WEEK 5 - 9-12.OCTOBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 9/10												LECTURE
TUESDAY 10/10												LECTURE
THURSDAY 12/10												TEAMWORK

WEEK 6 - 16.OCTOBER.2023 - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 16/10												CLOSING SESSION



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PROGRAMME AT A GLANCE

WEEK 7 - 23-27.OCTOBER.2023 - FACE-TO-FACE WEEK - LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00
MONDAY 23/10		OPENING SESSION PRESENTATION	DEFINING WORKING GROUPS DEFINING COACHING			LUNCH BREAK		PROJECT DEVELOPMENT PYTHON PROGRAMMING			
TUESDAY 24/10			PROJECT DEVELOPMENT PYTHON PROGRAMMING			LUNCH BREAK		PROJECT DEVELOPMENT PYTHON PROGRAMMING			
WEDNESDAY 25/10			ENTERPRISE VISITS			LUNCH BREAK		CULTURAL VISITS			
THURSDAY 26/10			PROJECT DEVELOPMENT PYTHON PROGRAMMING			LUNCH BREAK		PREPARATION OF PRESENTATION			
FRIDAY 27/10			PROJECT PRESENTATION			LUNCH BREAK		GROUP LEARNING REFLECTION	OVERALL QUALITY ASSESSMENT		

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ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 1

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13 SEPTEMBER

WEDNESDAY 18h00-21h00 GMT - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00		
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00		
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00		
WEDNESDAY 13/9												WELCOME & OPENING SESSION	SAP PRESENTATION

Welcome & Opening Session SAP Presentation

- 🕒 18h00-21h00
- 👥 Group Work
- 👤 Ana Lemos (Polytechnic of Leiria)
- Carlos Campos (Polytechnic of Leiria)
- Paulo Madeira (Polytechnic of Leiria)
- Sajjad Sajjadi (TUS)

📄 In this welcome and opening session, the participants will do their individual presentations. Afterwards, professors will present the objectives, programme and schedule of the course.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 1

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14 SEPTEMBER

THURSDAY 18h00-21h00 GMT • ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00
THURSDAY 14/9											LECTURE

Anaconda Framework

🕒 18h00-21h00

📄 Lecture

👤 Carlos Campos (Polytechnic of Leiria) + Sajjad Sajjadi (TUS)

📖 This lecture starts with a general overview about Python programming language and some Python frameworks (online and local platforms).

Afterwards we will install the Python framework provided by Anaconda and we will explore each one of the applications provided by this Anaconda framework, namely, Anaconda Prompt, Anaconda Navigator, Jupyter Notebook and Spyder. During this exploration phase we will present how to update the installed applications and how to install Python modules in the framework.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 2

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18-19 SEPTEMBER

MON-TUE 18h00-21h00 GMT · ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 18/9												LECTURE

Python Data Types

- 🕒 18h00-21h00
- 📄 Lecture
- 👤 Ana Lemos (Polytechnic of Leiria) + Sajjad Sajjadi (TUS)

📖 The lecture is devoted to present and explore some basic data types in Python, namely, integer numbers, float numbers and strings. For each data type the most common methods and operations in Python are presented. During the lecture examples and exercises are given and discussed.

TUESDAY 19/9												TEAM WORK
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Examples and Exercises

- 🕒 18h00-21h00
- 📄 Team Work
- 👤 Sajjad Sajjadi (TUS) + Carlos Campos (Polytechnic of Leiria)

📖 The lecture is dedicated to practical work with examples and exercises using data types in Python. Some engineering applications will be presented.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 2

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21 SEPTEMBER

THURSDAY 18h00-21h00 GMT • ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00
THURSDAY 21/9											LECTURE

Python Lists and Python Control Structures

🕒 18h00-21h00

📄 Lecture

👤 Ana Lemos (Polytechnic of Leiria) + Sajjad Sajjadi (TUS)

📖 The lecture is divided in two parts. The first part aims to present, and study lists in Python. The most common methods and operations on lists will be presented. In the second part, control structures in Python, namely, 'if' structures, 'for' and 'while' structures are presented with examples and their applications.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 3

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25-26 SEPTEMBER

MON-TUE 18h00-21h00 GMT - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 25/9												TEAM WORK

Examples and Exercises

- 🕒 18h00-21h00
- 👥 Team Work
- 👤 Sajjad Sajjadi (TUS) + Ana Lemos (Polytechnic of Leiria)

📄 In this lecture, we will do practical work with examples and exercises using lists in Python. Afterwards, we will do practical work with examples and exercises using control structures in Python. Some engineering applications will be studied.

TUESDAY 26/9													TEAM WORK
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Examples and Exercises

- 🕒 18h00-21h00
- 👥 Team Work
- 👤 Sajjad Sajjadi (TUS) + Carlos Campos (Polytechnic of Leiria)

📄 In this session, we will continue the practical work with examples and exercises using lists and control structures in Python. Some engineering applications will be studied.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 3

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28 SEPTEMBER

THURSDAY 18h00-21h00 GMT • ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00
THURSDAY 28/9											LECTURE

Python Tuples and Python Functions and Modules

🕒 18h00-21h00

📄 Lecture

👤 Carlos Campos (Polytechnic of Leiria) + Paulo Madeira (Polytechnic of Leiria)

📖 This lecture has two parts. The first part is dedicated to presenting and exploring tuples in Python. The most common methods and operations using tuples will be presented. The second part is dedicated to the study of functions and modules in Python.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 4

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2-4 OCTOBER

MON-WED 18h00-21h00 GMT - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY-TUESDAY 2-3/10												TEAM WORK

Examples and Exercises

- 🕒 18h00-21h00
- 👥 Team Work
- 👤 Ana Lemos (Polytechnic of Leiria) + Sajjad Sajjadi (TUS)

📄 In this session, we will do some practical work with examples and exercises using functions and modules in Python. Some engineering applications will be studied.

Examples and Exercises

- 🕒 18h00-21h00
- 👥 Team Work
- 👤 Sajjad Sajjadi (TUS) + Carlos Campos (Polytechnic of Leiria)

📄 In this session, we will do some practical work with examples and exercises using lists, tuples, functions and modules in Python. Some engineering applications will be studied.

WEDNESDAY
4/10

LECTURE

Python Dictionaries and Python-Specific Modules

- 🕒 18h00-21h00
- 👤 Lecture
- 👤 Carlos Campos + Paulo Madeira (Polytechnic of Leiria)

📄 The first part of the lecture is dedicated to present and explore dictionaries in Python. The most common methods and operations with dictionaries are presented. In the second part of the lecture some specific Python modules are studied, namely, the modules math, random, numpy and scipy.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 5

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9-10 OCTOBER

MON-TUE 18h00-21h00 GMT - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 9/10												LECTURE

Text and CSV Files in Python

🕒 18h00-21h00

📄 Lecture

👤 Carlos Campos (Polytechnic of Leiria) + Paulo Madeira (Polytechnic of Leiria)

📖 This lecture aims to present and explore text and comma-separated values (CSV) files in Python. During the lecture, the most common methods and operations related to this topic will be addressed. Some examples and exercises will be given and solved.

TUESDAY 10/10												LECTURE
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Graphics in Python

🕒 18h00-21h00

👥 Team Work

👤 Carlos Campos (Polytechnic of Leiria) + Paulo Madeira (Polytechnic of Leiria)

📖 This lecture aims to present and explore graphics in Python. Different type of graphics will be presented and studied. Examples and exercises are given.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 5

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12 OCTOBER

THURSDAY 18h00-21h00 GMT • ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00
THURSDAY 12/10											LECTURE

Examples and Exercises

🕒 18h00-21h00

📄 Lecture

👤 Ana Lemos (Polytechnic of Leiria) + Sajjad Sajjadi (TUS)

📖 This session is devoted to practical work with examples and exercises using all the topics covered in the previous lectures.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 6

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16 OCTOBER

MONDAY 18h00-21h00 GMT - ONLINE

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	20h00	21h00	22h00	23h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	19h00	20h00	21h00	22h00	
GMT	9h00	10h00	11h00	12h00	13h00	14h00	15h00	18h00	19h00	20h00	21h00	
MONDAY 16/10												CLOSING SESSION

Closing Session

🕒 18h00-21h00

👥 Group Work

👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)

📄 In this closing session the participants will do their evaluation about the SAP lectures, and contents and will point the positive/negative aspects of this SAP.
Afterwards the professors will do the presentation about the upcoming 'Face-to-Face' week, from 23-27 October 2023 at the Polytechnic of Leiria.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 7

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23 OCTOBER

MONDAY 9h30-18h00 - LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00
MONDAY 23/10		OPENING SESSION PRESENTATION	DEFINING WORKING GROUPS DEFINING COACHING			LUNCH BREAK		PROJECT DEVELOPMENT PYTHON PROGRAMMING			

Opening Session Presentation

- 🕒 9h30-11h00
- 👥 Team Building
- 👤 All lecturers

Defining Working Groups Defining Coaching

- 🕒 11h00-13h00
- 👥 Team Building
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)

- 📄 Teaming, individual presentation, aims for the SAP and instructions for group work.
Select the topics of the group projects and planning activities.

Project Development Python Programming

- 🕒 15h00-18h00
- 👥 Team Work, Coaching
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)
- 📄 Project development and Python programming with coaching support.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 7

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24 OCTOBER

TUESDAY 9h30-18h00 · LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00	
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	
TUESDAY 24/10		PROJECT DEVELOPMENT PYTHON PROGRAMMING				LUNCH BREAK	PROJECT DEVELOPMENT PYTHON PROGRAMMING					

Project Development Python Programming

- 🕒 9h30-13h00
- 👥 Team Work, Coaching
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)
- 📄 Project development and Python programming with coaching support.

Project Development Python Programming

- 🕒 15h00-18h00
- 👥 Team Work, Coaching
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)
- 📄 Project development and Python programming with coaching support.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 7

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25 OCTOBER

WEDNESDAY 9h30-18h00 - LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00
WEDNESDAY 25/10		ENTERPRISE VISITS				LUNCH BREAK	CULTURAL VISITS				

Enterprise Visits

- 🕒 9h30-13h00
- 👥 Group Work
- 👤 Ana Lemos (Polytechnic of Leiria)
- Carlos Campos (Polytechnic of Leiria)
- Paulo Madeira (Polytechnic of Leiria)
- Sajjad Sajjadi (TUS)

Cultural Visits

- 🕒 15h00-18h00
- 👥 Group Work
- 👤 Ana Lemos (Polytechnic of Leiria)
- Carlos Campos (Polytechnic of Leiria)
- Paulo Madeira (Polytechnic of Leiria)
- Sajjad Sajjadi (TUS)
- 📄 Guided tour of the city and historical monuments.



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 7

+INFO: www.run-eu.eu

26 OCTOBER

THURSDAY 9h30-18h00 - LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00
THURSDAY 26/10		PROJECT DEVELOPMENT PYTHON PROGRAMMING				LUNCH BREAK	PREPARATION OF PRESENTATION				

Project Development Python Programming

- 🕒 9h30-13h00
- 👥 Team Work, Coaching
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)
- 📄 Project development and Python programming with coaching support.

Preparation of Presentation

- 🕒 15h00-18h00
- 👥 Team Work, Coaching
- 👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)



ENGINEERING APPLICATIONS IN PYTHON SECOND EDITION

WEEK 7

+INFO: www.run-eu.eu

27 OCTOBER

FRIDAY 9h30-18h00 - LEIRIA

GMT+2	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00	21h00
GMT+1	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00	20h00
LOCAL TIME	9h00	10h00	11h00	12h00	13h00	14h00	15h00	16h00	17h00	18h00	19h00
FRIDAY 27/10		PROJECT PRESENTATION				LUNCH BREAK	GROUP LEARNING REFLECTION		OVERALL QUALITY ASSESSMENT		

Project Presentation

🕒 9h30-13h00

👥 Team Work

👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)

📄 Presentations of group work will be made by participants in this session.

Group Learning Reflection

Overall Quality Assessment

🕒 15h00-18h00

👥 Team Work, Coaching

👤 Ana Lemos (Polytechnic of Leiria)
Carlos Campos (Polytechnic of Leiria)
Paulo Madeira (Polytechnic of Leiria)
Sajjad Sajjadi (TUS)

- 📄 • Group Learning Reflection (all)
- Individual Learning Reflection Report + Mobility Assessment (students)
- SAP Self-reflection Report (SAP coordinators)
- LearnWell questionnaire
- Feedback session