Computer Science and Information Systems - Database (CSDB)

See also CSIS - Computer Science, CSIS - Information Technology, CSIS - Networking, and CSIS - Web Technology

Contact the Computer Science and Information Systems Department for further information.
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Certificates of Proficiency -

Certificate of Proficiency requirements are listed in Section 6 (green pages).
• Microsoft SQL Database Administrator
• Oracle Database

PROGRAMS OF STUDY

Microsoft SQL Database Administrator

Microsoft SQL Database Administrator is a validation program that provides a reliable measure of technical proficiency and expertise in implementation and administration of Microsoft SQL Server™ databases.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSDB 210	SQL Server Administration	3
CSDB 220	SQL Server Programming	3
CSNT 111	Networking Fundamentals	4
CSNT 121	Windows Server	3
CSNT 221	Windows Infrastructure Administration	3
TOTAL UNITS		**16**

Oracle Database

Oracle is the most widely used relational database management system in the world. This certificate offers a series of courses designed to provide the fundamentals to become successful in the use of this powerful database system.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CSDB 140	Introduction to Oracle	3
CSDB 240	Oracle DBA I	3
CSDB 241	Oracle DBA II	3
CSDB 250	Oracle Performance Tuning	3
Electives (Select 1 course)		
CSDB 150	Oracle Data Base Design	3
CSDB 260	Oracle PL/SQL Programming	3
TOTAL UNITS		**15**

COURSE OFFERINGS

CSDB 110   Introduction to SQL   (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: CSU
Intended for individuals who want to learn how to search for and manipulate data in a database, create tables and indexes, handle security, control transaction processing, and learn the basics of how to design a database.

CSDB 120   SQL Database Design   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 110
Transfer acceptability: CSU
Provides training in administering and implementing Microsoft SQL Server.

CSDB 140   Introduction to Oracle   (3)
2½ hours lecture - 1½ hours laboratory
Transfer acceptability: CSU
An introduction to relational database concepts including the design and creation of database structures to store, retrieve, update and display data.

CSDB 150   Oracle Database Design   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 140
Transfer acceptability: CSU
A top-down, systematic approach to the development of Oracle relational databases.

CSDB 210   SQL Server Administration   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 110
Transfer acceptability: CSU
Provides the knowledge and skills necessary to administer and troubleshoot information systems that incorporate Microsoft SQL Server Enterprise Edition.

CSDB 220   SQL Server Programming   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 120
Transfer acceptability: CSU
Provides the knowledge and skills necessary to design, implement, and program database solutions by using Microsoft SQL Server.

CSDB 240   Oracle DBA I   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 140
Transfer acceptability: CSU
Design, create, and maintain an Oracle database; gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another; and learn how to create an operational database and properly manage the various structures in an effective and efficient manner. Topics are reinforced with structured hands-on practices.

CSDB 241   Oracle DBA II   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 240
Transfer acceptability: CSU
Transporting data between databases, and the utilities to perform these activities. Introduction to networking concepts and configuration parameters, as well as how to solve some common network problems. In hands-on exercises, configure network parameters so that database clients and tools can communicate with the Oracle database server. Addresses backup and recover techniques, and examines various backup, failure, restore and recovery scenarios. Examine backup methodologies based on business requirements in a mission critical enterprise. Use multiple strategies and Oracle Recover Manager to perform backups, and restore and recover operations.

CSDB 250   Oracle Performance Tuning   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 240
Transfer acceptability: CSU
Introduction to the importance of good initial database design and the method used to tune a production Oracle 9i database. The focus is on database and instance tuning rather than specific operating system performance issues. Practical experience tuning an Oracle database. Recognize, troubleshoot, and resolve common peformance related problems in administering an Oracle database.

CSDB 260   Oracle PL/SQL Programming   (3)
2½ hours lecture - 1½ hours laboratory
Prerequisite: A minimum grade of 'C' in CSDB 140
Transfer acceptability: CSU
Learn the Oracle PL/SQL language, a flexible procedural extension to SQL, which increases productivity, performance, scalability, portability and security. Use PL/SQL's tight integration with Oracle database that allows application developers to build and deploy distributed applications with considerable flexibility. Learn how to utilize advanced techniques to design PL/SQL applications to solve complex business problems.