



Course title	Mobile Application Development
Institute/Division	Faculty of Computer Science and Mathematics/ Department of Computer Science
Course code	F-1.MAD
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)	The course introduces the principles and practices of developing mobile applications for the Android platform using the Kotlin programming language. Students learn how to design, implement, and test mobile applications using modern development tools and the Android software development kit. The course covers the fundamental concepts of Android application architecture, user interface design, application lifecycle management, data handling, and communication with external services. During laboratory sessions students develop a functional mobile application project, gaining practical experience with contemporary Android development environments and widely used development practices.
Literature	<ol style="list-style-type: none">1. Josh Skeen, David Greenhalgh, Kotlin Programming: The Big Nerd Ranch Guide, Big Nerd Ranch Guides, 20182. Catalin Ghita, Kickstart Modern Android Development with Jetpack and Kotlin, Packt Publishing, 20223. Ricardo Costeira, Fuad Kamal, Kevin D. Moore, Android Fundamentals by Tutorials: Build Android Apps with Kotlin and Jetpack Compose, Kodeco Inc., 20244. JetBrains, Kotlin Documentation, https://kotlinlang.org/docs5. Android Developers, Documentation, https://developer.android.com
Course type/organization	Lectures and computer laboratories
Assessment method	Assessment is based on students performance during computer laboratory sessions. Students complete practical programming exercises during the laboratories and are evaluated based on the quality and correctness of their solutions.
Prerequisites	Basic knowledge of programming and object-oriented programming concepts.
Primary target group	3rd year undergraduate students in Computer Science or related programmes.
Contact person	Andrzej Wilczyński, B.Eng., M.Eng., andrzej.wilczynski@pk.edu.pl
Remarks	The course focuses exclusively on native Android application development using Kotlin and modern Android development tools.

*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