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CSTP 1201: Introduction to Database Management Systems (DBMS)

EFFECTIVE DATE

September 2019

DEPARTMENT

Computer Systems Tech Diploma

DESCRIPTION

In this course students will learn how to manage SQL database systems, including performing basic database administration. Students will learn how to configure a database to support different applications and to perform tasks such as creating users and database schema, applying constraints, setting up access control, assigning memory, defining storage structures and manipulating data. Since database administration does not end after the database is created, students will learn the importance of backup and recovery strategy. Students will become familiar with fundamental concepts in the field such as transnational operations, ACID property, backup and redundancy, data integrity, various database roles (database admin, database programmer, database designer), database normal forms, join operations, and how to perform queries.

CREDITS

4.0

YEAR OF STUDY

1st Year Post-secondary

PREREQUISITES

CSTP 1105 Introduction to Programming

COREQUISITES

None

COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Use database tools with an existing database
- Create databases and tables, transaction logs and database snapshots
- Apply data relationships to maintain data integrity
- Create queries that select data from tables

- Compose queries that select and manipulate data
- Design forms to create a user interface
- Explain physical database design considerations.
- Create reports to summarize and consolidate data
- Implement basic security for logins, databases and objects
- Explore performance tuning and troubleshooting strategies

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 40

Lab: 40

INSTRUCTIONAL STRATEGIES

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

GRADING SYSTEM

Letter Grade (A-F)

PASSING GRADE

C

EVALUATION PLAN

Type	Percentage	Assessment activity
Assignments	40	4 project assignments, could be individual or team projects
Midterm Exam	20	
Final Exam	20	
Participation	5	
Project	15	Final project

COURSE TOPICS

- Database tools
- Databases and tables
- Data relationships
- Queries and tables
- Queries and manipulating data
- Microsoft SQL Server 2016
- Forms and reports functionality
- Code procedures and functions

LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

Broadway campus

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Downtown campus

250 West Pender Street
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