

Module title Building Modern Web Applications & Services using Node.js and React JS			
Module code Tba.	Level Bachelor (B.Sc.)	ECTS credits 5	Duration 3 weeks block course + virtual lectures
Module instructor Jussi Koistinen, Savonia University of Applied Sciences, Finland	Lecture type Lectures + Guided Lab Sessions	Prerequisite(s) Basic programming ability, basic skills of HTML, Javascript, CSS and databases	Grading Weekly assignments + final project
<p>Objectives This course will introduce the principles, practices and tools for modern web applications and services using the node.js, jQuery and React JS ecosystems.</p> <p>On completion of the course the students will be able to:</p> <ul style="list-style-type: none"> • Knowledge & Understanding: Understand the structure and patterns required to implement a robust web application & service. In particular, apply these principles to the node.js, jQuery and React JS ecosystems. • Skills & Abilities: Implement a node.js web application and REST service using modern (ES6) features, including appropriate persistence (database) layer and React JS and jQuery client layer. <p>The course will consist mix of lectures and guided labs (in a computer lab).</p>			
<p>Content</p> <ul style="list-style-type: none"> • Node.js principles and practices • Developing node.js applications with MySQL database • Implementing web applications with node.js template engines • Introduction to front end development • Developing web applications with jQuery and node.js • React JS principles and practices 			
<p>Textbook/teaching material</p> <ul style="list-style-type: none"> • Node.js in Action, Second Edition, Alex Young, Bradley Meck, and Mike Cantelon, Manning, 2017 • Node.js 8 the right way : practical, server-side JavaScript that scales, Pragmatic Programmers, Wilson, Jim R., 2018 • Learning React, Addison-Wesley, Chinnathambi, Kirupa, 2017 • JavaScript & jQuery : interactive front-end web development, John Wiley & Sons, Jon Duckett, 2014 • Course notes 			

Note: this is not the official course descriptor according to the "Studien- und Prüfungsordnung" (SPO)