

CS4513 Distributed applications Syllabus Outline

Department: Department of Physics and Engineering

Course Prefix/Number: C S 4513

- I. Catalog Description: A study of the architecture and design of distributed applications. N-tier application and supporting technologies are investigated including client/server architecture, supporting languages, transaction processing, and distribution of processes.
- II. Prerequisites: CS 2213, CS 3434, CS 3893, and CS4013.
- III. Expanded Course Description: Large applications are frequently distributed across multiple computers. The techniques for creating such applications are introduced in this course. N-tier applications are typically supported using a server/client paradigm. The creation of servers and client applications is demonstrated using Java. Programmatic access to databases is also addressed including the use of transaction processing.
- IV. Intended Student Learning Outcomes: At the conclusion of the course the student will be able to:
 - Students will be able to create both a client and a server for a distributed application using Java.
 - Students will demonstrate the ability to access a database from a server to support backend processing.
 - Students will be able to explain the various tiers and middleware components used to support a distributed application.
 - Students will demonstrate the ability to use a middleware product such as RMI to connect and communicate between elements of a distributed application.
 - Students will be able to explain the use of various security related technologies to secure distributed applications.
 - Students will demonstrate the ability to access and use naming services in support of a distributed application.
 - Students will be able to explain the use of distributed transactions in support of distributed applications

- V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus:
- a) Course Requirements
 - b) Required Text(s)
 - c) Bibliography
- VI. Academic Honesty: Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all-impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.
- VII. Students With Disabilities Policy: It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.