

**Course title:** **Mobile Technologies and Programming**  
**Institute/Division:** F-3, Institute of Computer Science  
**Course code:** F3-MT  
**Erasmus subject code:** Informatics, Computer Science  
**Number of contact hours:** 45 teaching hours  
**Course duration:** 1 semester  
**ECTS credits:** 6  
**Course description:** The main objective of this course is to provide the basic knowledge and skills on the development of mobile applications based on Java Language and Android Studio environment. Also, some basic concepts related to build web application based on Responsive Web Design were introduced in order to provide the necessary knowledge on start the design and development websites displayed on mobile devices. Getting to know the basic tools and components used to build the application on Android Platform such as activities, services, fragments, resource selectors, receivers, SharedPreferences, SQLite. A project-based learning approach for teaching mobile software development has been applied for the lab work. First, the students start to write their first mobile web-based application using Android Studio and components which are mentioned above, and then the individual projects proposed by the students them self are prepared as final projects for course. The target platform for all final projects is the Android OS.

**Literature:**

1. <http://developer.android.com/>
2. <http://jquerymobile.com/>
3. C. Collins, M. Galpin, M. Kaeppler, *Android in Practice*, Special Sales Department Manning Publications Co., Shelter Island, 2012, ISBN 9781935182924

**Assessment method:** Laboratory exercises and projects.  
**Prerequisites:** Java programming, basic knowledge of HTML5 and Java Script  
**Primary target group:** 3-th year students.  
**Lecturer:** Joanna Kołodziej, PhD  
**Contact person:** Joanna Kołodziej, PhD, [joanna.kolodziej68@gmail.com](mailto:joanna.kolodziej68@gmail.com)  
**Deadline for application:** 15th of January