

Module title		Abbreviation
Spacecraft System Analysis		10-I=SSA-182-m01
Module coordinator		Module offered by
holder of the Chair of Computer Science VII		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
Spacecraft system Analysis examines the design of spacecraft and launch vehicles, including the impacts of the atmosphere and the space environment on requirements and configurations. The principles and design aspects of the structure, propulsion, power, thermal, communication, and control subsystems are studied.		
Intended learning outcomes		
Students gain a general understanding of orbital mechanics & parameters and the subsystems of a spacecraft. This course handles the most important subsystems individually as listed in the table of contents. At the end of the course students will learn to translate mission requirements in to orbit and subsystem definitions. Thermal and Mechanical qualification including testing for space is additionally covered.		
Courses (type, number of weekly contact hours, language — if other than German)		
V (4) + Ü (2) + E (2) Module taught in: English		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
written examination (approx. 90 to 120 minutes) and field trip report (4 to 8 pages) Language of assessment: English creditable for bonus		
Allocation of places		
--		
Additional information		
--		
Workload		
300 h		
Teaching cycle		
--		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
--		
Module appears in		
Master's degree (1 major) Satellite Technology (2018)		