CMPT 454 - D100 Database Systems II

Instructor(s): Tianzheng Wang

Calendar Objective/Description:
An advanced course on database systems which covers crash recovery, concurrency control, transaction processing, distributed database systems as the core material and a set of selected topics based on the new developments and research interests, such as object-oriented data models and systems, extended relational systems, deductive database systems, and security and integrity.

Instructor’s Objectives:
This course provides an in-depth coverage of core topics in the making of relational database systems, and continues with the first database course, CMPT 354, with a focus on the design and implementation of transactional database systems. Topics includes data storage, indexing, query optimization and transaction processing.

Prerequisites:
CMPT 300 and 354.

Topics:
- Data storage, indexing
- Query processing
- Transaction processing
- Logging and crash recovery

Grading:
To be discussed in the first class.

Required Books:

Reference Books:
Transaction Processing: Concepts and Techniques, Jim Gray, Andreas Reuter, 9781558601901

Academic Honesty Statement::
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies ( http://www.sfu.ca/policies/gazette/student.html ).