

§ 36 Program of Communication and Media Engineering

Objectives

- (1) The objective of the program is to provide advanced academic-scientific training at the intersections of communications engineering and digital media technology. For both didactic and time considerations, selected core competences and systems-scientific approaches are taught, in addition to social and management skills. Graduates of the program are prepared for both academic positions in modern communications engineering and professional careers in business and industry.
- (2) The program is geared towards German and international students with a good command of English. Courses are generally taught in English.
- (3) The course is organized by semester and comprises the four consecutive semesters CM1, CM2, CM3 and CM4. Courses in semesters CM1 and CM3 are held in the winter semesters, courses in semesters CM2 and CM4 in the summer semesters.
- (4) The workload for the Master's thesis equals 30 credits. The time allowed for completing the Master's thesis is six months; an extension in accordance with Art. 21 (6) is possible.
- (5) A total of 120 credits must be obtained to complete the program.

Courses and Modules

- (6) The CME curriculum comprises the modules listed in the table below following paragraph (8). Each module includes one or several courses.

A module is passed only if each individual assessment and each individual partial assessment is passed with at least a sufficient grade (4.0). If one of the partial assessments is not passed, only this partial assessment must be repeated. Individual assessments that have been passed cannot be repeated in order to improve performance.

- (7) Electives: In the module Elective Modules, a total of 15 credits are required. The overall grade of the module is weighted according to the credits of the individual required electives. The courses can be chosen from a catalog of required electives. Of the 15 credits, up to 2 can be earned from courses in the general and non-technical areas. The list of required electives is published in good time before the start of each semester and is valid for that semester. Subjects from other degree programs at Offenburg University can be chosen as required electives with the prior written approval of the Chair of the Examination Board or the Dean of Studies.
- (8) The following table lists the course types, weekly hours, modes of assessment, weightings of the grades and the credits for each module.

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No.	Module	C	No.	Course	Type	Sem.	1	2	3	4	Assmt.	Weight
						Hrs./wk.	C	C	C	C		
CME-01	Signal and System Theory	6	EMI403	Signals and Systems	V	2	3				K120	1
			EMI405	Information Theory and Coding	V	2	3					
CME-02	Engineering Mathematics	6	EMI443	Engineering Mathematics	V	6	6				K90	1
CME-03	Transcultural Media Design	5	M403	Media Ethics	S	2	3				PA+RE ¹ LA	1
			M404	Media Aesthetics Lab	L	2	2					-
CME-04	Language and International Competencies	6	EMI430	Intercultural Communication and Competence	S	2	1				ST	-
			SZ107	Language Course ²	V	4	5				K90	1
CME-05	Computer Science	8	EMI400	Object Oriented Software Development	V	2	3				K60	1/2
			EMI401	Object Oriented Software Development Lab	L	2	2				LA	-
			EMI402	Object Oriented Modeling (UML)	V	2		3			K60	1/2
CME-06	Digital Communications	6	EMI404	Digital Communications with Lab	V+L	3	3				K60	1/2
			EMI406	Advanced Channel Coding with Lab	V+L	3		3			K60	1/2
CME-07	Advanced Digital Signal Processing	5	EMI414	Advanced Digital Signal Processing	V	4		4			K90	1
			EMI415	DSP Lab	L	1		1			LA	-
CME-08	Interactive Distributed Applications	5	M400	Interactive Distributed Applications	V	4		4			K90	1
			M406	Interactive Distributed Applications Lab	L	1		1			LA	-
CME-09	Internet and Media Technologies	6	M402	Interactive Media	V	2		3			K120 LA	1
			M401	Database Systems	V	2		2				
			M411	Database Systems Lab	L	1		1				
CME-10	Wireless Communication	6	EMI444	Antennas and Wave Propagation	V	3		3			K90	1
			EMI445	Software Radio with Python	L	3			3		LA	-
CME-11	Elective Modules	15	Diverse	Elective Modules				5	10		Diverse	
CME-12	Wireless and Sensor Systems	6	EMI419	Internet of Things	V	2			3		K120	1
			EMI442	Automotive Radar	V	2			3			
CME-13	Multimedia Web Technologies	5	M408	Next Generation Internet	V	2			3		K90	1
			M405	Multimedia Databases	V	2			2			
CME-14	Management and Scientific Working Skills	5	EMI431	Project Management	V	2			2		RE+M ³	2/3
			EMI446	Academic Writing		1			1		HA	1/3
			EMI447	Rhetoric and Presentation Essentials	S	2			2		RE	-
CME-15	Master's Thesis		EMI440	Thesis	WA	-				28	AA	1
			EMI441	Presentation	S	2				2	KO	-
	Total	120					31	30	29	30		

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- ¹ Weighting: Project work 75 %, presentation 25 %
 - ² German as a Foreign Language is required for international students who have not yet been able to demonstrate German language proficiency at level C1. The language courses must be chosen such that an improvement of the respective initial level is achieved. Students with a proven language competence of C1 in German or native speakers must take other languages or elective courses. In total, these courses must cover 5 ECTS at minimum and must also be chosen such that an improvement of the respective starting level is achieved in each case.
 - ³ Weighting: Presentation 70 %, oral exam 30 %