

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

X Transfer Course x A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: CSIS 257 – Database Administration II

UNIT VALUE: 3

MINIMUM NUMBER OF SEMESTER HOURS: 64

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: CSIS 256

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Students will learn about transporting data between databases and the utilities to perform these activities. Students are also introduced to networking concepts and configuration parameters, as well as how to solve some common network problems. In hands-on exercises, students configure network parameters so that database clients and tools can communicate with the Oracle database server. This course also addresses backup and recover techniques, and examines various backup, failure, restore and recovery scenarios. Students also examine backup methodologies based on business requirements in a mission critical enterprise. Students use multiple strategies and Oracle Recover Manager to perform backups, and restore and recover operations.

SPECIFIC COURSE OBJECTIVES:

The successful student will be able to:

1. Define networking requirements and the solutions provided by Oracle to implement these requirements.
2. Perform database and datafile backups with and without Recovery Manager (RMAN).
3. Configure the network environment for an Oracle client-server system.
4. List the different Oracle backup methods and recovery operations that can be used to resolve database failure.
5. Describe the database utilities (export and import) and the situations where they can be used.
6. Develop network configuration and recovery techniques. List the Oracle architecture components related to backup and recovery operations.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Networking Overview
- II. Basic Oracle Net Architecture
- III. Basic Net Server-Side Configuration
- IV. Basic Oracle Net Services Server-Side Configuration
- V. Usage and Configuration of the Oracle Shared Server
- VI. Backup and Recovery Overview
- VII. Instance and Media Recovery Structures
- VIII. Configuring the Database Archive Mode
- IX. Oracle Recovery Manager Overview and Configuration
- X. User-Managed Backups
- XI. RMAN Backups
- XII. User-Managed Complete Recovery
- XIII. RMAN Complete Recovery
- XIV. User-Managed Incomplete Recovery
- XV. RMAN Incomplete Recovery
- XVI. RMAN Maintenance
- XVII. Recovery Catalog Creation and Maintenance
- XVIII. Transporting Data Between Databases
- XIX. Loading Data into a Database

REQUIRED READING:

Smith , Kenny & Haisley, Stephan. *Oracle Backup & Recovery*, Redwood City, CA: Oracle Press, 2003

SUGGESTED READING: None

REQUIRED WRITING:

Oracle database administration projects are assigned, requiring students to complete five or six lab exercises. Each lab will consist of a hands-on exercise applying theoretical principles learned in class. Labs must be well documented (at least one paragraph) in terms of their overall solution strategy.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

- 30-100% Assignments
- 0-30% Examinations

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes No Number of times course may be taken for credit:

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable: 58161 (C) (2) (A)

CONTACT PERSON: Steve Perry x2990

SIGNATURES ON FILE: