Course Information

Course Number/Section	MIS 6323.0W1
Course Title	Object Oriented Systems
Term	Fall 2016

Professor Contact Information

Professor	Dr. Radha Mookerjee
Office Phone	972-883-2415
Office Location	SOM 3.209
Online Office Hours	Tuesdays 4:00 – 5:30
Other Information	email via eLearning only

About the Instructor

Dr. Radha Mookerjee has been a faculty in the Naveen Jindal School of Management, University of Texas at Dallas, since Spring 2002. Prior to this she was a Computing Architect in the Computing Architecture and Design group at The Boeing Company before taking on the role of the Director of IT at the School of Business, University of Washington. She has also taught at Purdue University and University of Washington. Her research interests include software maintenance, IT security, online user-generated content and online advertising. Her research has been published in many of the leading IS journals.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Since this is an introductory course, there are no prerequisites in terms of prior course-work. However, it is expected that student have basic operational experience with computers and the ability to learn advanced programming concepts quickly. This is a course which ramps up in difficulty fairly quickly so students, particularly those with no prior programming experience, should be prepared to put in a lot of effort and time into this course.

Course Description

The growth of computing and processing power has led to the increasing importance of software in the world today. The search for better ways of developing software that will be delivered on time with the desired functionality, with few errors and a relatively low cost to maintain is ongoing.

From ad-hoc methodologies in the early 70s, programmers adopted structured techniques through the 80s. It was only in the 90s that Object Oriented (OO) methodologies and technologies were adopted widely. This was largely driven by the need for event-driven programs and ease of maintenance.

Though Java, as a programming language was introduced with the purpose of having a "compile once, run everywhere" property, the ease of construction and maintenance has led to its successful adoption in industry.

In this course students will be introduced to basic concepts of Software development and the development of Object Oriented systems. The Java programming language will be used in order to give a more practical approach to instruction.

Student Learning Objectives/Outcomes

The objective of the course is to introduce students to the basic principles of object oriented systems using Java as the medium. Topics the students will learn by the end of the semester are:

- 1. Learn Object Oriented Principles
- 2. Be able to interpret and debug programs written in Java
- 3. Be able to write programs of moderate complexity in Java

Required Textbooks and Materials

Required Texts

JAVA: An Introduction to Problem Solving & Programming, Walter Savitch, Prentice Hall, 7th Ed.

Required Materials

A computer with reasonable processing power and the Java 8 SDK. You will also need a text editor like TextPad capable of compiling and executing Java programs.

Textbooks and some other bookstore materials can be ordered online through Off-Campus Books http://www.offcampusbooks.com or the UT Dallas Bookstore http://www.bkstr.com/texasatdallasstore/home. They are also available in stock at both bookstores.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements http://www.utdallas.edu/elearning/students/getting-started.html#techreqs on the Getting Started with eLearning webpage

http://www.utdallas.edu/elearning/students/getting-started.html.

Course Access and Navigation

The course can be accessed using the UT Dallas NetID account at: https://elearning.utdallas.edu. Please see the course access and navigation http://www.utdallas.edu/elearning/students/gettingstarted.html#courseaccessandnav section of the site for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials http://www.utdallas.edu/elearning/students/eLearningTutorialsStudents.html.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The eLearning Support Center http://www.utdallas.edu/elearninghelp services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the eLearning Tutorials webpage http://www.utdallas.edu/elearning/students/eLearningTutorialsStudents.html for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students page <u>http://www.utdallas.edu/elearning/students/cstudents.htm</u> for details.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk http://www.utdallas.edu/elearninghelp. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Assignments & Academic Calendar

Week	Торіс	Book Chapters	Assessment / Activity	Due Date
1 08/22	Course Access and Self-Orientation		Self-intro	08/23/16
1 08/22	Course Introduction Introduction to Software Development and OO concepts	1		
2 08/29	Java: Basic Computation	2	Assignment 1	09/12/16
3 09/05	Java: Flow of Control	3, 4	Assignment 2	09/26/16
4 09/12	Java: Defining Classes, Methods and Objects	5	Assignment 3	10/10/16
5 09/19	Java: Defining Classes, Methods and Objects	6		
6 09/26	Java: Arrays	7		

7 10/03	Test 1	Chapters 1 - 7		Oct 7 th - Oct 8 th
8 10/10	Java: Inheritance	8	Assignment 4	11/14/16
9 10/17	Java: Inheritance	8		
10 10/24	Java: Exception Handling	9		
11 10/31	Java: Stream and File I/O	10		
12 11/07	Java: GUI using Swing	13 and 15 Chapters can be accessed from course website	Assignment 5	11/28/16
13 11/14	Java: GUI using Swing	13 and 15		
14 11/21	Java: Dynamic Data Structures			
15	Test 2	Chapters 8,9,10,12,13 ,15		Dec 2 nd - Dec 3 rd

Proctored Final Exam Procedures

Your course has a proctored exam requirement, please see the Student Success Center Proctored Exam website <u>http://www.utdallas.edu/studentsuccess/testingcenter/proctored_exams/index.html</u> to make arrangements.

There will be **two Proctored online tests** for this course as shown in the course schedule below. You have approximately a two-day window to complete each test within the specified time limit. Both Test 1 and Test 2 will consist of True/False, Multiple-Choice and Fill in the Blank types of questions as well as questions involving coding, finding errors, etc. Test 1 covers chapter 1-7 and Test 2 covers the rest of the chapters. The time limit for each test is 2 hours and 30 minutes. The tests are designed to be open-book and open-notes. You may refer to any printed or written material while taking the test. However, no collaboration with any living source will be permitted.

This course requires a proctored final examination. Local students can now take their exams oncampus at the UTD Student Success Center - Testing Center (no fee charge) during October 7th and 8th for Test 1 and Dec 2nd and Dec 3rd for Test 2 in the Testing center. Please see the <u>UTD</u> <u>Student Success Center - Testing Center Website</u> for more information and check the hours of operation and testing center policies. Please be sure to view and follow the **Test Center Student Guidelines** found on the Testing Center main page. All students are required to make an appointment using the **RESERVE-A-SEAT** application found on the Testing Center main page to take the exam during the required exam test window as specified. The UTD Testing Center is located at the McDermott Library basement (**Room MC 1.304**). When you arrive to take your exam, you will sign in with your **Comet Card** (or **a photo ID & UTD ID number** if you do not have a Comet Card).

Students who find UTD geographically inconvenient may use a testing service of their choice at a convenient location to have the exam proctored. **Please note the location must have internet access since you will be taking the exam online.** All exams must be completed within this required exam time window: Oct 7th and 8th for Test 1 and Dec 2nd and Dec 3rd for Test 2. All students must inform the instructor when taking an exam off campus. A proctored exam application must be completed before September 16th. Please go to the <u>Proctored Exam</u> Information page to check out Procedures for Arranging an Individual Proctored Exam and to access and complete the Online Proctored Exam application. Please note students are responsible for any fee charge of their testing services.

The UTD Testing Center requests all students strictly follow the proctored exam scheduling deadlines. If any student needs special accommodations, please seek the instructor's approval in advance. If you have any questions about using either UTD or outside testing center service, please email <u>TestingCenter@utdallas.edu</u>.

Grading Policy

Weights

Assignments	30%
Test 1	35%
Test 2	35%
Total	100%

Approximate Grading Scale

Scaled Score	Letter Equivalent
94 - 100	А
86 - 93	A-
81 - 85	B+
76 - 80	В
71 - 75	B-
66 - 70	C+

60-65	С
Less than 60	F

Grading Policy

Grades will be based on student performance relative to other students who have completed this course in the past. Adherence to instructions will be considered an important part of the grade.

Assignments

1. *Class Assignments*: There will be five homework assignments and will count towards 30% of the final grade. Note that the first three assignments will be worth 5% each. The fourth one will be worth 9 points and the last one will be worth 6 points.

2. Test 1 (35%): Oct 7th and Oct 8th

3. Test 2 (35%): Dec 2nd and Dec 3rd

Note:

- All five assignments are individual assignments.
- You must submit original, independent intellectual work for all academic exercises.

Assignment submission instructions: You will submit all your assignments (in the required file format with a simple file name and a file extension) by using the Assignments tool on the course site. To submit your assignment, click the assignment name link and follow the on-screen instructions to upload and submit your file(s). For additional information on how to submit assignments, view the <u>Submitting An Assignment video tutorial</u>

Please note: each assignment link will be deactivated after the assignment due time. After your submission is graded, you may click each assignment's "Graded" tab to check the results and feedback.

Unless otherwise stated, ONLY the source code (.java files) for all the java programs should be submitted. All source code must be put into a compressed file and submitted as required in the homework document. **Any program which does not compile in a standard environment will be automatically given a grade of zero.** If you use an IDE like NetBeans or Eclipse, you must make sure that your program will correctly compile on another computer in a standard environment (either the command prompt, or with a text editor) before submission.

Course Policies

Make-up exams Will be allowed ONLY under emergency situations with the **prior** permission of the instructor.

Extra Credit There are no assignments for extra-credit.

Late Work Will not be accepted under any circumstances Special Assignments None.

Class Participation

Students are required to login regularly to the online class site. The instructor will use the tracking feature in eLearning to monitor student activity. Students are also required to participate in all class activities such as discussion board, chat or conference sessions and group projects.

Virtual Classroom Citizenship

The same guidelines that apply to traditional classes should be observed in the virtual classroom environment. Please use proper netiquette when interacting with class members and the professor.

Policy on Server Unavailability or Other Technical Difficulties

The university is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the UTD eLearning Help Desk: <u>http://www.utdallas.edu/elearninghelp</u>, 1-866-588-3192. The instructor and the UTD eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.