Semester project: Learning Analytics Introduction

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Course team

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Course resources

Moodle

https://moodlelab.hu-berlin.de/course/view.php?id=23

Enrolment key: LASWS2324

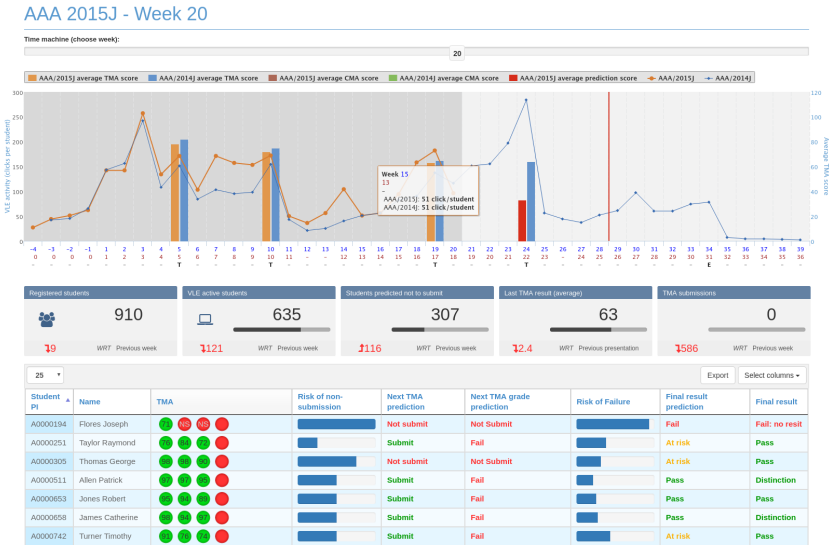
Learning objectives

- Students know **essentials of learning analytics** and **dashboards**.
- Students gain knowledge how to **process, analyze and visualize educational data**.
- Students learn how to **develop dashboard elements**.
- Students know how to **work with a databases**.
- Students increase their knowledge in **planning and organizing collaborative data science projects**.

Project

- Each group will be developing a Learning Analytics Dashboard using real-world data.

- The dashboard should provide relevant information (analysis, predictive model, …) to the selected stakeholder group (student, teacher, university management).



Agenda

Deadline grouping

Deadline quizzes

Deadline final submission

Order	Date	Topic	Type	Notes
1	**17. 10. 2023**	**Introduction to course**	**L**	
2	**24. 10. 2023**	**Introduction to project task**	**L**	Presence
3	31. 10. 2023	Introduction to Learning Analytics (Dr. Clara Schumacher)	C	Quiz
4	7. 11. 2023	Introduction to Data Science & Visualizations in LA	C	Quiz
5	**14. 11. 2023**	**Bonus Lecture (Prof. Miriam Fernandez)**	**L**	**Start 16:15**
6	**21. 11. 2023**	**Presentation of project ideas**	**S**	Presence
7	28. 11. 2023	Group work on project	C	
8	5. 12. 2023	Group work on project	C	
9	12. 12. 2023	Group work on project	C	
10	19. 12. 2023	Group work on project	C	
11	26. 12. 2023	Holidays		
12	2. 1. 2024	Holidays		
13	**9. 1. 2024**	**Mid-term presentations**	**S**	Presence
14	16. 1. 2024	Group work on project	C	
15	23. 1. 2024	Group work on project	C	
16	30. 1. 2024	Group work on project	C	
17	**6. 2. 2024**	**Final project presentation**	**S**	Peer-review, Presence
18	**13. 2. 2024**	**Results & Final Remarks**	**L**	

* Depends on number of student groups

Bold lectures are mandatory for attending

(L)ecture, (C)onsultation, (S)eminar

Project presentations are offline at Inst. of Informatics

Course lessons rules

- Starts 13.15
- Online: https://hu-berlin.zoom-x.de/j/62147860401?pwd=T3RIckM1WGlyWGdOSy9FbU94Zmwxdz09
- Presence: Erwin Schrödinger-Zentrum /Modul 1 (Rudower Chaussee 26) / Seminarraum 1307
- Consultations:
  - Waiting for 15 minutes after start if no on show up I am leaving the zoom room
  - After last student exit, I am waiting 15 minutes and the I am leaving the zoom room
  - If I am not in the room during the consultation hours – send me e-mail and I will connect
- Seminars and Lectures are MANDATORY

Requirements for the assessment

1. **Programming project**
   including visualizations, small analytics, user experience (30.01.24)
2. **Project report**
   including design decisions, project code and documentation (max. 5 pages for report excluding code) (30.01.24)
3. **Project presentations**
   1) presentation of the idea (21.11.23)
   2) presentation of progress (09.01.24)
   3) presentation of the final working product (06.02.24)
4. **Quizzes** (21.11.23)
5. **Peer-review reports on other projects** (09.02.24)

Evaluation criteria for the project work

Project	**Project ideas presentation**
Does the code work? (10)	Participation (1)
Is the code easily extendable and modifiable? (10)	Progress (2)
Does the project follow the required structure? (5)	Presentation (2)
Is the code well documented? (5)	**Mid-term presentation**
Does the analysis match the data? (5)	Participation (1)
Are analytics used meeting the purpose? (5)	Progress (2)
Are the visualisations readable? (5)	Presentation (2)
Do the visualizations match the data and purpose? (5)	**Final presentation**
Does the dashboard represent valuable contents to the target users? (10)	Participation (1)
Is the visual representation of the data on the dashboard easy to understand for the target group? (10)	Progress (2)
Report	Presentation (2)
Are the design decisions reasonable and sufficiently explained? (5)	**Quizzes**
Does the report follow a comprehensive structure? (5)	Introduction to Learning Analytics (y/n)
Is the report well written (orthography, grammar, references)? (5)	Introduction to Educational Data Mining (y/n)
Peer-review	
Peer-review submitted for all projects (y/n)	

Total 100 points

Pass:

- ≥ 50 points
- submitted all quizzes
- scored >= 40% in each quiz
- submitted all peer-reviews

Semesterprojekttag 2024

- Presentation of the results for high school students
- Each group is represented by 1 person
- Representants will create the presentation and perform it during the event
- Usually during exam period
- Dates will be announced after Christmas

Your previous experiences, which should count when searching for group

- Programming (languages, years,…)
- Databases (SQL, NoSQL, technology,…)
- Virtualization (e.g., Docker)
- Data manipulation & analysis (importing, cleaning and transforming data, visualising and modeling)
- Machine learning
- UX design
- Project management

Thank you!