Course	ITSS 3312.5U1– Object Oriented Programming
Instructor	Dr. Ram Laksnarain
Term	Summer 2016
Meetings	Th - 6:00 p.m. – 10:00 p.m. Room: JSOM 2.106

Instructor:	Dr. Ram Laksnarain
Email:	ram.laks@utdallas.edu; Use e-Learning email feature to correspond with the instructor
Office Hours:	Office 3.604 (3rd floor SOM) Thursdays 11 A.M. to 1 P.M. (By appointment on other days)
TA Contact	TBD

Prerequisites

ITSS3211, MATH 1326, and MATH 2333 or OPRE 3333 or MATH 2418

Course Description

The primary objective of this course is to introduce students to the fundamental concepts and techniques of object-oriented programming in Java programming language using a popular integrated development environment (IDE). Other advanced topics that are covered during the course are data structures, exception handling, basic I/O techniques, and GUI programming. (3 semester hours)

Course Learning Objectives

1. Students will be introduced to Eclipse that is currently the most popular Integrated Development Environment (IDE) for Java development. Students will learn to use the IDE in creating projects, writing programs, compiling, and running their Java programs.
2. Students will learn the key concepts of object-oriented programming: abstraction, encapsulation, inheritance, and polymorphism.
3. Students will develop programming skills to develop object-oriented programs in Java. Students will improve the skills of programming using different programming techniques such as selections, loops, etc., with basic data structures like arrays.
4. Students will learn and develop advanced skills, such as OO GUI programming with Java.

Required Texts & Materials

Suggested Textbooks

1) Introduction to Java Programming, 10th Edition, by Y. Daniel Liang
Pearson Education Inc., publishing as Prentice Hall
(ISBN-10: 0-13-359220-0; ISBN-13: 978-0-13-359220-7)

Suggested Texts, Readings, and Materials

Tutorials: http://docs.oracle.com/javase/tutorial/

Required Software: Java JDK

→ For Window OS Users

Java JDK - Java SE 8 (Choose the latest update U91 or 92)

Important Note: Many editions, versions, and updates of Java JDK are available for downloads. Students must be sure that the correct version of Java JDK is selected, downloaded, and installed: Edition: Standard Edition (SE), Version: 8, Update: 91 or 92

There are 2 versions of the Java JDK, 32-bit and 64-bit, available for downloads. Students should use the 32-bit version no matter which version (32-bit or 64-bit) of the Windows operating system is installed in their laptop. (**Notes**: it is normal to install 32-bit software applications to run on the x64 Windows 7 operating system)

Free download of Java JDK – Java SE 8 Update
Link: http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Java JDK file name to download for 32-bit: jdk-8u65-windows-i586.exe

→For MAC OS X Users (x64: 64 bits)

Free download of Java JDK – Java SE 8 Update 65
Link: http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Java JDK file name to download for MAC OS X x64: jdk-8u65-macosx-x64.dmg

Required Software: Eclipse IDE / NetBeans for Java Developers

Free download of Eclipse: ZIP file download
OR
Installer download

Free download of NetBeans: https://netbeans.org/downloads/

Download Standard SDK and not the EE version
My in-class examples will be running on NetBeans. Occasionally I may use Eclipse.

Important Notes: Many packages of Eclipse IDE are available for downloads. Students must be sure that the correct package of Eclipse (**Eclipse IDE for Java Developers**) is selected, downloaded, and installed.

Supporting Computing Resources

All the required software applications are currently available in JSOM labs PCs. Students can use these PCs for their class work whenever the labs are open.

Course Schedule, Assignments, and Due Dates

The following is the tentative schedule for summer and may not reflect changes discussed in the class during the contact hours. Changes may be posted on eLearning.

WEEK	CONTENT / READINGS	ASSIGNMENTS
Week 1-4	Introduction to the Course Introduction to IDE – Eclipse/NetBeans Review OOP and revisit Object and Classes, Attributes and Methods Private, Public and Protected Access Modifiers for variables and methods. Review of Java programming. Discuss basic constructs and program structures. Introduce variable types – primitive and user defined (non-primitive) and input and output methods and controls. Introduction to Data structures – Arrays – 1-D and N-D Java programming constructs – Controls, decisions and loops, recursions, and iterators. Work with hands on in-class programming examples. All assignments are due in a week before the deadline specified in eLearning. No exceptions will be allowed.	Programming Set 1 Programming Set 2 Programming Set 3 Programming Set 4 Graded for 24%
Week 5	Exam I Part A – Multiple choice, reading code and identifying errors and answering language specific questions Part B – Hands on programming in class	Graded for 25%
Week 6-10	Object Oriented thinking and modelling – Abstraction, encapsulation, inheritance and polymorphism (abstract classes) Java GUI programming (Swing) Introduction to Numerical methods Basic database programming (storing and retrieving data from files and databases) All assignments are due in a week before the deadline specified in eLearning. No exceptions will be allowed.	Programming Set 5 Programming Set 6 Programming Set 7 Programming Set 8 Graded for 24%
Week 11	Exam II Part A – Multiple choice, reading code and identifying errors and answering language specific questions Part B – Hands on programming in class	Graded for 20%
Week 1-10	In class discussion, participation and attendance	Graded for 7%
Week 12	**Grade Posting for the semester**	

Assignment Guidelines

Homework and Exams

- There will be eight homework assignments throughout the course. All homework and answers, including sample of java code, will be posted in the eLearning. Students are required to submit their homework on time. Descriptions of assignments will be posted as they are assigned. Assignments turned in after posting of the solutions will be assigned a default grade of zero.
- There will be two exams: Exam 1 (Midterm) and Exam 2 (Final). Each exam will have a written part and hands on coding part totaling about 90 to 120 minutes.
- All requests, including re-grading, regarding to a homework assignment or an exam must be submitted in writing via E-Learning messages.

Make-Up Policy

No make-up tests will be offered except for medical reasons. Students will be required to provide necessary documentation. It is going to be extremely difficult to offer make up exams during summer semester as this is a one-day a week class.

Late-work Policy

- All assignments are to be submitted via eLearning.
- The deadline for submitting an assignment is 11:00 PM on the due date.
- Late submissions can still be submitted via eLearning up to 48 hours after the deadline. Assignments submitted within 24 hours after the due date/time will be subject to a 10% penalty for each 24-hour period. No submissions will be accepted later than 48 hours after the deadline.
- Late submissions require clearance from the instructor.

Scoring Grade Scales

Final Percentage	Letter Grade
96-100+	A+
91-95	A
87-90	A-
83-86	B+
80-82	B
77-79	B-
74-76	C+
70-73	C
66-69	C-
60-65	D+
55-59	D
45-54	D-
0-44	F

Course & Instructor Policies

eLearning will be used for class content (e.g., class slides and assignment descriptions) and the recording of grades. Slides will be posted before class. Class announcements (e.g., change in assignment dates) will also be posted.

Instructor Response Policy: The instructor will make his best efforts to respond to all student inquiries (emails, voice messages, etc.) within 48 hours (excluding holidays and weekends).

Attendance Policy: Attendance is extremely important. Students are expected to attend all classes in order to achieve maximum success. Attendance will be taken and used in consideration for the Participation grade; however, this grade will also reflect the instructor's judgment of the value of contributions to class discussion and other activities. There is no makeup for missed in-class assignments.

Academic Integrity: the University is committed to academic excellence, expects academic honesty from all members of the University community, and believes that it is essential for academic excellence and integrity. Academic honesty includes adherence to guidelines established by the instructor in a particular course for both individual and group work. It prohibits representing the work of others to be one's own (plagiarism); receiving unauthorized aid on an assignment (cheating); and using similar papers or other work products to fulfill the obligations of different classes without the instructor's permission. Penalties for academic dishonesty may include a grade of "F" on the work in question or for the course. In addition, any student engaged in academic dishonesty will be subject to disciplinary action. Please refer to the General Polices website (see below) for detailed information pertaining to academic dishonesty, including procedures for determining disciplinary action.

WORKING TOGETHER on Individual Assignments: This course will have a considerable amount of computing work for application assignments. Each student is expected to do his or her own work on the "individual" assignments. Copying another student's work (computer files) or having another person do your work is scholastic dishonesty and will be dealt with accordingly. Any change in assignment style or nature will be discussed in the class.

General Policies & Procedures

For information regarding general University policies and procedures, please go to http://go.utdallas.edu/syllabus-policies. These policies include the following:

- Technical Support
- Field Trip Policies, Off-Campus Instruction and Course Activities
- Student Conduct and Discipline
- Academic Integrity
- Copyright Notice
- Email Use
- Withdrawal from Class
- Student Grievance Procedures
- Incomplete Grade Policy
- Disability Services
- Religious Holy Days
- Avoiding Plagiarism