New York University Polytechnic School of Engineering

Computer Science and Engineering Department

Course Outline

CS-UY 3083 Introduction to Database Systems

Fall 2015

Professor Frankl

Course Pre-requisites: CS 2134 (Data Structures and Algorithms),C- or better

Course Description:

This course introduces database systems and their approach as a mechanism to model the real world. The course covers data models (relational, entity relationship), physical database design, query languages, query processing and transactionmanagement techniques.

Course Objectives :

1.Gain understanding of data modeling techniques and ability to design relational databases

2. Learn to use SQL to create database tables, modify their contents, and execute queries.

3.Develop ability to design and implement a moderately complex web-based database

application program.

4.Understand how database management systems work, including indexing techniques,

query processing algorithms, and transaction management techniques.

Course Structure:

Most of the material will be presented in lectures. Reading assignments from the text book and weekly or bi-weekly homework assignments will reinforce this material. Students will be required to learn to use a database management system and to write web application code

through self-study. Pointers to resources and some basic instruction will be provided. Lecture notes, homework assignments, and announcements will be posted on NYU-Classes. Please

check frequently for updates.