جامعة الخليج للعلوم والتكنولوجيا GUST SINCE 2002 Gulf University For Science & Technology

Department of Computer Science

CSC 125 Object Oriented Programming I

(3 contact hours – 2 lab hour - 3 credits)

Syllabus[1]

- **General Information**

Instructor	
Office	
Phone	
Class Time	
Class Location	
Office Hours	
Teaching Assistant	

- **Required Textbook**

Introduction to Java Programming: Brief Version, 10th Edition, by Y. Daniel LiangISBN-13: 978-0133592207 **Publisher:** Pearson; 10 edition.

- **Supplementary Textbook**

Objects First with Java: A Practical Introduction Using BlueJ, *5th Edition*, David J. Barnes, Michael Kölling, Pearson, 2011.

- **Course Description**

Programming fundamentals from an object oriented design perspective. Topics include: basic procedural concepts, objects, classes, interface, methods, encapsulation, information hiding, and inheritance.

- **Course Prerequisites**

CSC 122

- **Course Category**

Required

[1] **This syllabus may change as needed. In such a case, students will be informed accordingly**

- **Course Outcomes:**

  At the completion of this course, students will be able to:

  1. Describe and use basic principles of object oriented programming (OOP). [ABET a]
  2. Analyze a simple problem based on its natural language description and design an object oriented solution. [ABET b, c]
  3. Convert basic UML class design into a computer program. [ABET c, i]
  4. Construct maintainable code by using good design and code conventions [ABET a]
  5. Use appropriate software development tools that support OOP. (Lab) [ABET c, i]

- **Tentative Schedule**

Topic	**Week**
Syllabus and Review	1
Ch1: Objects and classes	2,3,4
Ch2: Understanding class definitions	5,6
Ch3: Object interaction	7,8
Ch4: Grouping objects	9,10,11
Ch5: More sophisticated behavior	12,13
Ch7: Well-behaved objects	14.15

- **Grading Scheme**

Lab Work	**10%**
Programming Assignments	**10%**
Quizzes	**15%**
Midterm Exam	**25%**
Final Exam	**40%**