

Project: Data Science Use Case (DLMDSPDSUC01)

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Internal Use @ IU International University of Applied Science, Berlin Campus

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Who I Am

- ▶ Name: Nghia Duong-Trung
- ▶ Senior Researcher @ The German Research Center for Artificial Intelligence
 - ▶ BMBF Projects: <https://milki-psy.de/>, <https://tech4comp.de/>
- ▶ Freelance Lecturer @ IU
- ▶ PostDoc @ Technische Universität Berlin, Germany
 - ▶ BMBF Project: <https://kiwi-biolab.de/>
- ▶ PhD @ University of Hildesheim, Germany
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Study Schedule



	Date	Time	Title
	16.01.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120
	23.01.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120
	30.01.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120
	13.02.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120
	27.02.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120
	06.03.2023	18:00 - 20:15	Project: Data Science Use Case - MSE_BER_DLMDSPDSUC01_2022_WS_Q1_MADS-120

IU: New from Q12023

- ▶ Check attendance
 - ▶ Attendance or partial attendance
 - ▶ Excuse note (yes | no)
 - ▶ Absence reason (yes | no)
- ▶ Regularly take a screenshot in Zoom

Portfolio: definition and objective



- ▶ A practical exercise: written report + practical implementation + product development
- ▶ An *achievement* you show in your CV
- ▶ The portfolio consists of three phases: conception, development/reflection, finalization
- ▶ The portfolio is submitted via the 'PebblePad' tool. See a separate user guide on myCampus
- ▶ Individual work

Portfolio: conception phase

- ▶ The concept or core idea should be introduced contextually with a short description of the content and the goal(s) as well as the initial motivation
- ▶ Sketch your idea using Data Science Workflow Canvas.docx (see <https://github.com/duongtrung/IU-DataScienceCourse>)
- ▶ Output: compile all in one PDF file
 1. A brief explanation of the concept in the form of a text, maximum one A4 page + Data Science Workflow Canvas
 - ▶ Abstract, reference resources, key citations
 2. Data Science Workflow Canvas (1 page)
- ▶ Deadline: until **23:59 PM, 24.01.2023**. Important: This part must be submitted before the development phase.
 - ▶ You still can edit it until the final submission of phase 3

Portfolio: development phase

- ▶ Start with Machine Learning Canvas (see <https://github.com/duongtrung/IU-DataScienceCourse>)
- ▶ Important factors:
 - ▶ Realization of the project/task
 - ▶ What are your improvements?
 - ▶ Orientation to the goals: how can you judge your project is successful?
 - ▶ Consideration of available resources: time, choice of technology, computing machine
 - ▶ Project timeline
 - ▶ Public product and reproducibility

Portfolio: development phase (cont.)



- ▶ Output 1: compile all in one PDF file
 1. A brief explanation of the concept in the form of a written, ranging 8-10 A4 pages + Machine Learning Canvas
 - ▶ Introduction, related work, prerequisite background, proposed solution and experiment, discussion and outlook, conclusion, citations
 - ▶ Images and tables are welcome
 2. Machine Learning Canvas (1 page)
- ▶ Output 2: a zip file with implementation resources. External link to download the data if it is large.
- ▶ Deadline: until **23:59 PM, 28.02.2023**. Important: This part must be submitted before the final phase.
 - ▶ You still can edit it until the final submission of phase 3

Portfolio: finalization

- ▶ The final product and/or the final version of the portfolio
 - ▶ Have you successfully finished all three phases?
 - ▶ Implementation, results
 - ▶ If necessary, reflection on your performance
- ▶ Output: all in one PDF file
 - ▶ A short presentation (powerpoint, latex), maximum 5 slides
- ▶ Deadline: until **23:59 PM, 06.03.2023**

- ▶ For the course evaluation
 - ▶ All outputs of phases 1,2,3
 - ▶ Each phase's output is in one PDF file
 - ▶ A zip file with implementation resources
 - ▶ Deadline: until **23:59 PM, 12.03.2023**
- ▶ After the project
 - ▶ Publication?

Evaluation criteria

Evaluation criteria	Explanation	Weighting
Problem Solving Techniques	<ul style="list-style-type: none">*Capturing the problem*Clear problem definition/objective*Understandable concept	10%
Methodology/Ideas/Procedure	<ul style="list-style-type: none">*Appropriate transfer of theories/models*Clear information about the chosen Methodology/Idea/Procedure	20%
Quality of implementation	<ul style="list-style-type: none">*Quality of implementation and documentation	40%
Creativity/Correctness	<ul style="list-style-type: none">*Creativity of the solution approach*Solution implemented fulfils intended objective	20%
Formal requirements	<ul style="list-style-type: none">* Compliance with formal requirements	10%

Formal guidelines

- ▶ Please refer to the citation guidelines on myCampus
- ▶ The portfolio has to be submitted via the PebblePad portal. How to use PebblePad can be found in a separate manual on myCampus
 - ▶ For the performance-relevant submissions on PebblePad:
Name-FirstName_MatrNo_Course_P(hase)-2_S(ubmission). Example:
Mustermann-Max_12345678_UseCaseAnalysis_P2_S
- ▶ As with other assessment methods, an affidavit is also required for the portfolio. This is done electronically via myCampus
- ▶ Once you have submitted all three phases, you can see your submission in Atlas. After the grading you can also find the final feedback there
- ▶ If you have any questions about PebblePad, document template, please contact the exam office via email

Questions?