CPS 3740-02/Spring 2020   Database Management Systems   Dr. Huang

Instructor: Dr. Ching-yu (Austin) Huang
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Office Hours: Monday - Thursday: 9:55–10:55 am;12:20–2:00 pm; Tuesday, Thursday: 3:20 – 4:00 pm (appointment only)
Class: 01 section: Tue, Thurs (11:00 - 12:15 pm), NAAB 208. **02 section**: Tue, Thurs (2:00 - 3:15 pm), NAAB, 208
Prerequisites: CPS 2232   **Students without prerequisite(s) must withdraw from the class.**

Week	Date		Topic	Reading	Assignment	
1	1/21/2020	Tue	Overview + Database Intro, setup/test	Ch1	Test eve, MySQL	1
	1/23/2020	Thur	Web, DB, PHP & Linux exercises	Ch 2, 29, PHP	**Start P #1**	2
2	1/28/2020	Tue	Basic SQL: SELECT, HW1 - view	Ch 6	**Start HW #1**	3
	1/30/2020	Thur	3-tier, CGI, Cookie, Authentication, PHP	Ch3, 29		4
3	2/4/2020	Tue	Web DB programming, PHP MySQL	PHP, MySQL		5
	2/6/2020	Thur	Basic SQL: SELECT & SQL Injection	Ch6, PHP		6
4	2/11/2020	Tue	Basic SQL: DML, subquery, joins	Ch6		7
	2/13/2020	Thur	DML, set, more joins, PHP error handling	Ch6, PHP	**HW #1 due 2/15**	8
5	2/18/2020	Tue	Continue, review Midterm 1			9
	2/20/2020	Thur	**Midterm #1**		**Midterm 1, P1 due 2/22**	10
6	2/25/2020	Tue	Midterm 1 answers, project 2		**Start P #2**	11
	2/27/2020	Thur	XAMPP – Apache, MySQL: SQL - DCL	XAMPP		12
7	3/3/2020	Tue	SQL: DDL, CREATE, keys	Ch7		13
	3/5/2020	Thur	Continue DDL, CREATE, ALTER	Ch7		14
8	3/10/2020	Tue	**3/9-15 Spring break**		**School closed**	
	3/12/2020	Thur	**3/9-15 Spring break**		**School closed**	
9	3/17/2020	Tue	Updatable view, get multiple web items	Ch7, PHP		15
	3/19/2020	Thur	GIS and Google Map, workbench	PHP, MySQL		16
10	3/24/2020	Tue	Relational Model & Algebra	Ch 4, 5		17
	3/26/2020	Thur	Continue		**Start HW #2**	18
11	3/31/2020	Tue	Advanced SQL:, PL/SQL	Ch8		19
	4/2/2020	Thur	Continue , review midterm 2	Ch8		20
12	4/7/2020	Tue	**Midterm #2**		**Midterm 2**	21
	4/9/2020	Thur	Midterm 2 answers, DB System Development Lifecycle, E-R Model	Ch10, Ch12		22
	4/9/2020	**Thur**	**Last day to withdraw with 'W' grade**		**0% refund**	
13	4/14/2020	Tue	Database Analysis & Case Study	Ch11		23
	4/16/2020	Thur	DB anomalies, fun. Dep., normalization	Ch14	**HW 2 due by 4/18**	24
14	4/21/2020	Tue	ERD to tables, Conceptual DB Design	Ch16		25
	4/23/2020	Thur	Physical design, file, index, search	Ch18	**P 2 due by 4/25**	26
15	4/28/2020	Tue	Transaction, XAMPP – backup project	Ch22, XAMPP		27
	4/30/2020	Thur	Review for final	**5/1: last day to submit all missing assignments with late penalty.**		28
16	5/5/2020	Tue	**Follow Friday schedule (no Tuesday class)**			
	5/7/2020	Thur	**Final exam**		**Final**	29
17	5/12/2020	Tue	Review final exam answers			30

Late revision: 1/5/2020

- **Content**: Fundamental computing and programming concepts; use of systems software; problem solving; design of algorithms using a high-level, object-oriented programming language.
- **Textbook**: Database Systems: A Practical Approach to Design, Implementation, and Management. Author: Thomas Connelly and Carolyn Begg, **6th edition**. Pearson, 2014. **ISBN-13:** 978-0132943260
- **Objectives**: Upon completion of this course, students will be able to:
  - A. Evaluate the role of databases in computing systems
  - B. Design and build applications using database management systems
  - C. Compare and evaluate diverse database models
  - D. Implement a consistent database
  - E. Understand transaction processing concepts
  - F. Understand relational algebra as a basis for database query languages
- **Course grading**: **2** Midterms (20%, 20%), Final Exam (25%), **2** Homework (5%, 5%), and **2** projects (10%, 15%)

Class Policies:

- **This is a hands-on course. Students are required to bring personal laptop every class.**
- Instructional Methods: lecture with slides, student presentations, class discussions and exercises, and project creations.
- **A**: 100-94, **A-**: 93-89, **B+**: 88-84, **B**: 83-80, **B-**: 79-76, **C+**: 75-72, **C**: 71-68, **D**: 67-64, below 64 is failing (C or better is needed for CS and IT majors.)
- It is students' responsibilities to verify all the scores posted on **the class website** that is announced on the first day of the class.
- **Assignments should be used MySQL connecting through a Linux server that is announced on the first day of the class.**
- Mid-Term Progress information will be provided to students by the instructor via KeanWise.
- No late work will be accepted without permission in advance from the instructor. Late work is penalized.
- No make-up exams are provided without documentation of medical or family emergency. Please arrange your schedule for the next 16 weeks to arrive in class on time and prepared.
- Attendance and participation are required.
- All work turned in under your name must be your own. **No credit will be given for an assignment or homework that is copied – in part or in total – from another person**.
- Exam policy: During class examinations, if a student leaves the classroom for any reason during the exam time, **the exam must be turned in before the student departs, concluding the exam for that student**. The student cannot resume the exam on return later. You may not make or take a phone call, text or access the internet during class or a test.
- **Classes may not be audio or digitally captured**, unless permission has been granted by the instructor for that specific class.
- **Public posting of course materials from this class is prohibited**. Materials presented in the classroom are for the personal use of registered students during the semester only. Homework, programs, and other classwork should not be shared, distributed or publicized in any way, for the protection of other students and in respect of the intellectual property rights of the faculty and copyright owners.

Important University Policies and Information:

- The Kean Academic **Calendar** can be found online at https://www.kean.edu/offices/registrars-office/academic-calendar
- **Tutoring and learning Support services**: http://www.kean.edu/content/tutoring-services
- Students should review the **Student Code of Conduct**, as it discusses expectations of appropriate conduct in the classroom: https://www.kean.edu/KU/Code-of-Conduct
- Students are responsible to review and understand the University Academic Integrity Policy available via the following link: https://www.kean.edu/academic-integrity
- Read Kean **Students Rights and Responsibilities** at https://www.kean.edu/offices/disability-services/rights-and-responsibilities
- Register for the university's **emergency notification system** at https://www.kean.edu/offices/university-police-0/campus-alert
- Students must have a **valid Kean email account**. You can request one at https://www.kean.edu/~ocisweb/forms.htm
- **Title IX**: Title IX of the Education Amendments of 1972 (Title IX) prohibit discrimination on the basis of sex in education programs or activities. Sexual harassment in any form will not be tolerated at Kean University. Sexual harassment by students should be reported to the Office of Affirmative Action Programs, Office of the Vice President for Student Affairs or the Office of Community Standards and Student Conduct immediately. Information about the University's Sexual Misconduct Policy may be found at the following: https://www.kean.edu/offices/policies/sexual-misconduct-policy
- **Americans with Disabilities Statement & Non-Discrimination Statement:**
  Kean University is an affirmative action, equal opportunity institution. Students with documented disabilities who may need special instructional accommodations or who may need special arrangements in the event of an evacuation should notify the instructor as soon as possible, no later than the second week of the term. Students may contact the Office of Disability Services in Downs Hall Room 122 or call 908-737-4910 to discuss special needs.
- **Kean University Non-Discrimination Policy Statement:**
  Kean University is an affirmative action, equal opportunity institution.

Syllabus Updates: **Instructor reserve the right to change the syllabus at any time throughout the semester**. All changes will be announced in class and a new syllabus will be electronically available to all students. If you are enrolled in this class past the add/drop date you are subjected to all rules in this syllabus.