Title of course	**Web Applications**
Responsible instructor	*Prof. Dr. Erwin Neuhardt*
Learning objectives	*The students get to know the structure and the functionality of a web application. They will know two frameworks for building web applications based on the programming language Java. They get to know REST which is a standard for communicating between applications. The students know how to apply a framework for building web applications. They know the advantages and disadvantages of different frameworks.*
Course contents	*Elements of a web application: HTML. CSS, HTTP, Model-View-Controller Pattern, creating different parts of a web application with a framework, forms, validation, creating a response page, error handling, layout of web pages, reusable parts of web pages, principles of REST, elements of a REST interface, implementation of a REST interface*
Teaching methods	*Lecture and tutorial (3+1 hours per week)*
Prerequisites	*Skills and knowledge in Java programming and software engineering (at least 10 ECTS)*
Suggested reading	*Johnson, Rod et al.: Spring Framework Reference Documentation, online at docs.spring.io* *w/o author: Spring Guides, online at spring.io/guides* *w/o author: Apache FreeMarker, online at freemarker.org* *w/o author: Bootstrap, online at getbootstrap.com* *w/o author: Vaadin Documentation, online at vaadin.com* *Burke, B.: RESTful Java with JAX-RS 2.0, O'Reilly, 2014*
Applicability	*Master of Applied Computer Science, Master Angewandte Medieninformatik*
Workload	*Total 150 hours. Attendance: 60 hours, Self-Study: 60 hours, Exam Preparation 30 hours*
ECTS credit points and weighting factor	*5 CP (Emphasis of the Grade for the final Grade 5/120)*
Basis of student evaluation	*Written examination on PC (120 min)*
Time	*3rd semester*
Frequency	*Once during the academic year*
Duration	One semester
Course type	*Obligatory course*
Remarks	Teaching language is English.