

Instructor: Dr. Ching-yu (Austin) Huang**Office:** NAAB, Room 235**Phone:** (908) 737-6157**Website:** <http://www.kean.edu/~chuang>**Email:** chuang@kean.edu**Office Hours:** Monday - Thursday: 10–11 am; 12:20–2:00 pm; 3:20 – 3:40 pm (appointment only)**Class:** Monday (**4:30 - 7:15 pm**), NAAB Room **207****Prerequisites:** **CPS 2240 AND CPS 2110****Students without prerequisite(s) must withdraw from the class.**

Unit		Date	Topic	Reading	Notes	#
	Mon	8/31/20	School starts on Sept 1			
	Mon	9/7/20	Labor Day		School closed	
1	Mon	9/14/20	Overview + Database Introduction	Ch1	Test eve, DB account	1
			Web DB environment & Linux exercises, P 1	Ch 2, 29	Start P 1	2
2	Mon	9/21/20	Basic SQL: DML, basic SELECT, create View, HW 1	Ch 6	Start HW 1	3
			HTML, PHP, PHP array, P 1	Ch 29, PHP		4
3	Mon	9/28/20	Web DB Architectures & CGI, search, Quiz #1	Ch 3, 29	Quiz #1	5
			SELECT with aggregation, group by, HW 1	Ch 6		6
5	Mon	10/5/20	SELECT & web using PHP MySQL	PHP MySQL		7
			SQL simple join and conditions	Ch 6		8
5	Mon	10/12/20	Set & more joins - natural, outer	Ch 6		9
			SQL subquery Quiz #2	Ch 6	Quiz #2	10
6	Mon	10/19/20	Authentication, cookies & login, PHP MySQL	Ch 29	HW 1 due	11
			Workbench, SQL DML: INSERT, UPDATE, DELETE	Ch 6	P 1 due	12
7	Mon	10/26/20	MySQL Workbench, SQL create and alter table	Ch 7	Start P 2	13
			SQL: DDL, create, alter tables with FK	Ch 7		14
8	Mon	11/2/20	Insert, delete, update & foreign keys, Quiz #3	Ch 7	Quiz #3	15
			XAMPP, view and updatable views	Ch 7	Start HW 2	16
9	Mon	11/9/20	INSERT in PHP MySQL, XAMPP, P 2	PHP MySQL		17
			SQL Injection, PHP MYSQL error handling, XAMPP	PHP MySQL		18
	Wed	11/11/20	Last day to withdraw with 'W' grade		0% refund	
10	Mon	11/16/20	Database design lifecycle, DB analysis - dreamhome	Ch 10, 11		19
			Conceptual DB Design and E-R model	Ch 16, 12		20
11	Mon	11/23/20	Logical design, E-R Model, and forms to ERD	Ch 17, 12	P 2 due	21
			physical design & ERD to tables, XAMPP, Quiz #5	Ch 18	Quiz #5	22
12	Mon	11/30/20	Case study: logic design and physical design	Ch 12		23
			Physical database Design, indexing, RAID	Ch 18	HW2 due	24
13	Mon	12/7/20	Database design lifecycle, DB analysis - dreamhome	Ch 10, 11		25
			Conceptual DB Design and E-R model	Ch 16, 12		26
14	Wed	12/9/20	XAMPP, SQL DCL, database administration, backup	Ch 7	Monday schedule	27
			XAMPP, SQL DCL, database administration, backup	Ch 7		28
15	Mon	12/14/20	Final exam		Final exam	29
			Review final exam answers			30

Late revision: 6/24/2020

- **Content:** Fundamental concepts and standards for database management systems; database design; database implementation; storage and performance considerations; application of database management systems
- **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. Understand the role of databases in information technology
 - B. Design and build applications using database management systems
 - C. Design database using various data models
 - D. Interact with database using structural query language
 - E. Build web-based database applications
- **Course grading:** 5 quizzes (5x60 pts), Final (200 pts), 2 Homework (2x75 pts), discussions (15x10 pts), 2 projects (100, 100 pts)

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.