

LV 185.A83 Machine Learning for Health Informatics (Class of 2019)

Study Code: 066 936 Master program Medical Informatics

<https://tiss.tuwien.ac.at/curriculum/public/curriculum.xhtml?dswid=9468&dsrid=253&key=56089&semester=NEXT>

Semester hours: 2.0 h; ECTS-Credits: 3.0; Type: VU Lecture and Exercises with Python

ECTS-Breakdown (sum=75 h, corresponds with 3 ECTS, where 1 ECTS = 25 h workload):

Presence during lecture	8 * 3 h	24 h
Preparation before and after lecture	8 * 1 h	08 h
Preparation of assignments and presentation	28 h + 2 h	30 h
Written exam including preparation	1 h + 12 h	13 h
TOTAL students' workload		75 h

Class URL: <https://human-centered.ai/machine-learning-for-health-informatics-class-2019>

Class Schedule for 2019 (subject to change: please check class URL for any changes):

<i>Nr</i>	<i>Day, Date</i>	<i>Time</i>	<i>h</i>	<i>Topic</i>
01	Dienstag 12.3.2019	17:30- 20:30	3 h	Data driven machine learning for health informatics: Introduction, challenges and future directions
02	Dienstag 19.3.2019	17:30- 20:30	3h	From decision making to explainable AI: selected methods of interpretable, verifiable machine learning
03	Dienstag 26.3.2019	17:30- 20:30	3 h	Tutorial T01 “Layer-Wise Relevance Propagation (LRP)” and Tutorial T02 “Augmentation and Explainability” and assignments A01 and A02 out
04	Dienstag 02.4.2019	17:30- 20:30	3 h	Probabilistic Graphical Models: from knowledge representation to graph model learning
05	Dienstag 09.4.2019	17:30- 20:30	3 h	Tutorial T03: “Probabilistic Programming with Python” and assignment A03 out
Easter Break and Time for working on the assignments				
06	Dienstag 30.4.2019	17:30- 20:30	3 h	Data for machine learning: quality, fusion, integration, probabilistic information and entropy
07	Dienstag 07.5.2019	17:30- 20:30	3 h	Causality and causal machine learning for decision support, ethical, legal and social issues of AI in health
Finalization of assignments and exam preparation				
08	Dienstag 28.5.2019	17:30- 20:30	3 h	Final exam (written quiz test, 30 %) and presentations of the assignments (orally, 10 %) quality of the assignments 20 % each (coding, 60 %)