

Module description: Infrastructure - Aerodromes	
Module Code	t.BA.AV.INFRA-AD.21HS
ECTS Credits	4
Language of Instruction/Examination	German
Organizational Unit	ZAV
Module Coordinator	Manuel Waltert
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.
Module Characteristic	Type 2c*** 4 lecture lessons per semester week each yearly starting-class
Module Description	Introduction to planning, design, operation, and management of aerodromes systems
Module Content	<p>Introduction to aerodromes and aerodrome systems</p> <p>Definition of interface to transportation systems on the airside and the landside</p> <p>Design and layout of runways, taxiways, apron, and stands</p> <p>Design and layout of docks and terminals</p> <p>Aerodrome capacity and simple capacity estimations</p> <p>Introduction to aerodrome delay and aerodrome demand management</p> <p>Introduction to passenger building processes, design and sizing of passenger processes</p> <p>Aerodrome planning (tactical, strategical and master planning)</p> <p>Aerodrome operations and management</p>
Prerequisite Knowledge	Solid knowledge (BSc AV, semesters 1, 2, and 3) on mathematics (calculus, linear algebra, stochastics) and physics.

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Learning Objectives (Competences)	Students...		Competencies	Taxonomies	
	You know the most important aerodrome processes and aerodrome subsystems and you understand how they interrelate to each other. You know how aerodrome processes are integrated in transportation system(s) on the airside and the landside.		F	K1, K2, K3	
	You have a solid understanding of selected topics in the field of aerodrome operation and management.		M, F	K1, K2, K3, K4	
	You know how to estimate capacity for selected aerodrome systems (runways, taxiways, stands, passenger processes, baggage sorting, etc.).		M, F	K3, K4	
	You know the most important planning parameters for runways, taxiways, aprons, and stands. You know how to adequately size runways, taxiways, aprons, and stands based on international standards (e.g. EASA CS ADR-DSN).		M, F	K1, K2, K3, K4	
	You know how to plan and evaluate passenger buildings (passengers flows, definition of processes, sizing of infrastructure).		M, F	K1, K2, K3, K4, K5, K6	
	You are capable of adequately using aerodrome-related terms and terminology.		F	K1, K2, K3	
Performance Assessment	End-of-module exam	Assessment	Length (min.)	Weighting	Form
	oral exam	Grade		100	acc. to module agreement
	Performance assessment during the semester		Assessment	Length (min.)	Weighting
		-	-	-	-
Classroom Attendance Requirement	None				
Learning material					
Comments	Details regarding the assessment rules are described in the course materials on Moodle.				