

<b>Module title</b>		<b>Abbreviation</b>
Aerospace Laboratory		10-I-LRLA-172-m01
<b>Module coordinator</b>		<b>Module offered by</b>
holder of the Chair of Computer Science VIII		Institute of Computer Science
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
6	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	--
<b>Contents</b>		
Structure and control of satellites and airplanes, control and (very little) regulation of physical/mechanical systems, sensors and actuators, energy, structure (construction) of a satellite model/simulator, construction of a ground segment for different components and systems of air and space flight, structure of simplified subsystems of air and space flight. Life cycle of a complex development consisting of software, hardware, electronics and mechanics. Selection of suitable components.		
<b>Intended learning outcomes</b>		
The students will be able to construct and integrate prototypical subsystems consisting of software, hardware, electronics and mechanics by themselves as well as to operate, test and document these. The whole life cycle of a development will be tested: capture of requirements, rudimentary design, detailed design, modelling, implementation (software, hardware, mechanics), test design, inspection, maintenance, transfer to the successor model.		
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)		
V (2) + P (2)		
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
Completion of approx. 6 practical exercises (approx. 4 hours each)		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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<b>Module appears in</b>		
Bachelor' degree (1 major) Aerospace Computer Science (2017) Module studies (Bachelor) Computer Science (2019) Bachelor' degree (1 major) Aerospace Computer Science (2020) Module studies (Bachelor) Aerospace Computer Science (2021)		
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