QFO-AP-FI-MO02	اسم النموذج: Course Syllabus	جامعة فيلادلفيا Philadelphia University
رقم الاصدار : 1 (Revision)	الجهة المصدرة: كلية تكنولوجيا المعلومات	
التاريخ :2017/11/05	الجهة المدققة: عمادة التطوير والجودة	
عدد صفحات النموذج:		

Course Syllabus

Course Title: Object Oriented programming	**Course code: 721220**
Course Level: 2	**Course prerequisite (s) and/or corequisite (s):** 750114
Lecture Time: 12:45-2:00	**Credit hours: 3**

Academic Staff Specifics

Name	Rank	Office	Office Hours	E-mail Address
Enas Naffar	Lecturer	**IT3**33		naffar@philadelphia.edu.jo

Course module description:

This course covers the following major topics: Introduction to Object Oriented Thinking, Understanding Class Definition, Object Interaction, Grouping Objects, Using Library Classes, Information Hiding, Inheritance, Polymorphism, Overriding, Abstract Classes, Abstract Methods, Interfaces, Exception Handling, and Designing Applications.

This module will provide the student with a framework for thinking about object-oriented concepts and the main focus of this course is general object-oriented and programming concepts from a software engineering perspective.

Course module objectives:

The module aims to

- develop an understanding of the principles of the object-oriented paradigm.
- provide familiarity with approaches to object-oriented modelling and design.
- provide a familiarity with the syntax, class hierarchy, environment and simple application construction for an object-oriented programming language.

Course/ module components

This course involves the following parts:

- Abstract data type (ADT)
- Abstraction
- Encapsulation and information hiding
- Classes and objects
- Object interaction
- Inheritance (generalization and specialization)
- Polymorphism
- Exception Handling

Text book:

Title: "C# 2012 for Programmers".
Author(s)/Editor(s): Paul Deitel and Harvey Deitel.
Publisher: Prentice Hall; 5 edition

In addition to the above, the students will be provided with handouts by the lecturer.

Support materials

Slides, and laboratory guide

Teaching methods:

Duration: 16 weeks, 64 hours in total
Lectures: 48 hours, 3 per week (2 of them are for the first and second 1-hour exams)
Optional Tutorials/Lectures: 10 from 48 hours
Lab : 16 hours

Learning outcomes:

- Knowledge and understanding

  When you complete this module, you will:
  - Acquire a full Object Oriented Thinking
  - Have a clear understanding of the object-oriented concepts such as objects, classes, inheritance, and polymorphism.
  - Have an informal understanding of the operational semantics of object-oriented programs in terms of creation of objects and messages passing between them.

- Cognitive skills (thinking and analysis).
  - Be able to design small object oriented programs which meet requirements expressed in English, with a strong software engineering foundation
  - Have knowledge of Object Oriented Design guidelines.

- Communication skills (personal and academic).
  - Be able to code small software systems in Java language.
  - Be able to maintain large, high-quality software systems

- Practical and subject specific skills (Transferable Skills).
- Developing different projects using java programming language.

Assessment instruments

- Quizzes: weekly
- Home works: every two weeks
- Final examination: 40 marks

Allocation of Marks		
Assessment Instruments	**Date**	**Mark**
First examination		**20 %**
Second examination		**20 %**
Final examination		**40 %**
Quizzes, Home works		**20 %**
Total		**100%**

** Make-up exams will be offered for valid reasons only with consent of the Dean. Make-up exams may be different from regular exams in content and format.*

Practical Submissions

The assignments that have work to be assessed will be given to the students in separate documents including the due date and appropriate reading material.

Documentation and Academic Honesty

Submit your home work covered with a sheet containing your name, number, course title and number, and type and number of the home work (e.g. tutorial, assignment, and project).

Any completed homework must be handed in to my office (room IT ---) by 15:00 on the due date. After the deadline "zero" will be awarded. You must keep a duplicate copy of your work because it may be needed while the original is being marked.

You should hand in with your assignments:

1- A printed listing of your test programs (if any).
2- A brief report to explain your findings.
3- Your solution of questions.

Protection by Copyright

1. Coursework, laboratory exercises, reports, and essays submitted for assessment must be your own work, unless in the case of group projects a joint effort is expected and is indicated as such.
2. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.

3. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.

Avoiding Plagiarism.

1. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.
2. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.
3. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.
4. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extent and proportion of the work that has been plagiarized, and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).

Course/module academic calendar

Week	Basic and support material to be covered	Homework and their due dates	Status
(1, 2)	Introduction: Classes, Objects, Methods, and Properties	**2 Assignments**	
(3, 4)	A method deeper Look: static Methods, static Variables, Scope of Declarations, and Method Overloading,	**2 Assignments**	
(5)	Grouping Objects : Declaring and Creating Arrays, Array of Object, and Generic Collection	**2 Assignments**	
(6) **First examination**	Classes and Objects A Deeper Look: Data Abstraction and Encapsulation, Controlling Access to Members, static Class Members, Referring to the Current Object's, Overloaded Constructors, and Composition	**3 Assignments**	
(7, 8)	Inheritance : Base Classes and Derived Classes, protected Members, Relationship between Base Classes and Derived Classes, Constructors in Derived Classes, and Class object	**1 Assignment**	
(9, 10)	Polymorphism: Polymorphic	**1 Assignment**	

	Behavior, Abstract Classes and Methods, Using Interfaces		
(11, 12) Second examination	Inheritance : Base Classes and Derived Classes, protected Members, Relationship between Base Classes and Derived Classes, Constructors in Derived Classes, and Class object	**1 Assignment**	
(13, 14)	Polymorphism: Polymorphic Behavior, Abstract Classes and Methods, Using Interfaces	**1 Assignment**	
(15)	Exception Handling	**1 Assignment**	
(16) Final Examination	Revision		

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Module references

Students will be expected to give the same attention to these references as given to the Module textbook(s)

1. David J. Barnes and Michael Kolling, Object First with Java, A practical introduction using Blue J, Publisher: Prentice Hall, Pearson Education, : 2nd, 2005
2. Eric Gunnerson, "A Programmer's Introduction to C#", Apress 2000.
3. Anders Hejlsberg et.al. " C# Language Reference", Microsoft Corporation 2000.
4. Erric Buttow et al. "C#, your visual blueprint for building .Net application", Hungry Minds 2002.
5. Charles Carroll, "Programming C#", O'Reily & Associates 2000.

Websites

www.c-sharpcorner.com
www.csharphelp.com
www.deitel.com