

Course title	<i>Introduction to Machine Learning</i>
Course code	<i>IP 301</i>
Module coordinator	<i>Miriam Heinrich</i>
Lecturer	<i>Sarah Haq</i>
Level of course	<i>Bachelor</i>
Recommended prerequisites	<i>Basic knowledge of linear algebra and regression</i>
Type of course	<i>Lecture</i>
Weekly lecture hours (SWS)	<i>2</i>
ECTS credits	<i>2 ECTS</i>
Workload	<i>In total 60 h, 30 h course attendance, 30 h self-study</i>
Assessment (grading; pass/fail)	<i>graded</i>
Regular cycle	<i>Each semester</i>
Language of instruction	<i>English</i>
Contents:	<p><i>In this class, you will learn the theoretical underpinnings of Machine Learning, and gain the practical know-how needed to quickly and powerfully apply these techniques to new problems.</i></p> <p><i>This course provides a broad introduction to machine learning: (i) Supervised learning (ii) Unsupervised learning (iii) Best practices in machine learning.</i></p>
Learning outcome (competencies):	<p><i>After having successfully completed the course, the students should</i></p> <ul style="list-style-type: none"> <i>• know the fundamentals of machine learning including its underlying mathematical relationship.</i> <i>• understand a wide variety of learning algorithms.</i> <p><i>be able to design and evaluate various machine learning algorithms in a range of real-world applications.</i></p>
Teaching methods	<input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Group work <input checked="" type="checkbox"/> Exercises <input type="checkbox"/> Simulation <input type="checkbox"/> Video feedback <input type="checkbox"/> Others: Please click here for inserting text
Assessment methods	<i>Written exam</i>
Recommended reading	<i>A. Géron, "Hands-on Machine Learning with Scikit-Learn, Keras & TensorFlow", O'Reilly Media, 2nd Edition, 2019.</i>
Additional information	
Recognition of credits	