

# Mobile application design - course description

General information	
Course name	Mobile application design
Course ID	11.3-WE-AutP-MAD-Er
Faculty	<a href="#">Faculty of Computer Science, Electrical Engineering and Automatics</a>
Field of study	Automatic Control and Robotics
Education profile	academic
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2019/2020

Course information	
Semester	6
ECTS credits to win	3
Course type	optional
Teaching language	english
Author of syllabus	<ul style="list-style-type: none"><li>dr inż. Andrzej Popławski</li></ul>

Classes forms					
The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	30	2	-	-	Credit with grade
Laboratory	30	2	-	-	Credit with grade

## Aim of the course

- To provide fundamental knowledge in subject of techniques used in mobile systems.
- To give abilities and competence in design and implementation mobile application for chosen platform.

## Prerequisites

Programming with basics of algorithmics, Object-oriented programming.

## Scope

Introduction – idea and significance of mobile application. Concepts of mobile systems .Mobile phone systems. Structure and action of GSM system. Present day communication systems (satellite, LAN, ultrasound, IrDA, Bluetooth). Satellite navigation systems. Problems in mobile application design. Military deployment of mobile application.

## Teaching methods

Lecture, laboratory exercises.

## Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Can characterize the idea of mobility, explain mobile systems construction, point at differences among various mobile systems, and describe applications of mobile systems.		<ul style="list-style-type: none"><li>a pass - oral, descriptive, test and other</li></ul>	<ul style="list-style-type: none"><li>Lecture</li></ul>
Can design, create and launch an application for selected programming platform. Can assess appropriateness of the created software, develop and extend the program with additional elements.		<ul style="list-style-type: none"><li>an ongoing monitoring during classes</li><li>carrying out laboratory reports</li></ul>	<ul style="list-style-type: none"><li>Laboratory</li></ul>
Can independently design, build and run a simple program for the selected software platform		<ul style="list-style-type: none"><li>an ongoing monitoring during classes</li><li>carrying out laboratory reports</li></ul>	<ul style="list-style-type: none"><li>Laboratory</li></ul>

## Assignment conditions

Lecture – in order to get a credit it is necessary to pass all tests (oral or written) carried on at last once per semester.

Laboratory – in order to get a credit it is necessary to earn positive grades for all laboratory works defined by the tutor.

Calculation of the final grade: lecture 50% + laboratory 50%

## Recommended reading

- Conder S., Darcey L.: Android. Programowanie aplikacji na urządzenia przenośne. Gliwice, Helion, 2011

2. Gala P.: Symbian S60. Programowanie Urządzeń Mobilnych, Gliwice, Helion, 2010
3. Zienkiewicz R.: Telefony komórkowe GSM I DCS, Warszawa, WKŁ, 1999
4. Flickenger R.: Sto sposobów na sieci bezprzewodowe, Gliwice, Helion, 2004
5. Roshan P., Leary J.: Bezprzewodowe sieci LAN 802.11, Warszawa, Mikom, 2004
6. Friesen J.: Java. Przygotowanie do programowania na platformę Android, Helion, Gliwice, 2011
7. Conder S., Darcey L.: Android Wireless Application Development. Addison-Wesley Professional, 2011
8. Friesen J.: Learn Java for Android Development, Apress 2010

## Further reading

## Notes

Modified by dr hab. inż. Wojciech Paszke, prof. UZ (last modification: 03-05-2020 21:22)

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