Introduction to Database Systems

PRE-REQUISITE(S)

No pre-requisite is required

CREDIT HOURS

4

SYPNOSIS

This course provides learners a good foundation the Structured Query Language (SQL) which is used for creating and querying relational databases which are used by organizations in all industries. Learners will also explore conceptual and relational data modelling techniques for creating logical and physical database designs.

LEARNING OUTCOMES

- Apply database concepts such as primary key, secondary key, file, record, field, normalization, database security, integrity, performance, and database administration
- Use SQL for data administration and manipulation
- Create conceptual and logical database models for an information system by working in a group

TOPICS

Topic 1	Introduction to Database Management
Topic 2	Database Design: Conceptual Data Model
Topic 3	Database Design: Entity Relationship Modelling
Topic 4	Database Design: Subtypes and Supertypes
Topic 5	Database Design: Many-many relationships
Topic 6	First Normal Form
Topic 7	Second Normal Form
Topic 8	Third Normal Form
Topic 9	SQL I: Data Manipulation

Topic 10	SQL II: Data Manipulation
Topic 11	SQL III: Data Definition
Topic 12	SQL IV: Database Administration
Topic 13	DBMS Functions and Role of DBA
Topic 14	Case Study and Future Trends

ASSESSMENT DETAILS

Coursework	50%
Final Examination	50%

PRESCRIBED TEXT

1. Starks, J.L., Pratt, P.J. & Last, M.Z. (2018). *Concepts of Database Management* (9th ed.). Boston, MA: Cengage Learning.

ADDITIONAL REFERENCES

1. Rockoff, L. (2016). *The Language of SQL* (2nd ed.). USA: Addison-Wesley.

*Available as eBook on HELP online resources (http://library.help.edu.my)