Survey of Chemistry II - **On-line** Laboratory Course on Lab Flow

CHEM 1152 Laboratory Fall 2020 Syllabus

1 credit hour course

Due to COVID 19 quarantine and in accordance with instructions from the University System of Georgia, Georgia State University classes will be delivered online during the Fall 2020 semester.

The university has created the Keep Learning website to walk you through the steps to prepare for your online classes, with instructions for logging on to iCollege, submitting assignments, taking quizzes, and so forth. On this same website, you can also find ways to access the range of academic supports that you will need, including tutoring, supplemental instruction, advising, and technical support, including Internet access and devices review our suggestions.

Instructor: Dr. Narinder Kaur Harika nkaur1@gsu.edu

Office Hours: Thursdays 3:00 – 4:00 pm Webex meetings via iCollege

Pre-lab lectures: Lectures are **on-line in asynchronous mode** posted on iCollege at the beginning of each week during the semester.
Laboratory sessions: all sessions are in **on-line asynchronous mode.**

Send email from your GSU email account only, and mention the course in the subject

Check your iCollege page on the daily bases.

Lab course enrollment and participation (a separate pdf with instructions how to enroll in the Lab flow will be provided):

- Enroll Lab Flow online.
- Find your section in lab flow.
- Become familiar with the lab course structure.
- Become familiar with due dates.
- Start to complete assignments.
- Stay connected to your course assignments via iCollege
- Contact your instructor via GSU email nkaur1@gsu.edu **only**

When you register for lab flow, your key to enter is your CRN. You should make sure that you are in the correct section.

CRN	section	Room	Time of Session*
93042	10	346	R - 8:55 am
93043	12	348	R -8:55 pm

Time of Session* - it is NOT an actual time of your session. **All sessions are asynchronous!** These time slots are just to help you to register for the correct CRN.

Important Dates:

August 24	**Classes begin (laboratory sessions begins)**
September 7	**Labor Day (no classes or office hours)**
October 13	**Semester midpoint, last day to withdraw with a "W"**
November 23-28	**Thanksgiving Break**
December 7	**Last day of classes**
December 8-15	**The week of Final Exams. The date of Final Exam for this course TBA.**

Course Description:

This is the first survey chemistry laboratory course covering the basic principles and applications of chemistry for non-science majors. The following concepts are covered in the course:

- The general rules and lab safety procedure
- MP of compounds and Mixtures
- Alcohols and Phenols
- Aldehydes and Ketones
- Extraction of Caffeine
- Aspirin and other analgesics
- Preparation and properties of soap
- Carbohydrates
- Lipids
- Amino Acids
- Peptides and proteins

The on-line lab course is set up in asynchronous mode. However, there are office hours via WebEx meetings are scheduled. It is completely a student responsibility to follow the course tentative schedule, complete practical assignments and take all required on-line check points such as quizzes, midterm and the course final exam.

Course Requirements:

- LabFlow Enrollment and participation in all assignments. (mandatory required)
- Check iCollege page and your GSU email daily for updates (mandatory required)
- The course will require students to use LockDown browser for all course Quizzes and Exams, and the Final Exam. Students will need a device capable of installing Lockdown Browser. Students who require a device may request one from CETL here: https://cetl.gsu.edu/resources/resources-for-learning-remotely/internet-options/
- A scientific non-programmable calculator (mandatory required). An example of an acceptable calculator is the Texas Instruments TI-30XA.

Web meetings Conduct:

Students are expected to act with respect for the professor and other members of the class. To maintain a beneficial learning environment, *Rude* and/or *Disruptive* behavior will **NOT** be tolerated. When you choose

to connect to the WebEx meeting, make sure to silent your microphone. The one-on-one WebEx meetings/office hours will be recorded.

Grading:

Grading item	Points
Pre-lab quizzes – 11 (1 quiz with lowest grade will be dropped)	10 % (100 points)
Data sheets – 10 (1 Lab Report will be dropped)	40.5 % (405 points)
Midterm Exam - 1 exam	20% (200 points)
Final Exam – 1 exam	20% (200 points)
Quizzes on icollege - 2	9.5% (95 points)
Total	**1000 points**

General Notes:

1. **One quiz and one Lab Report with the lowest grade will be dropped**. The Lab safety Quiz is mandatory. If you miss a Pre-lab quiz or Lab Report, it will be considered as your dropped score.

2. There are no makeups for quizzes and lab report. If you do not complete the lab report, you will receive a grade of a zero

3. **Failure to complete 2 labs will result in failure of the course.**

4. Midterm and final exams are provided via iCollege. Further information regarding mid-term and final Exam will be announced on icollege soon. No makeups for exams. The missed final exam will make the total lab course automatically failed.

5. Each experiment on Labflow consists of a description of the procedure, demonstration videos, a prelab quiz, and a lab report.

- **Each experiment will open on Monday at 8:00am and close on Sunday at 8:00pm.**
- **Prelab quiz: It is a 2-hr long quiz. You will have 2 submission attempts at no penalty. It is due on Sunday at 8:00pm.**
- **Lab report: It has the duration of the experiment. You will have 1 submission attempt. It is due on Sunday at 8:00pm.**

6. Pre-lab lectures are provided via iCollege in addition to the material provided by Labflow content. It is students' responsibility to check and practice on material provided.

7. Two Quizzes will be provided on icollege. Further information regarding icollege Quizzes will be announced on icollege soon. No make-up or drop of icollge Quizzes.

8. It is completely a student responsibility to follow the course schedule and complete assignments. The missed due date due to failure to follow the schedule is not excused.

9. Grades will be posted by Wednesday 8:00 pm of the week after submission

10. To pass the lab: Students MUST complete **at least** 8 experiments, minimum of 8 quizzes, 8 lab reports, 2 icollege Quizzes and take midterm and Final Examinations.
Introduction/safety session is required for the course, but not counted as an experiment.

Failure to do any of these does not result in an incomplete, it results in a grade of an F for the CHEM 1152 lab course.

Letter grade	Range %		Letter grade	Range %
A+	97+		C+	77+
A	93+		C	73+
A-	90+		C-	70+
B+	87+		D	60+
B	83+		F	< 60
B-	80+			

Note: Dr. Harika does not reveal grades via email or phone due to privacy issues.

The tentative schedule is recommended to copy and save in your downloads for the easy and fast access. Students must check iCollege on daily basis.

Tentative Schedule: Fall 2020 (might be changed, under instructor's discretion)

Week #	**Week of .....**	Topic	assignment
1	August 24	Lab Safety	Video Pre-Lab Quiz
2	August 31	MP of compounds and Mixtures	Pre-Lab Quiz Data sheet report
3	September 7	Alcohols and Phenols	Pre-Lab Quiz Data sheet report
4	September 14	Aldehydes and Ketones	Pre-Lab Quiz Data sheet report
5	September 21	Extraction of Caffeine	Quiz Data sheet report
6	September 28	Midterm	No lab experiments Discussion via iCollege
7	October 5	Aspirin and other analgesics	Pre-Lab Quiz Data sheet report **icollege Quiz -1**
8	October 12	Preparation and properties of soap	Pre-Lab Quiz Data sheet report
9	October 19	Carbohydrates	Pre-Lab Quiz Data sheet report
10	October 26	Lipids	Pre-Lab Quiz Data sheet report

11	November 2	Amino Acids	Pre-Lab Quiz Data sheet report
12	November 9	Peptides and proteins	Pre-Lab Quiz Data sheet report **icollege Quiz -2**
13	November 16	Review	No lab experiments Discussion via iCollege
14	November 23	Thanksgiving Break	No lab experiment
15	November 30	Final Exam	TBA and discussed via icollege

Course and students Learning Outcomes: Students will learn how to apply scientific and laboratory experimental methods to develop critical thinking in scientific data analysis and grow problem solving skills in the health care area and medicine.

By completion this course students are expected:

1. To recognize and know how to use of appropriate laboratory equipment.
2. To know and be able to define accuracy, precision, and significant figures as they relate to laboratory measurements.
3. To know how to calculate the experimental error.
4. To determine physical properties of substances using appropriate measurements with significant figures, given appropriate measuring devices and lab apparatus.
5. To be able to perform the observable laboratory reactions as balanced equations with appropriate states of mater of reactants and products.
6. To analyze a set of data related to a specific experiment and come to a valid conclusion based on the data.
7. To know and understand how to do general stoichiometry calculations such as calculating molar mass, mole-to-mole ratio, and converting between grams and moles.
8. To know how to prepare a simple soap by saponification.
9. To learn and understand the levels of protein structure. Observe the denaturation of protein and isolation of protein by adjusting pH.
10. To observe the properties of lipids and structure of a triacylglycerol. To differentiate between saturated and unsaturated fats.
11. Learn how to differentiate between reducing and non-reducing nature of carbohydrates and how to identify carbohydrates in food.

Withdrawal Policy:

A grade of W will be assigned if the student officially withdraws by midpoint. After midpoint, withdrawal will result in a WF grade.

Incomplete:
An incomplete (I grade) is available only if the course has been essentially completed. If the student misses the final exam due to illness, injury, or other special circumstance, he/she may request an I grade. Documentation will be required confirming the illness or other difficulty. The I grade must be made up within one semester. If not made up within one semester, the I grade automatically reverts to an F. Note that the student may receive an I grade only if he/she is passing the course but is unable to take the final exam only. The policy on grades of "I" http://www2cas.gsu.edu/docs/oaa/incomplete_policy_and_form.pdf

Academic Honesty: This includes but is not necessarily limited to infractions in the area of *plagiarism*, *cheating on examinations*, *unauthorized collaborations*, *falsification*, and *multiple submissions*. This policy is published in *On Campus: the Student Handbook*, which is available to all members of the university community. All examinations must represent your individual effort, with no unauthorized aid. To either *give* or *receive* unauthorized information during an examination is cheating, as is the use of *any* unauthorized supplementary material. In addition, all laboratory work performed in conjunction with this course must represent your individual effort. Only original data obtained by your own *in-laboratory* experimentation are permitted to be used, except when *expressly authorized* by your laboratory instructor. Data from supplementary sources, handbooks, reference literature, etc. must be *clearly referenced* (title, author, volume, pages(s), etc.). Falsification or destruction of data constitutes cheating as well. Conduct disruptive of class, examinations, or laboratories *or* falsification or destruction of information related to chemistry courses will be taken as a violation of the policies of the Board of Regents of the University System of Georgia and the Georgia State University Student Code of Conduct, Section 6.0. Any suspected offenses may be referred to the Chairman of the Department or the Dean of Students for appropriate disciplinary action. Please see: https://deanofstudents.gsu.edu/files/2019/07/Academic-Honesty-Policy.pdf

Americans with Disabilities Act Statement: Students who wish to request accommodation for a disability may do so by registering with the AACE. Students may only be accommodated upon issuance by AACE of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought. please seek assistance through the Access and Accommodation Center https://access.gsu.edu/. Students with AACE accommodations should then contact their instructor during the first week of classes to discuss any accommodations that need to be made.

Affirmative Action Statement: Georgia State University adheres to affirmative action policies designed to promote diversity and equal opportunity for all faculty and students.

Statement of Non-Discrimination: Georgia State University supports the Civil Rights Act of 1964, Executive Order #11246, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act. No person shall, on the basis of age, race, religion, color, gender, sexual orientation, national origin or disability, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity of the college.