Cunice
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EUROPEAN UNIVERSITY FOR CUSTOMISED EDUCATION

STUDY GUIDE

AI AND DATA ANALYTICS IN ACCOUNTING AND FINANCE 26-27 S1 & S2

Organised by

University of Vaasa

1. IDENTIFYING DATA.		
· Course Name.	AI and Data Analytics in Accounting and Finance 26-27 S1 & S2	
· Coordinating University.	University of Vaasa	
· Partner Universities Involved.	-	
· Course Field(s).	Accounting and Finance	
· Related Study Programme.	- Accounting and Auditing, Master of Science (Economics) - Master's Program in Finance, Master of Science (Economics and Business Administration) - Artificial Intelligence for Accounting and Finance, Master of Science	
· ISCED Code.	0411	
· SDG.	Goal 4: Quality education Goal 8: Decent work and Growth Economy Goal 12: Responsible Consumption and Production	
· Study Level.	Master	
· EUNICE Key Competencies	Problem solving	Strongly
	Teamworking	Partially
	Communication	Moderately
	Self-management	Moderately
	Cognitive flexibility	Strongly
	Digital competence	Strongly
	Technical competence	Strongly
	Global intercultural competence	Partially

· Number of ECTS credits allocated.	3
· Mode of Delivery.	Online self-study
· Language of Instruction.	English
· Course Dates.	1 September 2026 – 31 July 2027
· Precise Schedule of the Lectures.	This is a self-study, self-paced and pre-recorded course. It will be open for enrolments during the above period. There is a twelve-week completion time after the date of entering the course in the EUNICE Moodle.
· Key Words.	Data analytics, Accounting and financial analytics, Data-driven decision making, Business intelligence, Data visualization, Python, Digital transformation.
· Catchy Phrase.	Where AI meets Accounting and Finance: next level of Data Analytics!

· Prerequisites and co-requisites.	- English B2 - Very basics of Python programming - EUNICE student
· Number of EUNICE students that can attend the Course.	Unlimited
· Number of EUNICE students that can attend the course per institution.	Unlimited
· Course inscription procedure(s).	Enrolment via the EUNICE website

2. CONTACT DETAILS.	
· Department.	School of Accounting and Finance
· Name of Lecturer.	Jianan Lu
· E-mail.	Jianan.lu@uwasa.fi
· Other Lecturers.	Rizwan Ahmed Jieyi Li

3. COURSE CONTENT.

Are you familiar with the basics of Python programming? In this online showroom course, you get to use your skills and learn

- deploy machine learning models that extract actionable insights from structured datasets.
- utilize explainable AI that make models transparent, interpretable, and trustworthy, critical for ethical and compliant AI adoption.
- implement deep learning to unlock the power of unstructured data. Gain actionable insight from Big Data.
- generative AI enhanced programming and problem-solving. Leverage tools like Github Copilot and Google Colab Gemini for code-generation and task automation to enhance creativity and streamline workflows.

4. LEARNING OUTCOMES.

- Students learn data science skills to analyze datasets relevant for accounting and finance.
- Students learn to use advanced machine learning methods to analyze structured and unstructured data.
- Students learn to use Generative AI in programming.

5. OBJECTIVES.

- The course aims to introduce students to practical applications of machine learning and deep learning for analyzing both structured and unstructured data in accounting and finance.
- The course provides students with an understanding of explainable and responsible AI methods, helping them recognize how transparency and interpretability support trustworthy financial analytics.
- The course familiarizes students with modern programming practices, including the use of generative AI tools, to support efficient problem-solving and data-analysis workflows in Python.

6. COURSE ORGANISATION.

UNITS	
1.	Introduction to Python and environment setting up
2.	Connecting with Accounting and Finance databases
3.	Statistics and time series analysis with Python

4.	Machine learning for structured data classification and regression
5.	Deep learning example from Accounting and Finance

LEARNING RESOURCES AND TOOLS.
All learning materials for the course are provided on the course page on the Moodle platform.
PLANNED LEARNING ACTIVITIES AND TEACHING METHODS.
Total student workload (81 hours)

7. ASSESSMENT METHODS AND CRITERIA.

Independent study and online exam.

Grading: On a scale of 1-5, or fail (0)

OBSERVATIONS.

Upon successful completion of the course, students will be awarded with a EUNICE certificate issued by the University of Vaasa. The evaluation process is conducted in batches. Deadlines for participation in the next evaluation cycle will be specified in the welcome email.

Recognition-related issues:
Please contact your home university's International Relations Office if you encounter any issues related to the recognition of the ECTS at the end of the course. Lecturers are not in charge of the recognition process.

8. BIBLIOGRAPHY AND TEACHING MATERIALS.