

When: Fall 2020 (Term 21-1)

What & Where:

Lectures:

Section I	Tuesday & Thursday	11:05am – 12:20pm @ Remote Synchronous (157 Benedum Hall)
Section II	Monday & Wednesday	5:00pm – 6:15pm @ Remote Synchronous (404 IS Building)

Recitations:

Sec. I - Recitation 1	Friday	11:05 – 11:55am @ Remote Synchronous	(CRN 16645 & 16644)
Sec. I - Recitation 2	Friday	2:20 – 3:10pm @ Remote Synchronous	(CRN 16646 & 17227)
Sec. II - Recitation 1	Friday	8:55 – 9:45am @ Remote Synchronous	(CRN 31802 & 31804)
Sec. II - Recitation 2	Friday	4:30 – 5:20pm @ Remote Synchronous	(CRN 31806 & 31807)

Instructors:

Prof. Panos K. Chrysanthis (Sec. I)
Office: 6421 Sennott Square
Web: <https://panos.cs.pitt.edu>

Dr. Constantinos Costa (Sec. II)
Office: 5425 Sennott Square
Web: <https://cs.pitt.edu/~costa.c>

Teaching Assistants:

Rakan Alsegheyer (Recitations)
Office: 6414 Sennott Square

Brian T. Nixon (Grader)
Office: 6414 Sennott Square

Office Hours: Instructors and TA's office hours are listed on Canvas and the course web site.

Course Description: There are two principle objectives for this course. First, to introduce the fundamental concepts necessary for the design and use of a database. Second, to provide practical experience in applying these concepts using commercial database management systems.

Prerequisites: A grade of C or better in CS 0441, CS 0445 and CS 1501 is required. Working knowledge of Java and familiarity with Unix are assumed.

Course Material & Web Page: <http://db.cs.pitt.edu/courses/cs1555/current.term>
All handouts and class notes will be accessible from Canvas and published on the class web page.
You are expected to check this page frequently (at least twice a week).

Textbook: *Fundamentals of Database Systems, 7th Edition.* Ramez Elmasri and Shamkant B. Navathe, Pearson (c) 2016, 7th Edition (ISBN-13: 978-0-13-397077-7)

Reference: *PostgreSQL: The World's Most Advanced Open Source Relational Database* (www.postgresql.org)

Platforms and Mode of Instruction: Both the lectures and recitations will be taught primarily via **remote synchronous instruction**. Zoom meetings will be our primary platforms of interaction. For maximum engagement during the lectures and recitations, we encourage everyone to keep their video on during Zoom sessions. Zoom links and passwords will be made available on Canvas and shared by email and on piazza. Furthermore, for additional asynchronous engagement, lectures will be recorded. Recitations will follow a flipped class model. If pandemic conditions permit it, students are welcome to show up in person to the assigned classroom although the instructors plan to participate remotely.

If you need help navigating Canvas, please consult this list of Student Resources for using Canvas. You must connect via a personal electronic device over a reliable and fast internet connection. The larger the screen on your device, the easier it will be for you to see and participate, so computers are

generally preferable to phones, for example. If you are not equipped with a computer or do not have access to a stable internet connection, the university is offering services to provide you with support (Chromebook and internet hot spots). Please contact the Technology Help Desk for further information. Recommended browsers: Chrome / Firefox / Edge.

Operational Posture: The University of Pittsburgh will be operating with a system of Operational Postures. Use the link [operational postures](#) to see the current posture and details about what each posture means generally here. *For this course, all aspects of the course will operate the same way regardless of the university's operational posture.*

Note on Email & Communication: In order to achieve the highest level of communication outside the classroom, we will use the **Piazza** system for all questions and clarifications on lectures, recitations and assignments. *You should use email only for confidential matters.* For a confidential email to the instructor and the TA, you should send the email to cs1555-staff@cs.pitt.edu. Note that this email address works only within the pitt.edu domain. If you have a confidential matter for the *instructor only*, then please email the instructor directly, but make sure to include the keyword cs1555 or cs2055 in the subject line of your email message. We will make every effort to respond to all email requests *within one business day* at the latest, and no email or Piazza answers should be expected after hours or during the weekends. **Due to spam filtering, you should always try to use your pitt email address when sending email and include your full name.**

Course Grading:

Homework Assignments	20%	Roughly one every other week
Term Project	20%	2-member team project
Midterm Exam	25%	Mon/Tue, Oct. 12/13, 2020
Final Exam	25%	TBD
Class Attendance & Participation	10%	

Grading Policy: The grade scaling will be computed based on the performance of the undergraduate students only. Graduate students will then be graded on this undergraduate scale.

Attendance and participation in lecture and recitation may be used to decide borderline grades.

Unless explicitly noted otherwise, the work in this course is to be done *independently*. Discussions with other students on the assignments should be limited to understanding the statement of the problems. Cheating in any way, including giving your work to someone else will result in an F for the course and a report to the appropriate University authority.

Marks can be appealed up to two weeks after they have been posted, after that no appeals will be considered.

Class Attendance & Participation: Because of the remote synchronous teaching, your attendance in our Zoom meetings and your class/recitation discussion participation is essential. It is therefore important that you do not miss class and recitation and participate actively while there. You must come to class willing to actively volunteer and participate. In addition to attendance and in-class participation points, additional points will be given for contributions and good answers to the discussions on Piazza.

Submission & Late Policy: All written assignments must be submitted electronically and **there is no late submission**. An assignment which is late will be accepted *only* under special circumstances with the instructor's permission prior to its deadline. In such a case, the instructor will determine any penalty in a fair manner.

Make-up Policy: Students are expected to take both midterm and final exams. Make-up exams will only be given in the event of a medical situation or an emergency, and only if this is documented and the instructor is notified *immediately if in advance is not possible*. Missing an exam will result in a zero for the exam.

Students with Disabilities: If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. More info at: www.drs.pitt.edu.

Religious Observance: In order to accommodate the observance of religious holidays, students should inform the instructor of any such days within the first two weeks of the term by email (**Aug. 28**).

Copyrighted Material: All material provided through this web site is subject to copyright. This applies to class/recitation notes & recordings, slides, assignments, solutions, project descriptions, etc.

You are allowed (and expected!) to use all the provided material for personal use. However, you are strictly prohibited from sharing the material with others in general and from posting the material on the Web or other file sharing venues in particular.

Outline: A detailed reading guide will be published on the web page, along with the class notes.

1. Relational/Object-Relational Data Model, Relational Databases – SQL, QBE
2. Database Design – Relational Normal Forms & Entity-Relationship Data Model
3. Storage and File Organizations, Access Methods
4. Transactions, Concurrency, Recovery & New Trends – Data Streams, NoSQL

COVID-19 University Statement: In the midst of this pandemic, it is extremely important that you abide by public health regulations and University of Pittsburgh Health Standards and Guidelines. While in class, at a minimum, this means you must wear a face covering and comply with physical distancing requirements; other requirements may be added by the University during the semester. These rules have been developed to protect the health and safety of all community members. Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a student conduct violation. For the most up-to-date information and guidance, please visit coronavirus.pitt.edu and check your Pitt email for updates before each class.

Pitt Community Compact: A pledge created by a dozen undergraduate, graduate and professional students to, “uphold the health and safety of our community,” amid the pandemic by promoting responsible behaviors. Let us all take the [pledge](#).