

CHEM 1101 A & B

COURSE OUTLINE - FALL 2025

Course Description: See the Carleton University Calendar for official course descriptions:

<https://calendar.carleton.ca/undergrad/courses/CHEM/>

See Carleton Central and your registration information for the official class time and place.

Instructor: Pam Wolff (she/her) email: pamela.wolff@carleton.ca

Office: HP 4432 (the rear wing of the Herzberg building)

- **In person student office hours** : Open door - Drop in: **HP 4432** (the rear wing of the Herzberg building)
 - Monday 9:30 - 11:00 p.m.
 - Wednesday 10:00 - 11:30 p.m.
 - or by appointment (Zoom or in person) - send an email and *tell me when you're available*

Please check BrightSpace regularly; you are responsible for ALL material posted there. I will try to give you as much notice as possible, but if I send an email or post an announcement on Brightspace, after 24 hours, you are responsible for knowing its contents, so check Brightspace and email at least once per 24 hour interval.

➤ **How to contact me** (*click for more details*):

- Email is the way to contact me. Use CHEM 1101 and your section as the subject. If you haven't had an answer in three days, please re-send, as I may have missed your message by mistake.
- In person student office hours : Open door - Drop in: **HP 4432** (the rear wing of the Herzberg building)
- If you want to meet about a sensitive issue, contact me to make an appointment. *Send me with a list of times when you're available to meet* - I'll pick the first one when I'm free too.
- Zoom office hours by appointment; contact me with a list of times when you're available to meet - I'll pick the first one when I'm free too..
- If you ask in an email about something that's posted on BrightSpace, I'll reply, but I'll just say "check BrightSpace". This isn't meant to be disrespectful to you, but to get you used to checking before asking.

➤ **Textbook: CHEMISTRY – 4TH CANADIAN EDITION** (*or any standard first year text: click for more details*)

Textbook: CHEMISTRY – 4TH CANADIAN EDITION by Olmsted, Williams and Burk

The official textbook is available from the University Bookstore. For up-to-date information about your textbook options, see the bookstore web page: <https://carleton.bookware3000.ca/>

Current costs at the Bookstore are as follows:

ISBN 9781119709442 (physical book) \$153.95

ISBN 9781119709411 - Ebook 150 days \$ 57.00 or lifetime eBook option \$134.95

I post a list of chapters, sections, and extra practice problems from this textbook. I don't use the textbook for homework or assignments, but it serves as a good source of extra information and practice problems. It should be available used, as this edition has been out for a few years. The second or third editions are fine, too. If you're confident you can use a table of contents and index to figure out what to read and which extra practice problems to do, then feel free to buy any standard first year textbook.

ACADEMIC INTEGRITY:

There will be a real-time on-line workshop on academic integrity during our second lecture of the term (Monday 08 September, during your class time). Academic Integrity issues such as plagiarism and the use of A.I. tools such as large language models, will be discussed.

If you miss the workshop, you will need to watch the recording, and submit a written make-up assignment. Discussing the issues with your fellow students in breakout groups and reporting back to the class as a whole is much more fun, so try not to miss it! **You must complete the workshop (the real-time version or the make-up written version) in order to pass the course.**

MARKING SCHEME:

I will assign your final grade based on the highest mark from these three options:

	Scheme 1	Scheme 2	Scheme 3
Academic Integrity Workshop	mandatory	mandatory	mandatory
Assignments (best 13 of 17):	5%		
Topic Quizzes (best 13 of 17):	10%		
Midterms (2): Wednesday 15 October Monday 24 November	20 %	20%	
Final exam:	40% ***	55%***	75 %***
Bonus Assignments:	03 % ****	03%****	03 % ****
LABS:	25%**	25%**	25%**



**** Labs: You must complete the lab to pass the course** *(click for more details)*

If you fail to attend all of your labs and submit all of the required lab material, your grade in the course will be an F, regardless of your actual numerical mark. **Contact your TA immediately if you're struggling - there is support available.**

We will make every attempt to allow you to complete the lab work, but the labs are used to full capacity, so the sooner we know that you need to do a make-up, the easier it is to find the opportunity to schedule it for you. **Contact the lab supervisor immediately if you miss a lab.**

If you know you need to be absent for one of your scheduled labs, inform the lab supervisor right away - before the date of the lab. It may be possible to arrange for you to complete it with another lab group, but this **MUST** be arranged in advance.

***** The final exam is mandatory and you must get at least 40%** *(click for more details):*

You must earn a grade of at least 40% on the final exam in order to pass the course. Any mark of less than 40% on the final will result in an F for the course regardless of your actual numerical grade.

****** Bonus marks: providing you get 100% on the outline quiz** *(click for more details)*

There is a "course outline quiz" in the "course outline" box on Brightspace. You may take this quiz as often as you need to in order to get 100%, but **you must score 100% on the outline quiz in order to receive credit for any of the bonus work you do.**

There are two opportunities to earn bonus marks.

1. 1 mark: A short bonus assignment on quantum dots
2. 2 marks: An excel assignment where you submit an excel file with all of your marks up to that point and your 'grade-to-date' (this is an exercise in using excel and it also tells me that you're keeping track of your marks!) If you don't have excel, you can get it at no cost through Carleton. <https://carleton.ca/its/help-centre/get-microsoft-office-for-students/>

NOTE: the Outline Quiz and the bonus assignments must be done by their respective due dates in order to count towards your final mark. I will NOT extend the due dates. I will NOT authorize bonus work after the end of the course under any circumstances.

GRADED MATERIAL for the lecture portion of the course

> LECTURE MATERIAL (click for more details):

Lectures are in-person.

I will be recording the lectures (subject to technology; I don't guarantee successful recording of every lecture.) I will make these recordings available *by request* only; you may have four(4) lectures "no questions asked", but if you ask for more than four recordings, I'll need your reasons for missing the in-person class, and I'll decide whether to allow you access. (Don't skip classes at the beginning of term; save that for the busiest times when you may legitimately need a bit of extra time "*right now*" to catch up on something else!)

> TOPIC ASSIGNMENTS (1 or 2 per week: one for each sub-topic): (click for more details)

Assignments in this course are set up as Brightspace "quizzes". (If it has questions to be answered, Brightspace insists on calling it a "quiz" - if I tell Brightspace that it's an "assignment", all it is is a drop-box for file submissions). If you contact tech support at Carleton or at Brightspace, you have to refer to these assignments as "quizzes" or the tech. support people will assume a totally different Brightspace function.

Assignments are designed to help you learn how to handle the material - if you don't know how to do an assignment question, you haven't learned the material yet and you need to go back and review the notes and examples! They are similar to the questions that will be on the topic quizzes, the midterms, and the final exam. Make sure you do them; I will not give make-up work after the end of the course to allow you to raise your grade/pass the course, but if you work on the course material regularly and make sure you understand it as you go, there is no reason for you to not pass the course.

Assignments are posted on Brightspace. You can go in and out of them, and submit, re-submit as often as you like up to the due date/time. ***It is OK to work with other people or get help from me on the assignments.*** Each student will have a different set of variables for the calculated questions, though, so you will need to use the same techniques as other students, but you will NOT get the same answers. THE LAST SUBMISSION IS THE ONE THAT COUNTS - so I suggest you do the assignment as well as you can and submit it early - then repeat it carefully, getting help if you need it (from friends or from me - if you want me to help, send me a pdf of the work you've already tried so that I can see where you are in the problem and try to pick out what you do and what you don't understand.)

NOTE: for a numerical assignment, once you submit it, you'll get different numerical values when you go back in to try again. The question will be the same, but with different data.

MAKE SURE YOU DON'T FORGET TO **SUBMIT** THE ASSIGNMENT - Brightspace will not submit it for you.

YOU WILL HAVE TO SUBMIT A PDF OF YOUR HANDWRITTEN WORK ON CALCULATED QUESTIONS WITHIN 20 MINUTES OF SUBMITTING THE ASSIGNMENT IN ORDER TO RECEIVE CREDIT FOR THAT ASSIGNMENT. (Most students take a photo with their phone, then convert that to a pdf to submit it. Camscanner is a popular app, but anything that will convert to pdf is fine.) If you work with a stylus on a tablet, it's fine to submit a pdf file of that. **It must be handwritten - in your handwriting.**

Show enough steps for me to tell what equation, you used, and what values you put in. You don't need to show rearranging the equation or calculation steps.

You won't be receiving marks for the handwritten work on assignments, so make sure you don't make a mistake entering the answer on Brightspace. **It is the Brightspace answer that you're graded on.**

Make sure you do the assignment well before the due date/time. **You will not be able to enter answers into the assignment once the due date/time passes** (though you will be able to submit it past that time as long as you've already entered the answers.)

I DO NOT GIVE EXTENSIONS BEYOND THE DUE DATE/TIME FOR ANY REASON - that includes health reasons and technical difficulties/network/connectivity issues. I release the answers as soon as the due date/time passes, so extensions aren't possible. To make up for this inflexibility, I drop your lowest four assignment marks (including any you didn't submit and therefore get a zero for) and calculate your assignment grade based on your top 13. You can therefore miss up to four without losing marks.

➤ **Individual Topic Quizzes (1 or 2 per week: one for each sub-topic):** *(click for more details)*

Topic quizzes consist of (usually) one or two questions to test whether you've understood the material well enough to do a question on it **in a limited amount of time**. These are open book/open notes/open internet, but must be YOUR OWN WORK. It is not OK to get help from anyone - whether they're a student in our course or not, whether you're paying for that help or not, and whether they're with you or on line/on your phone etc.

Most topic quizzes can only be opened once (a few can be tried twice (the numerical values will be different) - you'll know before you begin whether you get a second try.) You will have a limited amount of time to complete the quiz - this varies from quiz to quiz, but you'll know what it is before you start the quiz. The timing is part of the evaluation - if you think there's not enough time, you need to practice more. **YOU WILL NOT BE ABLE TO ENTER AN ANSWER ONCE TIME RUNS OUT** so it's up to you to watch the timer. Enter before you "double check" your work; you can change your answer if you still have time left. I will not re-open the quiz for you if you run out of time before entering an answer, and I will not mark your written work instead of your quiz if you run out of time.

You must open the quiz before the due date/time passes. I will not extend the due date/time for any reason, including health, technical difficulties, connection failures etc. I make the answer visible as soon as the due date/time passes (hence the "no extensions" policy!) To make up for being inflexible, I will drop the lowest four topic quiz marks, and base your topic quiz grade on the average of your top 13 topic quiz marks. You can miss up to four of them, therefore, before you start losing marks for missed quizzes.

YOU WILL HAVE TO SUBMIT A PDF OF YOUR HANDWRITTEN WORK ON CALCULATED QUESTIONS WITHIN 20 MINUTES OF SUBMITTING THE QUIZ IN ORDER TO RECEIVE CREDIT FOR THAT QUIZ. (Most students take a photo with their phone, then convert that to a pdf to submit it. Camscanner is a popular app, but anything that will convert to pdf is fine.) If you work with a stylus on a tablet, it's fine to submit a pdf file of that. It must be handwritten - in *your* handwriting.

Show enough steps for me to tell what equation, you used, and what values you put in. You don't need to show rearranging the equation or calculation steps.

You won't be receiving marks for the handwritten work on topic quizzes, so make sure you don't make a mistake entering the answer on Brightspace. **It is the Brightspace answer that you're graded on.**

➤ **Midterms (2 - in-person, during class time):** *(click for more details)*

Wednesday 15 October

Monday 24 November

There will be two midterms in this course; each will cover nearly half of the course. They will be written during class time, in our regular classroom.

If you are sick or have a personal emergency happen just before the midterm, contact me as soon as you can. There is paperwork for you to fill out, and then I can either arrange for a deferred midterm or transfer the marks to the final exam, depending on how much time has passed since the missed midterm.

The midterms will have similar questions to the assignments and topic quizzes. They will be written on paper, not on a computer, and they are closed-book, closed-notes format. You'll be given a periodic table and the formulae and constants on your question paper, but you will not be able to refer to any material while you're writing. You will need a calculator - programmable and/or graphing is OK, but you may NOT use a cell phone or any other device with transmit/receive capabilities.

The marked midterms will be returned to you - typically two weeks after they are written. I will NOT post marks in the gradebook right away; I expect you to look at your midterm and check what you did right and wrong as well as what your mark is.

➤ **Final Exam - scheduled by the University Examination Services: (click for more details)**

The final exam is mandatory - you must write it and obtain a mark of 40% or better to pass the course. If you earn a lower mark than this on the final exam, your overall grade will be an F, regardless of what your numerical marks add up to.

The final exam is cumulative to the entire term. The exam format will be similar to the midterms; by the time you write the exam, you'll have had lots of practice with the format and question types.

The exam will take place in person, with the time, date and location set by examination services. I have no say in when and where the exam will take place. I find out that information at the same time you do. It will usually be posted around the time of the reading week break. The exam period is listed in the university calendar (<https://calendar.carleton.ca/academicyear/>). You must be available to write the exam on campus at any time during that period.

If you miss the exam for any reason, you'll have to apply to the University Registrar's Office (<https://carleton.ca/registrar/deferral/>) to request a deferred exam. I can't authorize these - you must make the formal application.

If you know in advance that you absolutely can't write the exam on the date/time published in the official exam schedule, you can talk to me about it. I *may* be able to make an informal arrangement with you regarding rescheduling, but **only if I have advance notice**. During or after the exam, you have to apply through the Registrar's Office (link is above).

➤ **Bonus Assignments - 1. Quantum Dots Bonus Assignment: (click for more details)**

This assignment is found in the module "the molecule" and the submodule "band diagrams".

Tell me a bit about "quantum dots", then describe an application. **You MUST link this to some of the material we've learned in topic 9: Band Diagrams.** You MUST USE YOUR OWN WORDS - it is not OK to just quote a site - and you must **cite any**/every site you use for your information (any citation style is OK) *and provide a link* to it/them. (Wikipedia is OK as a source; there's no need to go to a technical source.) A couple of paragraphs is all you need.

Do NOT copy anyone else's report, and do not give yours to anyone else. They will be checked for plagiarism (and you **don't** want a record of plagiarism).

You may use an LLM (such as ChatGPT or CoPilot) to help you, but note that you must relate the assignment to what we covered in class. I am quite confident that you can write the bulk of it yourself much more quickly and easily than you can prompt-engineer a report that is sufficiently specific to satisfy this requirement.

➤ **Bonus Assignments - 2. Excel marks assignment: (click for more details)**

This assignment is found in the module "Course Outline and general course material" and the submodule "Bonus Assignment - excel record of marks".

There are **very** specific requirements given with the assignment so make sure you read the requirements, check the sample spreadsheet, and watch the instruction videos if you're not familiar with programming excel to satisfy those requirements.

You may use an A.I. programming assistant to help you (such as CoPilot). Note that you must satisfy the specifications in order to get credit for your spreadsheet, and I'm confident that you can watch the instruction videos and program the spreadsheet yourself more quickly and easily than you can engineer the CoPilot prompts to satisfy the specific guidelines.

Midterm and Exam Marking (and marking errors):

I can only help you improve *before* a quiz or exam. Once an evaluation is written, **you get whatever mark you earn**. I will not increase your mark because you “need to pass the course” or need a certain minimum grade to stay in your program. I will not give make-up or extra work after the term ends to raise your grades. I do not make exceptions to this. Ever.

On the other hand – I **will** fix **errors** in the marking! Those are marks that you **did** earn, and just weren’t credited with. I will post information after the first midterm describing what to do if you think a question was improperly marked.

> **Marking** (click for more details):

I will not be making marks visible in the gradebook on Brightspace when you submit your work. To see your mark on an assignment or topic quiz, you need to go into "TOOLS" then "quizzes" then click on that evaluation. It will open and show you: your answer, the correct answer, your mark. These will become visible after the due date/time is past. Midterms will be returned to you; I'll let you know when/how during class. **In order to succeed at university, it's a good idea to try to wrap your head around the fact that you need to think "what did I get wrong, why did I get it wrong, and how can I get it right on the next evaluation?" rather than "what mark did I get on that evaluation?"**

In order to give you practice using very basic functions in excel, you have a bonus assignment of tracking your own marks in an excel spreadsheet (if you don't have excel, you can get it from Carleton ITS (<https://carleton.ca/its/help-centre/get-microsoft-office-for-students/>)). See the bonus assignment section for details.

- Assignments: These are automatically marked on Brightspace, so be very careful not to make typos. Input the answer you want marked, because we are not going to go into Brightspace and overturn the marks if you make an error (if the marking is wrong, then we'll fix it, of course!). You must submit a pdf of your work to get credit for the assignment, but we will not be marking the pdf's.
- Topic Quizzes: These are also automatically marked, so you need to be very careful how you enter your answers here as well. You must submit a pdf of your work to get credit for the topic quiz, but we will not be marking the pdf's.
- Midterms: These are written in person, on the test paper, and are hand-marked. This takes about two weeks. You'll get your marked midterm back on-line as an image showing your written work and our deductions/marks. I'll post information about how to report marking errors.
- Final Exam: This is written in person. I will post the marks as soon as the exams are all marked (usually about two weeks). You will be able to see your exam on-line showing your written work and our deductions/marks. I'll post information about how to report marking errors.

> **Marking errors** (click for more details):

Your assignments and topic quizzes are marked automatically by Brightspace. Your midterms and final exam are marked by me and the TA's. Errors can happen; if you think your answer was correct but was marked incorrect, or that your part marks don't match the marking scheme, you can contact me **WITHIN TWO WEEKS OF THE**

EVALUATION BEING RELEASED TO YOU (for assignments and topic quizzes, that's two weeks after the due date. For the midterms and exam, it's two weeks after we finish hand-marking and release it to you). If there is an error, I will fix it.

IF YOU THINK YOUR ANSWER ON A TOPIC QUIZ OR ASSIGNMENT IS CORRECT BUT WAS NOT GIVEN CREDIT, YOU MUST EMAIL ME AND INCLUDE A pdf COPY OF YOUR WORK SHOWING YOUR STEPS. (You will have uploaded work to Brightspace, but it takes up to five minutes for me to go into Brightspace and find your work among the whole class. This isn't much once, but when I multiply it by all students who ask for a review, it adds up to too much. Re-check your calculation (it's often a calculation error) and resend your work!).

LABS (graded, but not by me):

> **Labs:** (click for more details)

The lab portion of the course is administered separately from the lectures. **You're welcome to come to me with questions about the chemistry involved in the labs, but questions about lab submissions, marking etc. must be discussed with your TA's or with the lab supervisor.** You will find their contact information on the separate Brightspace page for the CHEM 1101 lab.

The lab must be completed in order to get credit for the course as a whole. **If you miss a scheduled lab without arranging a make-up, or fail to submit any of the graded work for the lab, your overall grade for this course will be an F, regardless of the rest of your marks.** We'll work with you if you are struggling and need support, but **you** need to reach out and ask for that help. In the end, you have to do the work; We'll try to help you do it, but *not* agree to let you skip it!

If you've already completed and passed the lab, you *may* be eligible for a lab exemption. **You will be given a special unscheduled lab section to register in.** Instructions for how to arrange this are given in the Chemistry Department Web Page: <https://carleton.ca/chemistry/lab-exemption/>

Non-graded material

> **Practice Problems** (click for more details):

There are practice problems posted as pdf files on Brightspace. These are not collected or graded, but they represent exactly the style of question you might see on an assignment, topic quiz, midterm, or on the final exam. They're there for you to judge for yourself whether you're ready for a quiz or exam.

You should do as many of these practice problems as possible - they're your best study tool. If you're struggling with any of them, review the notes and lecture material. If you're still not comfortable with the material, contact me right away. Come to see me in person, or send an image of the work you've tried to do - this allows me to see where you're going wrong, and to help you get back on track. **I CAN HELP - BUT DON'T WAIT UNTIL THE LAST MINUTE TO ASK!** The day before the final exam is not the time to decide that you actually want to learn the material and pass the course and "will do anything". Decide that at the start of the course, then **DO IT!**

Dates and Deadlines

> (click here for details)

Midterms:

Wednesday 15 October (just before reading week)

Monday 24 November

Assignments and Topic Quizzes:

These are due throughout the term - I'll announce the dates and post them on Brightspace. You'll have a few days for the assignments and about a week for the topic quizzes.

Final Exam:

The University schedules all final exams; examination services will announce the exam dates, typically around the reading week break. The exam period is given in the university calendar (<https://calendar.carleton.ca/academicyear/>); you must be available to write the final exam at any time during that period, so if you're making travel arrangements, either wait until the exam schedule is announced, or make them for after the end of the exam period.

Academic Accommodation

The statements below are provided to me by the university, and I support them wholeheartedly. If you want to discuss any of these accommodations with me, by all means feel free to do so. You need not provide me with any information that you don't want to, but you should definitely consult me as soon as possible if you have specific accommodations other than extended time and need to know how they'll work out in practice. [You can link to a short student guide to accommodation \(click here for the guide\).](#)

Academic Accommodations

Carleton University is committed to providing access to the educational experience in order to promote academic accessibility for all individuals.

Academic accommodation refers to educational practices, systems and support mechanisms designed to accommodate diversity and difference. The purpose of accommodation is to enable students to perform the essential requirements of their academic programs. At no time does academic accommodation undermine or compromise the learning objectives that are established by the academic authorities of the University.

Addressing Human Rights Concerns

The University and all members of the University community share responsibility for ensuring that the University's educational, work and living environments are free from discrimination and harassment. Should you have concerns about harassment or discrimination relating to your age, ancestry, citizenship, colour, creed (religion), disability, ethnic origin, family status, gender expression, gender identity, marital status, place of origin, race, sex (including pregnancy), or sexual orientation, please contact the [Department of Equity and Inclusive Communities](#) at equity@carleton.ca.

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

> Academic accommodation for students with disabilities (click for more details):

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 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](#).

> **Religious Obligation** *(click for more details):*

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, please review the [Student Guide to Academic Accommodation \(PDF, 2.1 MB\)](#).

> **Pregnancy** *(click for more details):*

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, please review the [Student Guide to Academic Accommodation \(PDF, 2.1 MB\)](#).

> **Student Activities** *(click for more details):*

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, click to see the policy.](#)

> **Survivors of Sexual Violence** *(click for more details):*

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where 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 the [Equity and Inclusive Communities website](#).

Medical and Other Extenuating Circumstances *(click for more details):*

Due to medical and other extenuating circumstances, students may occasionally be unable to fulfil the academic requirements of their course(s) in a timely manner. The university supports the academic development of students and aims to provide a fair environment for students to succeed academically. Medical and/or other extenuating circumstances are circumstances that are beyond a student’s control, have a significant impact on the student’s capacity to meet their academic obligations, and could not have reasonably been prevented. Students may request Academic Consideration for Coursework or Other Academic Deliverable. For further information please review the [Procedure for Academic Consideration](#) and the [FAQ page](#).