Syllabus for
APC 410
Database Management II

NOTE: This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

Course Description

This course covers architecture and use-cases of non-relational (NoSQL) based on four types of databases including document, Graph, Key-value, and wide column store. Topics include: data types, create/update/delete data, query, cursors, indexing, dynamic schema design, scalability (scale-out) over scale-up of RDBMS, analysis of massive unstructured and semi-structured data and data security.

Prerequisite(s)

APC 360: Database Management I

Course Outcomes

Upon completing this course, you will be able to do the following:

- Develop knowledge of key features of each of four types of NoSQL databases (key-value, document, column-family, and graph databases).
- Leverage basic and advanced query features in MongoDB database for creating and querying document databases.
- Leverage basic and advanced query features in Apache Cassandra database for creating and querying column-family databases.
- Develop knowledge of basic and essential concepts in relational database administration and security.

Course Requirements/Components

- Lesson Discussions
- Assignments
- Labs
- Quizzes
- Final Exam

Grading

The following grading scale will be used to evaluate all course requirements and to determine your final grade:

Grade	Percentage Range
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%

Evaluation Methods	Points Each	Total Points
Lesson Discussions (14)	0.2	2.8
Assignments (6)	4	24
Labs (6)	5	30
Quizzes (14)	1	14
Final Exam (1)	29.2	29.2
Total Points		100