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|  | Hashemite University                                                 |  |
|                                                                                   | Prince Al-Hussein bin Abdullah II Faculty for Information Technology |                                                                                     |
|                                                                                   | Department of Computer Science and its Applications                  |                                                                                     |

## Course Syllabus

**Year: 2018-2019**

**Semester: (1)**

| Course No. | Course Title                       | Designation | Prerequisite | Co-requisite | Credit Hours<br>Lectures /Lab. |
|------------|------------------------------------|-------------|--------------|--------------|--------------------------------|
| 1510011110 | Object Oriented Programming<br>(1) | Required    | 151001101    | -            | 3/ 0                           |

| Instructor Name   | E-mail              | Office No. | Office ext. | Office Hours          |
|-------------------|---------------------|------------|-------------|-----------------------|
| Alaa Eddien Attar | aabdallah@hu.edu.jo | 235        | 4683        | Sun, Tue, Thu (11-12) |

|                            |                    |
|----------------------------|--------------------|
| <b>Coordinator's Name:</b> | Dr. Ahmad Aloqaily |
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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course Description</b> | <p>The course enables you to understand the basic principles of programming. The language used for the course is Java, chosen because it supports object oriented programming and because it is becoming widely used in industry.</p> <p>The course will include discussions and explanations of the following topics: introduction to programming; writing, compiling, and running simple programs; expressions, variables, and assignments; control structures; objects and classes, methods, and arrays.</p> |
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| <b>a) Textbook(s):</b>                                                                                                                                                                                                                   |
| 1. Liang, Y. Daniel (2010) Introduction to Java Programming Comprehensive Version, Eighth Edition. The course covers the material in the first nine chapters of the book; the remaining chapters will be covered in Object Oriented (2). |
| <b>b) Additional References:</b>                                                                                                                                                                                                         |
| 1. <a href="http://www.java.sun.com">www.java.sun.com</a>                                                                                                                                                                                |
| 2. Deitel&Deitel, Java: How to Program, 9 <sup>th</sup> edition , Prentice Hall, 2011.                                                                                                                                                   |
| <b>Course Learning and Outcomes CLOs</b>                                                                                                                                                                                                 |
| 1. <b>Distinguish</b> computer's basic concepts, computer programs, history of the Java programming language. (i)                                                                                                                        |

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| 2. In depth <b>understanding</b> syntax and semantics of Java and demonstrate knowledge of Java language specification, API, JDK, and IDE. (i) |
| 3. Be able to <b>apply</b> control structure (selection and loops) in designing Java applications. (c)                                         |
| 4. Demonstrate the ability to use methods in Java program flow. (c)                                                                            |
| 5. Be able to <b>apply</b> arrays and Strings in designing Java applications. (c)                                                              |
| 6. Be able to <b>apply</b> Object-oriented concepts in designing Java applications. (c)                                                        |
| 7. <b>Develop</b> complete Java programs using various Java programming language constructs. (c)                                               |
| <b>Addressed Student Learning Outcomes (SLOs)</b>                                                                                              |
| c and i                                                                                                                                        |

| Topic Details                | Course ILO number | Reference | No. of Weeks | Contact hours* |
|------------------------------|-------------------|-----------|--------------|----------------|
| 1. Introduction to programs  | 1                 | Ch1       | 1            | 3              |
| 2. Elementary Programming    | 2                 | Ch2       | 1            | 3              |
| 3. Selections                | 3                 | Ch3       | 2            | 6              |
| 4. Loops                     | 3                 | Ch4       | 2            | 6              |
| 5. Methods                   | 4                 | Ch5       | 2            | 6              |
| 6. Single-Dimensional Arrays | 5                 | Ch6       | 2            | 6              |
| 7. Multi-Dimensional Arrays  | 5                 | Ch7       | 2            | 6              |
| 8. Objects and Classes       | 6                 | Ch8       | 2            | 6              |
| Total                        |                   |           | 14           | 42             |

| Assessment method | Grade | Comments                 |
|-------------------|-------|--------------------------|
| First Exam        | 25%   | Covers Chapters 1-4      |
| Second Exam       | 25%   | Covers Chapters 5-7      |
| Quiz              | 10%   | Covers Files and Strings |
| Final Exam        | 40%   | Covers Chapters 1-8      |
| Total             | 100%  |                          |