Source: https://pixabay.com/illustrations/web-network-programming-3706561/

Welcome to
Data Science
Master Course in WS 2021/22

University of Koblenz-Landau
Faculty of Computer Science
Ralf Lämmel

Data Science Course — *Staff*

SoftLang Team
- Prof. Dr. Ralf Lämmel — Formally responsible.
- Johannes Härtel — Frontline execution.
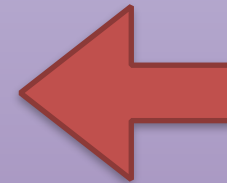
Tutors — responsible for checking homework etc.
- Faizan Khan
- Usama Mazhar
- Ahsen Naeem

Prefer OLAT over Email.

Lecturers of material recorded in the past
- Dr. Zeyd Boukhers
- Dr. Oul Han

Do not contact them!

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What is data science?

What is a Data Scientist?

- There are two kinds of data scientists. 1.) Those who can extrapolate from incomplete data.
- Data science is 80% preparing data, 20% complaining about preparing data.
- There are 10 kinds of people in this world. Those who understand binary and those who don't.
- What's the difference between an introverted data analyst & an extroverted one? Answer: the extrovert stares at YOUR shoes.
- Why did the chicken cross the road? The answer is trivial and is left as an exercise for the reader.
- The data science motto: If at first you don't succeed; call it version 1.0
- What do you get when you cross a pirate with a data scientist? Answer: Someone who specializes in Rrrr
- A SQL query walks into a bar, walks up to two tables and asks "Can I join you?"
- Why should you take a data scientist with you into the jungle? Answer: They can take care of Python problems
- Old data analysts never die – they just get broken down by age
- I don't know any programming, but I still Excel in my field!
- Data is like people – interrogate it hard enough and it will tell you whatever you want to hear.

Source: https://datasciencedojo.com/community/jokes/

See "Intro" Lecture by Johannes Härtel. Check it out on OLAT.

Data Science Course — *Mechanics*

🔶 "Introduction to Data Science" Winter 2021/22

Welcome to Introduction to Data Science.

This course is based on recorded lectures, interactive tutorials (Q&A), mandatory assignments and an exam. See the following section for further details.

⌃

📄 Lectures

📁 Content

📄 Tutorials (Q&A)

📄 Exam

📄 Assignments

💬 Forum

Please use this forum, for example, as follows:

* Ask questions about assignments (ahead of the Q&A/tutorial slot);

* Ask questions about mechanics of the course.

📁 Submission

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Data Science Course — *Mechanics*
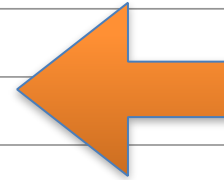
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📄 Lectures

We will upload **videos** and **slides** for the lectures.

The deadline for the upload is 2 p.m. on Wednesday at the **date** of the lecture.

	Topic	Date	Slides	Video
0	Welcome	03.11.2021		
1	Intro	03.11.2021		
2	Ethics	10.11.2021		
3	Basics	17.11.2021		
4	Statistics and Probabilities	24.11.2021		
5	Hypothesis Tests I	01.12.2021		
6	Hypothesis Tests II	08.12.2021		
7	Correlation and Regression Analysis I	15.12.2021		
8	Correlation and Regression Analysis II	22.12.2021		
9	Parameter Estimation	05.01.2022		
10	A Bayesian Course	12.01.2022		
11	Graphical Models	19.01.2022		

Remember:
Several lectures were recorded for a previous edition of the course.

As a result, some of the videos contain bits that are specific to the past edition. Please ignore.

Data Science Course — *Mechanics*

📄 Assignments

For the first 9 lectures, you will be given a **PDF** with an **assignment** related to the lecture.

We will prepare student folders in OLAT for the submission (we will provided details on this soon).

A reference **solution** is going to be published as video by us.

Assignment completion is needed for exam admission!

See exam-admission rules under "Exam".

Schedule:

Every assignment for a lecture will be **published at the date of the lecture** on 2 p.m.

Solutions have to be **handed in two weeks after publication**.

Grading of the assignments is completed three weeks after publication.

	Topic	Date	PDF	Solution
1	Intro	3.11.2021		
2	Ethics	10.11.2021		
3	Basics	17.11.2021		
4	Statistics and Probabilities	24.11.2021		
5	Hypothesis Tests I	01.12.2021		
6	Hypothesis Tests II	08.12.2021		
7	Correlation and Regression Analysis I	15.12.2021		
8	Correlation and Regression Analysis II	22.12.2021		
9	Parameter Estimation	05.01.2022		

Exam admission rules

Assignments are published on the day of lecture and solutions are due 2 weeks later.

Data Science Course — *Mechanics*

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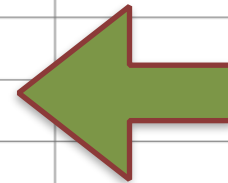
📄 Tutorials (Q&A)

We will run live sessions for Q&A (tutorials) using **BigBlueButton**.

[✎ Edit content]

The sessions will be used to **clarify questions of you,** related to the lectures, the solution of the last assignment and the current assignment. Sessions will not present the actual solutions (this will be provided as recorded video after the deadline for the assignment).

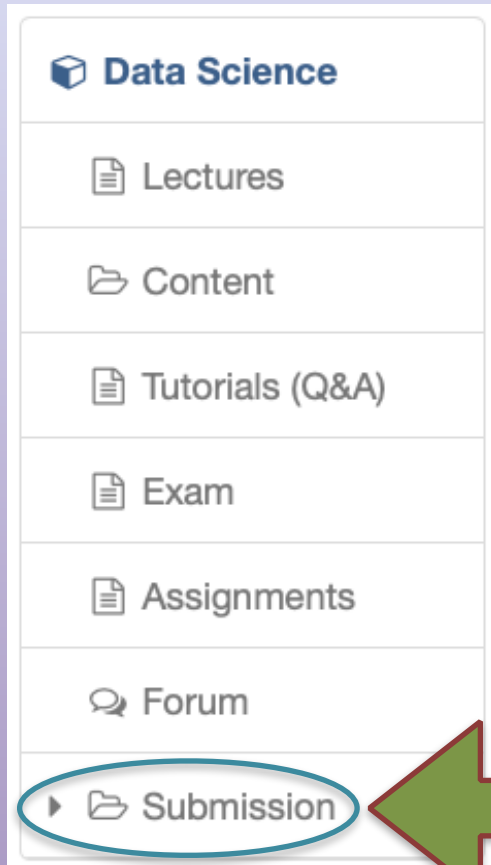The sessions take over the slot for the tutorial, stating at 4 p.m. on Wednesday.

	Topic	Date	Slides and Material	BBB
1	Intro	10.11.2021		
2	Ethics	17.11.2021		
3	Basics	24.11.2021		
4	Statistics and Probabilities	01.12.2021		
5	Hypothesis Tests I	08.12.2021		
6	Hypothesis Tests II	15.12.2021		
7	Correlation and Regression Analysis I	22.12.2021		
8	Correlation and Regression Analysis II	05.01.2022		
9	Parameter Estimation	12.01.2022		
10	A Bayesian Course	19.01.2022		
11	Graphical Models	25.01.2022		

Always
1 week after lecture
1 week before due date
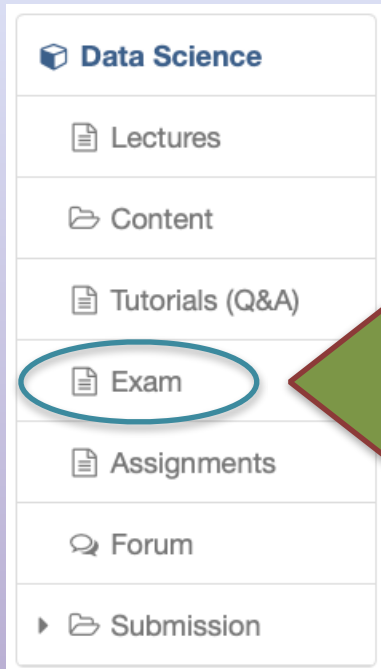
Data Science Course — *Mechanics*

📦 **Data Science**

📄 Lectures

📂 Content

📄 Tutorials (Q&A)

📄 Exam

📄 Assignments

💬 Forum

▸ 📂 Submission

Solutions to the assignments are uploaded to OLAT.

Data Science Course — *Mechanics*

Data Science

- Lectures
- Content
- Tutorials (Q&A)
- Exam
- Assignments
- Forum
- Submission

The exam will be after the lecture period. The format (onsite/online etc.) will be decided later based on university regulations / recommendations.

Exam

Exam admission rules:

- There will be 9 assignments (minimal).
- Each assignment will be graded with 0,1 or 2 points (0 = mostly missing/wrong, 2 = (nearly) complete/correct; 1 = in between 0 and 2).
- You need at least 9 out of 18 points to be admitted to the exam.
- Assignments can be worked on by individuals or in teams of size 2-3.
- Any sort of cloning/copying or alike may lead to 0 score during grading.

If you were (unsuccessfully) taking the exam for this course in the past, then you are not subject to these exam-admission rules.

Enjoy your
Data Science course!