CS 602 – Java Programming
Syllabus

Summer 2023
Credits: 3

Course Mode:
This course will be taught on online. For more information, please see NJIT's Modes of Instructional Delivery.

Instructor Information:
Raihan Siddique, e-mail: rs792@njit.edu. Best way to communicate with me is via email. E-mails will be responded to in 24 hours. All assignments will be graded weekly.

Course Description:
The emphasis will be on the Java language and platform. No prior knowledge of Java is required but students are expected to have a good understanding of object-oriented programming concepts such as encapsulation, inheritance, and polymorphism. Lays a foundation of basic constructs and syntax and then focuses on the core advanced features. Topics include: networking and sockets, remote method invocation (RMI), database connectivity (JDBC), Java Beans, multi-threading, Swing & AWT, JSP & Servlet and JavaFX.

Prerequisites:
Advanced Web-based programming with an emphasis on the Java language and platform. No prior knowledge of Java is required but students are expected to have a good understanding of object-oriented programming concepts such as encapsulation, inheritance, and polymorphism, experience with C++. Basic constructs and syntax and then the core advanced features.

Course Learning Outcomes:
After completion of the course, students will be able to:
- Develop client-server application with database component
- Write multithreaded programs with synchronization
- Create interactive client program with latest Java technology
- Implement Object Oriented Principles in application development

Required Course Materials:

Required textbook:
- Java Software Solutions (9th edition) by John Lewis and William Loftus
  Pearson Education
  ISBN-13: 978-0134462028
  ISBN-10: 9780134462028

Optional textbook:

- Object Oriented Software Development Using Java (2nd Edition) by Xiaoping Jia
  Addison Wesley; 2nd edition (November 1, 2002)
  ISBN-10: 0201737337
  ISBN-13: 978-0201737332

Vocareum

In this course, you will be required to use Vocareum for some assignments. Vocareum is a cloud platform that integrates with Canvas to deliver online coding projects and assignments.

When you open an assignment in Canvas that's integrated with Vocareum, you'll be automatically authenticated, and you should see the relevant workspace where you can code your assignment and ultimately submit your work. Your workspace will include a code editor, a file system, and a terminal. The terminal window functions just like your computer's default terminal. You will use this window to run code and debug it as necessary.

Some helpful resources may include Vocareum's Getting Started documentation and Privacy Policy. Questions or problems can be submitted via web form by going to: servicedesk.njit.edu and clicking on the "Report your issue online" link. You may also call the IST Service Desk with any questions at 973-596-2900.

Course Topics and Assignments:

(All dates are in EST/EDT)

Date	Lecture# & Topic	Assignments	Due Date
5/22/23	Introduction to CS602 **Lecture1:** Classes, Objects and Methods; String, Math & Random Class; Autoboxing; Encapsulation **Lecture2:** Object Oriented Programming; Inheritance & Polymorphism **Lecture3:** Swing and AWT	Review Syllabus and course requirements. Read chapter 3 & 4 of the textbook along with lecture slides and videos for Week1. Read chapter 3 & 4 of the textbook along with lecture slides and videos for Week1. Read lecture note 'Swing 1' along with lecture videos for Week3	5/28/23 at 11:59 pm

		Discussion Forum: Add your discussion, comments, and answers applicable. Introduction Forum: Complete "Who am I?"	Initial post: 5/25/23 at 11:59pm Responses: 5/28/23 at 11:59pm 5/28/23 at 11:59pm
5/29/23	**Lecture4:** Swing2 and Exception	Read lecture note 'Swing2' along with lecture videos for Week4 Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Assignment1**	6/4/23 at 11:59pm Initial post: 6/1/23 at 11:59pm Responses: 6/4/23 at 11:59pm 6/4/23 at 11:59pm
6/5/23	**Lecture5:** JSP & Servlet	Read lecture note 'JSP and Servlet' along with lecture videos for Week5 Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Practice quiz**	6/11/23 at 11:59pm Initial post: 6/8/23 at 11:59pm Responses: 6/11/23 at 11:59pm 6/11/23 at 11:59pm
6/12/23	**Lecture6:** JSP & Servlet2	Read lecture note 'JSP and Servlet2' along with ppt 'JSP&Servlet' and lecture videos for Week6 Discussion Forum: Add your discussion, comments, and answers applicable.	6/18/23 at 11:59pm Initial post: 6/15/23 at 11:59pm Responses: 6/18/23 at 11:59pm

		Assignment: **Assignment 2**	6/18/23 at 11:59pm
6/19/23	**Lecture7:** JDBC	Read lecture note 'JDBC' along with lecture videos for Week7 Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Assignment 3**	6/25/23 at 11:59pm Initial post: 6/29/23 at 11:59pm Responses: 7/2/23 at 11:59pm 7/2/23 at 11:59pm
6/26/23	**Midterm**	Exam hours: 6:00pm to 8:30pm. Online.	N/A
7/3/23	**Lecture8:** Multithreading & Synchronization	Read lecture note 'Multithreading' along with lecture videos for Week8 Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Assignment 4**	7/9/23 at 11:59pm Initial post: 7/6/23 at 11:59pm Responses: 7/9/23 at 11:59pm 7/9/23 at 11:59pm
7/10/23	**Lecture9:** RMI	Read lecture note 'RMI' along with lecture videos for Week9 Discussion Forum: Add your discussion, comments, and answers applicable. Homework: **None**	7/16/23 at 11:59pm Initial post: 7/13/23 at 11:59pm Responses: 7/16/23 at 11:59pm
7/17/23	**Lecture10:** Multicasting	Read lecture note 'Multicasting' along with lecture videos for Week10	7/23/23 11:59pm

		Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Assignment 5**	Initial post: 7/20/23 at 11:59pm Responses: 7/23/23 at 11:59pm 7/23/23 11:59pm
7/24/23	**Lecture11:** JavaFX **Lecture12:** JavaFX2	Read chapter3 - from 'Introduction to JavaFX' to end & chapter4 - from 'Arcs' to end, along with lecture slides and videos for Week11 Read chapter7 - from 'GUI Design' to end along with lecture slides and videos for Week12 Discussion Forum: Add your discussion, comments, and answers applicable. Assignment: **Assignment 6**	7/30/23 at 11:59pm Initial post: 7/27/23 at 11:59pm Responses: 7/30/23 at 11:59pm 7/30/23 at 11:59pm
7/31/23	**Lecture13:** Cookies, Serialization and Java Beans	Read lecture note 'Cookies, Serialization and Java Beans' along with lecture videos for Week13 Discussion Forum: Add your discussion, comments, and answers applicable. Homework: **None**	8/6/23 at 11:59pm Initial post: 8/3/23 at 11:59pm Responses: 8/6/23 at 11:59pm
8/7/23	**Final**	Exam hours: 6:00pm - 8:30pm	N/A

Key dates:

Make a note of the following key dates for the semester.

Date	Event
5/22/23	Semester begins
6/26/23	Mid Term
Sundays	Weekly assignments due
8/7/23	Final

All weekly assignments will be assigned on a Monday and will be due on next **Sunday by 11:59 pm**.

Grading Policy:

Grading will be done on a weighted average basis. The distribution of weights are as follows:

Segment	Weight
Assignments	30%
Discussion	10%
Mid term	30%
Final	30%

The final letter grade will be determined based on this table below:

Rounded %	< 70	70 - 74	75 - 79	80 - 84	85 - 89	90 - 100
Grade Points	0	2.00	2.5	3.00	3.5	4
Letter Grade	F	C	C+	B	B+	A

Assessment Categories and Descriptions:

Students will be assessed based on participation & discussions on the discussion board, homework assignments and exams. Discussion forum will have topics to discuss every week and participation is required by all students. Homework assignments will be assigned on Canvas and students will submit through Canvas by the due date. Each assignment will be graded with my feedback on the Canvas. The exams will be of two to two and a half hours duration and will include a mix of True/False questions, multiple choice questions, writing codes, code interpretation and short answer questions.

Exam Information and Policies:

The exams will be held online with LockDown Browser on the scheduled date. Midterm will be held on 6/26/2023 from 6:00pm to 8:30pm and the Final will be held on 8/7/23 from 6:00pm to 8:30pm. You will also be informed via email prior to exams. There is no makeup test for any missed test, unless of course a student faces an emergency. In such a situation, a mutually agreed test date will be set up.

For more information, please visit the Online Course Exams and Proctoring page.

Policy for Late Work:

Homework assignments are due by due dates 11:59pm. Your submission is time stamped by Canvas. Late submission will lose 10 points for each day. After two days no submission will be allowed. Unless it's an emergency, there is no makeup for assignments. If one has to be arranged, the date and time will be communicated via email.

Extra Credit:

There is no provision for extra credit in this course. Please make a note of it and make sure to do all homework on time and take the exams on due date.

Tutoring facility at NJIT:

If you need any help with CS602, NJIT has tutoring facility available during the semester. Please visit this website: https://computing.njit.edu/graduate-tutoring
It's suggested that you make an appointment first.

Academic Integrity:

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or

dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Expectations of Class Etiquette:

Students are expected to follow NJIT's Code of Student Conduct. Students should be polite, active participants and respect their instructor, classmates, as well as ideas or opinions that differ from their own. While scholarly debates are encouraged, they should not become personal.

Weekly Expectations:

This course is organized by weekly modules. Each week, students must watch lecture videos, go over the lecture notes, practice sample programs, participate in discussion, and complete assignments for the week by 11:59pm of the due date.

Request for Accommodation:

If you need accommodations due to a disability please contact Scott Janz, Associate Director of the Office of Accessibility Resources and Services, Kupfrian Hall 201 to discuss your specific needs. A Letter of Accommodation Eligibility from the office authorizing student accommodations is required.

Canvas Accessibility Statement

Canvas Orientation for Students

NJIT Services for Students, Including Technical Support