

Model 4.2

**Faculty member + student**

Course syllabus for. Programming Language I.....

**1. Faculty member information:**

**Name of faculty member responsible for the course**

Course Coordinators: Mai Alduailij and Hadil Shaiba

Office Hours

Office Number

2.501.42 and 2.501.9

Email

[mai.alduailij@gmail.com](mailto:mai.alduailij@gmail.com) and [hadil.shaiba@gmail.com](mailto:hadil.shaiba@gmail.com)

**2. Course overview and general information:**

College / Department

Computer Science And Information\ Computer Science

Course Name and code

**CS110 Programming Language I**

Number of credit hours

4 hours

Program or programs that offer this course

**General elective**

Year/course level

First semester 1437-1438 \ level 1

Prerequisites for this course (if any)

Current requirements for this course (if any)

Site (to be given if not inside the main building of the institution)

### 3. Objectives of the course:

**1- Provides an introduction to basic, concepts, terminologies and methodologies of structured programming.**

**2- Gives experience in applying algorithm design and depicting methods like pseudo code and flowcharts.**

**3- Develops practical skills needed for coding, tracing, debugging, and building solutions to problems, with the use of a high-level programming language.**

#### 4. Course description:

Week	Date	Topic	Activity	Intended learning outcomes	Assessment methods
1	17/12/1437 18/9/2016	<b>Introduction:</b> Course Info			
2	24/12/1437 25/9/2016	<b>Algorithmic Problem Solving</b> a) Problem solving, algorithms and Pseudo code b) Flow charts c) Introduction to Computers, programming,	LAB 1 ✓ on-lab exercise ✓ assignments	2.1, 2.4, 3.1	<b>Exams, assignments, and</b>
3	1/1/1438 2/10/2016	<b>Java basics I:</b> a) Basics of a java program b) Memory, variables, and Data Types c) I/O operations	LAB 2 ✓ Practical lab ✓ Assignments	1.1, 2.2	
4	8/1/1438 9/10/2016	<b>Java basics II:</b> a) Arithmetic Operations b) Using Constants, Comments c) programming style and Debugging	LAB 3 ✓ Practical lab ✓ Assignments ✓	1.1, 2.2	
5	15/1/1438 16/10/2016	<b>Introduction to Classes:</b> a) Encapsulation, Defining classes, instantiating objects, b) private vs. public access, c) constructors and overloaded constructors.	LAB 4 ✓ Practical lab ✓ Assignments ✓	1.1, 1.2, 1.3, 2.2, 3.1	
6	22/1/1438 23/10/2016	<b>Decisions:</b> a) Boolean Expressions & Relational Operators	LAB 5 ✓ Practical lab ✓ Assignments	1.1, 2.2, 2.3, 3.1	
7	29/1/1438 30/10/2016	<b>Mid-term Exam 1</b> a) Revision	Exam includes		



		b) <b>EXAM DAY</b> 1/2/1438 c) Exam solution	topic from <b>Week#1</b> to the <b>end of Week#5</b>		
<b>8</b>	6/2/1438 6/11/2016	<b>Control Structures:</b> a) if statements b) switch statements c) Tutorial from end chapter question	LAB 6 ✓ Practical lab ✓ Assignments		
<b>9</b>	10/2/1438 – 17/2/1438	<b>Mid First Semester Break</b>			
<b>10</b>	20/2/1438 20/11/2016	<b>Loops I:</b> a) while Looping b) do_while Loops c) for loops	LAB 7 ✓ Practical lab ✓ Assignments	1.1, 2.2, 2.3, 3.1	
<b>11</b>	27/2/1438 27/11/2016	<b>Loops II</b> a) break & continue b) nested loops c) nested control structures	LAB 8 ✓ Practical lab ✓ Assignments ✓	1.1, 2.2, 2.3	
<b>12</b>	5/3/1438 4/12/2016	<b>Mid-term2 week</b> a) revision b) <b>EXAM DAY</b> 7/3/1438 c) Exam solution	Exam includes topic from <b>Week#6</b> to the <b>end of Week#11</b>		
<b>13</b>	12/3/1438 11/12/2016	<b>Methods I:</b> a) Predefined Methods b) User-Defined Methods c) Parameters and casting	LAB 9 ✓ Practical lab ✓ Assignments ✓	1.1, 1.2, 2.2, 2.4, 3.1	<b>Exams, assignments, and case studies</b>
<b>14</b>	19/3/1438 18/12/2016	<b>Methods II:</b> a) Returning values b) Scope & Method-Call Stack c) Overloading	LAB 10 ✓ Practical lab ✓ Assignments	1.1, 1.2, 2.2, 2.4	
<b>15</b>	26/3/1438 25/12/2016	<b>Arrays I:</b> a) What is an array? b) Array processing c) Passing arrays to methods	LAB 11 ✓ Practical lab ✓ Assignments	1.1, 1.2, 2.2, 3.1	
<b>16</b>	3/4/1438 1/1/2017	<b>Multidimensional Arrays :</b> a) Declaration and initialization b) processing c) Case study	LAB 12 ✓ Practical lab ✓ Assignments	1.1, 1.2, 2.2	

## 5. Books and references:

- [1] **Java Programming From Problem Analysis To Program Design**, By D.S. Malik, Fifth Edition.  
[2] *Java : how to program* , P.J. Deitel, H.M. Deitel. -- 9th ed.

## 6. Assessment methods and the division of grades:

Assessment method (Write an essay - test - a collective project - a final test ...)	Assessment Week	Grade	Percentage from overall grade	Comments
Mid Term 1	7	10	10%	
Mid Term 2	12	10	10%	
Participation & Lecture Assignments	Every class	5	5%	
Pop Quizzes	4 /semester	5	5%	
Lab Assignments	Weekly	5	5%	
Lab Work	Weekly	5	5%	
Practical Exam	Week 16	20	20%	
Final Exam	After 16	40	40%	

## 7. Important Instructions:

- **You must attend every class for the following reasons:**
  - *Course work is accumulative; missing one lecture will affect your understanding of the next lecture.*
  - ***Pop quizzes** will be given without previous notice, missing a pop quiz will affect your grade and there will be no makeup quizzes.*
  - *Your instructor will call on your name each class to ask you questions about the previous lecture that will be counted towards your participation grades.*

- *You will be marked absent. Medical excuses do not remove the absence.*
- **You MUST study from the textbooks and not only the slides**
- **Always check the course website for any announcements.**
- **You must ask questions** if you are not sure about anything. Ask questions during class or during office hours. We are here to help you.
- **Be prepared for pop quizzes** by studying the required materials once given to you.
- **You must participate** in class and ask questions. Participation will be counted towards your final grade.
- **You will be asked to engage in groups to do class work. You must work with your group and maintain teamwork ethics.**
- **You are required to take off your Abayah** while in class. Students who are wearing Abayas will be counted absent.
- **Food and Drinks** are not allowed in class. Students who bring food or drink to class will be counted absent.
- **Your phone should be put on SILENT and kept INSIDE your bag during class.** Students who take their phones out of the bag during class will be counted absent.
- **You must do your homework** yourself. Students who seek external help to do the assignments or any course work will not get the grade and will be counted cheating. If you have any questions about the assignments or any course work, ask your TEACHER.
- **The ONLY way to learn a programming language is to write programs in that language.**
- **You MUST attempt to solve many different problems.**
- **You MUST examine and implement many different programs.**
- **You MUST see different ways of doing the same thing to compare them and learn the best computational way.**