

CHEM 1101 A&B – Fall 2021

Instructor: Pam Wolff email: pamela.wolff@carleton.ca

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.

Please post content questions in the "content questions" section on BrightSpace. If you email them to me, I'll probably just say "please ask that on BrightSpace". That way everyone can see the questions and the answers.

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.

Please check BrightSpace regularly; you are responsible for ALL material posted there.

NOTE: All times used in this course are EASTERN TIME (local time in Ottawa, Canada)

Textbook: [CHEMISTRY](#) – 3rd Canadian Edition by Olmstead, Williams and Burk or any standard first year chemistry textbook.

Marking Scheme:

Lab:	25%*	
Assignments:	10%*	
Topic Quizzes:	15%*	
Cumulative Quizzes (4):	30%	
Cumulative Final Exam:	20%**	= /100%
***Bonus from assignments:	03%	(= /103%)

* You must complete the lab in order to pass the course. **If your lab grade is "incomplete", your course grade will be an F regardless of your actual numerical grade.**

** 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.

***** Providing you successfully completed the “outline quiz” on BrightSpace**

(* I drop the lowest five (5) assignments and the lowest five (5) topic quizzes. **I do not give extensions for any reasons, including health or internet connection trouble** – dropping your lowest five is to make up for this.)

COURSE FORMAT:

- **Lecture material** will mostly be pre-recorded and must be viewed on your own time
- **Topic Assignments** will be open for several days. You can go in and out, and submit/resubmit as often as you like. I will NOT give extensions on deadlines for any reason. I drop your lowest five assignment marks to make up for this. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR ASSIGNMENT.**
- **Individual Topic quizzes** will be open for several specific days; you can choose the time to do the quiz within that window of time, but you must finish it before the time window closes. **I will NOT extend them for any reason, including health or connection problems**, so don't leave them till the last minute. Learn to be proactive and complete them with plenty of time to spare! I drop your five lowest topic quiz marks to make up for this. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR QUIZ.**
- **Cumulative Quizzes:** The four cumulative quizzes will be held during class time. Make sure you check the dates and times. If you have technical issues during that time that prevent you from logging on, there is tech. support available, and I will make arrangements for an alternate time, but you must check in with tech. services first to make sure the issue is cleared up. *QUIZ dates are posted*; if a date needs to be adjusted, it will be announced on BrightSpace, and I'll try to accommodate people who absolutely cannot make the new date. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR QUIZ.**
- **Tutorials/practice problem sessions/extra explanations** etc. will be held during class time, on Zoom. You'll be able to sign on and “talk” to me directly in real time during class times. On Mondays, I'll bring a sample problem for the current topic(s) and we'll work on it together. On Wednesdays, I'll be there to answer questions, or

take requests for what to go over. (note: the Wednesday after Thanksgiving will be a Monday-style tutorial.)

- **Labs:** the lab schedules will be set up and sent to you separately from the class ones.

LABS: The lab component of this class is administered separately from the lectures. The lab must be completed before any credit is given for the course; **a grade of “incomplete” for the lab will result in a grade of F for the course, regardless of the rest of your grades.** Any special arrangements are to be made directly with the lab coordinator **before** the first lab. If you have already completed the lab, you may be eligible for a lab exemption. ***You must get this in writing from the lab supervisor.*** Labs this term will be done on-line; you still must complete the work. You must submit all lab assignments – even if they’re late and going to receive a mark of zero. A zero mark is “your choice” but not submitting a piece of work results in a mark of “incomplete” or “INC” and that results in an F grade for the course. We’ll work with you if you need support – we know that this is a strange term – but **you** have to reach out to us. In the end, you have to do your work.

You are welcome to come to me with any questions about the chemistry involved in the labs, but administrative questions, questions about lab marks etc. should be discussed with your TA or the lab supervisor.

Assignments: I will post assignment questions for each topic on BrightSpace (BrightSpace calls them quizzes – this is annoying, but I can’t get around it. My title for them will make it clear what’s an assignment and what’s a quiz. BrightSpace won’t know the difference). You will have several days to complete them. There will be a mix of “numerical fill in the blanks” and multiple choice questions. **You will also have to SUBMIT A pdf OF YOUR HAND-WRITTEN WORK FOR EACH NUMERICAL QUESTION IN ORDER TO RECEIVE MARKS FOR IT** (most people photograph their work pages on their phone, and then convert to pdf, but if you have a stylus and screen system or a scanner, that’s fine as well). You can work in groups if you like (virtually, of course, for most of you!) and you can ask me for help during the time that the assignment is open. You can go in and

out of the assignments as often as you like, and you can change your answers right up to the deadline, so it's a good idea to finish and submit each one quickly, enter answers, and then review the notes and lectures, ask me for help or discuss with other people if you're not sure of something. That way, if the due date passes, you have something done and submitted. **Some numerical questions will have a different set of numbers each time you go into the assignment, though, so be careful when you restart.**

The hand-written work must be in ***your own writing***; it's OK for a study group to share work and *discuss it* (just copying is stupid; you're paying a lot of money to ***learn!***) but it's **not** OK for a study-group to all submit an image of the same writing. That will be considered an academic offence.

I do not accept late assignments. Each one is only worth a fraction of a mark, but if you don't get it in on time, you've lost that fraction of a mark.

I will drop your five (5) lowest assignment marks (including any 0's for 'not submitted') and average all of your assignment marks. **Dropping the five lowest is to take into account that you may get sick, or have internet problems etc. so I don't drop extra assignments for those reasons; they're part of the five. You don't have to ask me to drop them – it will be automatic for everyone.**

Topic Quizzes: There will be a short quiz on each topic – often only one or two questions.

They will remain available for at least 72 hours. Many can only be opened once, and you will have a limited time to complete the quiz (the time will vary by quiz; you'll see it on BrightSpace once the quiz becomes visible. Ten to twenty minutes will be typical.) A few will be set to give you two tries, telling you whether you're right or wrong the first time. You'll know in advance if that's the case. If there are two attempts allowed, both have to be submitted before the deadline. **I DO NOT ACCEPT LATE QUIZZES.**

I will drop the lowest five (5) quiz marks, and average the rest. You can therefore miss five and not lose marks. **As above, this includes illness, internet issues etc.**

Topic Quizzes are "open book/open notes/open internet" but must be YOUR OWN WORK. They will have a combination of short answer, numeric answer, and multiple choice.

You will also be required to submit images of your work – this must be in your own writing. Having someone else do your work, or submitting someone else's work (or doing someone else's work), is an academic offence. For quizzes, there will be a separate drop box for your work images, and you must submit pdf's of your work within 20 minutes of submitting your quiz in order to get credit for it. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR QUIZ.**

Cumulative Quizzes (“midterms”): There will be four of these, each covering several topics. Their format will be similar to the topic quizzes, with more questions (and, of course, lasting longer). **THESE WILL TAKE PLACE DURING THE SCHEDULED CLASS TIME.** The dates are posted below and in the “dates and deadlines” file. Make sure you're available to write these. If you cannot write them, contact me as soon as possible. The more notice you give me, the more flexible I can be. Dates are posted, but they may need adjusting. I will make sure that you aren't disadvantaged, so if I have to change a date and you prefer the old one, talk to me as soon as I announce/post the change. Cumulative Quizzes are “open book/open notes/open internet” but must be **YOUR OWN WORK.** They will have a combination of short answer, numeric answer, and multiple choice. **You will also be required to submit images of your work in order to get credit – this must be in your own writing.** Having someone else do your work, or submitting someone else's work, is an academic offence. For the cumulative quizzes, I will check your work on numerical questions, and assign part marks if you did the question correctly but made a purely calculation error. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR QUIZ.**

Cumulative quiz 1: Wednesday 29 September (class time)

Cumulative quiz 2: Wednesday 20 October (class time)

Cumulative quiz 3: Wednesday 10 November (class time)

Cumulative quiz 4: Wednesday 01 December (class time)

Exam: **The final exam is cumulative to the entire term.** It will take place on-line and will follow a very similar format to the cumulative quizzes. By the time you write

the exam, you will have had plenty of practice with the format and type of questions. The exam will be scheduled by the university; that date will be set in consideration with other exams you have to write and available band-width into and out of the university, so I will have no input in its scheduling. The exam period is in the university calendar (<https://calendar.carleton.ca/academicyear/>) and runs from 11 – 23 December. **The date and time of the exam will be announced on Carleton Central**, probably in mid October. You must obtain a grade of at least 40% on the final exam in order to get a passing grade on the overall course (regardless of your overall numerical mark) so **it is mandatory**. If you miss the exam, you will have to contact the university registrar's office in order to request a deferred exam. If you know in advance that you won't be able to complete the exam at the scheduled time, contact me and I'll advise you on whether we can make an informal arrangement for rescheduling, or whether you need to apply for a formal deferral. **YOU MUST UPLOAD YOUR WORK IN ORDER TO RECEIVE CREDIT FOR YOUR EXAM.**

Incorrect Grading: Your assignments and topic quizzes will be marked automatically by BrightSpace. You have to be prepared to do your calculations carefully and not make calculation errors. I will not be reviewing your work for part marks (though you have to submit work to get any credit at all!). Grading mistakes can happen... Once the quiz or assignment is closed, you'll be able to go in and see how you did. If you think there's an error with the grading, send me an email (with the course number and section as the subject) and explain exactly why you think your answer was correct/the BrightSpace answer was incorrect. You must send this within two weeks of the assignment/quiz closing, so check over your "returned" work as soon as the review is possible.

Practice Problems: I will also post practice problems on BrightSpace, and provide answers and/or solutions. These are not collected or graded, but they represent exactly the style of question that I would ask on a midterm or final exam. They are there for you to evaluate whether you are ready for the test or exam.

You should plan on doing all the assignments and as many practice questions as possible if you want to succeed in this course. The questions on the midterms and the exam are not all that different from the practice questions provided. If you're struggling with any of them, talk to me for help right away. I can help. Do NOT leave it till the last minute; the day before the final is a bad time to decide that you really do want to learn the material and pass the course. I can only help *before* a quiz or exam however: once it's 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. (Note – I **will** fix errors in the marking! Those are marks that you did earn, and just weren't credited with.)

LIST OF TOPICS:

Measurement:

1. Significant Figures

Atoms:

2. Rydberg and Photoelectric Effect
3. Electron Configurations
4. Periodic Properties

CUMULATIVE QUIZ 1

29 September

Molecules:

5. Nomenclature (binary compounds)
6. Lewis Diagrams
7. VSEPR (molecular) geometry
8. Molecular Orbital Diagrams
9. Band Diagrams

CUMULATIVE QUIZ 2

20 October

Phases of Matter:

10. Gases
11. Liquids
12. Solids
13. Phase Changes
14. Solutions

Chemical Reactions:

15. Stoichiometry

CUMULATIVE QUIZ 3

10 November

Equilibrium:

17. Equilibrium
18. Acids and Bases (covered in lab – also used for in class topic)

Thermodynamics:

19. Standard State Thermochemistry: ΔH°
20. Standard State Thermodynamics: ΔS° ΔG°
21. Non-Standard State Thermodynamics: ΔG

CUMULATIVE QUIZ 4

01 December

ACADEMIC ACCOMODATION: The statements below are provided to me by the university, and I have copied them in verbatim. 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.

ACADEMIC ACCOMODATION:

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. Please contact [Equity and Inclusive Communities](#) for a full explanation.

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 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, 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 the [Equity Services 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 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: carleton.ca/sexual-violence-support

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](#).