Program	Level	First cycle
	Name of the program	Theoretical Computer Science

COURSE				
Course title	**Mobile Application Development**			
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)
CS 385	VI	Elective course	5	2+0+2
Lecturer				
Course Goals	This course will introduce students to the development of applications for mobile devices. It will present the limitations mobile app designers face, such as hardware power and user expectations. Students will learn how to overcome limitations using techniques in implementation, software design and user interface design. Essential concepts of modern mobile application development, such as software and data architecture, will be analysed.			
Learning Outcomes	After completing the module, students will: - Know the technology and trends that affect the development of mobile applications - Know the architecture of mobile applications - Understand the requirements for creating practical mobile applications - Be able to design user interfaces for mobile devices - Be able to use advanced techniques of object-oriented programming - Take into account hardware limitations when developing mobile applications			

COURSE CONTENT

- Support of different mobile devices
- Activity lifecycle
- Dynamic UI with fragments
- Data storage
- Interaction with other applications
- Permission management
- Multimedia in mobile applications
- Graphics and animations
- Networking and web applications
- Locations and maps

LITERATURE

1. B. Phillips, B. Hardy, Android Programming, *The Big Nerd Ranch Guide*, 2nd Edition, 2015.
2. P. Deitel, H. M. Deitel, A. Wald, *Android 6 for Programmers, An App-Driven Approach*, 3rd Edition, 2015.
3. J. Murach, *Murach's Android Programming*, 2nd Edition, 2015.

STUDENT WORKLOAD (hours in a semester)

Lectures	30	Tutorial	30	Individual work	65	T o t a l	125

GRADING			REMARKS
Criterion	Maximum points	Minimum points	
Midterm exams	30		
Laboratory assignments	30		
Final exam	40		
T o t a l	100	55	