



**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 NT environment. The major emphasis is on Lotus Notes/Domino server, database concepts and network support of client/server database systems such as Microsoft SQL Server.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

(Generic Skills Learning Outcomes placement on the course outline will be determined and communicated at a later date.)

**A. Learning Outcomes:**

1. Install and configure various groupware applications.
2. Utilise data modelling techniques to implement simple relational database management systems.
3. Formulate simple Structured Query Language (SQL) queries on a relational database.
4. Implement a client-server database system using Microsoft SQL Server.

**Learning Outcomes and Elements of the Performance:**

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

1. **Install and configure groupware applications.**

**Elements of the Performance:**

- 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.

*This learning outcome will constitute approximately 30% of the course.*

**Reference:**

Notes supplied and Internet-based resources (<http://notes.net> and <http://www.lotus.com>)

**2. Utilise introductory-level data modelling techniques in implementing simple relational database management systems.**

**Elements of the Performance:**

- 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.

*This learning outcome will constitute approximately 15% of the course.*

**3. Formulate simple Structured Query Language (SQL) queries on a relational database.**

**Elements of the Performance:**

- Utilise 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.

*This learning outcome will constitute approximately 15% of the course.*

**4. Implement a client-server database system using Microsoft SQL Server.**

**Elements of the Performance:**

- 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.
- Manage and optimise Microsoft SQL Server .
- Enhance performance of and manage a Microsoft SQL Server Database.

*This learning outcome will constitute approximately 40% of the course.*

**Reference:**

**III. TOPICS TO BE COVERED:**

1. Lotus Notes/Domino Server groupware applications and systems.
2. Relational Database concepts and data modelling.
3. Structured Query Language.
4. Microsoft SQL Server installation and management.

**IV. REQUIRED STUDENT RESOURCES/TEXTS:**

**TEXT BOOK:**

Notes provided.  
Internet-based resources.

**V. EVALUATION PROCESS/GRADING SYSTEM:**

3 WRITTEN TESTS (20% each)	60%
LAB ASSIGNMENTS	40%

(The percentages shown above may vary slightly if circumstances warrant.)

**NOTE:** *It is necessary to pass both the theory and the lab part of this course. It is not possible to pass the course if a student has a failing average in the three written tests but is passing the lab portion, (or vice versa).*

**GRADING SYSTEM**

A+	90	-	100%
A	80	-	89%
B	70	-	79%
C	60	-	69%
R	Repeat		Less than 60%
X	Incomplete		

**UPGRADING OF INCOMPLETES**

When a student's course work is incomplete or final grade is below 60%, there is the possibility of upgrading to a pass when a student meets all of the following criteria:

1. The student's attendance has been satisfactory.
2. An overall average of at least 50% has been achieved.

3. The student has not had a failing grade in all of the theory tests taken.
4. The student has made reasonable efforts to participate in class and complete assignments.

The nature of the upgrading requirements will be determined by the instructor and may involve one or more of the following: completion of existing labs and assignments, completion of additional assignments, re-testing on individual parts of the course or a comprehensive test on the entire course.

**ATTENDANCE:**

Absenteeism will affect a student's ability to succeed in this course. Absences due to medical or other unavoidable circumstances should be discussed with the instructor.

**VI. SPECIAL NOTES:**

- **Special Needs**

Students with special needs (e.g. physical limitations, visual or hearing impairments, or learning disabilities) are encouraged to discuss any required accommodations confidentially with the instructor and/or contact the Special Needs Office so that support services can be arranged.

- **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 post-secondary institutions.

- **Course Modifications**

Your instructor reserves the right to make reasonable modifications to the course as deemed necessary to meet the needs of students or take advantage of new or different learning opportunities.

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced standing in the course should consult the instructor. This course is not eligible for challenge at the present time.

