



Course title	Mobile Application Development with Flutter and Firebase
Institute/Division	Faculty of Computer Science and Mathematics/ Department of Computer Science
Course code	F-1.FaF
Erasmus subject code	11.3 Informatics, Computer Science
Number of contact hours**	30 lecture hours (30h)
Course duration	1 semester (spring or fall)
ECTS credits	4
Course description (max 100 words)	This hands-on course teaches cross-platform mobile development using Flutter and Firebase. Students build fully functional iOS and Android applications from a single codebase, focusing on practical skills: Flutter widget system, state management, navigation, real-time database with Firebase Firestore, user authentication, cloud storage, and deployment. The course is project-driven — each lab session produces a working app feature. No prior mobile development experience required. By the end, students ship a complete, cloud-connected mobile application.
Literature	Flutter documentation: https://docs.flutter.dev Firebase documentation: https://firebase.google.com/docs Windmill E. — Flutter in Action (Manning, 2020) Biessek A. — Flutter for Beginners, 3rd ed. (Packt, 2023)
Course type/organization	computer laboratory – 30h
Assessment method	Individual mobile application project developed throughout the semester
Prerequisites	Basic knowledge of object-oriented programming (any language). No prior mobile development or Dart 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