

CIST 1220 - Structured Query Language (SQL) (version 201003L)

Standard Institutionally Developed College: N/A

EDGE Compatible: No

Pre-requisites: All Required

CIST 1001 - Computer Concepts (201003L)

COMP 1000 - Introduction to Computers (201003L)

Co-requisites: None

Course Description

Includes basic database design concepts and solving database retrieval and modification problems using the SQL language. Topics include: database Vocabulary, Relational Database Design, Date retrieval using SQL, Data Modification using SQL, Developing and Using SQL Procedures.

Course Length

	Minutes	Contact Hour	Semester Credit
Lecture:	1500	30	
Lab 2:	1500	30	
Lab 3:	2250	45	
Practicum/Internship:	0	0	
Clinical:	0	0	
Total:	5250	105	4
Semester Credit Hours:			4

Competencies

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
1	Database Vocabulary	100	50	75	0	0	225	
2	Relational Database Design	400	350	525	0	0	1275	
3	Data Retrieval using SQL	500	500	750	0	0	1750	
4	Data Modification using SQL	300	350	525	0	0	1175	
5	Developing and Using SQL Procedures	200	250	375	0	0	825	
	Totals for Course CIST 1220 - Structured Query Language (SQL) (version 201003L):	1500	1500	2250	0	0	5250	4

Learning Outcomes

Database Vocabulary

Order	Description	Learning Domain	Level of Learning
1	Define and use vocabulary of databases, including tables, columns, rows, data types, keys, relationships, queries, and record sets.	Cognitive	Knowledge

Relational Database Design

Order	Description	Learning Domain	Level of Learning
1	Describe the relational database model	Cognitive	Knowledge
2	Describe one-to-one, one-to-many, and many-to-many relations	Cognitive	Knowledge
3	Explain the difference between the various normal forms.	Cognitive	Comprehension
4	Apply normalization to the the third normal form for various data specifications.	Cognitive	Application

Data Retrieval using SQL

Order	Description	Learning Domain	Level of Learning
1	Produce information from a database using SQL.	Cognitive	Application
2	Use the appropriate SQL constructs to restrict the items retrieved based on specified criteria.	Cognitive	Application
3	Prepare queries that reference more than one table in order to supply required information.	Cognitive	Application
4	Produce queries that group information, use aggregate functions, and restrict output based on aggregate results.	Cognitive	Application

5	Develop queries that determine the items to select based on the result of another embedded query.	Cognitive	Application
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Data Modification using SQL

Order	Description	Learning Domain	Level of Learning
1	Use SQL commands to update information in the database based on some criteria.	Cognitive	Application
2	Prepare SQL commands to insert new records into the database.	Cognitive	Application
3	Construct SQL commands to delete records from the database based on some criteria.	Cognitive	Application

Developing and Using SQL Procedures

Order	Description	Learning Domain	Level of Learning
1	Define SQL Stored Procedures and SQL Triggers	Cognitive	Knowledge
2	Produce simple SQL stored procedures	Cognitive	Application
3	Use simple SQL trigger procedures.	Cognitive	Application

References

Order	Reference Type	Description
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