



Course title	Full-Stack Web Development with Angular and Node.js
Institute/Division	Faculty of Computer Science and Mathematics/ Department of Computer Science
Course code	F-1.WD
Erasmus subject code*	11.3 Informatics, Computer Science
Number of contact hours**	45 lecture hours (45h)
Course duration	1 semester (spring or fall)
ECTS credits	6
Course description (max 100 words)	This hands-on course covers modern full-stack web development using Angular on the frontend and Node.js with Express on the backend. Students design and build complete, production-ready web applications — from responsive UI components to REST API design and database integration. Topics include Angular architecture, reactive programming with RxJS, Express routing and middleware, MongoDB or PostgreSQL, authentication with JWT, and deployment. The course is entirely project-based: every lab session delivers a working piece of a real application. No prior framework experience required.
Literature	Angular documentation: https://angular.dev Node.js documentation: https://nodejs.org/en/docs Brown E. — Web Development with Node and Express, 2nd ed. (O'Reilly, 2019)
Course type/organization	computer laboratory (45h) — project-based
Assessment method	Individual full-stack web application project developed throughout the semester
Prerequisites	Basic knowledge of HTML, CSS and JavaScript. Familiarity with object-oriented programming concepts. No prior Angular or Node.js experience required.
Primary target group	Bachelor's and Master's students in Computer Science or related fields
Contact person	Mateusz Nawrocki, M.Sc. Eng.
Remarks	Course conducted fully in English. All lab materials and assignments in English.

*please insert one of the following codes:

- 11.0 Mathematics, Informatics
- 11.1 Mathematics
- 11.2 Statistics
- 11.3 Informatics, Computer Science
- 11.4 Artificial Intelligence
- 11.5 Actuarial Science
- 11.9 Others Mathematics, Informatics

**1 lecture hour=45 minutes