

| Data field | Explanation |
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| Module number | WP07 |
| German title / English title | Maschinelles Lernen / Machine Learning |
| Credits | 5 ECTS |
| Workload | 68 Contact hours (4 SWS Ü), 82 Hours of independent study |
| Subject coverage | Subject-specific specialization |
| Learning outcomes | Students have an overview of machine learning methods and can assess their usability for a certain application. They can implement simple machine learning solutions using freely available software tools. |
| Requirements | none |
| Level | 1./2. Semester |
| Type of module | Seminar, Laboratory Training |
| Status | Required-Elective module |
| Semesters when offered | Every semester |
| Method of assessment / Type of examination | The method of assessment / type of examination must be defined by the lecturer within the deadline determined in §19 (2) RSPO. Should the deadline pass without determination of the form of assessment in the module, the following method of assessment / type of examination applies: 50% Written examination (90 minutes), 50% Written laboratory report (10-15 pages) of the laboratory group with consultation (15-30 minutes) |
| Grade assessment | See study and examination regulations |
| Content | <ul style="list-style-type: none"> • Review of mathematical foundations • Overview of machine learning methods and applications • Linear regression • K-means clustering • Neural networks • Hidden Markov models • Freely available machine learning software tools |
| Reading list | Haykin: Neural Networks and Learning Machines, Prentice Hall International. |
| Further information | Language employed in the module: English |
| Required Room type | Ü-Sem, Ü-Lab |