

I. COURSE DESCRIPTION:

This course continues the development of the students' abilities to install, configure, and manage applications, groupware and web-based services primarily in a Windows server environment. The major emphasis is on database concepts, network support for client / server databases such as SQL server, web security, and Lotus Notes / Domino server.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Relational Database Concepts**Potential Elements of the Performance:**

This learning outcome will constitute approximately 20% of the course.

- Define entity, relationship and attribute.
- Identify and apply different types of relationships used in designing a database, such as one-to-one, one-to-many and many-to-many.
- Identify how key components of data modelling are implemented.
- Identify the relationship between a primary key and a foreign key.
- Describe normalisation and its role in database design.
- Create SQL statements.
- Create a Payroll program to reinforce the one-to-many concept.
- Utilize VB / VBA code.
- Publish SQL results to a Web Server.

2. SQL Server Databases**Potential Elements of the Performance:**

This learning outcome will constitute approximately 20% of the course.

- Describe the evolution and important features of Client/Server Database environments in general and Microsoft SQL Server in particular.
- Install and configure Microsoft SQL Server.
- Explore SQL Manager.
- Manage and optimize Microsoft SQL Server.
- Grant and revoke permissions.
- Configure a user connection.
- Configure an ODBC client to access SQL Server.
- Enhance performance of and manage a Microsoft SQL Server Database.
- Identify competitive client / server databases used in the workplace including Oracle, DB2, and Informix.

3. SQL Statements**Potential Elements of the Performance:**

This learning outcome will constitute approximately 20% of the course.

- Utilize the SELECT statement using a variety of operators.
- Perform JOINS using SQL.
- Implement a variety of SQL statements in database queries.
- Identify the factors in SQL which impact network performance.
- Complete 5 Hands-on SQL labs.

4. Web Server / Security**Potential Elements of the Performance:**

This learning outcome will constitute approximately 20% of the course.

- Install and configure the IIS web server in a Windows environment.
- Apply 3 methods of Web security using various types of authentication.
- Secure your web server in preparation for an Intranet.
- Create an Intranet Business site using Web Tools.
- Test your security by attempting to intrude to the Intranet.

5. Notes / Domino / Groupware**Potential Elements of the Performance:**

This learning outcome will constitute approximately 20% of the course.

- Install and configure the Lotus Notes client and Domino Server.
- Describe and compare groupware applications and their typical components.
- Describe the history of Lotus Notes and the evolution of its features.
- Use the features of Lotus Notes clients including managing the workspace, creating and sharing Notes documents, Notes databases, Notes mail, calendaring and scheduling, supporting mobile Notes users and the integration of Notes in the Internet /Intranet environment.
Compare groupware solutions provided by various vendors.

III. TOPICS:

1. Relational Database Concepts
2. SQL Server Databases
3. SQL Statements
4. Web Server / Security
5. Notes / Domino / Groupware

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**V. EVALUATION PROCESS/GRADING SYSTEM:**

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies & Procedures Manual – Deferred Grades and Make-up</i>).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

VI. SPECIAL NOTES:Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.