

" حيث تصبح الرؤية واقعاً "
"When Vision Becomes
Reality"

" عراقة وجودة "
Tradition and Quality

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| Detailed Course Description - Course Plan Development and Updating Procedures/ Department of Software Engineering | QF01/0408-3.0E |
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|------------------------|--------------|----------------------------|-------------------------|
| Faculty | Science & IT | Department | Software-Engineering |
| Course number | 0114482 | Course title | Selected Topics in S.E. |
| Number of credit hours | 3 | Pre-requisite/co-requisite | 0114341 |

Brief course description

Learn to develop your own apps for your Android device. Let us introduce you to Android app programming by giving you a solid foundation so you can imagine, design, create and deploy your own apps. This class will cover the major Android topics such as Views, Activities, Intents, Broadcast Receivers, and Content Providers. It will also cover Location-based services, Sensors and App Deployment.

| Course goals and learning outcomes | |
|------------------------------------|--|
| Goal 1 | Install and Introduce Android Development Environment |
| Learning outcomes | 1.1. Installing and using Android Studio 1.2. Use the development tools in the Android development environment |
| Goal 2 | Introduce Major Components of Android API |
| Learning outcomes | 2.1. Use the major components of Android API set to develop their own apps 2.2. Make UI-rich apps using all the major UI components |
| Goal 3 | Using Java Programming Language and Database in Android Application |
| Learning outcomes | 3.1. Use the Java programming language to build Android apps 3.2. Use SQLite for building local database |
| Goal 4 | Introduction to Activities, Fragments and Action Bar |
| Learning outcomes | 4.1. Describe the life cycles of Activities, Applications and Fragments 4.2. Be familiar with new UI components like Fragments and the Action Bar |
| Goal 5 | Manipulating Data |
| Learning outcomes | 5.1. Store and manipulate data using Content Providers, Shared Preferences and Notifications |
| Textbook | 1. Wei-Meng Lee, Beginning Android™ 4 Application Development (1st Edition), Published by John Wiley & Sons, Inc. 2012 |
| Supplementary references | 1. Paul Deitel, Harvey M Deitel, Android How to Program (3rd Edition), Prentice Hall; 3 edition (January 22, 2016). 2. Paul Deitel, Harvey Deitel, Alexander Wald; Android 6 for Programmers: An App-Driven Approach (3rd Edition); Prentice Hall; 3 edition (December 14, 2015). |

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| Course timeline | | | | |
|-----------------|-----------------|---|------------------|-------|
| Week | Number of hours | Course topics | Pages (textbook) | Notes |
| 01 | 1 1 1 | Getting started with Android programming | 1-33 | |
| 02 | 1 1 1 | Activities, Fragments, and Intents | 35-103 | |
| 03 | 1 1 1 | Understanding Android User Interface | 105-156 | |
| 04 | 1 1 1 | Designing interface with views(Using Basic Views) | 159-177 | |
| 05 | 1 1 1 | Designing interface with views(Using Picker Views and List Views to Display Long Lists) | 179-191 | |
| 06 | 1 1 1 | Designing interface with views (Understanding Specialized Fragments) First Exam (20 %) | 191-214 | |
| 07 | 1 1 1 | Displaying pictures and menus with views | 219-251 | |
| 08 | 1 1 1 | Data Persistence(Saving and Loading User Preferences, Persisting Data to Files) | 251-273 | |
| 09 | 1 1 1 | Data Persistence(Creating and Using Databases) | 273-290 | |
| 10 | 1 1 1 | Content Providers | 293-321 | |
| 11 | 1 1 1 | Messaging(SMS Messaging, Sending E-mail) | 321-351 | |
| 12 | 1 1 1 | Mini-Project Discussion and Second Exam (20 %) | | |
| 13 | 1 1 1 | Location-Based Services | 351-393 | |
| 14 | 1 1 | Networking | 393- 429 | |

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| 15 | 1 1 1 | Developing Android Services | 429-463 | |
| 16 | 1 1 1 | Final Exam 50% | | |

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| Theoretical course evaluation methods and weight | Participation = 10% First exam 20% Second exam 20% Final exam 50% | Practical (clinical) course evaluation methods | Semester students' work = 50% (Reports, research, quizzes, etc.) Final exam = 50% |
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| Approved by head of department | | Date of approval | |
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Extra information (to be updated every semester by corresponding faculty member)

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|---------------------------------|-----------------------|----------------------|-----------------------|
| Name of teacher | Dr. Mohammad Muhairat | Office Number | 309 |
| Phone number (extension) | 446 | Email | drmohairat@zuj.edu.jo |
| Office hours | 9-10 | | |