Chemistry 1302B 200 (2019–20) Discovering Chemical Energetics

Welcome to Chem 1302B! Please read and keep this course outline handy, because it is an official document that contains important course information.

Course Description & Prerequisite Requirements

Calendar description: *An examination of how the fundamentals of energetics influence chemical processes. Topics include: gases, thermodynamics and thermochemistry, chemical equilibria, solubility, weak acids and bases, electrochemistry, and chemical kinetics.*

Extra information: 3 lecture hours, 3 laboratory/every other week, 0.5 course.

Prerequisite: Grade 12U Chemistry or equivalent. Antirequisites: the former Chem 1024A/B.

Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Blended Learning

Section 200 of Chem 1302B is a "blended" course. It will be taught using a combination of online modules and in-class sessions, as well as traditional laboratory experiments.

In this blended course, the teaching of the concepts is done via online modules. Students are responsible for viewing, and actively engaging in, the assigned online modules before the first class of each week, as well as completing a weekly online quiz on the material before coming to class (see page 16). It will be necessary to view approximately two online modules each week.

In the classroom, the role of the instructor is to act primarily as a facilitator. This allows the instructor to use in-class sessions to help students develop their problem-solving skills. The instructor may also present some of the course material through applications, interactive activities, demonstrations, discussion, and debate.

Course Website

News and course updates will be posted on Western's OWL system (http://owl.uwo.ca). This is the primary method by which information will be disseminated to all students in the class, so you are responsible for checking OWL on a frequent basis.

Please note that the OWL site for this section of 1302B is different than the site used for all of the other sections.

Dates to Note

For your convenience, a summary of some of the important dates is provided below.

Date	Event
Week of January 13th	First week of laboratory rotations
Tuesday, January 14th	Last day to make registration changes, such as lecture and lab sections. This is the last day to de-register from the course and remove it from your academic record. Note, however, that because labs start on the 13th, online enrollment for labs will be "frozen" on Friday, January 10th.
Saturday, Feb. 29th, 2:00 – 4:00 pm	Midterm
Saturday, March 7th	Last day to drop the course without academic penalty. If you drop the course on or before this date, it will be shown on your academic record as WDN (withdrawn). If you drop the course after this date, it will result in a WDF, which counts as an F.

Support Services

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, http://westernusc.ca/services.

The website for Registrarial Services is http://www.registrar.uwo.ca.

Accessibility

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education (AEW) at 661-2147 if you have questions regarding accommodation.

Learning Outcomes

The course has an emphasis on the development of skills such as critical thinking, problem solving, analysis, and quantitative reasoning; these "transferrable skills" are essential to success in not just chemistry but also in other courses and many occupations. Any student receiving credit for Chem 1302B will be expected to demonstrate competence in his or her ability to:

Discipline-Specific Outcomes	**Transferrable-Skill Outcomes**
Describe the importance of chemistry in everyday life and the interdisciplinary nature of chemistry. Use critical thinking skills to explain, make connections between and apply chemical principles, laws, and theories pertaining to ideal gases, thermodynamics, chemical equilibria, electrochemistry, and chemical kinetics. Evaluate and assess chemical data and explain how they relate to chemical theories/laws. Apply chemical theories or laws to solve a variety of new qualitative and quantitative chemical problems. Conduct laboratory experiments and draw conclusions from collected experimental data and results. Safely use a variety of laboratory equipment and instrumentation to perform experimental procedures and explain the underlying theory behind all of them.	Analyze and critically assess problems, and take a systematic approach to solve them. Obtain, evaluate, and integrate information from various sources, and determine its relevance. Work with others in an effective, practical, social, and ethical manner. Prioritize a set of tasks and manage the use of his or her time. Execute mathematical calculations accurately. Communicate thoughts, ideas, and observations verbally and in writing. Recognize when to seek assistance. Develop respect for, and comply with, regulations and policies. Accept responsibility for his or her decisions, actions, and non-actions.

Lecture Section and Instructor Info

Lecture Section	**Time (MWF)**	**Room**	**Instructor**	**Office**	**Email**
200	1:30-2:20	NSC 145	Dr. David Brock	MSA 1201	dbrock8@uwo.ca

Email Policies

Your instructor's email should only be used for administrative purposes. In order to maximize efficiency and to allow your instructors to respond to administrative concerns as quickly as possible, please *avoid* sending emails regarding:

- Questions about course material or on how to do a particular problem in the workbook.
    - Such questions should be taken to the Resource Room or posted on the OWL forum.
- Questions that can be answered based on the information found in this course outline.
    - Being able to find information yourself is an important soft skill that is valued by both educators and employers. Check this course outline.
- Requests for grade increases, extra assignments, make-up labs, etc.
    - See section below entitled *Equal Opportunity and Evaluation Policy*

If you email your instructor, you must use your Western email address and include *Chem 1302B* in the subject line. Messages from a non-Western account or those that do not include *Chem 1302B* may be blocked by the university's anti-spam system. It is also useful to include your student number and your section number somewhere in the message.

Constructive feedback is very valuable to us. Please do not hesitate to contact any one of the instructors if you have any comments or feedback on any aspect of Chem 1302B. We are always trying to improve the course so that you can have a great learning experience!

Common Concerns

The table below provides a list of common student concerns and how they are to be addressed. If your concern is not listed here, please contact your own instructor.

Concern	**How to Address Concern**
All lab-related matters	Visit the lab coordinators in MSA 1235. If they are unable to resolve your concern, appeal in writing to Dr. Booker.
All non-lab related matters or appeals	A request for relief relating to a course (e.g., with respect to a mark, grade, appropriateness of assignments or examinations, or grading practices) must be initiated with the course instructor. Visit the following website for a guide to submit an appeal: https://www.uwo.ca/sci/counselling/procedures/appeals
I need help with the course material.	The Resource Room and the OWL forums are your primary source of help. Course instructors will have office hours, scheduled by appointment, but they should be used for all matters other than course material itself.

My test mark on OWL does not agree with the mark that I had calculated from my question booklet.	The discrepancy is often due to an error that you have made in filling in the Scantron bubbles. The Scantron machine does not make errors when reading your Scantron. If you still wish to view your Scantron, download and submit the request form into the appropriate slot of the mailbox in MSA 1205 no later than one week after the release of your mark.

Course Materials

All of the materials below are required and can be found at the Western Bookstore in the UCC.

Chemistry 1302B Course Workbook "For Use in Blended Learning Class", 2019–20 edition

- The workbook is a lecture package designed by the Department of Chemistry with you and your learning in mind. Class slides will also be posted which you need to bring to class.
- Class time is designed to help you understand material from the modules and workbook and develop problem-solving skills. To obtain the maximum benefit from the modules, workbook and from class time, it is recommended that you watch the modules, and read the relevant topics as necessary, before coming to class.
- Old editions may not be used. Topic coverage varies from year to year. All lectures, tests, and exams will be based on this year's edition.

Web-Enabled Device for iClicker Questions (Smartphone, Tablet, Laptop, etc.)

- The iClicker/REEF audience response system ("clickers") will be used to ask questions that provide you and your instructor feedback on your understanding of course concepts and that encourage pre-class preparation and in-class engagement. This software is free to use as a Western student. Responding to these questions may contribute to up to 5% of your overall course grade (see section on Evaluation for more details). Participation is optional, but you are encouraged to participate, because research has shown that students who participate are more likely to obtain a better grade in the course. Setup instructions will be communicated to you in class and on OWL.

Mastering Chemistry access code

- This online assignment platform will help you master course concepts and stay up-to-date.

Chemistry 1302B Laboratory Manual and Past Exams, 2019–20 edition

- Old editions may not be used. Students must bring this year's edition to every experiment.

Safety Glasses

- You may use safety glasses previously obtained for another course. Alternatively, safety glasses can be purchased from Western's ChemClub (information will be posted on OWL) or the University Bookstore.

Lab Coat

- For your protection, a proper lab coat is required. Designer lab coats, which are often sold as hospital scrubs or consultation coats, are not acceptable, because they are too short or do not offer sufficient protection to the upper body.

Sharp EL-510R(B) or Sharp EL-510RN(B) scientific calculator

- To ensure fairness to everyone in the course, the Sharp EL-510R(B) and Sharp EL-510RN(B) are the only calculator models permitted in the labs and during tests and exams. All other brands and Sharp models will be confiscated. Proctors and instructors for tests and exams do not lend calculators. It is your responsibility to bring the correct calculator and to ensure that it is in proper working order. It's not a bad idea to bring a spare calculator of the same model. Obviously, you will not be allowed to share calculators during tests and exams.

Course Topics

Topic	Class Topic	Approximate # of Classes	Covered on…
	Administration	1	
1.1	Gases	0.5	Midterm / Final Exam
1.2	Ideal Gas Law	0.5	
2.1	Heat, Work, and Energy	1	
2.2	Enthalpy	2	
2.3	Entropy and Spontaneity	1	
2.4	Free Energy	1	
3.1	Equilibrium	1	
3.2	Solubility of Ionic Compounds	2	
3.3	Weak Acids and Bases	2	Final Exam
3.4	Buffers and Titrations	2	
4.1	Redox Reactions	1	
4.2	Redox Potential and Voltaic Cells	1	
4.3	Electrolytic Cells	0.5	
4.4	Batteries	0.5	
5.5	Rate and Rate Laws	2	
5.5	Arrhenius Equation and Reaction Mechanisms	2	

In all of the topics, the primary focus is on the *understanding* and *application* of the concepts. Please try to garner a thorough, in-depth understanding of the material, because that is what allows success in chemistry. Accordingly tests and exams will be designed to evaluate your comprehension of the material and your ability to apply it to new and different scenarios, and not simply your ability to regurgitate memorized facts or substitute numbers into formulas.

Resource Room

The Resource Room, located in MSA 1205, provides you with an informal environment for you to ask questions related to lecture material and obtain assistance on practice problems. Group work and peer-to-peer support are strongly encouraged.

During scheduled hours, which will be posted on OWL, the Resource Room will be staffed by a highly qualified teaching assistant or a Chem 1302B course instructor. You are welcome to attend any instructor's scheduled hours and not just those of your own instructor.

Laboratory Information

Laboratory sections are shown below.

Lab Sections	**Day**	**Time**
013 and 014	Monday	2:30 pm − 5:20 pm
015 and 016	Monday	6:00 pm – 8:50 pm
021 and 022	Tuesday	9:30 am − 12:20 pm
023 and 024	Tuesday	2:30 pm − 5:20 pm
025 and 026	Tuesday	6:00 pm − 8:50 pm
031 and 032	Wednesday	9:30 am – 12:20 pm
033 and 034	Wednesday	2:30 pm – 5:20 pm
035 and 036	Wednesday	6:00 pm – 8:50 pm
041 and 042	Thursday	9:30 am – 12:20 pm
043 and 044	Thursday	2:30 pm – 5:20 pm
045 and 046	Thursday	6:00 pm – 8:50 pm
051 and 052	Friday	9:30 am – 12:20 pm
053 and 054	Friday	2:30 pm – 5:20 pm

Schedule

Every course has its own lab schedule. Do not assume that if another course does not have a lab during a certain week, this course does not have one either. Missed labs will result in a mark of zero unless academic accommodation/consideration has been granted. Note that there are no labs during the week of Feb. 17th.

Note: Your Chem 1302B lab section is not necessarily the same as your 1301A lab section from last term.

Experiment	**Lab section ends in 1, 3, or 5**	**Lab section ends in 2, 4, or 6**
Volumes	Week of January 13th	Week of January 20th
Calorimetry	Week of January 27th	Week of February 3rd
Equilibrium	Week of February 10th	Week of February 24th
Spectrophotometry	Week of March 2nd	Week of March 9th
Electrochemistry	Week of March 16th	Week of March 23rd

Location (Zone)

There are four laboratory zones: Materials Science Addition 1220 zones A, B, C, and D. Your zone assignment will be posted on OWL by the evening of Sunday, January 12.

Preparation

Before coming to the first experiment, read the Safety Regulations, Lab Conduct Agreement, Introduction, and Significant Figures sections of the lab manual; read the Volumes Experiment; and view the relevant materials on OWL. **Bring your lab manual and calculator. Proper attire, including safety glasses and lab coat, is required for all labs.**

Prelab exercises must be completed before the lab period.

When you arrive at your lab, there will be additional questions on the video screen. These questions will cover experimental information as well as information from the relevant *Tools of Chemistry* sections, which you must read prior to coming to the lab.

Lateness Policy

Any student who arrives after the doors to the lab have closed, when the lab video begins, is considered to be late and will not be permitted to do the experiment. This lab video contains important information regarding the experiment, and thus for your safety and integrity of everyone's lab experience, late arrivals are not permitted. A mark of zero will be assigned for that experiment. No credit will be given for the prelab exercises.

Safety and Dress Code

Western is committed to workplace health and safety, and has strict safety regulations. Even your instructor must follow them! Lab TAs and technical staff will remove students who, in their opinion, do not meet the safety requirements or are not prepared, as described below. **These students, and those who arrive late, will receive a zero for the entire experiment, and no credit will be given for the prelab exercise.**

Eye Protection

Safety glasses or goggles must be worn whenever you are in the laboratory. Students who wear prescription glasses must wear appropriate safety glasses or goggles designed to fit over their regular glasses. If you wear contact lenses, you must inform the lab TA that you are wearing contact lenses.

Safety glasses can be rented for $2 per lab period.

Lab Coat, Pants, Socks, and Footwear

The Occupational Health & Safety Office at Western mandates “shoulder-to-toe” coverage. A detailed description of the dress code is available in the Lab Manual. For hygienic reasons, we do not rent shoes, socks, or pants. Lab coats may be rented at a cost of $5 per experiment. Limited numbers are available.

Lab coats and safety glasses may also be signed out at the Taylor Library. Again, limited numbers are available but there is no fee.

Remember, all students must be wearing a lab coat (and safety glasses) whenever in the laboratory. Lab coats must be buttoned up.

Students must wear ankle-length pants, socks that cover the ankle, and shoes that cover the whole foot (top, sides, and back) without any mesh areas or “cutout holes.” Shorts, sandals, and capris are among the items of clothing that are not acceptable. No skin may show at the ankles even when you are seated. Pants with rips or tears, or leggings with mesh panels, are not acceptable.

Submission of Lab Reports

Lab reports for Experiments #1 through #4 are to be submitted in the proper slot of the mailbox located in MSA 1205 (the Resource Room). Lab reports are due one week after your experiment at 10:00 am, 3:00 pm, and 6:30 pm for lab periods that start at 9:30 am, 2:30 pm, and 6:00 pm, respectively. Of course, you’re welcome to submit your report at any time before the deadline. The reports for lab sessions that run the week before Reading Week will be submitted the week after Reading Week. Reports placed into the wrong slot of the mailbox will be considered late.

The report for Experiment #5 will be completed and submitted during the lab period.

Evaluation

Components and Calculation of Course Grade

Your overall course grade, out of 100, will automatically be the highest grade you can achieve, resulting from the eight grading schemes below. Listed next to the respective components are their maximum contributions toward the course grade. The Mastering Chemistry and iClicker/REEF components of the course are optional components. Your instructors want you to have the best learning experience in this chemistry course and achieve the highest grade that demonstrates your chemistry ability. Thus, we are providing you with the opportunity to raise your final course grade if you improve from the Midterm to the Final Exam. These eight grading schemes allow you to move some of the weight of your Midterm forward (with and without the Mastering Chemistry and iClicker components) to motivate you and reward you to continue to improve during the term.

Component	Notes	Method #1	Method #2	Method #3	Method #4	Method #5	Method #6	Method #7	Method #8
Mastering Chemistry	6 Online Homework Assignments	5	--	5	--	5	--	5	--
iClicker	Clicker questions	5	5	--	--	5	5	--	--
OWL Quizzes	Online quizzes	10	10	10	10	10	10	10	10
Laboratory	Five experiments (3.00 each)	15	15	15	15	15	15	15	15
Midterm	Saturday, Feb. 29th, 2:00–4:00 pm	25	25	25	25	15	15	15	15
Final Exam	Registrar-scheduled, 3.00 hours	40	45	45	50	50	55	55	60

To obtain credit for the course, all three requirements below must be met:

1. Obtain a minimum of 50% on the overall course grade, as calculated above using the method that gives the highest grade.
2. Obtain a minimum of 50% on the laboratory component (7.50 out of 15). This mark is calculated from all five experiments. A missed experiment is assigned a mark of zero unless it has been "excused" (see section on Missed Course Components).
3. Miss no more than two experiments, whether excused or not.

Students who fail to meet requirement #2 or #3 will receive a course grade no greater than 40% (even if the calculated course grade is higher) and will not receive credit for the course.

iClicker/REEF Component

Your mark on the iClicker/REEF component of the course will be determined as follows:

Points for responding to an iClicker question in class:	2 points
Points for the correct response:	1 point
Total points per question asked	3 points

Percent of total points earned:	80 or over	75-79	70-74	60-69	50-59	40-49	30-39	20-29	Under 20
Mark out of 5.0:	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.5	0

Please note that the threshold was set low to account for occasional absences or technical difficulties. As a result, adjustment to iClicker data will only take place if an absence *exceeds* one week of class and is accompanied by official accommodation through your academic advisor.

Mastering Chemistry (Online Homework System)

This online assignment platform helps students increase their understanding of core concepts and problem-solving skills. Further information will be provided separately.

There will be 6 graded assignments. Assignments are released a week before they are due. Deadlines are at 11:55 pm on the dates listed on the course calendar (pg 16).

- The email address used for your Mastering Chemistry account *must be your uwo.ca email address*. If you do not use your uwo.ca email address, you will receive a mark of zero and the weight of the Mastering Chemistry component will be transferred to the Final Exam.
- If you run into any technical issues, please contact Pearson and not your instructor.
- It is recommended that you provide yourself with ample time to complete the assignment in the event of technical issues or system outages. Specifically, do not wait until the day it is due to start it.

Your mark on the Mastering Chemistry component of the course will be determined as follows:

Percent Average on Mastering Chemistry Assignments:	80 or over	75-79	70-74	60-69	50-59	40-49	30-39	20-29	Under 20
Mark out of 5.0:	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.5	0

OWL Quizzes

There will be 11 timed quizzes (120 minutes per quiz), but only the best 10 will be used to calculate your mark on the OWL Quiz component of the course. If you receive academic accommodations or self-report a missed quiz, the remaining 10 quizzes will be counted.

Access to these timed quizzes starts on Monday at 9:00 am and closes on Tuesday at 11:55 pm. Quizzes will begin on Jan 13th and continue weekly for the rest of the term, with the exception of Reading Week (week of Feb 17th). Please see the course calendar (pg 16) for more details.

Important Legalities

It is Department of Chemistry policy that any student repeating a chemistry course must repeat the entire course, including the lab component. There are no lab exemptions.

Students who arrive late for a lab will receive a zero for that lab. No credit will be given for the prelab exercises. Students are deemed late if they arrive after the lab doors have closed. Lab technicians and teaching assistants have the right to remove students from the lab.

It is university policy that a regularly scheduled class (lecture, lab, or tutorial) takes precedence over tests and exams. Therefore, if another course schedules a test or exam that takes place during your chemistry lecture or lab, the instructor for that course must accommodate you.

Aside from the specified calculator, no other electronic devices (phones, iPods, smartwatches, etc.) may be in your possession during tests and exams, even for timekeeping purposes.

Audience response systems ("clickers") will be used to collect information during class. The data collected using the devices will not be used for research purposes without your consent.

Scholastic offences are taken seriously, and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Computer-marked, multiple-choice tests and/or exams will be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Missed Course Components and Late Lab Reports

Western's policy on academic accommodation for illnesses, as well as the Student Medical Certificate, can be found at http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf.

If you are seeking academic accommodation because of a medical (physical or mental) illness, please begin by contacting the Academic Counselling Office of your home faculty (or affiliated college). **All requests for academic accommodation must go through your Home Faculty's Academic Counselling Office, so please contact them and *not* your instructor. After they approve your request and send you (and us) an email, you do NOT need to follow up with us. The same policy applies to the Self-Reported Absence Forms.**

If you are a science student, the Academic Counselling Office of the Faculty of Science is located in NCB 280, and can be contacted at 519-661-3040 or scibmsac@uwo.ca. Their website is http://uwo.ca/sci/counselling.

Missed Labs

There are no make-up labs, and it is not possible to reschedule them. If you miss a lab for any reason, you will be assigned a mark of zero for that lab. If the missed lab is due to a reason that is approved by your Home Faculty's Academic Counselling Office, the zero will be replaced by a mark of EXCU (excused), which shifts the weight of the missed lab onto all of the other labs.

You must, **as soon as you're able to do so**, submit documentation to your Home Faculty's Academic Counselling Office. If they approve your circumstances, we will be notified.

Tests and exams will contain questions related to the theoretical aspects of the experiments. You are responsible for the material pertaining to the missed labs.

Late Lab Reports

Labs are each marked out of 10. Details of the marking scheme will be posted on OWL.

Late reports are to be placed in the designated slot in the mailbox in the Resource Room (MSA 1205). All late reports will be graded as if on time but assigned a mark of 2.00 out of 10.00, and returned to you at your next lab.

If your reason for not being able to hand in your lab report on time has been approved by your Home Faculty's Academic Counselling Office, print out a copy of the email from your counsellor, staple it to your "mark of 2.00" lab report, and resubmit it in the appropriate slot. Your mark will then be changed to the actual mark.

Missed Midterm Test or Final Exam

If you are unable to write any test in this course, contact your Home Faculty's Academic Counselling Office as soon as possible.

For the Midterm, if you receive academic accommodation or consideration, you will be able to write the make-up midterm test on **Saturday, March 7, 7:30–9:30 pm**. If you are

unable to write the make-up midterm test, your course grade will be determined by one of Methods 5, 6, 7 or 8, where the extra 15% is added to the Final Exam.

If you are unable to write the Final Exam, contact your faculty's Academic Counselling Office as soon as possible. They will assess your eligibility to write the Special Exam (the name given by the university to a make-up Final Exam) in May of 2020.

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

Equal Opportunity and Evaluation Policy

We are here to help you achieve your goals. We want you to do well in the course. We were, at one time, students ourselves, so we understand the importance of course grades and the hard work that you will invest into this course.

Most importantly, we also have to be fair. The university is committed to academic integrity and has high ethical and moral standards. All students will be treated equally and evaluated using the criteria presented in this course outline and their respective weights. The evaluation criteria are based strictly on actual achievement, not on effort or how hard the student tried. Claims of an excellent academic history, of attendance in the course components, or of personal issues (family, relationship, financial, etc.) cannot be used to justify a higher grade in the course because they are not criteria for evaluation. There is no extra work available for extra credit or to "make up" another grade. We do not offer any extra assignments, essays, experiments, or other work of any kind to any student.

The requirement for a higher grade in order to, for example, maintain a scholarship, enter a program, or obtain a higher GPA for various reasons, is not a justifiable reason for increasing your grade. If we increased or "bumped" your grade (*i.e.* gave you a grade that you did not legitimately earn), it would be unfair to the other students and also a great disservice to the scholarships and programs who are evaluating all students on the basis of their grades.

Frequently Asked Questions

Should I focus on the questions in the workbook or the questions on the past tests and exams?

The questions in these sources have very different objectives, so focus on all of them. Questions in the workbook allow you to *apply* those concepts. Questions on the past tests and exams in the lab manual are intended to *evaluate* your understanding of, and ability to use, those concepts.

Can you recommend a tutor?

Before considering a tutor, don't forget about the free help in the Resource Room!

Private, third-party review or tutor services are not affiliated with, or endorsed by, the university. As such, the university cannot be responsible for any of the content they provide,

even if the content causes you to answer exam questions incorrectly. Because of liability reasons, your instructors are not permitted to suggest or recommend any specific tutors.

Students should realize that they may not hire tutors who are Chemistry 1302B teaching assistants, even if they are not from your own lab section. This is a serious legal matter pertaining to conflict of interest. If you are ever in doubt, please do not hesitate to ask your instructor, because we don't want you and the tutor to get in trouble.

I have a lab/test that coincides with a religious observance. What should I do?

Most of the standard religious observances are already noted in the *Western Multicultural Calendar* (http://multiculturalcalendar.com/ecal/index.php?s=c-univwo), and you should inform your Home Faculty's Academic Counselling Office **as soon as possible**. If you are requesting accommodation that is not on this list, please bring documentation to your Faculty's Academic Counselling Office. More details are found in the *Accommodations for Religious Holidays* policy, http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf.

What should I do if a test or exam for another course conflicts with my lab?

University policy is that a regularly scheduled class (lecture, lab, or tutorial) takes precedence, even over tests and exams. Ask the instructor of the other course to accommodate you.

Chemistry on Social Media

Find the Department of Chemistry at Western on Facebook and Twitter!

- Facebook: @ChemistryatWestern
- Twitter: @westernuchem

This course is supported by the Science Student Donation Fund. If you are a BSc or BMSc student registered in the Faculty of Science or Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is administered by the Science Students' Council (SSC). One or more grants from the Fund have allowed for the purchase of equipment integral to teaching this course. You may opt out of the Fee by the end of September of each academic year by completing paperwork in the Faculty of Science's Academic Counselling Office. For further information on the process of awarding grants from the Fund or how these grants have benefitted undergraduate education in this course, consult the chair of the department or email the Science Students' Council at ssc@uwo.ca.

	Monday	Tuesday	Wednesday	Thursday	Friday
	January				
No labs this week Ch1, M1	**6** Classes Begin	**7**	**8**	**9**	**10** *Practice Quiz Due 11:55 pm*
ODD Exp 1 Ch2.1,2.2 M1 Ch2.1,2.2 M2	**13**	**14** *Quiz 1 Due 11:55 pm* *Last day for add/drop/swap*	**15**	**16**	**17**
EVEN Exp 1 Ch2.1,2.2 M3 Ch2.3,2.4 M1	**20** *Mastering Assignment #1 Due 11:55 pm*	**21** *Quiz 2 Due 11:55 pm*	**22**	**23**	**24**
ODD Exp 2 Ch2.3,2.4 M2 **Review**	**27**	**28** *Quiz 3 Due 11:55 pm*	**29**	**30**	**31**
	February				
EVEN Exp 2 Ch3.1, 3.2 M1 Ch3.1, 3.2 M2	**3** *Mastering Assignment #2 due 11:55 pm*	**4** *Quiz 4 Due 11:55 pm*	**5**	**6**	**7**
ODD Exp 3 Ch3.1, 3.2 M3 Ch3.3 M1	**10**	**11** *Quiz 5 Due 11:55 pm*	**12**	**13**	**14**
No Labs or Classes	**17** Family Day	**18** Reading Week	**19** Reading Week	**20** Reading Week	**21** Reading Week
EVEN Exp 3 Ch3.3 M2	**24** *Mastering Assignment #3 due 11:55 pm*	**25** *Quiz 6 Due 11:55 pm*	**26**	**27**	**8** **(Sat Feb 29 Midterm 2:00 – 4:00 pm Rooms TBA)**
	March				
ODD Exp 4 Ch3.4 M1 Ch3.4 M2	**2**	**3** *Quiz 7 Due 11:55 pm*	**4**	**5**	**6** (*Sat Mar 7 Last day to withdraw without failure*)
EVEN Exp 4 Ch4.1, 4.2 M1 Ch4.1, 4.2 M2	**9** *Mastering Assignment #4 due 11:55 pm*	**10** *Quiz 8 Due 11:55 pm*	**11**	**12**	**13**
ODD Exp 5 Ch4.3, 4.4 M1 Ch5.1, 5.2 M1	**16**	**17** *Quiz 9 Due 11:55 pm*	**18**	**19**	**20**
EVEN Exp 5 Ch5.1, 5.2 M2 Ch5.1, 5.2 M3	**23** *Mastering Assignment #5 due 11:55 pm*	**24** *Quiz 10 Due 11:55 pm*	**25**	**26**	**27**
	30	**31** *Quiz 11 Due 11:55 pm*	**1**	**2**	**3** Classes End *Mastering Assignment #6 due 11:55 pm*
	April				
	6 Exams Begin (to Apr 26)	**7**	**8**	**9**	**10**

Workbook Chapter (Ch), Module (M)