MATH-236 **Probability and statistics II**

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Cursus	Sem.	Type
Chemistry	BA6	Opt.
Life Sciences Engineering	BA4	Obl.

Language of teaching	English
Credits	4
Session	Summer
Semester	Spring
Exam	Written
Workload	120h
Weeks	14
Hours	**4 weekly**
Lecture	2 weekly
Exercises	2 weekly
Number of positions	

Summary

Linear statistical methods, analysis of experiments, logistic regression.

Content

- Simple linear regression, least squares estimation
- t-tests, confidence intervals
- Multiple regression
- Model selection
- Experimental designs
- One-way, two-way ANOVA
- Chi-square test
- Logistic regression

Learning Outcomes

By the end of the course, the student must be able to:

- Demonstrate understanding of course material
- Apply understanding to exercise/real life scenarios

Transversal skills

- Use a work methodology appropriate to the task.

Teaching methods

Lectures and group exercises

Expected student activities

Students should be prepared to participate in their learning by participating during lecture, asking questions, and contributing to exercise sessions

Assessment methods

Written

Supervision

Office hours	Yes
Assistants	Yes
Forum	Yes

Resources

Virtual desktop infrastructure (VDI)

No

Bibliography

Introduction à la statistique / Morgenthaler; possibly additional works (to be announced).
Pre-recorded lectures (videos) will also be provided.

Ressources en bibliothèque

- Introduction à la statistique / Morgenthaler

Moodle Link

- https://go.epfl.ch/MATH-236