CS 354: Database Management System Design

CS 354 (4.0 units)
Fall 2020
Room: Online
Zoom: https://arcadia.zoom.us/j/96575629112
Time: MWF 12:15 – 1:20pm

Instructor: Dr. Kathy Macropol
Office: Boyer Hall, Room 337
Email: macropolk@arcadia.edu
Office Hours: By appointment.

Course Objectives:
An introduction to databases and database management systems – including their uses, design, and implementation. This will include a basic introduction to Database design and creation, as well as the fundamentals of SQL.

Prerequisite:
CS 202 or instructor permission.

Optional Textbook:

“Database Processing: Fundamentals, Design, and Implementation”
14/e, by David M. Kroenke and David J. Auer, Pearson
ISBN-10: 0133876705

Learning Resources:
Important course materials, such as the syllabus, slides, assignments and announcements will be posted on Canvas. Canvas will be used extensively, so familiarize yourself with this site. I expect students to check the course site on Canvas regularly.

Class Attendance:
You are expected to attend classes regularly. Showing up on time and staying throughout the class results in full attendance credit for that class period. There are more attendance credits than class days, so having perfect attendance, for example, will result in extra credit!

Should you have to miss a class meeting, it is your responsibility to find out what has been taught that day and make up the work.
**Assignments**

There will be multiple homework assignments during this semester.

Assignments must be completed by midnight the day they are due. Complete assignments turned in on time receive extra credit points. After the due date, there will be a 48 hour grace period where assignments may still be turned in for full credit (without extra credit points). After 48 hours, a deduction of 20% is made each additional day the assignment is late.

Assignments will be submit through Canvas.

**Section Quizzes**

There will be multiple section quizzes. The scores for the lowest two quizzes will be dropped, to take into account sicknesses or bad days. There will be no other late or make-up quizzes. A missed quiz results in a score of zero for that quiz.

**Final Exam**

There will be a comprehensive cumulative final near the end of the semester. As it is comprehensive, it is in your best interests to ensure that you are able to solve every problem in the preceding assignments and quizzes, as similar questions might occur again during the final.

Attendance on the final is mandatory. In case of emergency, you must leave me a voice-mail or e-mail message before the schedule time.

**Evaluation**

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<td>Attendance / Participation</td>
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<tr>
<td>Assignments</td>
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<td>Quizzes</td>
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<td>Final</td>
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Note: Blue numbers mean exclusive

**Academic Honesty**

You are expected to adhere to the code of academic honesty of Arcadia University.

You may discuss course material and help one another; however, borrowing others' code or sharing implementation details is absolutely not allowed. A simple way to avoid inadvertent plagiarism is to talk about the assignments, but don't read each other's work or write solutions together. If two people share the same code or share implementation details, both parties will be considered as conducting plagiarism.

If you are not sure, check with your instructor. Finally, I reserve the right to ask you to explain your assignments to me.
Calendar (tentative)

Week 1  
Introduction

Weeks 2 - 4  
Intro to SQL

Weeks 5 - 7  
Relational Model & Normalization

Week 8  
DB Design Using Normalization

Weeks 9 - 10  
E-R Models

Week 11  
Data Model to DB Design

Weeks 12 - 14  
SQL continued

Week 15  
Big Data

Important Dates

Course changes – drop/add:  
Aug 31 – Sep 14

Undergraduate course withdrawal with adviser's approval (w):  
Sep 15 – Nov 19

Undergraduate course withdrawal with by petition (WP/WF):  
Nov 20 – Dec 22

Priority-registration for Spring 2019:  
Nov 9 – Nov 20

Any student who feels s/he may need an accommodation based on a disability should contact Disabilities Support Services in the Office of Academic Development in Knight Hall to coordinate reasonable accommodations for students with documented disabilities.

Arcadia University is committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University’s Title IX Coordinator. The only exceptions a faculty member’s reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project.

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at https://www.arcadia.edu/university/policies-guidelines/title-ix