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| **ISHIK UNIVERSITY FACULTY OF SCIENCE Department of INFORMATION TECHNOLOGY,2017-2018 Spring Course Information for** **IT 351 MOBILE APPLICATIONS** |

|  |  |
| --- | --- |
| **Course Name:** | MOBILE APPLICATIONS |
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|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Code** | **Course type** | **Regular Semester** | **Theoretical** | **Practical** | **Credits** | **ECTS** |
| IT 351 | 2 | 5 | 2 | 2 | 3 |  |

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| **Name of Lecturer(s)-Academic Title:** | Savriddin Halil - MSc |
| **Teaching Assistant:** | Rebin , Sam |
| **Course Language:** | English |
| **Course Type:** | Non-area Elective |
| **Office Hours** | Thursday after 14:00 |
| **Contact:** | Email:savriddin.halil@ishik.edu.iq Tel:-  |
| **Teacher's academic profile:** | BSc Degree in Software Engineering. MSc Degree in Software Engineering. IT Department Head.  |
| **Course Objectives:** | The main objectives behind teaching this Mobile Programming course are the followings: 1 Guide the students towards the way of being a professional mobile programmer/developer by taking this course and its second complement course. Open the door to the IT students in being qualified to get carries in Mobile Apps development and moving them towards this goal. 2 Teach students that they should focus too much on their Apps users\' satisfaction rather than their own willingness. 3 To enable students creating different types of Android Mobile Apps which can be more developed to make a value and be more interesting and beneficial. 4 To enhance IT students programming skills by doing projects in both class and home. |
| **Course Description (Course overview):** | - |
| **COURSE CONTENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Hour** |               **Date**               | **Topic** |
| **1** | 2 | 4-8/2/2018 | Intro to Mobile Programming, and its language and history. Types of Mobile OSs and theirs features. |
| **2** | 2 | 11-15/2/2018 | Build single screen App: Textviews , ImageViews , XML Syntax, Text Size and Color |
|  |  |  |  |
| **3** | 2 | 18-22/2/2018 | Build single screen App: ViewGroups, LinearLayout, Relative Layout, Padding vs. Margin. |
| **4** | 2 | 25/2-1/3/2018 | Score Keeper App: Plan How to Build the Layout, The Need for Variables. |
|  |  |  |  |
| **5** | 2 | 4-8/3/2018 | Score Keeper App: Nested ViewGroups |
| **6** | 2 | 25-29/3/2018 | Score Keeper App: Experimenting with the Code, Declare and Initialize, and using variables for different scenarios, Create the Score and Reset Variables |
|  |  |  |  |
| **7** | 2 | 1-5/4/2018 | Midterm Exam |
| **8** | 2 | 8-12/4/2018 | Defining vs Calling a Method, Add or Remove Parameters |
|  |  |  |  |
| **9** | 2 | 15-19/4/2018 | Output from a Method, From XML to Java |
| **10** | 2 | 22-26/4/2018 | Quiz App: Scrolling Along, Practice with Intents, Localization, Styles, Themes. |
|  |  |  |  |
| **11** | 2 | 29/4-3/5/2018 | Intents and Activities: Implicit vs. Explicit Intents. |
| **12** | 2 | 6-10/5/2018 | Data, Loops, and Custom Classes: When to Use Arrays, ArrayList. |
|  |  |  |  |
| **13** | 2 | 13-17/5/2018 | Using a ListView and Adapter, Build List Item Layout, when to Create a Custom Class, Custom ArrayAdapter |
| **14** | 2 | 20-24/5/2018 | Tour Guide App: Add Image Assets to the App, Multiple Constructors for Word Class, Different Background Colors for List Items |
|  |  |  |  |
| **15** | 2 | 27-31/5/2015 | Final Exam |
| **16** | 2 | 3-7/6/2018 | Final Exam |
|  |  |  |  |
| **17** | 2 | 10-14/6/2018 |  |

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| **COURSE/STUDENT LEARNING OUTCOMES**

|  |  |
| --- | --- |
|  |  |
| **1** | Have the basic knowledge about XML and Android Apps Development and some Java programming concepts. |
| **2** | Plan on how to design an App before starting developing any required Apps. |
| **3** | Creating a neat UI by using the latest Android Studio V 3.1 in apply this knowledge in creating new Apps. |
| **4** | Debug and fix errors that might happen during creating or modifying an App. |

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| **COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES**(Blank : no contribution, I: Introduction, P: Profecient, A: Advanced )

|  |  |  |
| --- | --- | --- |
|  | **Program Learning Outcomes** | **Cont.** |
| **1** | An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution | I |
| **2** | An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs | P |
| **3** | An ability to function effectively on teams to accomplish a common goal | P |
| **4** | An understanding of professional, ethical, legal, security, social, and economic issues and responsibilities | I |
| **5** | An ability to analyze the local and global impact of computing on individuals, organizations, and society | I |
| **6** | An ability to use current techniques, skills, and tools necessary for computing practice | P |
| **7** | An ability to use and apply current technical concepts and practices in the core information technologies of human computer interaction, information management, programming, networking, web systems and technologies | P |
| **8** | An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems | P |
| **9** | An ability to effectively integrate IT-based solutions into the user environment | I |
| **10** | An ability apply problem solving skills, core IT concepts, best practices and standards to information technologies | P |
| **11** | An ability to identify and evaluate organizational requirements and current and emerging technologies | I |
| **12** | An ability to select, design, integrate and administer IT-based solutions into the organizational environment | I |

 |
| **Prerequisites (Course Reading List and References):** | java Programming Language |
| **Student's obligation (Special Requirements):** | Nil |
| **Weekly Laboratory/Practice Plan:** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Hour** |               **Date**               | **Topics** |
| 1 | 2 | 4-8/2/2018 | Introduction to Android IDE |
| 2 | 2 | 11-15/2/2018 | Build single screen App: Building Layouts |
|  |  |  |  |
| 3 | 2 | 18-22/2/2018 | Build single screen App: Build single screen App: Practice Set 1 (Styling images, fonts, colors, Happy New Year Card App). |
| 4 | 2 | 25/2-1/3/2018 | Score Keeper App: Debugging a Crash, Update Data on Screen, Update a Variable in the App. |
|  |  |  |  |
| 5 | 2 | 4-8/3/2018 | Score Keeper App: Build the Quantity Picker Layout, String Data Types and combining them together or with Integer. |
| 6 | 2 | 25-29/3/2018 | Score Keeper App: Test the app functionality |
|  |  |  |  |
| 7 | 2 | 1-5/4/2018 | Midterm Exam |
| 8 | 2 | 8-12/4/2018 | Quiz App: Java Object and Class, Find View by Id, Set Data on Views, Read Data from Views, Logs types. |
|  |  |  |  |
| 9 | 2 | 15-19/4/2018 | Quiz App: Adding a CheckBox , Boolean Data Type, Conditional Code, Relational Operators. |
| 10 | 2 | 22-26/4/2018 | Intents and Activities: Import an Existing Project, Create New Activities, AndroidManifest.xml File, use an Intent to Open Another Activity |
|  |  |  |  |
| 11 | 2 | 29/4-3/5/2018 | Intents and Activities: Event Listeners in Android |
| 12 | 2 | 6-10/5/2018 | Data, Loops, and Custom Classes: Switch from Array to ArrayList, Intro to Loops, View Recycling. |
|  |  |  |  |
| 13 | 2 | 13-17/5/2018 | Tour Guide App: Add Image Assets to the App, Multiple Constructors for Word Class, Different Background Colors for List Items |
| 14 | 2 | 20-24/5/2018 | Tour Guide App: MediaPlayer Class, Handling Touch Events On A ListView, Request Audio Focus |
|  |  |  |  |
| 15 | 2 | 27-31/5/2015 | Final Exam |
| 16 | 2 | 3-7/6/2018 | Final Exam |
|  |  |  |  |
| 17 | 2 | 10-14/6/2018 |  |

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| **Course Book/Textbook:** | Main text books: 1. Colin Eberhardt, Matt Galloway: Swift by Tutorials: A Hands-on Approach, raywenderlich.com, 2014. 2. Mark Murphy: The Busy Coder's Guide to Android Development, 2014. 3. Bill Phillips, Brian Hardy: Android Programming: The Big Nerd Ranch Guide, 2013. 4. Reto Meier: Professional Android 4 Application Development, 2012. |
| **Other Course Materials/References:** | Android Developers Website and Tutorial Points: https://developer.android.com/guide/index.html https://www.tutorialspoint.com/android/index.htm |
| **Teaching Methods (Forms of Teaching):** | Lectures, Practical Sessions.l, Excersises, Presentation, Project |
| **COURSE EVALUATION CRITERIA**

|  |  |  |
| --- | --- | --- |
| **Method** | **Quantity** | **Percentage (%)** |
| Quiz.l | 1 | 10 |
| Project | 1 | 15 |
| Midterm Exam(s).l | 1 | 20 |
| Presentation | 1 | 5 |
| Lab/Practical Exam(s).l | 1 | 10 |
| **Total** | **60** |
| **Examinations:**Essay Questions, True-False, Fill in the Blanks, Multiple Choices, Short Answers, Matching |  |  |

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| **Extra Notes:** |
| **ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activities** | **Quantity** | **Duration (Hour)** | **Total Work Load** |
| Course Duration (Including the exam week: 16x Total course hours) |  |  | 0 |
| Hours for off-the-classroom study (Pre-study, practice) |  |  | 0 |
| Assignments Mid-terms |  |  | 0 |
| Final examination |  |  | 0 |
| Other |  |  | 0 |
| **Total Workload** | **0** |
| **ECTS Credit (Total workload/25)** | **0** |

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**Peer review**

|  |  |  |
| --- | --- | --- |
| Signature: | Signature: | Signature: |
| Name: | Name: | Name: |
| Lecturer                                                                       | Head of Department                                                         | Dean |

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