El Centro College  
ITSE 2458  
ORACLE DATABASE ADMINISTRATION II  
Syllabus

COURSE DESCRIPTION

Prerequisites: ITSE 2356 Oracle Database Administration I or instructor approval.

A continuation of Oracle Database Administration I. Topics include recovery procedures, logical backups, standby database capabilities and performance tuning of the Oracle Server. Common performance problems and the use of diagnostics tools to troubleshoot and optimize throughput will be discussed. This course may be repeated if topics and learning outcomes vary.

This is the third course leading to preparation for the Oracle 11g Certification.

This is a 4 credit hour course. (3 lec., 4 lab.)

WECM END-OF-COURSE OUTCOMES: List the Oracle backup and recovery components; formulate a backup and recovery strategy; practice backup and recovery operations; use Oracle tools to diagnose performance problems; and optimize and troubleshoot Oracle database performance.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITSE 2458, students will be able to:

- **Identify** and use higher level database administration skills and knowledge needed to advance their database careers.
- **Produce** database performance evaluations utilizing tools and advanced features of Oracle including backup and recovery, problem diagnosis, block corruption, resource, space, memory and storage management and globalization support.
- **Reinforce** skills by using Oracle tools to optimize and troubleshoot Oracle database performance and formulate a backup and recovery strategy based on assignment criteria.
- **Demonstrate** advanced knowledge of database administration needed to pass the Oracle Database Administration II certification exam by practicing backup and recovery operations, utilizing diagnostic tools to recover from user errors, log and trace files and employing the Oracle Listener.

COURSE MATERIALS


Email address (i.e. ECC Webmail, Yahoo, Hotmail, etc.)

A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.
This is an online class. All course work will be posted on eCampus. It is your responsibility to get the course notes, handouts, and laboratory assignments from eCampus. Your instructor will respond to all emails within 24 hours.

Major Course Requirements

Students will participate in Discussions addressing topics in each chapter
Students will complete Chapter Quizzes
Students will complete lab assignments and a Case Study which include:
  - Configuring database recoverability & catalogs
  - Creating and performing different types of backups
  - Utilizing memory management techniques
  - Performing database tuning, disk space & resource management
  - Creating tasks automation & priorities
  - Working with database and NLS character sets
Students will prepare for the Oracle 11g Database Administration II certification exam

Midterm, a Self-Test Software Final Exam and completion of a Case Study will evaluate the student’s understanding of Oracle Database Administration II concepts and knowledge presented in each chapter.

Subject Matter

Topics covered in the lecture portion of the course include:

  - Database Architecture & ASM
  - Configuring Database Recoverability
  - Creating & maintaining an RMAN Catalog
  - Creating & recovering using RMAN Backups
  - Miscellaneous RMAN Features
  - Monitoring and Tuning RMA
  - Configuring & using Flashback
  - Memory Management Techniques
  - Using Database Tuning Advisors
  - Disk Space and Resource Management
  - Configuring Database Diagnostics
  - Using the Scheduler for Task Automation
  - Database Globalization

Disclaimer

The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.

The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

Policies
Students should click on the links below and read all of these policies.

General institutional policies
Course-related institutional policies