Module number	Module name	Responsible lecturer
INF-VERT2	Advanced Artificial Intelligence	Prof. Dr. Björn Andres bjoern.andres@tu-dresden.de
Contents and qualification objectives	The students are able to specify intelligent systems by means of formal methods, procedures and algorithms, they can prove properties of intelligent systems by means of formal methods, procedures and algorithms and they can introduce the used formal methods, procedures and algorithms into further applications. The contents of the module are as chosen by the students: Knowledge representation and inference, computational logic, pattern recognition and computer vision as well as bioinformatics.	
Contents		
Teaching and learning methods	The module includes courses in the amount of in total 10 SWS (semester weeks) and the self-study. At least 4 SWS lectures and 2 SWS exercises are to be selected from the INF-VERT2 catalogue of the Faculty of Computer Science. 4 SWS lectures, exercises, seminars and internships listed in the catalogue are to be freely selected. Some courses in this module may be offered in English. The catalogue will be announced as usual at the Faculty of Computer Science, at the beginning of each semester, including the language of the courses.	
Prerequisites for participation	The competences acquired in the module Artificial Intelligence (INF-BAS2) are required. Literature: Russel S. and Norvig, P.: Artificial Intelligence: A Modern Approach, Prentice Hall, 2009.	
Usability	In the Master's programme in Computer Science, the module is one of seven compulsory elective advanced modules of which one must be chosen, and one of seven compulsory elective advanced modules of which one must be chosen in the Diploma programme in Computer Science.	
Requirements for the awarding of credit points	The credit points are awarded if the module examination is passed. The module examination consists of an oral examination, with a duration of 40 minutes. At the student's request, the oral examination may be conducted in English.	
Credit points and grades	The module allows for the earning of 15 credit points. The module grade corresponds to the grade of the oral examination.	
Frequency of the module	The module is offered each semester.	
Workload	The workload is a total of 450 hours.	
Duration of the module	The module takes two semesters.	