

**San José State University
College of Engineering,
Department of Computer Engineering
CMPE 273, Enterprise Distributed Systems
Section 1, Fall 2012**

Instructor: Dr. Simon Shim
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Office Hours: Walk-in: Monday & Wednesday: 12:30 -1:30pm,
By appointment only: Tuesday 2-5pm, or after class.
Class Days/Time: W 6:00pm – 8:45pm
Classroom: ENG 337
Prerequisites: Java programming, CMPE 272 or instructor consent.

Course Website

Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on <http://groups.yahoo.com/group/sjsu-cmpe273-fall2012>

Course Description

For over 30 years, computerized database systems have been developed and used to help computers manage the increasing amount of data that we store and manipulate. This course presents an overview modern database systems and some advanced issues.

Course Catalog Description

Introduction to application protocols for large scale distributed systems including object request brokers, asynchronous messaging, and Web services. Lab is based on using protocols to build distributed systems

Program Outcomes

- a. Ability to apply knowledge of mathematics, science, and engineering
- b. Ability to design and conduct experiments, as well as to analyze and interpret data
- c. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d. Ability to function on multi-disciplinary teams
- e. Ability to identify, formulate, and solve engineering problems
- f. Understanding of professional and ethical responsibility
- g. Ability to communicate effectively
- h. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i. Recognition of the need for, and an ability to engage in life-long learning
- j. Knowledge of contemporary issues
- k. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Course Goals and Student Learning Objectives

Upon successful completion of this course, students will be able to:

1. Understand database architecture models and can make database decision according to different system requirements.
2. Be able to identify available database technologies for a design/implementation need.
3. Know the strength and weakness of different database and be able to choose the right ones according to different requirements.
4. Be familiar with emerging database paradigm and technologies.

Required Texts/Readings

Recommended

Client/Server Programming with Java and CORBA, Second Edition
by Orfali and Harkey (Wiley, 1998) (Electronic version available)

Java Messaging by Eric Bruno (Charles River Media, 2005)

Other Readings

Lecture notes and other reading materials.

Pure CORBA, by Fintan Bolton (Sams, 2002)

Java RMI, by William Grosso (O'Reilly, 2001)

Java Generics and Collections, by Maurice Naftalin (O'Reilly, 2006)

Classroom Protocol

The class meets once a two week. In-class activities including pop quizzes will be given to encourage attendance.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Information on add/drops are available at <http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-298.html>. Information about late drop is available at <http://www.sjsu.edu/sac/advising/latedrops/policy/>. Students should be aware of the current deadlines and penalties for adding and dropping classes.

Assignments and Grading Policy

Grades will be assigned on a curve. Your final grade will be based on assignments, project, exams, and class participation. These will be weighted as follows.

Quizzes and assignments	10%
Class projects	30%
Labs	30%
Final	30%

- The instructor reserves the right to change the percentages listed above by $\pm 5\%$.

Description of assignments:

Assignment: Assignments will be given in the form of survey, programming, analysis of tools/techniques, etc.

Quizzes: Quizzes will be given to students during lectures. Questions may include explanation to terms, comparison between different design and technologies, etc.

Exams: One final exam for this course. Both exams consist of multiple choices questions and paragraph questions. **There will be no make-up tests.**

Labs: there will be three programming assignments

Project: Students will work in groups on a semester-long project. The project counts for 30% toward your final grade. The purpose of the project is encouraging you to explore the area of database systems, strengthen your understanding, and bring your new findings to the class. You will be required to give a presentation and submit project documents.

Deadlines: Homework and projects are due before class. That means that I will collect all the hardcopies at the beginning of class. Late assignments incur an automatic penalty of 5%, plus 2% per hour for each hour till 9 PM. You will lose a 15% of points for the first day and after the first day, 10% of points for each day. **All late homework MUST be time stamped in order to receive any credit.**

Exceptions will be granted only if arranged prior to the due date or a documented illness intervenes.

Submission

- All the homework assignments and project documents must be submitted as hardcopies and electronically. Hardcopies should be handed in the classes on the due dates.
- All quizzes and exams must be done individually.
- No late submission will be accepted unless written evidence such as a physician's letter is accompanied with the request for late submission.

University, College, Department or Course Policies

Policy on Cheating

A student or students involved in a cheating incident involving any non-exam instrument (homework, report, or lab project) will receive an F on that instrument, and will be reported to the judicial affairs office. Whether the report will carry a recommendation for disciplinary action will be left to my judgment.

A student or students involved in a cheating incident on any quick test, the midterm exam or the final exam will receive an F in the course, and will be reported to the judicial affairs office with a recommendation for disciplinary action.

I will personally notify you of any such findings or actions. All such reports will also be brought to the attention of the Chair of the Computer Engineering department. You have certain rights of appeal, which may serve to exonerate you.

Academic integrity

Students should know that the University's Academic Integrity Policy is available at http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf.

Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for Student Conduct and Ethical Development is available at http://www.sa.sjsu.edu/judicial_affairs/index.html.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

Course Policy on Plagiarism

- Copying online content without correct quote is treated as plagiarism in this class.
- Both the person who copies and the person who facilitates the copying will be prosecuted for academic dishonesty.
- A student or students involved in a cheating incident involving any non-exam instrument (homework, reports, projects, or class exercises) will receive an F on that instrument, and will be reported to the judicial affairs office. Whether the report will carry a recommendation for disciplinary action will be left to my judgment.
- A student or students involved in a cheating incident on any quick test, the midterm exam or the final exam will receive an F in the course, and will be reported to the judicial affairs office with a recommendation for disciplinary action.

Things (among many others) you may **not** do when working with other students (except for team work):

- The term “solution” mentioned below means anything (code, design document, description, etc.) you will submit for assignments and exams.
- Work on an assignment together, type in solutions (separately or together) and turn in separate copies.
- Each works on a part of an assignment and turn in separate copies after combining solutions.
- Give any part of your solution (through paper, board writing, email, web posting, reading loud, letting someone else look at your screen, etc.) to other students before the assignment deadline.

Things you may do when working with other students:

- Discuss with other students and leave the discussion with empty hands.
- Share assignment solutions after the assignment deadline in order to compare different techniques used for solving the problems.

Learning Assistance Resource Center

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. [The LARC website is located at http://www.sjsu.edu/larc/](http://www.sjsu.edu/larc/).

SJSU Writing Center

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers.

The Writing Center website is located at <http://www.sjsu.edu/writingcenter/about/staff/>.

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The schedule is tentative and subject to change. It is an outline of the material covered in the class, but the dates might shift forward or backward.

Table 1 Course Schedule

Week	Topics
Week 1 (8/22)	Greensheet, Introduction
Week 2 (8/29)	FTP/ORB
Week 3 (9/5)	ORB
Week 4 (9/12)	ORB
Week 5 (9/19)	Cloud Computing/XML
Week 6 (9/26)	Web Services
Week 7 (10/3)	Web Services
Week 8 (10/10)	Web Services
Week 9 (10/17)	Web Services
Week 10 (10/24)	JMS
Week 11 (10/31)	JMS
Week 12 (11/7)	JMS
Week 13 (11/14)	JMS
Week 14	Thanksgiving Holiday
Week 15 (11/28)	Project Presentation
Week 16 (12/5)	Project Presentation
Wednesday, December 12, 17:15 – 19:30	Final Exam