Course Info

Course Director

Prof. Tihana Mirkovic
tihanam@yorku.ca
CB 358

Zoom Class Link:
https://yorku.zoom.us/j/98895178136

Lab Coordinator

Michelle Barton
mebarton@yorku.ca
CB 322

Technical Staff

Ha B. Au (Physical/Inorganic)
nebula@yorku.ca

Olga Girina (Organic)
orgina@yorku.ca

Teaching Assistants

See PPT slides / eClass announcements

Class / Tutorial Meetings

Tutorial: Tuesday 13:30 – 14:20
CFA 312 (in-person)
Zoom (on-line)

Office Hours (on Zoom):
Friday: 11:00-12:00

Lab Meetings

Consult the schedule on eClass for your particular lab group. General schedule is:

Sections A1

Monday and Wednesday

14:30 – 17:30

Sections B1 and B2

Tuesday and Thursday

14:30 – 17:30

CHEM 3001

EXPERIMENTAL CHEMISTRY II

Course

CHEM 3001 builds on CHEM 3000 and is a laboratory course in organic, inorganic and physical chemistry, covering principles and applications of various chemical laboratory techniques, spectroscopic analysis, basic instruction in data handling, use of the literature, formal report writing and delivery of formal presentations.

Prerequisites: SC/CHEM 2020 6.00 or SC/CHEM 2021 3.00, SC/CHEM 2030 3.00, SC/CHEM 2080 4.00, SC/CHEM 3000 3.00, Pre or Co-requisite: SC/CHEM 2011 3.00.

Course Credit Exclusions: SC/CHEM 3010 4.00, SC/CHEM 3021 4.00, SC/CHEM 3031 4.00.

Technical Requirements / Participation for On-Line Delivery

While no lab activities are scheduled to be remote this semester, due to the developing situation regarding COVID-19, if we would to have to transfer some activities on-line, students would be required to attend live Zoom sessions and would need a stable internet connection.

Instructor and TA office hours will be conducted on Zoom and will not be recorded.

Course Content

- Basic instructions on data handling
- Workplace Hazardous Material Information System Training
- Data interpretation and analysis
- Formal scientific report writing skills
- Searching the chemical literature e.g. Scifinder, Reaxys
- Advanced chemistry techniques involved in the laboratory will be covered including IR, UV-VIS, NMR, DSC, Ion Exchange Chromatography, and Magnetic Susceptibility
- Selected topics relevant to the lab theories will be discussed

Land Acknowledgement

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region.

Grading Scheme

Component	Percentage
10 Labs	**91%**
Data Visualization Activities/Assignments	**8%**
Reflective Lab Exercise	**1%**
Mandatory completion of the **WHIMS II** quiz (if not completed in the last 3 years)	**0%**

NOTE: Students who have completed CHEM 3000 prior to 2022 will have a different grading scheme and might be required to perform different labs. **To discuss the details, contact the course coordinator immediately**.

Experiment	# of Sessions	% of Final Mark	Notes on Evaluation
ORG 1	**1**	**8**	Lab report
ORG 2	**1**	**8**	Lab report
ORG 3	**1**	**8**	Lab report
ORG 4	**4**	**13**	Journal article
PHYS 1*	**1**	**8 / 3***	Lab report
PHYS 2*	**1**	**8 / 3***	Lab report
PHYS 3*	**1**	**8 / 3***	Lab report
PHYS 4	**3 (+0.5)**	**14**	Research Proposal/PPT (Tableau grades, see below)
INORG 1	**1**	**8**	Lab report
INORG 2	**3**	**13**	Lab report

** You will be required to write two out of three of the PHYS 1, PHYS 2 and PHYS 3 reports. For the lab for which the report is not written up, the weight will be 3% of the final grade where only pre-lab and in-lab evaluations are going to count.*

Skills Building Exercise	% of Final Mark	Notes on Evaluation
Data Visualization Activities/Assignments	**8%**	Tableau files / pdf files
Reflective Lab Exercise	**1%**	Reflection exercise / survey

***NOTE**: Potential alteration of the marking scheme in terms of cancelling or changing labs/ assignments can occur as a result of any COVID-19 regulations.*

Final Grades

Faculty of Science approved letter grades.

NOTE: Numerical grades are only guides for assigning of final grades. The Course director retains the prerogative on how to use numerical grades to assign letter grades. Exam and laboratory marks are made available to students; however, a final numerical mark is not disclosed to the student.

Key Learning Outcomes

LOC 1	*Be able to collect and analyze raw data in course-relevant experiments based on provided instructions.*
LOC 2	*Deduce qualitative trends and conclusions from experimental observations.*
LOC 3	*Be able to effectively communicate experimental findings in written reports, oral presentations and data stories.*
LOC 4	*Demonstrate ability to collaboratively as a team member contribute towards experimental design.*
LOC 5	*Be able to recognize limitations of conducted experiments, identify sources of errors and be able to evaluate accuracy.*

COURSE POLICIES

1. E-MAIL ETIQUETTE

Use your Yorku email address as other email addresses (e.g., Hotmail) are filtered out by the university's email system and do not always reach their intended recipient. Please do not use the eClass email function or respond to course announcement emails.

- Subject line, CHEM 3001, your name, student number and a brief indication of topic (e.g., 'Reporting missed lab 3').
- Detailed descriptions and answers are to be addressed in scheduled office hours.
- Ensure that you emails are written in a professional manner, are to the point and use a respectful and appropriate tone.

2. MISSED LABS

Attendance at all laboratory sessions is mandatory. Absences will result in a grade of zero for the preparation and pre-lab portion of the lab grade. In-person labs can not be written up unless they were performed in the lab.
Student is to report their absence from the lab immediately.
Missed labs and activities may be accommodated for through make-ups or activities that preserve the learning outcomes of this course to be specified by the instructor after assessing the nature of the missed labs/activities. For any prolonged absence from the course, no more than 20% of the missed work can be accommodated for.

3. RE-MARKING REQUESTS

Students are provided with opportunities for additional feedback with the grading TA after each grading cycle for each lab. During the feedback session, the student may get additional explanations and rationalizations for the assigned grade. If after the feedback session, the student and the TA are not in agreement with the assigned grade, the student can submit the report for re-grading to the course director specifying the discrepancy in the assigned grade and detailing the sections of the report to be regraded. Regrading by the course instructor will only take place after the TA feedback session. The course director will reappraise the work and their decision will be final. The resultant grade may be higher, lower, or remain the same. The lecturers also reserve the right to inspect the entire report. In order to be fair and consistent across the entire class, individual grades are not negotiable.

4. LAB REPORT SUBMISSION POLICY

An electronic copy of your lab report will be due at **2:30 pm** on the **7th day** of the completion of the experiment (except during reading week). Reports are to be submitted, both in the eClass Assignment Field, as well as in the Turnitin Assignment Field.

A total of up to **7 penalty-free late days** can be accumulated over the semester (e.g. one week late for one lab, or one day late for seven labs).

If a student goes over the seven days, if lab reports are not submitted on time, a 10% penalty per day will be applied on the lab report and a zero grade will be awarded on the lab report portion after the 3rd day.

UNIVERSITY POLICIES

1. ACADEMIC HONESTY AND INTEGRITY

Your lab reports and assignments are intended to be individual pieces of work. Students are expected to perform the analysis of their data and write their own lab reports and assignments. Sharing course material, or looking up course material on the Internet through resources such as Chegg, Whatsapp, Discord, OneClass, ClassHero and similar websites is not permitted. Please note the instructors have full access to these websites, which may be checked to detect and prosecute academic misconduct.

Usage of ChatGPT and/or other AI tools for the purpose of completion of course work is prohibited in CHEM 3001.

York students are required to maintain the highest levels of academic honesty and they are subject to the Senate Policy on Academic Honesty (https://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to improve students' research and writing skills, and cope with university life. Students are expected to review the materials on the Academic Integrity website (https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity).

Numerous students in Faculty of Science courses have been charged with academic misconduct when materials they uploaded to third party repository sites (e.g. Course Hero, One Class, etc.) were taken and used by unknown students in later offerings of the course. The Faculty's Committee on Examinations and Academic Standards (CEAS) found in these cases that the burden of proof in a charge of aiding and abetting had been met, since the uploading students had been found in all cases to be willfully blind to the reasonable likelihood of supporting plagiarism in this manner. Accordingly, to avoid this risk, students are urged not to upload their work to these sites. Whenever a student submits work obtained through Course Hero or One Class, the submitting student will be charged with plagiarism and the uploading student will be charged with aiding and abetting. Note also that exams, tests, and other assignments are the copyrighted works of the professor assigning them, whether copyright is overtly claimed or not (i.e. whether the © is used or not). Scanning these documents constitutes copying, which is a breach of Canadian copyright law, and the breach is aggravated when scans are shared or uploaded to third party repository sites.

2. UNIVERSAL ACCESS AND EQUITY

York University is committed to the principles of respect, inclusion, and equality of all persons with disabilities across campus. The university provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation relating to teaching and evaluation methods/materials. These services are made available to students in all faculties and programs at York University.

Students in need of these services are encouraged to register with Student Accessibility Services (SAS) as early as possible to ensure that appropriate accommodation can be provided with advance notice. Students may wish to discuss the nature of their accommodations with their professor early in the term.

Additional information is available at **https://accessibility.students.yorku.ca**

Students with accommodation letters issues by SAS **do not** need to email them to the course director. All Letters of Accommodation (LOA) issued by SAS are automatically delivered to the course director.

If a student's LOA recommends extra time in the laboratory, please contact the course director at **genchem@yorku.ca** to discuss possible accommodations.

3. Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community and making accommodations for observances of special significance to adherents.

For requests regarding labs, requests must be received by the course director at least 2 weeks in advance.

4. Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at –

http://secretariat-policies.info.yorku.ca/policies/disruptive-andor-harassing-behaviour-in-academic-situations-senate-policy/