

CSC343H1F 20259 (All Lectures): Introduction to Databases

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 Edit

Note: This syllabus is in draft form until approved by the Associate Chair, Undergraduate.

Welcome to CSC343H1! This course provides an Introduction to Databases, and prepares you for later study in the implementation of Database Management Systems.

The material posted on Quercus is required reading. It contains important information, including assignment handouts, the policy on missed work, links to the online discussion forum (Piazza), and announcements. You are responsible for all announcements made in lecture and on Quercus.




Note to Engineers: This course operates under [Faculty of Arts and Science rules](https://artsci.calendar.utoronto.ca/term-work-tests-and-final-exams).
(<https://artsci.calendar.utoronto.ca/term-work-tests-and-final-exams>).

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Contact Information

Instructors	Diane Horton and Marina Tawfik
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Lectures	<p>L0101/L2001 (Marina Tawfik): Tuesdays 2-3pm in EM001 (https://map.utoronto.ca/?id=1809#!m/494601?s/) Thursdays 1-3pm in KP108 (https://map.utoronto.ca/?id=1809#!m/494488?s/)</p> <hr/> <p>L0201 (Diane Horton): Wednesdays 1-2pm in AH100 (https://map.utoronto.ca/?id=1809#!m/494578?s/) Fridays 1-3pm in KP108 (https://map.utoronto.ca/?id=1809#!m/494488?s/)</p>
Office Hours	<p>Beginning Monday, September 8th</p> <p>Mondays 2:30-4:30: Marina in BA 4230 Tuesdays 4:00-5:00: Diane in BA 4236 Thursdays 10:30-11:30: Diane in BA 4236</p> <p>The schedule may change. Please see the calendar (https://q.utoronto.ca/courses/395805/pages/office-hours) for the most up to date information.</p>
Email (for personal issues)	csc343-2025-09@cs.toronto.edu (mailto:csc343-2025-09@cs.toronto.edu)
Discussion Board (for issues relevant also to other students)	<p>Piazza. Find our class sign-up link at: https://piazza.com/class/mdd6adk5a387np/  (https://piazza.com/class/mdd6adk5a387np/)</p>
MarkUs link	https://markus.teach.cs.toronto.edu/markus/courses/80  (https://markus.teach.cs.toronto.edu/markus/courses/80)
Course readings	https://www.teach.cs.toronto.edu/~csc343h/fall/readings/index.html  (https://www.teach.cs.toronto.edu/~csc343h/fall/readings/index.html)

Prerequisites

If you don't have the course prerequisites listed in the [calendar entry](#)

([https://artsci.calendar.utoronto.ca/search-courses?](https://artsci.calendar.utoronto.ca/search-courses?course_keyword=CSC343&field_section_value=Computer+Science&field_prerequisite_value=&field_breadth)

[course_keyword=CSC343&field_section_value=Computer+Science&field_prerequisite_value=&field_breadth](https://artsci.calendar.utoronto.ca/search-courses?course_keyword=CSC343&field_section_value=Computer+Science&field_prerequisite_value=&field_breadth)

, the undergraduate office will contact you with a form to complete in order to request a prerequisite waiver. Waivers are not granted automatically; a decision is made based on whether or not we feel you are well prepared to succeed in the course.

Course format

This is an in-person course. Lectures in csc343 course are not "lectures". In class you will test out the knowledge and skills you are acquiring, and learn the most challenging new material in a context where we can adjust the teaching to match your learning. In some cases you will discover the trickiest ideas yourself. Be prepared to get your gears turning! Experience (and the literature) tells us that this is a fun and very effective way to learn, and it can only happen if you are there. For this reason, part of [your course grade](#) (<https://q.utoronto.ca/courses/395805#markingscheme>) will be for your active engagement in class.

Preparing for class

To prepare for our active classes, you will do weekly "prep" activities outside of class. These will involve learning some of the more basic material on your own, through readings or videos, and practicing things we've learned in class. They will always culminate in some small exercises that you hand in. These weekly preps are not intended to be greatly difficult or time consuming, but they will be pivotal in your learning.

Lecture recordings

The sound quality on classroom recordings is poor, so we are providing instead a full set of lecture recordings made on Zoom. These are indexed in detail so you can find exactly what you're looking for without having to listen through a long recording.

Reading/viewing recorded materials will provide a poorer experience than the live lecture. We hope you will choose to attend in person and participate (and earn your participation marks too). If you have to miss a lecture, we encourage you to pause the video and do the exercises where noted.

Course videos and materials are protected by copyright. In this course, you are permitted to download videos and materials for your own academic use, but you should not copy, share, or use them for any

other purpose without the explicit permission of the instructor. For example, you are not permitted to post any course materials (worksheets, assignments, starter code, etc.) online.

Marking Scheme

You will notice that assignments have a relatively low weight in this course. Because you are allowed to work with a partner and to use AI to help you with your assignments, the grades you earn on these don't tell us nearly as much about what you've learned as the midterm and exam do. This is why the assignment weights are low. Please don't use the weights to gauge how much work each assignment entails. Assignments 1, 2, and 3 are fairly typical CS assignments and will likely feel to you as though they could have been worth 10% (if you did them alone). On the other hand, the A2 warmup is quite small in comparison, and is worth 2% only to encourage everyone to do it so they'll sort out very early any technical challenges running their A2 code.

Lecture Preps	10%	10 Weekly lecture preparation activities (for weeks 2 to 11 inclusive), each worth 1%	Due Tuesdays before 1pm The first prep is due Tue Sep 9th
Class engagement	7%	12 Weekly in-person activities that are graded for making a good effort.	Best 9 of 12
Research surveys	1%	Two short surveys. The initial survey will be included in a Lecture Prep. The final survey is due on the last day of classes, Tuesday, December 2nd, at 11:59pm.	Worth 0.5% each
Assignment 1	5%	Relational Algebra	Wednesday, October 1st before 3pm
Midterm	20%	In person; two hours, during lecture time	Thursday, October 16th or Friday, October 17th (in your section)
Assignment 2 warm-up	2%	SQL and embedding SQL in Python	Wednesday, October 15th before 3pm

Assignment 2	5%	SQL and embedding SQL in Python	Wednesday, November 5th before 3pm
Assignment 3	5%	Database Design	Wednesday, November 26th before 3pm
Final exam	45%	In person; three hours. You must get 40% or above on the final exam to pass the course; otherwise, your final course grade will be no higher than 47%.	TBA, during the final assessment period.

Getting Help

Discussion Board: for sharable questions

Please post your questions about the course material and assignments on our Piazza discussion board so that everyone can benefit from your questions. Feel free to answer other students' questions! Helping someone else learn is one of the most effective ways of deeply learning a subject.

We will monitor the discussion board regularly and answer as many questions as we can. It may take longer near due dates, so try to start assignments early in case you have questions.

Course email account: for personal matters

Please use the course email account, csc343-2025-09@cs.toronto.edu (<mailto:csc343-2025-09@cs.toronto.edu>) for personal matters such as missing course work due to illness.

Instructor office hours: for everything

We welcome all kinds of conversations at office hours. For example, if you are stuck on a problem and unable to make progress, or confused about a concept in the course, or having difficulty working effectively with your partner, please come to see us. We'd love to help!




Generative AI: use it well

You are encouraged to use generative AI to support your learning (not circumvent your learning). See [Using Generative AI \(https://q.utoronto.ca/courses/395805#genAI\)](https://q.utoronto.ca/courses/395805#genAI) below for more information.

We are committed to creating a respectful learning environment in computer science courses for all students and expect that you will adhere to the University of Toronto [Code of Student Conduct \(https://governingcouncil.utoronto.ca/secretariat/policies/code-student-conduct-december-13-2019\)](https://governingcouncil.utoronto.ca/secretariat/policies/code-student-conduct-december-13-2019). Please be mindful of how your behaviour influences the atmosphere in our learning community, not just in classes, but also in office hours, on our discussion board, and anywhere that you interact with other students and members of the department.

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

These two resources are suggested to support your learning in the course:

- A complete set of lecture recordings (link will be available after official course start) for csc343 by Professor Horton.
- The textbook "A First Course in Database Systems" by Jeffrey D. Ullman and Jennifer Widom, 2008 (3rd Edition), available online from the [publisher](#) 
(<http://www.mypersonstore.com/bookstore/product.asp?isbn=013600637X&xid=PSED>) or [Amazon](#) 
(<https://www.amazon.ca/s?k=%22A+First+Course+in+Database+Systems&crd=1IJMXEK4J1KE4&srefix=a+first+course+in+databa>). It is also available on two-hour loan at the Engineering Library in the Sandford Fleming Building. It may or may not be available at the UofT Bookstore at this time.
- Jennifer Widom at Stanford University has several free mini-courses [available on edX](#) 
(<https://www.edx.org/school/stanfordonline>), but in a somewhat synchronous mode that starts September 2nd.

Preps: All weekly preps must be done individually.

Assignments: For the assignments, you have the option of partnering with one other CSC343 student, and we encourage you to do so. You may choose your own partner, and it need not be the same person for each assignment. Your partner may come from any section of the course. Both partners will receive

the same mark for joint assignments. Once you begin working on an assignment, you may not dissolve your partnership without our permission; request permission via the course email account. The deadline for requesting this is 3 days before the original assignment due date.

If you choose to work with a partner for an assignment, you must declare your group on MarkUs. You should declare it as soon as your group is formed, and certainly well before the deadline. Groups cannot be declared once the original assignment due date has passed, even if you have an extension. Please note that if you are working alone on an assignment, you must still declare your "group" on MarkUs. Email the course account (csc343-2025-09@cs.toronto.edu (<mailto:csc343-2025-09@cs.toronto.edu>)) for help if you're having trouble forming a group.

Choose well: Before partnering, have a conversation about expectations and work habits. What mark are you aiming for on this assignment? Do you like to start early or are you a procrastinator? Do you typically work late at night or during business hours? Sharing your answers and working out any differences is probably far more important than comparing your technical backgrounds.

Working together: Working with a partner has the potential to lighten your workload and enhance your learning or to increase your workload and impair your learning, depending on how you work together. Remember that you are responsible for learning the course material underlying all parts of the assignments. Just dividing up the work can result in a less successful assignment, as you won't benefit from your partner's insights, and could lead to disaster on the tests, as you won't have become proficient in all aspects of the course. You will have the most success if you truly work together.

If a partner doesn't meet a commitment: Don't avoid talking with your partner in these situations. It doesn't have to be a conflict; you can start by asking what's happening with them, and work together on a resolution. If you need help, please come talk to us. If your partner misses several commitments, be *sure* to talk with us.

Course Policies

Late Assignments

There is a one-hour grace period for assignments. You may submit at any time during this period without penalty.

We recognize that unexpected problems, illness, and disability-related barriers sometimes make it difficult to submit assignments on time. For this reason, we are adopting a generous late policy with respect to assignment submissions. You may request an extension of up to **four days** for an assignment submission by completing the Special Consideration Request Form (link will be provided later.) Notes:

- **MarkUs:** After making this request, the extension will automatically appear on MarkUs within two business days; please do not contact us if you don't see it right away.
- **Partner:** If you are working with a partner

- You must create your group on MarkUs and make sure your partner has been invited before requesting the extension.
- Only one partner needs to request the extension.
- You may not dissolve your partnership after requesting an extension without contacting the course email address first.
- **Deadline to request an extension:** You may request this extension up to 4 days after the assignment due date. However, note that the extended time will be relative to the assignment deadline, not relative to when you request the extension.
- **Asking for a shorter then a longer extension:** If you initially request a shorter (e.g., 2-day) extension, you can fill out the form again to request a longer extension. We will always apply the most recent extension request you have submitted (for a total extension of up to 4 days after the assignment due date).
- **If you miss your extended deadline:** Any work submitted beyond whatever extension you received plus the one-hour grace period (even 1 second beyond) will not be graded.
- **Using this policy more than once:** You may make use of this policy on as many assignments as you require. However, if you submit extension requests for more than one assignment, we may reach out to connect you with campus supports to help you stay on track in the future (e.g. your college registrar).
- **If you get an extension and then fall ill:** If a student has been granted an extension of 4 days and then becomes ill on the extended deadline, no further extension will be given unless the student has been ill for more than 4 days and further documentation is provided.

While it may seem like a "no-brainer" to always request a four-day extension for each assignment, we strongly recommend not making this request lightly. We have designed your assignments so that they can be completed by their actual deadlines, and we believe that for the vast majority of students, meeting these deadlines is the best way to keep up with the course material. Please do not use this policy to simply shift the original deadline in your mind.

Longer Extensions

Students who are registered with Accessibility services are free to use the policy above. However, if you would like to request more than 4 days of extra time to complete an assignment, please fill out the Special Consideration Request Form (link will be provided later.) before the original assignment deadline.

If you find yourself in a serious medical or emergency situation where a 4-day extension will not be sufficient, please fill out the Special Consideration Request Form (link will be provided later.) before the original assignment due date. We may require further documentation or confirmation from your college registrar, and further extensions are not always granted. So, you should submit any partial work that you've completed before the original assignment due date. Please also complete an Absence Declaration on ACORN when appropriate, and send the notification to the course email address.

Late Preps

For weekly preps, **no late submissions will be graded**, as their purpose is to prepare everyone for lecture.

Missed Midterm

You may request special consideration if you missed the midterm due to illness or other extenuating circumstances by submitting the Special Consideration Request Form (link will be provided later.) You will be asked to provide additional information, and this will be reviewed by the course staff. You should also complete an Absence Declaration on ACORN when appropriate, and send the notification to the course email address. Special consideration is NOT always granted. If it is granted, you will have the opportunity to write a make-up test. If you are not available at the time of the make-up test, for example because you are still ill or because you have a conflict with another course, you may request special consideration again. You will be asked to provide information about the reason for missing both the regular sitting and the makeup test. If permission is granted, the weight of your midterm will be transferred to the final exam.

Special Consideration

If you need to request special consideration (as described above), you will be required to affirm that you are abiding by the [Code of Behaviour on Academic Matters](http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011!) (<http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011!>), in particular that it is an offence

to engage in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.

That is, you must confirm that you are truly experiencing an emergency, and acknowledge that to falsely claim so is an academic offence. Applying does not guarantee that you will be granted special consideration.

The Special Consideration Request Form will be available here. Please carefully read the policy above on late work before submitting a request.

IMPORTANT: Submit a request for special consideration as soon as possible. It is easier to resolve situations earlier rather than later. If your emergency will affect your ability to complete coursework for more than a few days, or in multiple courses, we recommend you also talk to your Registrar -- they are very helpful in such situations.

Remark Requests

Mistakes sometimes happen when marking. If you feel there is an issue with the marking of your assignment or test, you may request that it be remarked. Remark requests are accepted for two weeks after the item is returned, and are submitted via MarkUs. You must give a specific reason for a remark request, referring to a possible error or omission by the marker. Remark requests without a specific reason will not be accepted.

We will respond to remark requests before the final grades are submitted at the end of the term. We aim to do these sooner, but it is not always possible.

Academic Integrity

The work you submit must be your own. It is an academic offence to copy someone else's work. This includes their code, their words, and even their ideas. Whether you copy or let someone else copy, it is an offence. Academic offences are taken very seriously, and penalties can go well beyond 0 on the piece of work.

At the same time, we want you to benefit from working with other students. You are welcome to work with other csc343 students on learning and understanding course material. For example, you may work through examples that help you understand course material or a new technology, or help each other configure your system to run a supporting piece of software. You are also welcome to work with other csc343 students on **learning and understanding** related to assignments, including:

- Understanding the handout
- Understanding the architecture of starter code
- Understanding specifications for a query, update or method
- Getting more familiar with Python (some Engineering students may not have learned this language)
- Learning an unfamiliar library (we'll be using psycopg2)
- Making connections to other course material or concepts
- Understanding error messages (without looking at the code)

However, other than between partners, *collaboration on assignment **solutions** is strictly forbidden*. For example, these are not allowed:

- Working out the steps of a solution together
- Drafting code together
- Understanding solution code generated by generative AI
- Improving code quality
- Debugging (i.e., diagnosing the source of an error message or incorrect results)
- Fixing code (i.e., changing the code to eliminate an error message or produce correct results)

The most certain way to protect yourself is not to discuss assignment solutions or the ideas behind them with students other than your partner. Certainly you must not let others see your assignment solutions, even in draft form, or even your rough work.

Be cautious with private tutors, as some cross the line and tell students the answers - and they routinely engage with multiple students who all end up submitting nearly identical work.

Using Generative AI

In this course, you may use generative artificial intelligence (AI) tools as learning aids and to help complete assignments. We strongly recommend that you use UofT's Copilot because it is free, has no limits on your use, your data stays within the UofT ecosystem, and your conversations are not used to train any models. This means that you may upload copyrighted material to Copilot, whereas you are not allowed to do so with other genAI tools. We encourage you to review the privacy policy of any other generative AI tool you plan to use, in particular, to understand how your interactions will be stored and used by the tool in the future.

We recommend that you focus your use of generative AI on the learning and understanding side. Keep in mind that it may produce content which is incorrect or misleading. It may also produce content that is inconsistent with the expectations of this course. This is a particular issue in databases where some terminology and notation is not standardized.

If you use generative AI more specifically to help you *solve* course work, please be careful not to rely heavily on these tools. Ultimately, you (and not any AI tool) are responsible for your own learning in this course, and for all the work you submit for credit. It is your responsibility to critically evaluate the content generated, and to regularly assess your own learning independent of generative AI tools. Over reliance on generative AI may give you a false sense of how much you've actually learned, which can lead to poor performance on the midterm test or final exam, in later courses, or in future work or studies after graduation.












To help you use it well, we have prepared some advice about genAI (will be made available after the official course start date) including pitfalls that are specific to CSC343, and specific to your assignment work in this course.







Accessibility Accommodations

The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets the needs of students and preserves the essential academic requirements of the University's courses and programs.

Students with diverse learning styles and needs are welcome in this course. If you have a disability that may require accommodations, please feel free to contact us at csc343-2025-09@cs.toronto.edu (<mailto:csc343-2025-09@cs.toronto.edu>) and/or the St George Campus [Accessibility Services](https://studentlife.utoronto.ca/departments/accessibility-services/) (<https://studentlife.utoronto.ca/departments/accessibility-services/>) office.

Course Summary:

Date	Details	Due
Wed Oct 1, 2025	 Assignment 1 (https://q.utoronto.ca/courses/395805/assignments/1544295)	due by 3pm
Wed Oct 15, 2025	 Assignment 2 warmup (https://q.utoronto.ca/courses/395805/assignments/1544297)	due by 3pm
Wed Nov 5, 2025	 Assignment 2 (https://q.utoronto.ca/courses/395805/assignments/1544296)	due by 3pm
Wed Nov 26, 2025	 Assignment 3 (https://q.utoronto.ca/courses/395805/assignments/1544298)	due by 3pm
	 Final Exam (https://q.utoronto.ca/courses/395805/assignments/1544299)	
	 Initial Survey (https://q.utoronto.ca/courses/395805/assignments/1544300)	
	 Lecture Prep for Week 10 (https://q.utoronto.ca/courses/395805/assignments/1544968)	
	 Lecture Prep for Week 11 (https://q.utoronto.ca/courses/395805/assignments/1544970)	
	 Lecture Prep for Week 2 (https://q.utoronto.ca/courses/395805/assignments/1544961)	
	 Lecture Prep for Week 3 (https://q.utoronto.ca/courses/395805/assignments/1544962)	
	 Lecture Prep for Week 4 (https://q.utoronto.ca/courses/395805/assignments/1544963)	

Date	Details	Due
	 Lecture Prep for Week 5 (https://q.utoronto.ca/courses/395805/assignments/1544964)	
	 Lecture Prep for Week 6 (https://q.utoronto.ca/courses/395805/assignments/1544965)	
	 Lecture Prep for Week 7 (https://q.utoronto.ca/courses/395805/assignments/1544966)	
	 Lecture Prep for Week 8 (https://q.utoronto.ca/courses/395805/assignments/1544967)	
	 Lecture Prep for Week 9 (https://q.utoronto.ca/courses/395805/assignments/1558447)	
	 Midterm Test (https://q.utoronto.ca/courses/395805/assignments/1544301)	