EMSE course list

EMSE studends spending their first or second year at Technical University of Kaiserslautern should attend courses, based on the general EMSE study plan, which is as follows:

1st Year			2nd Year	
1st semester	2nd semester		3rd semester	4th semester
Foundations			Internship 8-14 ECTS	Thesis 30 ECTS
Verification and Validation (EMSE -VV)		8-12 ECTS		
Empirical Software Engineering Research (EMSE - ESER)		8-10 ECTS		
Software Process and Project Management (EMSE - SPPM)		8-16 ECTS		
Requirements and Design of Software Systems (EMSE - RDSS)		8-14 ECTS		
Advanced Topics in Software Engineering (EMSE-ATSE)			8-18 ECTS	
Transversal Skills (EMSE-TS)			12-16 ECTS	
Free Choice (EMSE-FC)			12 ECTS	
Local language/culture course at partner 1st Year			**Local language/culture Course** at partner 2nd year	
		Summer School in ESE		

The following sections describe which courses are mapped to which EMSE blocks. Firstly, it is described, how first year studends can cover the *Foundations* block. Afterwards, the specific course structure for 2nd is presented. Finally a list of courses for *EMSE-ATSE*, *EMSE-TS* and *EMSE-FC* is given.

A detailed description of all courses is available at

http://www.informatik.uni-kl.de/en/studium/lehrveranstaltungen/

Please check the lecture time and exercise time of all the lectures to make sure that selected lectures and exercises are not conflicted in time with each other. The lecture schedule in upcoming semesters can be found in the -> KIS System as well as in the -> CS department webpage.

1. Specific courses for 1st year students

In winter term:

Module	Course Name	CP	ID
EMSE-RDSS	Requirements Engineering	4	89-3155
EMSE-VV	Safety & Reliability of Embedded systems	4	89-3331
EMSE-TS	Product Line Engineering	4	89-3152
EMSE-TS	Worst-Case Analysis of Distributed Systems	4	89-4251
EMSE-SPPM	Quality Management of Software and Systems* or Software Quality Assurance*	4	89-3352 / 89-3355
EMSE-ATSE	(see below; might be taken in summer semester)**	12	--

* Quality Management of Software and Systems is offered in WS15/16 and in WS17/18, Software Quality Assurance is offered in WS16/17 and WS18/19

** Courses in the EMSE-ATSE can be done also in summer term, if offered. The list of courses is given in section 3.

In summer term:

Module	Course Name	CP	ID
EMSE-VV	Verification of Reactive Systems	8	89-6252
EMSE-RDSS	Software Architecture of Distributed Systems	4	89-3431
EMSE-ESER	Empirical Model Building and Methods	4	89-3153
EMSE-SPPM	Software Project and Process Management	4	89-3131
EMSE-TS	Process Modeling	4	89-3151
EMSE-ESER	Seminar Software Engineering***	4	89-3372

*** seminar might be shifted to winter term

2. Specific courses for 2nd year students

In winter term:

Module	Course Name	CP	ID
EMSE-FC	Software Engineering Seminar	4	89-3372
EMSE-I	Project Software Engineering	8	89-3282
EMSE-ATSE	(see below; might be taken in summer semester)**	6/8*	--
EMSE-TS	Network Security	4	89-4252
EMSE-FC	(see below; might be taken in summer semester)**	12	--

* UNIKL will give 8 CP, but other universities might only count it as 6 CP

** Courses in the EMSE-ATSE block and in the EMSE-FC block can be done also in summer term, if offered. The list of courses is given in section 3.

In summer term:

Module	Course Name	CP	ID
Thesis	Master-Thesis	30	--

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of the European Union

3. Courses in EMSE-ATSE and EMSE-FC

List of courses selectable for EMSE-ATSE and EMSE-FC:

Course*	CP	ID	Term**
Advanced Aspect of Object-oriented Programming	4	89-3231	SS
Applications of Artificial Intelligence	4	89-7156	SS
Applied Automata Theory	8	89-5652	WS
Automotive Software Engineering	4	89-6452	SS
Complex Network Analysis	4	89-5721	WS
Concurrency Theory	8	89-5651	SS
Human Computer Interaction	4	89-1652	WS
Intelligent User Interfaces: Design and Implementation	4	89-7159	WS
Introduction to Business Process Modeling	3	80-02080a	WS
Introduction to Computational Intelligence	3	80-02231	SS
Middleware for Heterogeneous and Distributed Information Systems	8	89-2202	WS
Network Security	4	89-4252	WS
Product Line Engineering	4	89-3152	WS
Quality Management of Software and Systems	4	89-3352	WS
Recent Developments for Data Models	4	89-2234	SS
Regression and Time Series Analysis	8	81-6012	SS
Software Architecture of Distributed Systems	4	89-3431	SS
Software Quality Assurance	4	89-3355	WS
Worst-Case Analysis of Distributed Systems	4	89-4251	WS

* Please notice, that some courses might not be offered in some terms.

** WS=Winter Term, SS=Summer Term