

## CURRICULUM M.Sc. DATA SCIENCE

myStudies, 60 ECTS

Month	Model 1: Programme Start October				Model 2: Programme Start April				
	Courses				Courses				
Oct	Use Case and Evaluation		Advanced Statistics						
Nov									
Dec									
Jan	Machine Learning <sup>1</sup>		Deep Learning <sup>1</sup>						
Feb									
Mar									
Apr	Seminar: Current Topics in Data Science	Case Study: Model Engineering	Elective A Course a	Elective A Course b	Use Case and Evaluation		Advanced Statistics		
May									
Jun	Semester Break								
Jul	Master Thesis				Machine Learning <sup>1</sup>		Deep Learning <sup>1</sup>		
Aug									
Sep	Semester Break								
Oct					Seminar: Current Topics in Data Science		Case Study: Model Engineering	Elective A Course a	Elective A Course b
Nov									
Dec									
Jan					Master Thesis				
Feb									
Mar									



INTERNATIONAL  
UNIVERSITY OF  
APPLIED SCIENCES



Here you see the order in which you can study your courses in presence depending on your personal study start in October or April.

IU International University of Applied Sciences offers you the flexibility to switch from campus to online studies or the other way around. You decide which semester you want to spend on campus or online.

The above is only valid for DACH students. For INT Students: attending the courses on Campus in presence is mandatory and will be verified due to VISA regulations.

<sup>1</sup> These courses take place one after another within the same quarter.

### Elective A\*

*Big Data and Software Engineering*

- a) Big Data Technologies
- b) Software Engineering for Data Intensive Sciences

*Smart Manufacturing Methods and Industrial Automation*

- a) Manufacturing Methods Industry 4.0
- b) Industrial Automation

*Applied Autonomous Driving*

- a) Architectures of Self-Driving Vehicles
- b) Case Study: Localization, Motion Planning and Sensor Fusion

\* Electives: Choose one module with two courses from the Elective A.

Note: Those elective modules where the minimum number of participants is not reached will only be offered online (distance learning). However, IU ensures that there are always electives on campus.



Each semester consists of two blocks that conclude with a two-week exam preparation phase. You can also defer those exams to a later date that you do not want to take during this period. This way, your exam phases are always spread evenly over the year. In each block, you attend classes on campus for usually three courses to deepen the content in direct exchange with your fellow students and lecturers. You have semester breaks in June and September.



Attention: Attendance times may vary slightly depending on public holidays and the federal state holidays the campus is located in.

### Course Information

Module	Course Code	Course	ECTS	Type of Exam
Use Case and Evaluation	DLMDSUCE01	Use Case and Evaluation	5	Oral Assignment
Advanced Statistics	DLMDSAS01	Advanced Statistics	5	Advanced Workbook
Machine Learning	DLMDSML01	Machine Learning	5	Exam
Deep Learning	DLMDSL01	Deep Learning	5	Oral Assignment
Seminar: Current Topics in Data Science	DLMDSSTDS01	Seminar: Current Topics in Data Science	5	Research Essay
Case Study: Model Engineering	DLMDSME01	Case Study: Model Engineering	5	Case Study
ELECTIVE A*		e.g. Big Data and Software Engineering	10	
Master Thesis		Master Thesis	18	Master Thesis
		Thesis Defense	2	Presentation: