

Information and Database Systems I

CIS 4301 Sections: 11206, 11207

Class Periods: MWF 3rd, 09:35 – 10:25 AM

Location: CSE A101

Academic Term: SPRING 2020

Instructor:

Pete Dobbins

pjd@cise.ufl.edu

352.294.6685

Office Hours: M 8th period [15:00 – 15:50], WR 4th period [10:40 – 11:30] in CSE E474

Teaching Assistant/Peer Mentor/Supervised Teaching Student:

Please contact the course staff through the Canvas website and refer to the daily schedule posted in Canvas for individual email addresses, office locations, and office hours.

- Alexis Dougherty
- Justin LoMonaco
- George Pu
- Neha Sharma

Course Description

First part of a two-course sequence that studies the essential concepts, principles, and techniques of modern database systems. Topics include modeling and querying of data using conceptual data models as well as the development of a database application. (M) 3 credit hours

Course Pre-Requisites / Co-Requisites

Prerequisite: (COP 3503 or COP 3504) and COT 3100

Course Objectives

This course will introduce students to the principles of managing large data sets using a Database Management System (DBMS). Understanding how to construct an organized data store and providing functionality for retrieving stored data is critical to the management process. We are motivated by companies such as Amazon, eBay, Expedia, IMDB, Pinterest, and so on whose online storage and searching features provide many on demand benefits to consumers.

The topics we will cover include: entity-relationship (ER) models, conceptual database design and modeling, the relational model, relational query languages (relational algebra, relational calculus, and SQL), logical database design (functional dependencies and normal forms). Weekly course topics are provided in Canvas under the course Modules.

Materials and Supply Fees

There are no materials or supply fees for this course beyond the textbook.

Required Textbooks and Software

- *A First Course in Database Systems*, Third Edition, Ullman & Widom, Prentice Hall, ISBN 0-13-600637-X. (the abbreviated version of the following text)
- – or –
- *Database Systems: The Complete Book*, Second Edition, Garcia-Molina, Ullman, & Widom, Prentice Hall, ISBN 0-13-187325-3. (the comprehensive version of the preceding text)

Course Schedule

Here is a general schedule for the semester. Please refer to the announcements and Canvas Modules for final details about each topic, exact dates, and the specific schedule we implement this semester.

Dates	Week	Topics	Chapters
2020 / 01 / 05 - 01 / 11	1	Introduction, Installation	1.1 - 1.4
2020 / 01 / 12 - 01 / 18	2	ER Diagrams, Relational Model	4.1 - 4.6
2020 / 01 / 19 - 01 / 25	3	MariaDB, SQL, and Java I	2.1 - 2.3; 6.1
2020 / 01 / 26 - 02 / 01	4	Relational Algebra I and II	2.4; 5.1 - 5.2
2020 / 02 / 02 - 02 / 08	5	Functional Dependencies	3.1 - 3.2
2020 / 02 / 09 - 02 / 15	6	Exam I	
2020 / 02 / 16 - 02 / 22	7	Normal Form	3.3 - 3.5
2020 / 02 / 23 - 02 / 29	8	MariaDB and SQL II	6.1 - 6.3
2020 / 03 / 01 - 03 / 07	-	Spring Break	-
2020 / 03 / 08 - 03 / 14	9	MariaDB and SQL III	6.4 - 6.5
2020 / 03 / 15 - 03 / 21	10	Transactions	6.6
2020 / 03 / 22 - 03 / 28	11	Exam II	
2020 / 03 / 29 - 04 / 04	12	Constraints, Foreign Keys, Triggers	7
2020 / 04 / 05 - 04 / 11	13	Views	8.1 - 8.2
2020 / 04 / 12 - 04 / 18	14	Cursors and Stored Procedures	9.3 - 9.4
2020 / 04 / 19 - 04 / 25	15	Exam III	

Attendance Policy, Class Expectations, and Make-Up Policy

General policies can be found here: <http://www.cise.ufl.edu/~pjd/admin/policies/course.html>. You are expected **know and follow** all of these policies.

In order to be successful in this course, you should attend lecture. There is no replacement to the experience of seeing the material presented during lecture.

Make ups are provided given you inform me one week prior to the conflict in question and present sufficient documentation regarding absences from graded class activities, for example a note from a medical professional if you were to become ill. There are very few events which would impede your participation in a graded activity warranting an exception, that you would not be aware of well before [at least a few hours] the start of the activity. Contacting me after the graded activity may result in the exception not meeting course requirements and a make up option no longer being available.

Late work [such as *homework*, this is not applicable to in class activities or Exams which must be completed by the assigned date/time of the activity unless the absence is excused]: No work can be accepted after a solution is posted. If a solution has not been posted and you submit one day late, there will be a penalty of up to 50% on the graded work. No work that is two days late can be accepted. Note, if the assignment is due at 11:59 PM, then at 12:00 AM the work is one day late.

Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>) and require appropriate documentation.

This semester, all make ups will be administered at the same time, on the same cumulative exam and held during our University assigned final exam period: Tuesday, April 28, 2020 from 7:30 - 9:30 AM in CSE A101.

Evaluation of Grades

Activity	Final Grade Percentage
Exams [3]	60% [20% each]

Homework	40%
Total	100%

Exams

There will be three exams. Each exam will be 20% of the final grade, combined totaling 60% of your grade. Exams will be held during the UF evening assembly exam periods [periods: E2 – E3 | 20:20 – 22:10 | 8:20 – 10:10 PM]. The exam schedule is given on the next table and room assignments are given on the table that follow.

Exam	Day	Date
I	Tuesday	2020 / 02 / 11
II	Tuesday	2020 / 03 / 24
III	Tuesday	2020 / 04 / 21

Last Name	Exam Room Locations		
	I	II	III
A – K	WEIL 270	WEIL 270	WEIL 270
L – Z	WM 100	WM 100	WM 100

Homework (AKA Project Assignments)

Homework will include written homework problems and the implementation of database management programs. Assignments include a semester long project distributed into parts and individual homework exercises. The details of project submissions will be given for each assignment and include submissions given by hard copy in lecture and soft copy via e-Learning (Canvas: <https://elearning.ufl.edu/>) by 11:59 PM on the due date assigned within the project specification. If you will be absent from lecture, ensure any assigned hard copies have been delivered to before the lecture meeting time. Your lowest project score will automatically be dropped. Homework will be completed individually [and not in groups].

Practice Exercises

There will be practice exercises assigned during lecture that are not associated with a graded homework. These exercises are supplemental to the course lectures and graded materials, helping you in your studies and preparation. These exercises will not be collected, however if you would like to discuss your solutions with us, please do so. It is *highly* recommended that you complete and participate in non-graded course activities: *lecture* and *practice exercises*, in addition to the graded activities: *exams* and *homework*.

Grading Policy

The range used to calculate your final letter grade in our course will be no harsher than this grading scale provided in the following table. Your final point total will be calculated using the percentages given in the *Evaluation of Grades* section. The percent you earn on each activity will be multiplied by the grade points associated with that activity.

Grade Points	Letter Grade	Highest	Lowest
4.00	A	100+	92.00
3.67	A–	91.99	89.00
3.33	B+	88.99	86.00
3.00	B	85.99	82.00
2.67	B–	81.99	79.00
2.33	C+	78.99	76.00
2.00	C	75.99	72.00
1.67	C–	71.99	69.00
1.33	D+	68.99	66.00
1.00	D	65.99	62.00

0.67	D-	61.99	59.00
0.00	E	58.99	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Re-Grade Requests

All grading/re-grading issues **must** be resolved within **1 week** of the graded work being returned. You must return exams/projects/quizzes to the person grading the activity in question, along with a **printed (not handwritten) attachment** stating the reasons for the re-grade. Do not write anything on the exam itself or detach (un-staple) the pages from each other. If you do so, your exam/project/quiz will not be re-graded. Note, when requesting a re-grade, the whole exam/project/quiz is subject to the re-grade, not just the portion you specify. We will be happy to discuss the solution and answer any questions, however no change will be made after the allotted week has passed.

Special Notes for the First Week of Classes

There will be no office hours the first week of classes. If you need to see me, do so after lecture or schedule an individual appointment.

Disclaimer

This document is subject to change at the discretion of the instructor, based on unforeseen circumstances (such as hurricanes, sub-freezing temperatures... this is Florida after all, rifts in the fabric of time, and so on) occurring during the semester.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request accommodations should connect with the Disability Resource Center <https://disability.ufl.edu/students/get-started/> (352.392.8565, <https://disability.ufl.edu/>). Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester, delaying may affect the ability to schedule the accommodation. All exams, quizzes, and so on administered through the DRC office must follow the course exam structure, being completed on the same date and time as the course exam.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every

person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the [Office of Title IX Compliance](mailto:title-ix@ufl.edu), located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.