



School of Science and Technology

CHEM1152K-11 Spring 2022

Instructor Information

Instructor: Dr. Gillian Rudd

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E-mail: grudd@ggc.edu

Cell phone: 470-955-0473

GroupMe: Click here to join: https://groupme.com/join_group/84347503/hv5uFJzM

Communication

I would like to have face-to-face contact with you whenever possible, however, at times we need to establish a time by phone or email or electronic interface. I prefer email for most situations. Monday through Friday, expect me to respond to e-mail by 7 pm. E-mail received after 7 pm will be returned by the next day. On the weekend or when I am away from campus (i.e., at a conference), my response is as soon as I can get to it.

You should check your GGC email every day. When corresponding by email, I will communicate with you using only your GGC email or through the Desire2Learn site. Due to the Family Educational Rights and Privacy Act (FERPA), I will not respond to emails from other domains (yahoo.com, gmail.com, hotmail.com, etc.).

When you email me, you should consider the email as official correspondence. As such, the email should not appear as a text message but should have proper spelling, grammar, and punctuation.

Please address me as Dr. Rudd (rhymes with mudd) not by my first name.

You should also check your Brightspace (Desire2Learn) course site every day.

Technology Covenant

Technology will be used to deliver content, provide resources, assess learning, and facilitate interaction, both within the classroom and in the larger learning community. This covenant provides a general guideline for the course. I reserve the right to make periodic and/or necessary changes to the covenant, including technology use and communication channels, in order to accommodate the needs of the class as a whole and fulfill the goals of the course.

Expectations of Students

All students at GGC need to have access to a computer. If you do not have one, computer labs are available on campus. A limited number of laptops are available for checkout from the GGC Technology Helpdesk; please contact me about this if you need one.

I expect students to access course or individual communications, such as emails, each day excluding weekends.

Students can access the course materials and grades via Brightspace (Desire to Learn).

Students should check GGC email daily.

Cell phones should be set on silent and stowed during class.

Laptop computers should remain off, except when they are being used for an in-class activity or for taking notes.

All completed assignments will be submitted through Brightspace (Desire2Learn). Unless otherwise specified, assignments must be submitted prior to class time. Major projects are due by midnight on the due date unless other arrangements are made.

Course Information

Class Details

Course Details: CHEM1152K section 11 Spring 2022

Class Time: 8:00-9:15 am Tuesday and Thursday A1430

Lab Times: 11:00 am-1:45 pm Tuesday H3208

Web Conferencing and Online Tests—If needed

GGC plans to have face to face courses this semester. However, if GGC moves to virtual classes the follow policy will be followed. This course will use Zoom for online “virtual classroom” video conferencing sessions and collaboration activities. Some or all of the sessions may be recorded. The recordings will only be available to students enrolled in this course.

In addition, this course requires the use of LockDown Browser, Respondus Monitor, and a webcam for online exams. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch this short video, [Introduction to Respondus LockDown Browser for Students](#). You can also download the [Student Quick Start Guide to LockDown Browser and Respondus Monitor](#).

If you are unable to complete assignments using a webcam, I may be able to help, but I need to know IMMEDIATELY. If we cannot find an appropriate resource for you, computer labs will be available on campus.

Course Description

This is the second of a two-semester sequence covering the fundamental terminology, principles and applications of chemistry and is designed for students pursuing allied health careers. While the focus of CHEM1151K is general chemistry, the focus of CHEM1152K is organic chemistry and biochemistry.

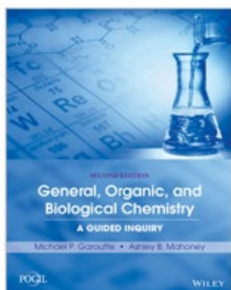
Course Prerequisites

CHEM 1151K with a grade of "C" or better. This prerequisite course is important to assure that you have quantitative and qualitative reasoning skills, effective communication of chemical terminology, and can apply principles of chemical structure. This course **only satisfies** general education requirements for **BS Nursing** or **Non science majors**.

Course Resources

Required Texts

Text: Must have this one:



General, Organic, and Biological Chemistry: A Guided Inquiry, 2nd Edition by Michael P. Garoutte, Ashley B. Mahoney, **ISBN: 978-1-118-80135-2**

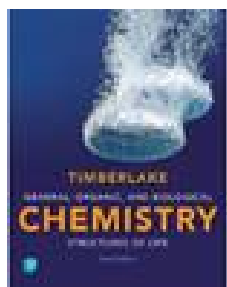
Available in bookstore and online:

<https://www.wiley.com/enus/General%2C+Organic%2C+and+Biological+Chemistry%3A+A+Guided+Inquiry%2C+Second+Edition-p-9781118801352>

accessed 1/18/2022

And this next one is recommended:

General, Organic, and Biological Chemistry: Structures of Life, 6th Edition: ISBN: 9780134730684 (if using the older 5th edition, then student is responsible for knowing the correct # homework questions given from the 6th edition text)



Modified Mastering w/ eText – ISBN 9780134812991

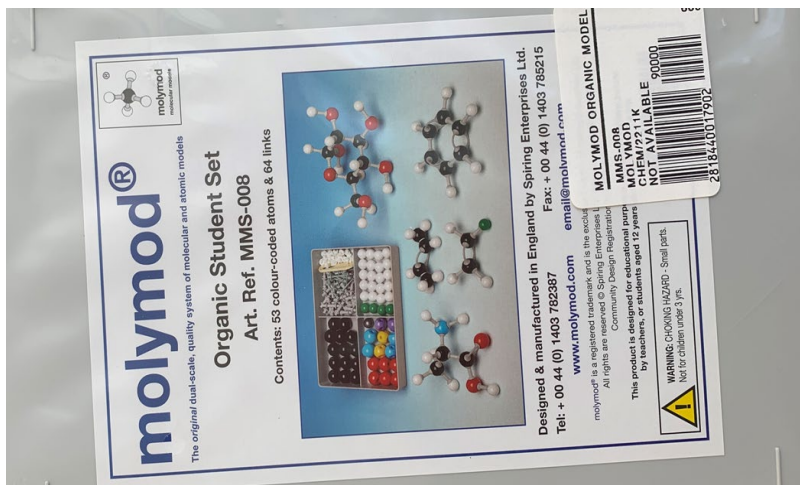
Modified Mastering w/ eText + Looseleaf – ISBN 9780135194409

Modified Mastering w/ eText +Hardbound – ISBN 9780135194416

NOTE. WE WILL NOT NEED MASTERING CHEMISTRY (MC) FOR HOMEWORK, SO IF YOU PURCHASE AN OPTION WITHOUT MASTERING CHEMISTRY YOU ARE OK. IF YOU DO PURCHASE an option with MC then use for videos, animation and solving problems. See the book store for details and make sure you obtain a textbook for this class

Additional Resources

- Lab Goggles and Calculator. A bound notebook for lab is required. A composition notebook is fine.
- Required molymod modelling kit (picture given below). These will be used in both class and lab, and are available for purchase from GGC bookstore for ~\$20



- **Required to download this app:**

Download **Brightspace Pulse** (this is the D2L app) – this is a very important way to keep up with class activities and take any online assessment (See picture of the D2L app).



Course Goals and Objectives

Students taking this course will learn the fundamental overview of organic chemistry and biochemistry.

Course Outcomes

Upon completion of this course, students will:

- (1) Apply the concepts of bonding, stereochemistry and 3-dimensional arrangement of atoms in molecules and their resulting influence on molecular properties.
- (2) Apply the fundamental language and nomenclature of organic chemistry and biochemistry.
- (3) Describe, predict, and apply fundamental organic chemistry and biochemistry mechanisms, reactions, and processes.
- (4) Describe and apply fundamental concepts or organic chemistry to the structure and function of biologically relevant molecules and processes.
- (5) Effectively and clearly communicate scientific information in written and oral form.
- (6) Collect, present, and analyze scientific data gathered through experiment.

Course Requirements and Grading

You can expect to access the course materials and grades via our course in Brightspace (Desire to Learn). Students should check this Brightspace regularly, as course changes will always be announced and recorded on the course site. Note that both the lecture and the lab components of the course are posted on the same site. Your grade will be calculated by summing the number of points earned for each component (exams, inclass questions, group work, homework assignments etc.) divided by the total points possible, and multiplied to give percent achieved. Grades will be entered on *D2L* so that students may keep up with their grade status. **I will not be including a weighted column in *D2L*, until midterm AND the end of the course (75% class + 25% lab).**

Grading Scale

- A (Excellent) 90-100
- B (Good) 80-89
- C (Fair) 70-79
- D (Poor) 60-69
- F (Failure) 59 and below

K Course Grading Policy

This K course is an integrated classroom and laboratory learning experience with a single final course grade determined from the proportional weight of the classroom and laboratory experience. The grade received in CHEM1152K includes 75% classroom and 25% laboratory. However, students must earn a C or higher in both class and laboratory to earn a single final course grade of C or higher. As an example single final grade calculation, a student in CHEM1152K earns a 95% (A grade) in the classroom experience and a 55% (F grade) in the laboratory experience. Although the proportional percentage is $[(0.75 \times 95) + (0.25 \times 55)] = 85\%$, the student's single final grade will be an F for the course. If a student requires a single final course grade of C or higher to progress in a course sequence, meet pre-requisites, satisfy academic program requirements, etc., they must earn at least a C in both the classroom and the laboratory experience. In this case, if a D or F is earned in either portion and the student must repeat the course to satisfy course sequence or academic program requirements, the student must repeat both the classroom and laboratory experience. See the table below for clarification.

Lecture	Lab	Final
A, B, C	A, B, C	*A or B or C
D	A, B, C, D	D
A, B, C, D	D	D
F	A, B, C, D, F	F
A, B, C, D, F	F	F

* Combined % based on 75% lecture, 25% lab.

Grade Appeals

Questions regarding the grading of an exam must be resolved within seven days after the graded exam is seen by you. Appeals will be made **in writing** with the understanding that the **entire exam** will be subject to re-evaluation. Arithmetic errors may be addressed without a written appeal.

Late Work Policy

Late penalties for each lab report

Due Date	Time	Penalty
Due Date	By 5pm assigned deadline	None
Due Date	Any period up to 5 hours after deadline	20%
Due Date	Any period 5-11 hours after deadline	50%
Due Date + 1	Any period 12-23 hours later	75%
Due Date + 2	24 hours or later	Not accepted, zero credit

Course Outline/Assessments

Graded Events

For all graded events in class and lab

The key to “chem-is-try:” attendance is required for each and every class and lab. Most subjects link to previous material, so it is imperative that you are present AND involved for each class. Please contact me regarding absences as soon as possible. It is highly advised that you keep up with reading and preparation for this course. Chemistry is a cumulative subject, material previously learned must be remembered to succeed. Therefore it is to your advantage to keep up to date with the material being presented. Working extra problems than assigned is highly recommended to fully understand the material. **The best way to be successful is to complete ALL readings and assignments.**

Absences for graded material will require valid documentation as listed within the Georgia Gwinnett College, Course Catalog. Excused absences include those due to school sponsored activities, hospitalization or documented illness, death in the family or call to military assignment. For school related absences, arrangements must be made **PRIOR** to the date of absence. In-class quizzes and assignments count towards your grade. If you are not present for an in-class questions or assignment and have not contacted me **BEFORE** class regarding your absence or do not have an excused absence, you will receive a zero. If you are absent, have not prepared for class and/or are late to class and do not understand current material or announcements (usually at the beginning of class), please hold your questions until the end of class or schedule a meeting with me at a later time. Do not let your absence effect the whole class. Please be aware that unexcused absences will be noted to your mentor and/or additional parties.

Religious Accomodations

GGC supports your right to exercise your faith on campus, as defined by the U.S. and Georgia constitutions. If you feel that you may need a religious accommodation for class attendance, participation or an excuse from class, it is your responsibility to notify me, in writing, of your need for any religious accommodation. That written request must be given to me before the end of the second week of class. A student’s submitted accommodation request should include relevant information such as:

1. a description of the accommodation you are requesting;
2. the reason you need an accommodation; and
3. how the accommodation will help resolve the conflict between your religious beliefs or practices and a university policy, procedure, or other academic requirement.

Please note: accommodations for religious observance may not be granted if the observance could be done at a time other than class time or at a location other than the preferred location (e.g. if there are additional services at other times, or services offered on campus versus at a home congregation).

Exams

Special arrangements to take a regular exam early must be made in advance in writing. Early exams are available only at my discretion and only under extreme circumstances. There will be five tests and a comprehensive final. There will be two take-home exams. Missed, but excused exams, will be made up using the final exam (percentage of missed exam applied accordingly): **I do not give makeup exams.** The made up points for the excused exam, will be allowed only due to extraordinary documented circumstances (accident, illness etc.), and you must contact me **before the exam day that you are absent.** Notification by email, text or phone message is acceptable. Work missed due to unexcused absences will be given a grade of zero. The comprehensive final exam will be given at the time set by the University registrar. The exam schedule cannot be changed at the convenience of the student. **You should not** plan to be absent anytime during that week. A make-up final exam will only be given in cases of a verifiable excused absence. **All exams are comprehensive of material covered up to that point, but focus on the most recent material.**

If you feel that you are unable to complete your courses due to illness or family emergency, contact the Registrar's Office to attempt to withdraw from your courses without penalty.

Any use of or copying from unauthorized materials during exams, laboratory reports and/or quizzes will be considered in violation of the GGC Honor Statement, EVEN IF it is completed outside of class. Credit for the exam and/or quiz and/or course may be forfeit and an incident report will be issued to the Dean of Students.

Exam and Quiz Taking Policy

There will be five exams throughout the semester, plus a cumulative final exam. All exams will be given on the dates marked on the table given below, unless there is some unforeseen occurrence that might cause the exam to be moved. Clear and advanced notifications will be given in class for such a case. All students are expected to be present for all exams except in cases of real emergencies. Some examples of cases where you may be excused are:

1. Major health problems verifiable by a doctor.
2. Major family crisis verifiable by a family member.
3. Necessary sports-related absences verifiable by the coach of the team or other school sponsored activities.
4. Call to military assignment.

In the case of an emergency, a student will be allowed to excuse an exam, as long as the instructor is notified by phone, email, or in person **BEFORE** the exam is scheduled to occur. The GGC Honors policy will be enforced during all graded events. Any violations will forfeit grades and be reported.

Lecture

Class (worth 75% of overall grade) is made up of the following:

Exams (900 pts, 67.7%)

Start of Class Quizzes and Inclass Questions and Homework (430 pts, 32.3%)

Participation during in person class (26 pts, 2.2 %): you will receive the points by just answering the inclass questions during the class. You must attend regular class to get the points for the participation.

Course evaluation (4 pts, 0.3%): complete this to receive these points.

All classwork (any in class questions, homework and groupwork) **MUST** be submitted as a single doc pdf in D2L dropbox for that assignment.

Exam	Date	Points	% class
1st take-home exam: TH1	Posted on 24 Feb and due 3 March	75	5.6%
2nd take-home exam: TH2	Posted on 21 April and due 28 April	75	5.6%
Midterm 1 exam: MT1	To be taken during lab time in week 6 beginning 22 Feb	150	11.3%
Midterm 2 exam: MT2	To be taken during lab time in week 10 beginning 29 March	150	11.3%
Midterm 3 exam: MT3	To be taken during lab time in week 14 beginning 26 April	150	11.3%
Comprehensive Final	Sometime May 3-9 (as determined by registrar)	300	22.6%
Homework and inclass quizzes	Start of class quizzes, and end of CA activity exercises as homework (or as set by instructor)	430	32.3%
Total pts from exams	Final exam will replace the single lowest percentile exam from MT1, MT2, MT3 (it will not replace TH1 or TH2),	1330	

Exam	Date	Points	% class
	assuming final exam percentage is higher than lowest percentage obtained		

****there will also be*** in-class assignments/Homework (Hwk)/ group work/ attendance participation

NO MAKE-UP QUIZZES inclass questions or pop quizzes or homework. Late work will not be graded.

The majority of the test will be based on material emphasized in both the books and in class. You are however responsible for any material in the book which has not been excluded from the test and for material from the lecture which is not in the text. The exams are open book with your written notes only (not textbook, not internet and not with friends) and they will be taken in the lab during lab time.

Each test will usually include some multiple choice questions for which there is no partial credit. The majority of the test will be objective questions on applications of principles to specific cases. These will not usually be the examples done in class or assigned as homework, but other examples which can be solved the same way. In these questions, multiple mistakes are possible. For the first mistake, you will lose half credit. For two or more mistakes, you will lose all the value of the question. NOTE: CELL PHONES or SMART WATCHES ARE NOT ALLOWED AT THE EXAMS.

The final exam will replace the single lowest percentile grade among the three midterm exams (it will not replace TH1 or TH2). If we have to go back to online class, only then will the final exam be taken on D2L with zoom on so that you can communicate with the instructor during the exam. You **MUST** have video monitoring software available for these events, and LockDown browser.

Group Take Home Exams (TH1 & TH2)

Take home exams are to be completed collectively by your group, or on your own.

Here are the rules:

- Take Home Exam Groups are the same as your in-class groups.
- You may consult with the instructor, or any student in your group.
- You may use any published resource (e.g. your textbook or workbook but not the notes of a person outside your group), and you cannot use the internet.
- You may NOT consult with or receive aid from any other person (especially other faculty, tutors, or students outside your group).

Homework

After each class period you must do the following. Complete the in-class section if your group did not finish in class, as instructed by your professor.

- Complete the **end of ChemActivity CA exercises**, save as a single doc pdf, and submit to the assignment dropbox in D2L. **These are the homework questions.** When we complete a CA, the homework is due by 11am the next day after class. For example, due Wednesday morning if class is Tuesday, and, due Friday morning if class is Thursday). Late homework will not be graded.
- Do any assigned reading problems in textbook.
- Make a list of sticking points or questions
- Read any assigned sections in textbook, and complete any pre-activity assignments ready for next class
- Homework submitted after an unexcused absence, will not be graded
- It is mandatory to show all work on each assignment to obtain full credit.

Start of class quiz

Daily class quizzes (5 pts per each class covered) will be given to ensure attendance, and they are geared to enhance your learning experience and problem solving abilities. Cell phones are not allowed before, during or after the daily quiz. There may be a total of approx. 26 quizzes and I will drop the lowest x4 quizzes. Unexcused absences will not be dropped! There may be smaller, unannounced quizzes (pop-quizzes) that are also administered to encourage class preparation and attendance. Preparing for the quiz will be most effective if you do it in the context of a regular and productive study group, or with a study partner. Just as you would for a successful exercise routine, it is best to set up standing daily dates with your study partner(s). This is the single most important thing you can do to make yourself successful in this course!

Typical class format

During class:

Both class and lab will be in person, meeting on campus. I will begin by going over graded assignments, and introduce new material. There will be a prepared video for you to watch before class begins. The bulk of class time will be spent actively thinking, drawing structures, working with models etc.. This will be done as part of a self-managed team of three or four students. The purpose of the CA is to learn the material, dispel misconceptions, and to ask questions. Working through the CA will not be graded. Access to the CA's requires purchase of the Garoutte/ Mahoney etext. It is your responsibility to follow along the book CA. I recommend that you PRINT out the "schedule of classes and labs" from the "1st day stuff" folder, and cross off the work as you complete it! Use the class GroupMe chat, to ask questions, make comments, say hello etc.

If working in a team: group membership and team management:

Each team may appoint a manager, or may choose to collectively ensure there is agreement on each question before moving on, that no one is going ahead or falling behind, no one dominates the discussion, and everyone feels comfortable speaking up, especially if they are frustrated, confused or behind. The instructor will assign the group membership for day 1 & then reshuffle group membership for day 2. By the end of day 2 you will be asked to form your own groups. (If you have a conflict in your group, I am happy to help you resolve it. If this does not work, a change can be made.) The more active you are in the process of choosing a group that fit your needs, the more likely you are to be satisfied with your group and have a positive experience in this course. Groups will be assigned breakout rooms in zoom.

For each CA do the following:

- Pre watch the video given in D2L under "online classroom videos" before class, in order to get an idea about the class content. Do not answer the questions!
- Show up for class on time, ready to take the daily quiz.
- Complete the hwk exercises where indicated for the class. These are the "exercises" at the end of each CA.
- All uploaded work **MUST** be submitted into the dropbox as ONE pdf document. You can scan into ONE single pdf, using camscanner, which is free.

Laboratory

Laboratory Grade (worth 25% of overall course grade)

Laboratory grades will be determined by prelab assignments and lab reports. Each lab assignment will be due by Sunday of that week's lab by 5pm. There are **NO MAKE UP LABS**. I will not accept lab assignments from missed labs. You must keep up with your lab assignments and turn them in promptly. Late submissions will be penalized as described below.

1. **Prelab assignments (10 pts):** Your prelab assignment must be remitted by the start of lab or receive a zero grade. It must be submitted as a single doc pdf to the appropriate folder in D2L.
2. **Lab Assignments (30 pts):** Assignments will vary per each lab and will be submitted as a single doc pdf, through D2L assignment box by 5pm Sunday of the week of that lab.
3. **Post Lab (10 pts):** Your postlab assignment must be submitted as a single doc pdf, through D2L assignment box by 5pm Sunday of the week of that lab.
4. **Participation/Attendance:** Lab attendance is mandatory and all students are expected to participate in the lab exercises. If you are not participating or not sharing the work of the lab, I will speak to you in private once. **After that time, you will lose 20% from your lab assignment grade for each lab in which you did not participate.** You cannot pass the lab without hands-on experience. **Unexcused absences will result in a grade of zero for the assignment for that lab exercise.**
5. **Laboratory Safety/Techniques:** Safety in the laboratory is a priority concern. Therefore, violations of the safety policies by students will be handled as follows: first offense: warning, second offense: dismissed from lab with a grade of zero, third offense: failing grade in lab and the student will not be allowed re-admittance to lab.

Hands on Labs (HOL) online	Date	Points
Lab #1: Drawing and Making Molecules/ Safety	Week 1 beginning 18 Jan	50
Lab #2: Functional Group Identification/ pre-test /assessment	Week 2 beginning 25 Jan	50
Lab #3: TLC of over the counter medications	Week 3 beginning 1 Feb	50
Lab #4: Aspirin Week One: Synthesis of Aspirin	Week 4 beginning 8 Feb	50
Lab #5: Aspirin Week Two: Aspirin Purification and Analysis	Week 5 beginning 15 Feb	50
Lab #6: Conversions/Pipetting Skills	Week 7 beginning 1 March	50
April	Week 8 beginning 8 March	50
Lab #8: Got protein? How much is in that sample? Week Two: Dilutions and Protein Assay	Week 9 beginning 15 March	50
Lab #9: Lab: Enzymology & Enzyme Kinetics Enzyme Activity Assay	Week 11 beginning 5 April	50

Hands on Labs (HOL) online	Date	Points
Week One: How fast is the enzyme?		
Lab #10: Lab: Enzymology & Enzyme Kinetics Enzyme Activity Assay Week Two: Choose your adventure! What do you want to learn about: what affects the velocity of the enzyme?	Week 12 beginning 12 April	50
Lab #11: 3D Macromolecules: PyMOL/ post-test/ assessment	Week 13 beginning 19 April	50
Total pts from Labs		550

**there will also be additional instructor activities TBD*

Meeting with me Outside of Class

As always, email, call, text questions as you wish! If you want to have a question answered, I may even be able to do an online Zoom session, just let me know what you need and we will work through this!

Scanning your work and submitting your work

Any assignments that require you to submit your work must be submitted through D2L's dropbox system. Please download for example CAMSCANNER (an app that is free for both Androids and iPhones). The drop boxes allow only 1 submission (one document), so please do not upload multiple separate documents, as these will NOT be graded. There is a good tutorial here: <https://www.youtube.com/watch?v=pc7dkXaer2s>

Course Expectations

For Class:

Keys to success in this course

Good education is a shared responsibility. In order to help you succeed in this course and do your best **I will:**

- Post the syllabus and tentative class schedule into D2L by first day of semester
- Give guidance on what is expected of you to succeed on quizzes, exams, and assignments
- Keep grades in D2L updated on a timely basis, typically within two weeks
- Be on time for class and design class time to help you succeed
- Respond to your emails and phone calls in a timely manner according to the Technology Covenant below. My GGC cell and email are at the top of this syllabus
- Meet with you outside of class if you need additional help.

In order for you to succeed in this course and do your best **you should commit yourself to:**

- Attend every class and lab **on time** and prepared to think
- Prepare for each class by reviewing the chapter and class notes
- Work the assigned problems
- Think!! Put this biochemical knowledge into your framework for a holistic understanding of biology

Please feel free ask questions if you are having issues or do not understand course material AFTER you have attempted to learn it on your own. I am happy to help!

Attendance is highly recommended for each and every lecture. Most subjects link to previous material, so it is imperative that you are present AND involved for each class. You should try to keep up with reading and preparation for this course. Biochemistry is a cumulative subject, material previously learned must be recalled for success in this course. Therefore it is to your advantage to keep up to date with the material being presented. Working extra problems is highly recommended to fully understand the material.

Absences for graded material require valid documentation as listed within the Georgia Gwinnett College, Course Catalog. Excused absences include those due to school sponsored activities, hospitalization or documented illness, death in the family or call to military assignment. For school related absences, arrangements must be made **PRIOR** to the date of absence. In-class (or lab) quizzes and assignments count towards your grade. If you are not present for an in-class quiz or assignment and have not contacted me **BEFORE** class regarding your absence or do not have an excused absence, you will receive a zero. If you are absent, have not prepared for class and/or are late to class and do not understand current material or announcements (usually at the beginning of class), please hold your questions until the end of class or schedule a meeting with me at a later time. Do not let your absence affect the whole class.

We will be respectful of one another in this class. All perspectives and backgrounds are relevant.

Any use of or copying from unauthorized materials during exams, laboratory reports and/or quizzes will be considered in violation of the GGC Honor Statement, EVEN IF it is completed outside of class. Credit for the exam and/or quiz and/or course may be forfeit and an incident report will be issued to the Dean of Students.

Laboratory:

Safety concerns are paramount in lab, and all participants must wear safety goggles/ safety glasses as needed depending on the experiment. Absolutely NO Food or Drink is allowed in the Laboratory setting!! **Contact lenses should not be worn in lab. You must wear closed toe shoes at all times and adhere to other safety rules.** Labs are MANDATORY exercises and cannot be applied from previous semesters or courses. No makeup labs are given. If you must miss a lab due to a verifiable excused absence (i.e. provide documentation) we can make accommodations, but only if you are prompt and honest in notifying me. **If you arrive more than 20 minutes late to lab** you will not be able to participate in that lab and will receive a zero for that lab report.

The rationale is that if you are late:

- (i) you have missed vital information for conducting the lab, including safety information,
- (ii) it is not fair to your group members who have already started the lab without you,
- (iii) you will probably not have time to complete the lab.

If you miss or fail to attend and/or turn in more than two labs, you will receive an F in the lab portion of the course, thus an F in the course overall given the K course rule (above).

Please come prepared for lab and with your calculator. I will not allow you in the lab if you are not prepared for the day's activities. Before you leave lab, return all items to their proper location. If you do not leave your area clean and items in their proper place, points will be deducted from your lab grade.

You may consult with others regarding lab exercises and questions, but written materials must be completed IN YOUR OWN WORDS. Should someone not be present for lab, you may NOT share information or answers to laboratory exercises UNLESS approved by the instructor. Giving or receiving data or copying answers from your colleagues will be considered a violation of GGC's honor code.

Feel free to ask me questions regarding any items of the procedure you do not understand! I will be walking around to help you. Should an emergency ever arise – GET MY ATTENTION IMMEDIATELY!!

Final Exam Details/Date

The final exam will be given during the week of May 3-9. The date and time of the final exam is set by the registrar and will be posted at midterms. The exam schedule cannot be changed at the convenience of the student. You should not plan to be absent during that week.

Course Materials and Grading

You can expect to access the course materials and grades via D2L. Students should check D2L regularly, as course changes will always be announced and recorded on the course D2L site.

There is a **gender neutral restroom** located in the walkway between the two portions of H on the first floor.

Important Dates

January 18, 2022 Classes Begin

January 24, 2022 Drop/Add Period Ends

March 7, 2022 Midterm Grades Due

March 9, 2022 Last Day to Drop a Class with a W (by 5:00 p.m.)

March 21-26, 2022 Spring Break

May 2, 2022 Last Day of Classes

May 3-9, 2022 Final Exams

May 12, 2022 End of Semester Grades Due (by 9am)

May 11, 2022 Commencement

May 16, 2022 Grades Available in Banner

Course Changes

This course syllabus provides a general plan for this course. The instructor reserves the right to make changes to the syllabus, including changes to assignments, projects, examinations, etc., in order to accommodate the needs of the class as a whole and fulfill the goals of the course.

Instructor Policies

Teaching Philosophy and the Classroom

I am here to help you learn the material covered in class and to help you develop skills that will assist you in learning throughout your academic and professional careers. **Please do ask me questions** if there is something you don't

understand. My goal is to support your learning inside and outside of class. Ask me to assist you to become the scientist that you aspire to be!

To facilitate learning, please be respectful of your classmates by adhering to the list below:

- Be prepared for class
- Be on time to class
- Limit food and beverages to those that can be consumed quietly
- Turn cell phones OFF when we are not using them for the class.
- Use computers/tablets in class ONLY to assist your learning of this course material (no shopping or social networking)

Class and Lab Attendance

I expect that you will attend class. Classroom and laboratory attendance are excellent predictors of course grades. Here are some other reasons to attend:

- In the event of a documented emergency or serious illness, the instructor will determine class accommodations on a case by case basis. Failure to attend a class or provide a documented excuse (within one day of returning to GGC) will result in a zero for all POGIL classwork/ homework for that portion of the class for that day. Late work will not be graded. ***There will be no make-ups for exams or quizzes or homework or POGIL work.*** In the case of a documented excuse, a missed exam will be proportionally made-up by the grade on the final exam.
- College policy requires that students attend class.
- Attendance is required for the best chance of success in this course.
- There will be no excused absences from the lab sessions. If you must miss a lab period, it is your responsibility to learn the material covered that day. Make every effort to attend each lab meeting.
- You have paid big tuition bucks for the opportunity to sit in the virtual classroom and wonder how long an hour can last; **failure to attend wastes your money.**

Collaboration Policy

Unauthorized collaboration will be considered cheating and penalized as a violation of the GGC Honor Code. **Lab reports:** you may confer with colleagues but writing and calculations must be done by you and your submission must be in your own words. *Identical papers are a violation of the Honor Code. This includes submissions you made before, if you are retaking the course.*

Exams are NOT collaborative works.

Cell Phone Policy

Unless requested, please put your cell phone away during our class. During graded events held during lab time, cell phones are NOT allowed.

Texting Policy

Texting during graded events is NOT allowed.

Expectations of Students

All students taking this class need to have access to a computer, that is NOT a Chrome book.

I expect students to access course or individual communications within 1 day excluding weekends.

Tips for Success

Come to all classes.

Be prepared for class. Keep up with the assigned readings and do all the assignments and quizzes.

STUDY. SPEND TIME WITH THE MATERIAL!

You are responsible for learning the material for this course. As a four week class, each day is a week of material. I expect you to study at least 4 hours per day outside of class for this course.

Come to class on time and don't leave early. I will make important announcements at the beginning of class.

See me if you have problems with any of the material. Don't wait until the night before the exam.

Don't come to me at the end of the semester and beg for points. Work hard throughout the semester!

Form a study group or find a study buddy. Students that study in groups often do better in the class.

Most importantly, I am here to help you succeed! Not only in this course but also in your academic and professional careers. Please ask questions!

Official Correspondence

When you email me you should consider the email as official correspondence. As such, the email should not appear as a text message but should have proper grammar and punctuation. Please sign your complete name at the end of the message. Improperly constructed email will be followed with the following response. "At GGC, email is considered official and professional correspondence. I will be glad to help you when you resend the email with proper grammar and punctuation."

My view of organic chemistry and biochemistry

Many students view organic chemistry and biochemistry as a cruel hurdle placed in their path to test their tolerance for pain. Consistent with this view, many students' main goal is to survive the course with a decent grade. I encourage you to expect more from this course for two reasons:

1. I have found that students are more successful at organic chemistry when they enjoy it, so I have worked hard to create a course that students can enjoy if they work hard.
2. Organic chemistry is an opportunity to hone skills like data analysis, problem solving, and working effectively as part of a group. If you invest the time and energy you will learn skills in this course that will make you more effective in your other courses and in whatever career you choose.

Organic chemistry is not a hurdle; it is a staircase to a new and powerful way of dealing with the world. That is why, more than any other course, admissions committees and future employers care about your grade in organic chemistry.

Advice from Past Students

I know you also care about your grade. Who better to give advice about how to be successful in this course than students who have been through it? The following are student answers to the question: What advice do you wish someone had given you at the start?

- You may think (like I did) that group work in organic chemistry is a bad idea. (I thought it would be the blind leading the blind.) But it really does work.
- If I was starting out I would want someone to tell me that 1) there are no stupid questions and you should always ask your group because their thoughts will help, 2) get in a group with people you work well with because if you don't interact well learning is harder, and 3) use your in class study groups for studying outside of class. Good luck!
- Don't fall behind. Playing catch up is not fun. Don't be afraid to ask questions and argue in your group. That is the way learning is done in this class.
- Give yourself some time to settle into group learning. Lots of us did not think we would like it or that it would work. It does.

Lab Reports – NO “WORKING TOGETHER”

Each student completes the lab activity by his/herself. Students are strongly encouraged to discuss and ask for assistance from other students in class/lab! However, each lab report must be developed and written solely by the student who is submitting it for a grade. “Working together” on a written lab report without the instructor’s prior consent is considered a violation of the GGC Honor Code. Students may discuss with each other concepts or topics that are unclear, but the ideas, structures, and statements submitted on the lab report document MUST be originally conceived by the submitting student. Any/all ideas or information in the lab report NOT originally conceived by the submitting student must be referenced and footnoted.

Expectations of Students: I expect all students to prepare the pre-activity assignment **before** coming to every class, and read and prepare for lab, before coming to lab. Class and lab time is used to address your specific questions and to learn by doing. I will rarely lecture during class and lab. You should expect to spend 2-3 hours of study for every 1 hour of class time and 1 hour of study for every 3 hour lab period. You will have frequent graded events and you must keep up with the coursework to succeed in this class! In class/lab we will typically discuss your questions on the study assignment and homework problems, conduct biochemistry experiments, and you will work classroom problems at the board.

School of Science and Technology

Vision Statement

The School of Science and Technology (SST) will become recognized in the region and the state for excellence in STEM education at an open access institution. SST faculty will provide effective and relevant courses and programs in science, math, and technology which are characterized by interdisciplinary learning, novel use of educational technology, and an active learning environment that stimulates critical thinking.

Mission Statement

The School of Science and Technology is committed to providing an innovative outcomes-based learning experience for all students of Georgia Gwinnett College. It provides programs of study in biology, math, exercise science, and information technology that offer its students disciplinary and interdisciplinary courses, as well as practical and applied learning experiences that prepare them for post-graduate schooling or for positions of responsibility in education, business, medicine or government. The SST also provides general education experiences that produce graduates who demonstrate math, science, and information technology literacy, and that foster an understanding of the role of these disciplines in our society and in an uncertain and changing world. The School's faculty maintain competency in their discipline and are knowledgeable of methods of providing innovative active-learning environments.

Operating principles

- The School of Science and Technology at Georgia Gwinnett College is committed to:
- Providing students with programs and courses that are effective and relevant and serve their post-graduate goals.
- The holistic development of students through student engagement both inside and outside the classroom.
- Developing a faculty and staff who are collegial, innovative and student-centered.
- Developing faculty that are committed to excellence in teaching, student engagement, scholarship, and service to the college, the community, and their discipline
- Developing innovative methods of teaching and student engagement in the STEM disciplines
- Continuous review, assessment, and improvement of programs and courses.
- Innovatively integrating active learning and technology into educational experiences.
- Open communication between faculty, staff, and administration.
- Using a "Leadership in Place" model which relies on faculty governance through collaborative decision-making.
- Building partnerships with its business and community constituents.

School of Science and Technology Policies

Class attendance and Financial Aid

Please be aware that faculty check attendance in each of your courses and are required to report to the Registrar students who never attend or cease attending a course. Students who are reported as never attended or have ceased attending a course, Financial Aid will be notified and is required to adjust your financial aid award accordingly. If you have any questions about how not attending a course for which you are registered will affect your financial aid eligibility, please contact the Financial Aid Office.

Make-up Exam Policy

You are expected to attend every class. Failure to attend class will affect your grade.

Special arrangements to take a regular exam early must be made in advance in writing. Early exams are available only at the instructor's discretion and only under extreme circumstances.

If an emergency arises and you miss an exam you **MUST** notify me on the same DAY as the exam. Notification by email, text or phone message is acceptable. Any make-up work may have a different format or different content from the regular assignment. Make-up work should be completed within two days of the original due date.

Work missed due to unexcused absences will be given a grade of zero.

Note: Lab Practical Exams CANNOT be rescheduled!

If you feel that you are unable to complete your courses due to illness or family emergency, contact the Registrar's Office to attempt to withdraw from your courses without penalty.

Final Exam

The final exam will be given sometime during finals week as specified by the registrar. The date and time of the final exam is set by the Registrar and will be posted. The exam schedule cannot be changed at the convenience of the student. You should not plan to be absent anytime during that week. A make-up final exam will only be given in cases of a verifiable excused absence.

Course Changes

This course syllabus provides a general plan for this course. I reserve the right to make changes to the syllabus, including changes to assignments, projects, examinations, etc., in order to accommodate the needs of the class as a whole and fulfill the goals of the course.

School/Program Outcomes

Integrated Educational Experience Goals:

The IEE Goals met by the objectives of this course are in bold/strong format:

- **IEE-1: Clearly communicate ideas in written and oral form.**
- IEE-2: Demonstrate creativity and critical thinking in inter- and multi-disciplinary contexts.
- IEE-3: Demonstrate effective use of information technology.
- IEE-4: Develop intercultural awareness of diverse viewpoints and of local and global perspectives.
- **IEE-5: Produce scholarly or creative works that reflect information literacy knowledge, skills, and dispositions.**
- IEE-6: Demonstrate ethical and moral principles.
- IEE-7: Demonstrate and apply leadership principles.

- **IEE-8: Demonstrate competence in quantitative reasoning.**

Chemistry Program Outcome Goals:

1. Effectively and clearly communicate scientific information in written and oral form.
2. Employ 21st century technology to investigate scientific questions and to gather, organize and effectively examine and evaluate the information obtained.
3. Illustrate and interpret scientific data using graphs, tables, charts and text.
4. Apply the principles of physics and mathematics to describe, illustrate, investigate, calculate and explain chemical properties and processes.
5. Perform experiments with, understand the operation of and correctly interpret data from modern chemical instrumentation.
6. Apply the principles of chemical structure, reactivity, dynamics, kinetics and thermodynamics to describe, predict and critically analyze the behavior of chemical systems.

General Track Specific Goals:

1. Design, evaluate and perform safe, ethical lab procedures using the scientific method and sustainable practices that address questions of applied interest.
2. Apply chemical principles to describe the production, formulation and manufacture of raw materials and consumer products.

Professional Track Specific Goals:

1. Design, evaluate and perform safe, ethical lab procedures using the scientific method and sustainable practices that address questions of chemical interest.
2. Utilize conceptual and mathematical models to analyze experimental design and evaluate the validity of experimental results in a variety of chemical systems.

Teacher Certification Track Specific Goals:

1. Design sustainable experiments and demonstrations to teach chemical concepts.
2. **Discuss chemical concepts in relation to real world issues and society.**
3. Know and appreciate the technicalities and ramifications of conducting safe laboratory experiments and demonstrations with small and large groups.
4. Satisfy the 12 Candidate Outcomes identified for the Teacher Education Unit:
 - Domain 1: Interpersonal Expertise
 - 1.1 Candidates foster environments that reflect ethical behavior, respect, kindness, safety, and care.
 - 1.2 Candidates create culturally inclusive learning environments that capitalize on the developmental characteristics and life experiences of learners.
 - Domain 2: Content and Pedagogical Expertise
 - **2.1 Candidates know the content they are expected to teach and engage in ongoing learning opportunities to develop knowledge and skills in order to provide all learners with engaging curriculum and learning experiences based on local and state standards. (ASSESSMENT: Final Exam)**
 - 2.2 Candidates utilize a variety of content appropriate instructional strategies, which include communicating effective and descriptive feedback to maximize learning for all students.
 - 2.3 Candidates seamlessly integrate technology into the design, delivery, and assessment of learning environments and experiences.

- 2.4 Candidates manage learning environments and collaborate with learners to make appropriate adjustments and to set goals for their own learning.
- Domain 3: Assessment and Analytical Expertise
 - 3.1 Candidates assess student learning using appropriate assessment tools.
 - 3.2 Candidates organize, analyze, and interpret assessment data from multiple sources, while guiding learners in examining their own thinking and learning as well as the performance of others.
 - 3.3 Candidates' instructional decisions are data-driven.
- Domain 4: Leadership Expertise
 - 4.1 Candidates assume leadership roles in classrooms and other school/community environments.
 - 4.2 Candidates collaborate effectively with peers, school personnel, families, and community members.
- Domain 5: Adaptive Expertise
 - 5.1 Candidates exhibit routine and adaptive expertise for teaching.

Academic Integrity and Use of Turnitin

Students in all courses are reminded that they are responsible for avoiding every aspect or appearance of plagiarism by appropriately citing the sources of ideas, thoughts, or words of others that appear in their academic work. Students should be aware that faculty may use the originality check feature of Turnitin to assist students in learning how to cite work appropriately in order to avoid potential plagiarism.

Please note: This policy mandates that students include complete citations for any and all work which is not totally original in Unit and Lesson Plans developed as part of the course.

Examples of plagiarism include:

- Directly quoting another's words without appropriate citation and punctuation
- Overusing quotations in a written work
- Paraphrasing another's words without appropriate citation
- Submitting assignments and other work that are not your own
- Citing primary and secondary sources incorrectly

Examples of academic dishonesty include:

- Submitting a single assignment for multiple courses without the instructors' knowledge or permission;
- Using assignments submitted by other students;
- Using unauthorized materials during an exam.

Student Resources

Academic Enhancement Center (AEC)

The Academic Enhancement Center offers tutorial services on campus and online.

Tutors will be available from 9 AM-9 PM Monday-Thursday, 9 AM-5 PM Friday, 10 AM-2 PM Saturday, and 1 PM-5 PM Sunday. All sessions are 45-minutes long. Students also have the option to upload their papers online to have the tutors look at them and return them with comments within 24 hours.

To make an appointment for an on-campus session, please call the AEC at **678-407-5191**. Schedule an online session by logging into D2L and clicking on the **Free Online Tutoring** button at the top of your homepage. The AEC looks forward to helping you achieve your academic goals!

New Studying Resource: CircleIn

GGC has made **CircleIn**, a virtual studying app/website, available to you and your classmates. Hop on a video call with classmates, create study groups, and share notes to prepare for success in your courses. Earn points and rewards for helping and collaborating with your classmates

To get started on your computer, phone, or other device, [download the app](#) or visit the [app's desktop version](#). Search Georgia Gwinnett College, enter your school login credentials, and select “Authorize” to get started.

Kaufman Library

The Daniel J. Kaufman Library and Learning Center provides a wealth of resources, services, and space, in support of your academic success. Tens of thousands of full text articles as well as e-books, e-book chapters, reports, statistics, streaming media, virtual anatomy and chemistry models, etc., are available from [library databases](#), [e-books](#), [e-journals](#), and [media](#) collections covering a wide variety of subject areas. Books available at GGC and other USG institutions can be located in [GIL-Find, the library catalog](#), and print books can be borrowed from other USG institutions. [Research and course guides](#) provide access to discipline specific databases, books, websites, etc. [Ask a Librarian](#) offers research assistance via chat, e-mail, phone, and walk-in. In-depth research assistance is available by [scheduling a research consultation](#). Kaufman Library has individual and group study space throughout the building as well as 37 individual and group study rooms that can be booked via the [online reservation system](#). There is a Quiet Reading Room located on the third floor. Computers, fully loaded with campus software, and printing are also available in Kaufman Library.

Counseling and Psychological Services (CAPS)

CAPS is a safe, secure, and **confidential** space designed to support GGC students. Meeting with a CAPS clinician is a chance to explore issues and determine possible courses of action or resolution in a respectful and confidential setting. Your mental health and wellness are our priority and we hope to help you succeed.

Your first step to starting your relationship with CAPS is to schedule an initial information-gathering appointment (Intake), where you meet with a clinician to discuss your needs. From here, a clinician will work with you to decide your next steps. Counseling is a collaborative effort that necessitates your willingness and commitment.

Counseling services are available for all currently-enrolled GGC students. Services are free to students and are offered year-round.

For more information, please visit [the CAPS website](#), or contact us at **678-407-5592**.

For students who may need immediate support that cannot wait for a scheduled appointment, students have access to our **24/7 Support Line: 833-910-3366**.

Dean of Students

GGC's Dean of Students is an advocate and resource to support student success at GGC. The Dean has oversight for all [student affairs](#) areas. The Dean of Students can assist students in [crisis situations](#) including [food/home insecurities](#), hospitalizations, medical issues and other issues related to health and safety. Your wellness matters! You can contact the Dean of Students at tjimenez@ggc.edu, studentaffairs@ggc.edu or **678-407-5882**.

Disability Services

Access and Accommodations: It is important to GGC that all students have equal access to the classroom and their educations. If you have already established accommodations with Disability Services, please provide me with your **Faculty Accommodation Notification**, with your approved accommodations listed. Please do so at your earliest convenience, so we can discuss your needs in this course.

If you have not yet established services through Disability Services (located in **D-1404**), but have a permanent disability (such as but not limited to: mental health, attention-related, learning, vision, hearing, physical or health impacts), or temporary condition that requires accommodations, you are encouraged to meet with Disability Services. **To contact disability services please call 678-407-5195 or send an email to disabilityservices@ggc.edu.**

Disability Services offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process requiring the student and disability services staff to meet. Disability services will review the documentation provided, discuss functional limitations with the student, along with the classroom environment and potential barriers or access issues. Georgia Gwinnett College is committed to creating an inclusive and accessible learning environments consistent with federal and state law.

Kaufman Library

Kaufman Library provides a plethora of resources, services, and space, to help ensure your academic success.

- Tens of thousands of full text articles as well as e-books, e-book chapters, reports, statistics, streaming media, virtual anatomy and chemistry models, etc., are available online from the [library's databases](#) and [e-journals collections](#), covering a wide variety of subject areas.
- Both e-books and print books available at GGC can be located in [GIL-Find, the library catalog](#).
- Print books from other USG institutions are also available in [GIL-Find](#) and can be borrowed from other USG institutions.
- [Research assistance](#) is available via chat, e-mail, phone, and by scheduling an [online research appointment](#).

- [Research Guides](#) provide access to relevant databases, books, journals, websites, etc., for each major subject area.

Please note that due to social distancing guidelines, study space is greatly reduced and controlled building access will be limited to available seating only. Kaufman Library makes available more than 30 study rooms that can be booked via the [online reservation system](#). Please note that due to social distancing guidelines, the study rooms have a maximum occupancy posted for each room. A quiet reading room is also available. Computers fully loaded with campus software as well as printing are available in Kaufman Library, but access has been reduced to meet social distancing guidelines and will be counted as part of overall space limitations.

Georgia Gwinnett College Policies

COVID-19 Statement

When returning to campus for fall classes and activities proof of vaccination is not required but, please help to keep your fellow Grizzlies healthy and get fully vaccinated as soon as possible. Vaccination locations can be found at <https://www.vaccines.gov/>

While on campus face masks are strongly encouraged for those who are not fully vaccinated.

Kindly do not enter GGC facilities if:

- You have signs or symptoms of the cold, flu, or COVID-19
- You have been diagnosed with a contagious illness and are still contagious
- You have had contact with a person that has or is suspected to have COVID-19 within the past 14 days and have not been fully vaccinated, are not immune, and have not completed the recommended post-exposure quarantine protocol.

For more information, please visit [GGC's COVID-19 Health and Exposure Updates site](#).

Academic Integrity

Student Honor Statement: We will not lie, steal, or cheat, nor tolerate the actions of those who do.

Georgia Gwinnett College students are expected to adhere to the highest standards of academic integrity and are expected to encourage others to do the same. Further, students are expected to take responsible action when there is reason to suspect dishonesty on the part of others.

Academic dishonesty carries severe penalties ranging from a grade of "0" on the affected assignment to dismissal from Georgia Gwinnett College. Each faculty member at Georgia Gwinnett College bears the responsibility for assigning penalties for cases of academic dishonesty utilizing the faculty adjudication process. Please contact the Office of Student Integrity to report alleged violations of academic dishonesty. Students may appeal a penalty as outlined in the [Student Handbook](#), Section 4.6.5, Student Code of Conduct.

Academic Respect

The college exists to foster educational excellence. To this end, a classroom atmosphere that supports learning must be maintained. Students are expected to be active, attentive participants in the class. Students are also

expected to abide by class policies and procedures and to treat faculty and other students in a professional, respectful manner. Students are expected to be familiar with the [Student Handbook](#), Section 4.6.5, Student Code of Conduct.

Americans with Disabilities Act Statement

Georgia Gwinnett College provides reasonable accommodation to employees, applicants for employment, students, and patrons who have physical and/or mental disabilities, in accordance with applicable statutes. Georgia Gwinnett College takes affirmative action to employ and advance in employment persons who are qualified disabled veterans, veterans of the Vietnam Era, or other covered veterans. If you are a student who is disabled as defined under the Americans with Disabilities Act and require assistance or support services, please seek assistance through the [Office of Disability Services](#). A CDS Counselor will coordinate those services.

For more information, refer to [GGC's web page on the ADA and Reasonable Accommodations](#).

Attendance Policy

The classroom experience is a vital component of the college learning experience. Interaction with instructors and with other students is a necessary component of the learning process. Students are expected to attend regularly and promptly all class meetings and academic appointments. Students who are absent from classes bear the responsibility of notifying their instructors and keeping up with class assignments in conjunction with instructor provisions in the course syllabus. An individual instructor bears the decision as to whether a student's absence is excused or unexcused, and whether work will be permitted to be made up. The decision of the instructor in this case is final. Students who are absent because of participation in college-approved activities (such as field trips and extracurricular events) will be permitted to make up the work missed during their college-approved absences, provided that the student discussed with and obtained approval from the instructor to make up the work missed prior to the student's going on the field trip.

Individual instructors may establish additional attendance requirements appropriate to their course's context, e.g. lab attendance. A student whose class schedule would otherwise prevent him or her from voting will be permitted an excused absence for the interval reasonably required for voting.

For more information, please refer to the [Student Attendance Policy](#) in the GGC online catalog, [Academic Policies and Procedures](#).

Respect for Diversity Statement

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Equal Opportunity and Affirmative Action Statement

Georgia Gwinnett College is an equal employment, equal access, equal educational opportunity, and affirmative action institution. It is the policy and practice of our institution to recruit, hire, train, promote, retain, and

educate persons without regard to race, color, national or ethnical origin, age, disability, sex/gender, religion, sexual orientation, gender identity, genetic information, or veteran status as required by applicable state and federal laws (including Title VI, Title VII, Title IX, ADA, Sections 503 and 504 of the Rehabilitation Act, and Executive Order 11246).

Additionally, Georgia Gwinnett College affirms its commitment to keeping its workplace and academic programs free of discrimination and harassment, and maintaining an environment that recognizes the inherent worth and dignity of every person. Any individual who feels that they may have been discriminated against, should contact the Office of Diversity & Equity Compliance at odec@ggc.edu.

Students requiring disability related accommodations, please contact the Office of Disability Services at disabilityservices@ggc.edu.

For more general information, please visit the [Office of Diversity and Equity Compliance's](#) website.

Safety and Security

View the [GGC Safety and Emergency Communications web page](#) for information important to you. To avoid confusion and rumor, ensure you:

- 1) Sign up for [RAVE alert text notification](#).
- 2) Download the LiveSafe app for [iPhone](#) or [Android](#).
- 3) View the 15-minute [Active Shooter Video](#). You are the additional eyes and ears for first responders. Follow the adage, "If you see something, say something" to a GGC employee. Your community needs your increased vigilance and awareness.
- 4) For updates on COVID-19 please visit [our COVID-19 Public Health page](#). It includes links to the latest information from the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and the University System of Georgia (USG), among others.

Sexual Misconduct Statement

Georgia Gwinnett College is committed to providing a learning, working and living environment that promotes personal integrity, civility, and mutual respect, and is free of all forms of sex discrimination, including sexual harassment, nonconsensual sexual contact, nonconsensual sexual penetration, sexual exploitation, domestic violence, dating violence, and stalking. If you or someone you know is experiencing any of these behaviors, the College has staff and resources on campus to support and assist you. For a list of resources, please visit [Sexual Misconduct Resources](#).

There are both confidential and non-confidential resources and reporting options available to you. GGC is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX Coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please visit the [website of the Office of Diversity and Equity Compliance](#).

Biochemistry CHEM1152K-11 Schedule Spring 2022

(Subject to change with pandemics, hurricanes and snowstorms)

Etext CA's require [General, Organic, and Biological Chemistry: A Guided Inquiry, 2nd Edition](#) by Michael P. Garoutte, Ashley B. Mahoney

WEEK Beginning date	LECTURE <u>Face to face in person</u>	Chapter 6 th Edn. Timberlake	LAB <u>Face to face in person</u>
Week 1 18-24 Jan	Alkanes, cycloalkanes and alkyl halides CA33 <i>CA "chemactivity" from etext</i>	<i>To read before class:</i> 12.1; 12.2; 12.3;	Drawing and Making Molecules/ Safety (due by 5pm Sun 23 Jan)
Week 2 25-31 Jan	Conformers CA34 Functional group worksheet CA36 (Q's 1 and 2)	<i>To watch before class:</i> https://www.youtube.com/watch?v=jUqb-KD9SuY accessed 12 Jan 2021 "Ethane conformations and Newman projections"	Functional Group Identification/ pre-test /assessment (due by 5pm Sun 30 Jan) Functional group worksheet CA36 (Q's 1 and 2) (if not completed during class)
Week 3 1-7 Feb	Constitutional and Geometric Isomers CA35 Overview of organic reactions CA37 (Q's 1+2) (<i>complete in lab</i>)	<i>To read before class:</i> General Ch. 12	TLC of over the counter medications (due by 5pm Sun 6 Feb)
Week 4 8-14 Feb	Reactions of Alkanes and Alkenes CA38 Oxygenated Compounds CA39	<i>To read before class:</i> Ch.12.4, 12.7 <i>To read before class:</i> 13.2; 13.3; 14.3; 16.2	Aspirin Week One: Synthesis of Aspirin (due by 5pm Sun 13 Feb)
Week 5 15-21 Feb	Reactions of Alcohols CA40 Reactions of Carboxylic Acids and Esters CA41	<i>To read before class:</i> 13.4 <i>To read before class:</i>	Aspirin Week Two: Aspirin Purification and Analysis (due by 5pm Sun 20 Feb)

		16.1; 16.2; 16.3	
Week 6 22-28 Feb	Carbohydrate Structure CA44B Carbohydrate Reactions CA44C TH1 posted 24 Feb and due 3 March	To read before class: Ch. 15.1-15.4 To read before class: Ch. 15.5-15.6	MT1 exam during lab time Or instructor activity
Week 7 1-7 March	Lipid Structure CA45B Lipids and Membranes CA45C	To read before class: Ch. 17.1-17.4 To read before class: Ch. 17.7	Conversions/pipetting skills (due by 5pm Sun 6 March)
Week 8 8-14 March	Amino acids CA46B Protein Structure CA46C	To read before class: Ch. 19.1; 19.2 To read before class: Ch. 19.3; 19.4	Got protein? How much is in that sample? Week One: Standard Curve and Graphing (due by 5pm Sun 13 March)
Week 9 15-28 March	Enzymes CA47A Nucleic acids CA48A	To read before class: Ch.20.1; 20.2; To read before class: Ch. 21.1; 21.2	Got protein? How much is in that sample? Week Two: Dilutions and Protein Assay (due by 5pm Sun 20 March)
21-26 March	Spring Break		
Week 10 29 March - 4 April	Overview of Metabolism CA49A Metabolic Energy CA49B	To read before class: Ch. 22.1 To read before class: Ch. 22.2	MT2 exam during lab time Or instructor activity

Week 11 5-11 April	Glycolysis CA50 Additional Carbohydrate Pathways CA53	<i>To read before class:</i> Ch. 22.3; 22.4 <i>To read before class:</i> Ch. 22.5; 22.6; 22.7	Lab: Enzymology & Enzyme Kinetics Enzyme Activity Assay Week One: How fast is the enzyme? (due by 5pm Sun 10 April)
Week 12 12-18 April	Citric acid cycle CA51	<i>To read before class:</i> Ch. 23.1	Lab: Enzymology & Enzyme Kinetics Week Two: Choose your adventure! What do you want to learn about: what affects the velocity of the enzyme? (due by 5pm Sun 17 April)
Week 13 19-25 April	Electron transport chain/Oxidative phosphorylation CA52 TH2 posted 21 April and due 28 April	<i>To read before class:</i> Ch. 23.2-23.3	3D Macromolecules: PyMOL/ post-test/ assessment (due by 5pm Sun 24 April)
Week 14 26 April-2 May	Fatty acid oxidation CA54A Amino Acid Metabolism CA55 Urea Cycle CA56	<i>To read before class:</i> Ch. 24.1; 24.2; 24.3; 24.4 <i>To read before class:</i> Ch. 24.6 <i>To read before class:</i> Ch. 24.7	MT3 exam during lab time Or instructor activity
	Final exams May 3-9		

Homework (hwk): due by 11am the day immediately after class (e.g. Tues class has hwk due Wed; Thurs class has hwk due Friday)

Pre-Lab: due in folder in D2L BEFORE start of lab

Lab: due by 5pm the Sunday after the lab

Important Dates

January 18, 2022 Classes Begin

January 24, 2022 Drop/Add Period Ends

March 7, 2022 Midterm Grades Due

March 9, 2022 Last Day to Drop a Class with a W (by 5:00 p.m.)

March 21-26, 2022 Spring Break

May 2, 2022 Last Day of Classes

May 3-9, 2022 Final Exams

May 12, 2022 End of Semester Grades Due (by 9am)

May 11, 2022 Commencement

May 16, 2022 Grades Available in Banner