CMPT 454 - D100 Database Systems II

**Instructor(s):** Juhua Hu

**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:**
To provide an in-depth coverage of the systems aspects of modern database systems. This course continues with the first database course, CMPT 354, by focusing on (1) physical implementation of DBMS (data storage, index, and query optimization and processing) and (2) transaction management and (3) internet databases.

**Prerequisites:**
CMPT 300 and 354.

**Topics:**
- Data storage
- Index
- Query optimization
- Transaction management, Concurrency control, Crash Recovery

**Grading:**
To be discussed the first week of classes

**Required Books:**

**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).