Module MA-INF 2213	**Computer Vision II**		
Workload 180 h	**Credit points** 6 CP	**Duration** 1 semester	**Frequency** every year
Module coordinator	Prof. Dr. Juergen Gall		
Lecturer(s)	Prof. Dr. Juergen Gall		
Classification	**Programme** M. Sc. Computer Science	**Mode** Optional	**Semester** 2. or 3.
Technical skills	Students will learn about various learning methods and their applications to computer vision problems.		
Soft skills	Productive work in small teams, development and realization of individual approaches and solutions, critical reflection of competing methods, discussion in groups.		
Contents	The class will cover a number of learning methods and their applications in computer vision. For example, linear methods for classification and regression, boosting, random forests, neural networks, SVMs, prototype methods, nearest neighbors, Gaussian processes, Dirichlet processes, image classification, object detection, action recognition, pose estimation, face analysis.		
Prerequisites	**Required:** MA-INF 2201 – Computer Vision		

Format

Teaching format	**Group size**	**h/week**	**Workload[h]**	**CP**
Lecture	60	3	45 T / 45 S	3
Exercises	30	1	15 T / 75 S	3

T = face-to-face teaching; S = independent study

Exam achievements	Oral exam	(graded)
Study achievements	Successful exercise participation	(not graded)
Forms of media		
Literature	• T. Hastie, R. Tibshirani, J. Friedman: The Elements of Statistical Learning: Data Mining, Inference, and Prediction • C. Bishop: Pattern Recognition and Machine Learning	