

Carleton University  
School of Computer Science  
COMP 3005A  
**Database Management Systems**  
**Fall 2021**

**Instructor:**

Ahmed El-Roby  
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HP 5433

**Lectures:** Monday and Wednesday: 1:05PM - 2:25PM

**Office Hours:** Tuesday: 11:00 AM - 12:00 PM

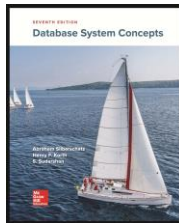
**Teaching Assistants:**

1. Ritika Bhatia ([ritikabhatia@email.carleton.ca](mailto:ritikabhatia@email.carleton.ca)).
2. Yingjun Dai ([yingjundai@email.carleton.ca](mailto:yingjundai@email.carleton.ca)).
3. Marzi Heidari ([MARZIHEIDARI@email.carleton.ca](mailto:MARZIHEIDARI@email.carleton.ca)).
4. Ikram Hussain ([ikramhussain@email.carleton.ca](mailto:ikramhussain@email.carleton.ca)).
5. Abdelghny Orogat ([ABDELGHNYOROGAT@email.carleton.ca](mailto:ABDELGHNYOROGAT@email.carleton.ca)).
6. Fathima Nizwana Yusuff ([fathimanizwanayusuff@email.carleton.ca](mailto:fathimanizwanayusuff@email.carleton.ca)).

TA office hours start on the week of September 20th. Office hours dates and times can be found on Brightspace.

**Textbook:**

1. Avi Silberschatz, Henry F. Korth, and S. Sudarshan. Database System Concepts. Seventh Edition. McGraw-Hill. ISBN 9781260084504.



**Prerequisites:**

[COMP 1805](#) with a minimum grade of C-, and either [COMP 2402](#) or ([SYSC 2004](#) and [SYSC 2100](#)).

## Course Description:

Introduces students to concepts of database management systems, data models, database languages, database design and physical data organization. Materials:

- Overview of Databases
- Relational Model
- SQL
- Relational Database Design
- Physical Storage Systems and Storage Structure
- Indexing
- Query Processing and Query Optimization

## Attendance

Class attendance is important, as you will be responsible for all subjects discussed in class. No attendance will be taken.

## Marking Scheme:

Assignments	25%
Projects	25%
Midterm (1) (Nov. 1 <sup>st</sup> in class)	25%
Midterm (2) (Dec. 6 <sup>th</sup> in class)	25%

## Note:

1. Collaborating on assignments is **strictly disallowed**. If found, all students involved will be given a mark of 0 and the case will be reported to the office of the Dean of Science. If you need help, please see a TA or the instructor during their office hours.
2. Posting assignment solutions on discussion boards before the due date and time is prohibited and the student involved will be given a mark of 0 for the assignment. Assignments **must** be submitted to **Brightspace** in order to be marked. Assignments are allowed to be submitted one day late with **10% penalty**. After one day, no submission will be accepted. **Never email any assignment to me or TAs!** Technical problems do not exempt you from this requirement, so if you wait until the last minute and then have issues with your connection, you will still receive a mark of zero. Consequently, you are advised to:
  - Periodically upload your progress (e.g., upload your progress at least daily).
  - Attempt to submit your final submission at least one hour in advance of the due date and time.
3. The four assignments with highest grades will count towards the 25% of the total grade for the course.
4. Any issues regarding assignment and midterm marks should be brought to the attention of the TA who marked it (only if the TA does not address the problem to your satisfaction should you bring the matter to the instructor). This should be done **no later**

*than two weeks* after the marks of this assignment/midterm are posted. After this time, **no remarking will be done.**

5. Must pass the exams with at least **45%** to pass the course.
6. Please note that tests and examinations in this course will use a remote proctoring service provided by Scheduling and Examination Services. You can find more information at <https://carleton.ca/ses/e-proctoring/>.

## Resources

In case you need to use computing resources, you can openstack instances can be provided: <https://carleton.ca/scs/tech-support/scs-open-stack/>

## Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP; or by email at [scs.ug.advisor@cunet.carleton.ca](mailto:scs.ug.advisor@cunet.carleton.ca). The undergraduate advisors can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisors will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and Writing Tutorial Services.

## University Policies

For information about Carleton's academic year, including registration and withdrawal dates, see [Carleton's Academic Calendar](#).

**Pregnancy Obligation.** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit [Equity Services](#).

**Religious Obligation.** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit [Equity Services](#).

**Academic Accommodations for Students with Disabilities** If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the [Paul Menton Centre](#) website.

**Survivors of Sexual Violence.** As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support)

**Accommodation for Student Activities.** Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).

**Student Academic Integrity Policy.** Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of *F* in the course or even being expelled from the program or University. Examples of punishable offences include: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found [here](#).

**Plagiarism.** As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean of Science. Standard penalty guidelines can be found [here](#).

**Unauthorized Co-operation or Collaboration.** Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.

### **Academic Integrity: Minimum penalties for offences starting 6 January 2020**

**First offence, first-year students (< 4.0 cr): Final grade reduction of one full grade (e.g., A- becomes a B-, if that results in an F, so be it)**

**First offence (everyone else): F in the course**

**Second offence: One-year suspension from program**

**Third offence: Expulsion from the University**

**Note: these are minimum penalties. More-severe penalties will be applied in cases of egregious offences (e.g., a first-year student accessing CULearn from their phone during an exam will be given an F in the course; bribing a faculty member for a better grade would be grounds for suspension, etc.)**