

## Course Description – Summer 2024

<b>Title</b>	Computational Intelligence (Complnt)
<b>Faculty</b>	Computer Science
<b>Professor</b>	Prof. Dr. Martin Golz
<b>ECTS</b>	5
<b>Level</b>	Master
<b>Requirements</b>	Basic knowledge in linear algebra, analysis, and statistics as well as solid programming skills.
<b>Add. Information</b>	
<b>Content</b>	The students will get an introduction to the main tasks of computational intelligence and in particular to those of machine learning. Statistical learning theory is the subject of several lectures. Afterwards, multivariate linear discriminant and regression analysis as well as generalized linear models are presented. Important machine learning algorithms, e.g. support-vector machines, gradient boosting machines and artificial neural networks are introduced. The lectures finish with a first course on Deep Learning, offering insights into convolutional networks and deep recurrent networks.