Course title	Mobile Technologies and Programming
Institute/Division	Faculty of Computer Science and Mathematics/ Department of Computer Science
Course code	F-1.MT
Erasmus subject code*	11.3
Number of contact hours**	45 lecture hours (45h)
Course duration	1 semester (Spring)
ECTS credits	6
Course description (max 100 words)	The main objective of this course is to provide the basic knowledge and skills on the development of mobile applications based on Kotlin language and IntelliJ IDEA with Android support plugin. 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 of mobile web applications. Getting to know the basic tools and components used to build the application on Android Platform such as application object, activities, layouts, services toasts, fragments, specific resources, broadcast receivers, SQLite and Firebase Realtime Databases.
Literature	1. C. Collins, M. Galpin, M. Kaeppler, Android in Practice, Manning Publications Co., 2012 2. J. Skeen, D. Greenhalgh, Kotlin Programming: The Big Nerd Ranch Guide, Big Nerd Ranch Guides, 2018. 3. J. McCallister, Mobile Apps Made Simple: The Ultimate Guide to Quickly Creating, Designing and Utilizing Mobile Apps for Your Business, CreateSpace Independent Publishing Platform, 2014 4. J. Nielsen, R. Budiu, Mobile Usability, New Riders; 1 edition, 2012. 5. F. Hussain, Responsive Web Design by Example: Embrace responsive design with HTML5, CSS3, JavaScript, jQuery and Bootstrap 4, Packt Publishing; 3rd Revised edition edition, 2017. 6. Kotlin Programming Language, https://kotlinlang.org/docs/reference/. 7. Android Developers, https://developer.android.com/reference. 8. Firebase RealTime Database, https://firebase.google.com/docs/database.
Course type/organization	Lectures and laboratories
Assessment method	Laboratory exercises
Prerequisites	Knowledge of one object-oriented programming language and basic knowledge of HTML5 and Java Script
Primary target group	3-th year students
Contact **person**	Andrzej Wilczyński, B.Eng., M.Eng., andrzej.wilczynski@pk.edu.pl
Remarks	

*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