Vanier College
Faculty of Continuing Education

Course Title	: Introduction to Databases	**Teacher**	: Perry James
Course #	: 420-983-VA	**E-mail**	: through Omnivox
Section	: 5102	**Semester**	: W-15
Schedule	: 9:00 a.m. – noon M 9:30 a.m. – 12:30 p.m. Th 9:00 a.m. – 11:30 a.m. F	**Availability**	: by appointment

Course Objectives

This course will introduce students to the concepts of databases and database design. It will focus on the relational model. It will use the Oracle DBMS and SQL to create and query samples databases.

Competencies Related to this Course

Number	Description
0173	Develop Conceptual Models Using a Structured approach
0175	Create and Manage a Database
017B	Design and Develop a Database Application

Evaluation

Three Tests to test theoretical knowledge and various assignments to test ability to apply this material.

Lab Assignments.....30%
Tests 1 and 2 .....40%
Test 3.....30%

To pass the course, students must obtain an average of 60% both overall and on the tests. If the average of the tests is below 60%, the final mark for the course will be this average.

No make-up tests will be given except in the case of a medically necessary absence supported by a doctor's certificate clearly stating that the student was too ill to write the test. The mark for an unexcused missed exam will be 0%.

Late assignments will not be accepted. If more time is needed for an assignment, this should be arranged before the assignment is due. Students are expected to be able to answer questions pertaining to assignments both in class and on exams.

Attendance & Participation Requirements

Each student is expected to observe assignment deadlines and test times announced in class. Students are responsible for all course material, including information covered during the theory and laboratory classes, whether or not they attend.

Teaching Methodology

Class time will be divided between lectures and laboratory activities. Lectures will be used to introduce the concepts of database design and the syntax and semantics of SQL, which are then further explored during hands-on activities. Lab periods allow students to apply their knowledge of database construction, manipulation, and maintenance using Oracle SQL. Lab exercises, assignments, and exams will be used to assess understanding of the material covered.

Textbook

Database Systems Using Oracle: A Simplified Guide to SQL and PL/SQL, 2nd ed. Nilesh Shah. Prentice-Hall. 2005. ISBN 0-13-101857.

The textbook will be followed closely. Each student must bring it to class.

Additional Material

To be able to save your lab work, you will need a USB drive (any size).

Practice Lab

In addition to the lecture and computer labs that appear on the schedule, students can use the computer lab D-210D to practice and do their homework Monday through Thursday evenings and much of the day on Saturdays. This lab is the Resource Center for Continuing Education Students.

College Policies & Procedures

There is a set of College policies and procedures covering the rights and responsibilities of both faculty and students. These cover grade review, student-faculty mediation, sexual harassment, standing and advancement, cheating and plagiarism, absences for religious holidays, etc.

Note that students who observe religious holidays during the semester must inform the instructor, in writing, before the end of the first day of class.

It is your responsibility to be aware of the various policies and procedures governing your rights and obligations while you are attending Vanier College.

Cheating & Plagiarism

Any form of cheating or plagiarism will result in a grade zero for that test or assignment, and a letter from the course teacher will be placed in your file. A repeated offence may lead to more serious consequences. Consult *The Vanier Student Writing Guide*, the *Vanier Catalogue*, the *Student Handbook* and your teacher for more information.

Lab Policies

Anyone caught playing games, installing, or using illegal software in the labs may be fined up to $50. During the lab periods you are expected to work on your assignments. It is not permitted to use the internet during lab periods outside the scope of the lab.

Course Topics

- Introduction to databases and database systems
- The relational database model (tables, entities, attributes and keys)
- Using Oracle SQL to create tables, de ne integrity constraints (primary key, foreign key, check, null, and unique), drop tables, insert data, modify data, and delete data
- Using Oracle SQL to query the database (select, conditions, built-in functions, formatting, group functions, joins, set operations)
- Logical design of relational databases using the Entity Relationship model (E-R diagrams), and conversion of E-R diagrams to tables.
- Normalization of database tables and functional dependencies.