



---

**Lab9**  
**SQL (Structured Query Language)**

**Objectives:**

- Ability to write complex SQL queries.
- Using and referencing Composite keys
- Know how to use Union, Exists and implementing division.

**Database:**

**Cont. on previous lab schema:**

The following relations show basic entities of Course Registration Processing System.

Implement the following schema using DDL statements:-

**department** (dept\_id, dept\_name)  
**student** (student\_id, student\_name, major, level, age)  
**professor** (prof\_id, prof\_name, dept\_id)  
**course** (course\_code, name)  
**semester\_course** (course\_code, quarter, year, prof\_id)  
**enrolled** (student\_id, course\_code, quarter, year, enrolled\_at)

**SQL Queries:**

1. Find the course code and name for each course with more than 2 enrollments in spring of 2016.
2. Find students' names enrolled in **all courses** that professor with id="2" has taught.

3. Find the names and ids of the professors that have taught less than 2 courses and whose department is either 1,2,3,4.
4. Find course name, course code and professor name and id for courses that the same professor taught twice or more.

## **Deliverable**

- SQL query you used to answer the questions above and the output/error if any