**EPFL**

| MATH-236 | **Probability and statistics II** |
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| | Goldstein Darlene |

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

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| Language of teaching | English |
| Credits | 4 |
| Session | Summer |
| Semester | Spring |
| Exam | Written |
| Workload | 120h |
| Weeks | 14 |
| **Hours** | **4 weekly** |
| Courses | 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

**Resources**

**Bibliography**

Introduction à la statistique / Morgenthaler

**Ressources en bibliothèque**

- Introduction à la statistique / Morgenthaler