

CHEMISTRY 105

.....
General Chemistry Experiments

Spring **2021**

Department of General Chemistry
University of Illinois

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General Information

Name _____

Campus Address _____

Telephone Number _____

Laboratory Section Information

Section Number _____

Time _____

Room _____

TA's Name _____

Introduction to Chemistry 105

Read This First!

We have a good deal of material on the course website. Before reading this lab book visit the website and become familiar with it.

Most importantly, find your one-page summary of due dates for all assignments throughout the semester. To do this:

- Go to www.chem.illinois.edu
- Click on the day of your lab section. The one-page summary will look like what you can find on the next page of this lab book but it includes your specific due dates. It is a good idea to print out the schedule—the due dates are set and **late assignments will NOT be accepted**.

Read through the material given on the homepage (you will find general information, including a course materials list). In addition, click on “LON-CAPA Homework” and make sure you can sign in.

Please watch the “Introduction to Chemistry 105” video located on the website. We explain the course policy and other useful details. Due to COVID-19, this course will not meet in-person this semester; however, there will be mandatory online sessions that students must attend each week during their registered lab section.

REQUIRED ASSIGNMENT TO GAIN ACCESS TO THE COURSE MATERIALS

Students must **correctly** complete the Course Policies assignment located in LON-CAPA before they may gain access to the remainder of the assignments in LON-CAPA for Chemistry 105. Failure to **correctly** complete this assignment will prevent the student from obtaining access to the course materials and will result in a grade of zero for each missed assignment.

If a student uses up all of the provided attempts to answer any of the questions in the the Course Policies assignment, the student must contact the Course Coordinator or Lab Coordinator to request that the necessary question(s) be reset. This is the only instance this semester when a question can be reset. If the student requires that a question(s) be reset so that they have additional attempts to correctly complete the assignment, **the student will receive zero points for the entire assignment**, but the student must still correctly complete the full assignment in order to gain access to the remainder of the Chemistry 105 course assignments in LON-CAPA.

Students should note, PreLab 1 is scheduled to open 1 week prior to their first online lab session the week of January 31, 2021 and is due at 10:00 PM the night before the first online lab session. This assignment will open as soon as the student completes the Course Policies assignment; therefore, students are strongly encouraged to complete the Course Policies assignment as soon as possible the first week of the semester to allow themselves time to complete PreLab 1 before it's due date. If a student waits until the last minute to complete the Course Policies assignment and does not have time to finish the PreLab 1 assignment, the PreLab 1 assignment will not be reopened and the student will receive zero points for the missed PreLab 1 assignment.

CHEMISTRY 105, SPRING 2021

Experiment Dates

Experiment	Date
Course Policies Assignment	Week of January 24
Lab 1: Acid Content in Lemon-Lime Kool-Aid	Week of January 31
Lab 2: Spectrophotometric Analysis of Aspirin / Safety Activity 1	Week of February 7
NO LABS	Week of February 14
Lab 3: Determination of Acetylsalicylic Acid in Aspirin / Safety Activity 2	Week of February 21
Lab 4: Buffers / Safety Activity 3	Week of February 28
Lab 5: Determining pK_a of Aspirin	Week of March 7
	Week of October 12
Lab 6: Free Energy and Equilibrium / Safety Activity 4	Week of March 14
NO LABS	Week of March 21
Lab 7: Electrochemistry	Week of March 28
Lab 8: Kinetics (Differential Rate Laws)	Week of April 4
NO LABS	Week of April 11
Lab 9: Kinetics (Integrated Rate Laws)	Week of April 18
Lab 10: Hydrolysis of Aspirin (Kinetics)	Week of April 25

PreLab HW Dates

All HW due by 10:00 PM on Lon-Capa

PreLab HW For	Due Week Of
(Policies)*	Before PreLab 1 opens
Lab 1 (Kool-Aid)	January 31
Lab 2 (Aspirin Spec)	February 7
Lab 3 (Aspirin Acid)	February 21
Lab 4 (Buffers)	February 28
Lab 5 (pK_a Aspirin)	March 7
Lab 6 (Free Energy)	March 14
Lab 7 (Electrochem)	March 28
Lab 8 (Kinetics—diff.)	April 4
Lab 9 (Kinetics—int.)	April 18
Lab 10 (Hydrolysis)	April 25

PostLab + Lab Video + Safety HW Dates

All HW due by 5:00 PM on Lon-Capa

PostLab HW For	Due Week Of
(Policies)	None
Lab 1 (Kool-Aid)	February 7
Lab 2 (Aspirin Spec)	February 21
Lab 3 (Aspirin Acid)	February 28
Lab 4 (Buffers)	March 7
Lab 5 (pK_a Aspirin)	March 14
Lab 6 (Free Energy)	March 28
Lab 7 (Electrochem)	April 4
Lab 8 (Kinetics—diff.)	April 18
Lab 9 (Kinetics—int.)	April 25
Lab 10 (Hydrolysis)**	May 2

*PreLab 1 is scheduled to open one week before Lab 1 (week of January 25). Students will not have access to this assignment until they have correctly completed the Course Policies Assignment. Students are encouraged to complete the Course Policies Assignment as soon as possible the week of January 25 so they can gain access to PreLab 1 and complete this assignment before the deadline. Extensions will not be provided.

**PostLab 10: Hydrolysis of Aspirin, Lab Video Assignment 10 is DUE on or before 5pm on Reading Day, May 6, 2021. Extensions will not be provided.

Preface

Welcome to Chemistry 105! This course is an introduction to the chemistry laboratory at the college level. You will complete ten chemistry experiments in the laboratory designed to help you better understand the chemistry you are learning or have learned in Chemistry 104 or a similar course. You will do some deducing, as you determine the identity, composition, or qualities of several systems or chemicals.

This manual is designed to help you on your way in Chemistry 105. Its aim is to guide you through the experiments you will undertake and help introduce you to several topics, techniques, and principles of chemistry. The experiments are intended to introduce you to laboratory work and it is our hope that you will find these laboratory experiences challenging and interesting.

Finally, we understand that our students are coming to us with different levels of experience in the lab. The teaching staff and Course Coordinator welcome your concerns and questions, whenever they arise throughout the semester.

Chemistry 105 Course Policies

CHEMISTRY 105 ONLINE

It is extremely important for you to familiarize yourself with the Chemistry 105 website. From this website you can access your schedule, the online gradebook, and the work you need to submit for the course.

We suggest you go to the website as soon as possible.

To access the course website, go to <http://chem.illinois.edu> then go to “Course Web Sites” and then to “Chemistry 105”. You will find the following sections in tab-format on the website. Each section is summarized below; however, you are encouraged to familiarize yourself with them online. You will also need to complete the first online assignment, located in LON-CAPA (<https://lon-capa.illinois.edu>) **before** the first lab. You will use LON-CAPA often this semester, so it is a good idea to take a few minutes to familiarize yourself with this website, as well, before the semester begins.

1. Contact Information. This tab provides you with the e-mail addresses of all of the TAs (along with the sections each teaches and their office hours) and the e-mail address of the Course Coordinator and the Lab Coordinator.

2. Lab Schedule. This tab provides you with the schedule for the semester for each section. The specific schedule depends on the day your lab meets. Go to your particular syllabus and **print it out**. You will then have the schedule for the date each lab meets, along with due dates for all online assignments.

3. LON-CAPA Assignments. This tab allows you to access all online assignments. You will have to complete a PreLab assignment before each online Experiment, attend a virtual lab session with your TA during your scheduled lab section, watch Lab Videos and complete a short assignment, and complete PostLab assignments each week. These assignments are described in more detail in *Required Components of the Course* (next) and the due dates for these are given in the Syllabus. Clicking on the LON-CAPA Assignments link will bring you to the login page for LON-CAPA. Enter your NetID as your login and enter your password (this is your Active Directory password). The online assignments can be found by clicking the *Course Contents* button at the top of the page.

The Course Websites page has help in logging on to LON-CAPA. If there are additional problems, please contact your TA, the Course Coordinator, or the Lab Coordinator.

4. Online Grade Book. This link takes you to the Chemistry 105 grade book in Atlas. This provides you with scores for all Chemistry 105 assignments. You will want to check this periodically throughout the semester to make sure the grades are entered correctly.

Instructions and a sample for calculating your grade can be found in the Frequently Asked Questions section on pages xx–xxiii.

REQUIRED COMPONENTS OF THE COURSE

1. PreLab Assignments. These assignments have been developed to make sure that you understand the concepts and the calculations involved in the lab experiments. These are found online via LON-CAPA and must be completed by 10:00 PM on the evening **before** the corresponding virtual lab session (see the online Syllabus for the schedule). You will get immediate feedback concerning your answers, and before the deadline multiple attempts are allowed. As a general rule, 30 attempts are allowed on all questions unless stated otherwise. Questions will not be reset and additional attempts will not be provided. If a student uses their allowed attempts without correctly answering a question, they will receive zero points for the question. If subsequent questions require the answer from an unanswered question, then the student will not be able to answer those subsequent questions will also receive zero points for those questions. Students are strongly encouraged not to guess on questions and to seek assistance from their TA or the Course Coordinator if they submit 50% of their attempts without obtaining the correct answer. By reading the lab manual and having perseverance, there is no reason to not earn all possible points for the PreLab assignments. Again, the point is to do this before the virtual lab session, so once the deadline has passed your access to the PreLab will be closed and will not be re-opened.

2. Lab Assignments. Due to COVID-19, students will not complete in-person labs this semester. Students will receive simulated data to complete data analysis, graphing and calculations in the PostLab Assignment. The student does not need to do anything to receive this data. The data will be present each week, in their PostLab Assignment, when the assignment becomes available for completion.

3. Required Virtual Lab Sessions. Students are required to attend all virtual lab sessions with their TA each week; a total of 10 sessions for the semester. Students who do not attend these sessions or leave these sessions early, will not receive credit for participation in these sessions nor will they receive another opportunity to earn the points associated with the questions in these sessions.

Attendance and participation in these virtual lab sessions is **mandatory**. Students must attend and participate in a minimum of 8 sessions during the semester in order to pass the Chem 105 course. Students who miss more than 2 sessions (excused or unexcused) will receive a failing grade for Chem 105, even if they have successfully completed all other assignments for the course.

Virtual lab sessions will occur at the time of the student's registered lab section. For example, if a student has registered for section X14, then their virtual lab sessions will occur at the time of this section, specifically, Monday 12-1:50 PM each week. Students are not permitted to attend a section other than the section for which they are registered.

During the virtual lab sessions, the student will interact with the TA and will be required to answer questions on the topics covered within the particular week's Experiment. Students will receive credit for attending the sessions, as well as for correctly answering questions posed by the TA.

iCLICKER REEF LAB SESSION QUESTIONS

50 points of your total points have been assigned via the iClicker REEF system. Please note that answering clicker questions posed during a virtual lab session using a registered iClicker REEF device is not mandatory, but these 50 points are part of your final point total and questions will be asked every virtual lab session starting the week of January 31, 2021.

It is the student's responsibility to register their device before using that device to answer questions posed in a virtual lab session. To earn iClicker REEF points, answers to questions must be submitted

using the iClicker REEF app during the time given for the question and during the student's registered lab.

Please see the hand-out and email sent by the Course Coordinator about iClicker REEF to learn how to download the app and register your device. Directions can also be found by following the provided link on the Course website.

Please note that simply attending every virtual lab session will not earn you 50 points. You must work on getting the exam level questions that are posed by the TA correct as well.

Allowing others to use your iClicker REEF device to submit answers to posed questions in a virtual lab session is considered an act of academic dishonesty. Please see http://admin.illinois.edu/policy/code/article1_part4_1-403.html for the penalties that are associated with academic dishonesty.

0.60 points will be awarded for participation in each virtual lab session. These points are awarded the first time you use your clicker whether you answered the question posed correctly or not.

1.1 points will also be awarded for answering each iClicker REEF question posed correctly.

For example: If two iClicker REEF questions were asked in a virtual lab session and you answer both questions correctly using your registered iClicker REEF device, then you would have earned 0.6 points for participation, i.e. when you first used your registered iClicker REEF device and 2.2 points (1.1 pts each) for answering the two questions correctly. You, thus, would have earned a total of 2.8 points for that virtual lab session.

If two iClicker REEF questions were asked in a virtual lab session and you answered both questions using your registered iClicker REEF device but only one of them was answered correctly, then you would have earned 0.6 points for participation, i.e. when you first used your registered iClicker REEF device, and 1.1 points for answering the one question correctly for a total of 1.7 points that virtual lab session.

If two iClicker REEF questions were asked in a virtual lab session and you answered both questions using your registered iClicker REEF device but answered none of them correctly, you would have earned 0.6 points only for participation, i.e. when you first used your registered iClicker REEF device, and 0 points for the questions answered incorrectly, for a total of 0.6 points that virtual lab session.

iClicker REEF questions can only be excused 2 times by submitting the appropriate supporting documentation for missing a class. This documentation must be submitted to the **Course Coordinator** within 6 days of the missed session. Additional information may be found on pages xviii–xix.

After a virtual lab session, points for those iClicker REEF questions will be uploaded into the online ATLAS grade book. It is the student's responsibility to regularly check the online grade book to check that their iClicker REEF points have been uploaded.

If you used your device to answer posed questions during a virtual lab session, but do not see your iClicker REEF points in the online grade book when grades have been uploaded, it means YOU did not register your iClicker REEF device correctly and must do so AS SOON AS POSSIBLE. All points not recorded will be lost for the virtual lab sessions—i.e., the student will receive a grade of ZERO for the answers not recorded as well as their attendance for that virtual lab session.

Having issues with your device or using the app? Please contact iClicker student support: <https://learn.iclicker.com/HowCanWeHelp>

4. Lab Video Assignments. These assignments are located in LON-CAPA and are composed of a series of short videos covering topics including, procedural information, chemical safety, experimental considerations, and data analysis. These videos serve to provide the student with information that they would have been exposed to if they were able to complete the experiment in-person. There is a short assignment located at the end of each series of videos that is to be completed by the student. This assignment checks the student's knowledge of the material presented in the videos.

Each question has a limited number of attempts. This information is listed at the end of the question. Questions will not be reset and additional attempts will not be provided. If a student uses their allowed attempts without correctly answering a question, they will receive zero points for the question. Students are strongly encouraged not to guess on questions and to seek assistance from their TA or the Course Coordinator if they submit 50% of their attempts without obtaining the correct answer.

Lab Video assignments are available at the start of each week, at the time of the virtual lab session, and remain open for completion in LON-CAPA until 5:00 PM the night before the next virtual lab session. (Note, this assignment is due on the same day and time as the PostLab Assignment.)

5. Safety Assignments. Safety is an important component to Chemistry 105. These assignments are designed to build upon your existing knowledge of proper lab attire and increase your awareness of safety terminology, pictograms on chemical labels, and general safety practices. Background information and instructions are found within your lab notebook.

These safety assignments will be completed concurrently with some of the laboratory experiments this semester and will be completed in LON-CAPA. Each question has a limited number of attempts. This information is listed at the end of the question. Questions will not be reset and additional attempts will not be provided. If a student uses their allowed attempts without correctly answering a question, they will receive zero points for the question. Students are strongly encouraged not to guess on questions and to seek assistance from their TA or the Course Coordinator if they submit 50% of their attempts without obtaining the correct answer.

Safety assignments will open at the start of each week, at the time of the virtual lab session, and will remain open for completion until 5:00 PM the night before the next virtual lab session. (Note, this assignment is due on the same day and time as the Lab Video and PostLab Assignments.)

6. PostLab Assignments. These assignments consist mainly of calculations and data analysis of the simulated data that has been provided for you for each lab. Refer to **2. Lab Assignments** for details regarding simulated data. For some labs there will be some additional questions. The PostLab assignments are found online via LON-CAPA and must be completed by 5:00 PM the evening **before** your next lab (see the online Syllabus for the schedule). Before the deadline multiple attempts are allowed, but not unlimited attempts. Unless otherwise specified, 30 attempts are allowed on PostLab questions. Questions will not be reset and additional attempts will not be provided. If a student uses their allowed attempts without correctly answering a question, they will receive zero points for the question. If subsequent questions require the answer from an unanswered question, then the student will not be able to answer those subsequent questions will also receive zero points for those questions. Students are strongly encouraged not to guess on questions and to seek assistance from their TA or the Course Coordinator if they submit 50% of their attempts without obtaining the

correct answer. There is generally no feedback until after the assignment is due. Once the deadline has passed, your access to the PostLab assignment will be closed and will not be re-opened.

EXTENSIONS ON LON-CAPA ASSIGNMENTS

The PreLab, Lab Video, Safety, and PostLab Assignments in LON-CAPA are each open, and available for students to complete, for 7 days. General Due Dates for these assignments are found on page x of the lab manual. Specific due dates, for individual lab sections, can be found by following the links on the Course Website (www.chem.illinois.edu). Due dates are set at the beginning of the semester. In the rare instance when a student may require an extension on an assignment, the following steps should be followed. Students will be granted a reasonable number of extensions during the semester based on their supporting documentation and the discretion of the Course Coordinator. **Failure to complete any of the listed steps will result in the denial of an extension.**

1. Extension requests must be received a *minimum of 2 hours* before the due date (10:00 PM for PreLab Assignments; 5:00 PM for Lab Video, Safety, Postlab Assignments). Once an assignment has closed it will not be reopened and extensions will not be considered.
2. To qualify for an extension, the student must be incapacitated, and thereby unable to complete the requested assignment, for a *minimum of 57% of the time (or 4 of the 7 days)* it is open.
3. The student must provide supporting documentation detailing the reason for the requested extension to the Course Coordinator. This information should NOT be provided to your TA. Waiting until the last minute to complete an assignment or forgetting a due date do not qualify as reasonable reasons for an extension and will not be considered. Examples of reasonable requests for an extension include: COVID-19 quarantine without access to a computer or internet connection, Hospitalization (for any reason), a broken computer, loss of internet connection as a result of a problem with the internet provider, etc. (Note, each of these list reasons must comply with item #2).

BONUS ASSIGNMENT

There will be one bonus assignment available to all Chemistry 105 students. This is a cumulative assignment, covering topics from all experiments, safety activities, and LON-CAPA assignments assigned during the Spring 2021 semester. The bonus assignment is worth up to 10 points. The earned points will be added to the student's final point total at the end of the semester.

The bonus assignment will be available for completion in LON-CAPA during the final 2.5 weeks of the semester, between 4/19–5/6. The assignment is due at 5:00 PM, Thursday, May 6. This is an optional bonus assignment; therefore, extensions will not be provided.

Students must complete the bonus assignment individually. Since this is a bonus assignment, rewarding the cumulative knowledge gained by the student during the semester, students are not permitted to seek assistance/help in answering the questions in this assignment from other students, their teaching assistant, the Chemistry Learning Center, the instructor, the lab coordinator, or any other source. Technology problems, should they arise, should be directed to the lab coordinator.

ACADEMIC INTEGRITY

All responses submitted to the online administration systems, such as LON-CAPA or any other, must only be based on individual effort under all circumstances. Any portion of submitted responses that matches either information previously made available or answers submitted by other students will be considered plagiarized.

The course administrators will use all available tools to track abnormal matches between answers submitted. For example, certain data points in a plot may be considered plagiarized even if the values are numerically ‘tweaked’ yet with a matching ‘trend’. Students are cautioned in the strongest terms, as the ability to establish potential plagiarism has vastly improved with new tools even when the source is typically presumed ‘untraceable’ electronically. Examples include handwritten notes and documents that exist only in image form.

The university policy on plagiarism can be found under in the student code (<https://studentcode.illinois.edu/>). The penalty for violation of academic integrity rules in a single assignment, fully or partially, is a failing grade for the entire course. Assisting plagiarism also carries the same penalty. Keeping student login information secure is the student’s responsibility. Therefore, allowing access to your information is also assisting plagiarism.

Violations are not limited to online submission systems. Any member of the faculty, the lab manager, the teaching lab staff, teaching assistants, students or other Department staff members have the authority to bring potential violations to the attention of the Course Coordinator. The Course Coordinator reserves the right to use such evidence, personal observations and available tools to determine whether a violation has occurred before proceeding into an official inquiry process.

There are too many students and too many sections to allow students to switch sections; that is, you must attend the section in which you are enrolled (for an excused absence, see “Attendance for the Course”). Do NOT go to a different section and then submit your data during your scheduled time. You will not be counted as being present in the virtual lab session, and if data are entered, they will be considered to be fabricated.

REQUIRED MATERIALS FOR THE COURSE

You are required to purchase the following for Chemistry 105:

Chemistry 105 Laboratory Manual “General Chemistry Experiments”

You cannot use an old version of this manual this semester, as the course has been redesigned to include new experiments and policies. You must purchase the current version of the manual from the University Bookstore.

ATTENDANCE FOR THE COURSE

Students are required to attend all virtual lab sessions. You must attend the section in which you are enrolled. All absences will be considered unexcused except in the following cases. Excuses must be submitted in a timely manner, as defined as within 6 days after the scheduled experiment. **Documentation will not be accepted and absences will not be excused, under any circumstances, after the due date of the assignment.**

NOTE: Any student who misses more than 2 virtual lab sessions (excused or not) during the semester will automatically fail the course (even if all other assignments are successfully completed) or receive an incomplete grade for the course if required reasonable excuse letters have been provided.

1. **Medical excuse.** You must provide a signed doctor's note from a physician or from McKinley Health Center to the Course Coordinator. "Dial a nurse" is not an acceptable medical excuse. This information should NOT be given to your TA.

If you are sick and unable to attend your assigned virtual lab session, please email the Course Coordinator as soon as possible.

2. **Family emergency.** If you cannot attend class because of an unexpected emergency you must provide documentation from the Emergency Dean to the Course Coordinator. This information should NOT be given to your TA.

If you miss a lab due to an emergency, please email the Course Coordinator as soon as possible.

3. **Participation in a University-sponsored activity.** Examples include participation in the Marching Illini or a University sports team. You must provide documentation regarding your absence to the Course Coordinator at least one week prior to your absence. This information should NOT be given to your TA. Intramurals, student-sponsored clubs and activities, or registered student organization (SRO) events are **not** considered University-sponsored and do not excuse you from lab.

4. **COVID-19 Excuse.** If you cannot attend class because of a mandated quarantine, directed by a physician, or a COVID-19 related hospitalization, you must provide supporting documentation to the Course Coordinator. COVID-19 medical excuses must originate from a physician and include as signature and the length of quarantine (if applicable). This information should NOT be given to your TA.

GRADING FOR THE COURSE

Please note: Chemistry 105 follows the University plus/minus system for grading.

The grading for the course will be as follows:

Course Policy Assignment	10 pts
10 Prelab Assignments	100 pts
10 Lab Video Assignments	100 pts
10 Online Lab Meetings with iClicker REEF (up to 5 pts can be earned per session)	50 pts
10 Postlab Assignments	200 pts
4 Safety Assignments	20 pts
Total	480 pts.
Bonus Assignment (optional)	10 pts.

Total points listed does NOT include the optional bonus assignment that may be completed by each student

This course is not curved (i.e. 70–72% is a C–, 73–76% is a C, 77–79% is a C+, 80–82% is a B–, 83–86% is a B, 87–89% is a B+, 90–92% is an A–, and 93–100% is an A).

Grading Scheme for Chem 105:

Percentage %	Final Grade
(97.0–100.0%)	A+
(93.0–96.9%)	A
(90.0–92.9%)	A–
(87.0–89.9%)	B+
(83.0–86.9%)	B
(80.0–82.9%)	B–
(77.0–79.9%)	C+

Percentage %	Final Grade
(73.0–76.9%)	C
(70.0–72.9%)	C–
(67.0–69.9%)	D+
(63.0–66.9%)	D
(60.0–62.9%)	D–
(0.0–59.9%)	F

OTHER IMPORTANT COURSE INFORMATION ITEMS

1. Medical Insurance

Each student at the University is responsible for providing his/her own medical insurance coverage. If a student is injured or becomes ill during laboratory, costs of transportation and treatment are the responsibility of the student. Check to be sure that your insurance coverage is adequate.

2. Contact Information

If you have any questions or concerns throughout the semester, you should contact the Course Coordinator or Laboratory Coordinator. The contact information is included online.

FREQUENTLY ASKED QUESTIONS FOR CHEMISTRY 105

1) What should I do if I missed my scheduled Lab and am seeking to be excused?

Please read the Course Attendance section on pages xviii–xix of your lab manual to ascertain types of situations that will allow you to be excused from your virtual lab session.

If you missed a virtual lab session due to one of these allowed situations, i.e. you have a legitimate excuse for missing a virtual lab session, then contact the Course Coordinator and provide the reason why you missed the virtual lab session, the actual name of your section and provide the documentation that supports the reason that you missed the virtual lab session so you can earn an excused absence from that virtual lab session.

The documentation sent can be a pdf, a clear scanned image of the document(s) or a very clear picture of the document(s).

The latter things must be sent to the Course Coordinator in a reasonable time, i.e. no less than 24 hours BEFORE the deadline for the PostLab and Lab Video assignment for the virtual lab session missed. Documentation will not be accepted and absences will not be excused, under any circumstances, after the due date of the assignment.

Failure to submit the latter items to the Course Coordinator in a timely manner means that student will earn an unexcused absence for the virtual lab session they missed. Please note that McKinley notes **MUST** confirm that you visited McKinley and saw a health practitioner if this form of documentation is being used to earn an excused absence from the virtual lab session missed. Dial-a-nurse is not a valid form of medical excuses.

2) What does receiving an excused absence from Lab means?

It means that the average grade of all of the virtual lab sessions that student actually completes will be used in place of that excused absence when calculating that student's grade.

The student will see EX in the online grade book for the virtual lab session grade if they have been excused absence from Lab.

When a student is excused from a virtual lab session they must still complete the PostLab, Lab Video and Safety (if applicable) Assignment for that virtual lab session by the deadline for their section.

PostLabs, PreLabs, Lab Video assignments, nor Safety Assignments are excused for this course unless there is documentation provided that supports that the student was incapacitated and thus unable to complete these assignments **for the entire time** the assignment(s) was open in LON-CAPA.

3) How do I calculate my point total for one Lab?

Grades for this class, the points/grades that are used to calculate your grade, are NOT kept in LON-CAPA and are NOT the same grades as those seen in LON-CAPA.

The grades/points used to calculate your grade are kept in the online gradebook and are taken out of LON-CAPA and converted to scores out of 10 pts for PreLabs, 10 pts for Lab Video Assignments, up to 5 pts for virtual lab sessions (using iClicker REEF), 20 pts for PostLabs, and 5 pts for Safety Assignments.

Here is an example of how to calculate the different parts of your lab each week:

I will use the different components of Lab 2 for this example:

PreLab 2:

For PreLab 2, assume for the purpose of this sample calculation, there were 15 questions asked in LON-CAPA and a student correctly answered 13 of them.

The student therefore earned 13 out of 15 for PreLab 2 in LON-CAPA.

All PreLabs are each worth 10 points.

To convert 13/15 to a score out of 10, multiply both 15 and 13 by (10/15).

When this is done the student, therefore, earned 9/10 (grades are rounded to the nearest whole number) for PreLab 2.

This student will see 9/10 in the online gradebook for their PreLab 2 grade and 9/10 will be used to calculate their CHEM 105 grade.

Lab Video Assignment 2:

For Lab Video Assignment 2, assume for the purpose of this sample calculation, there were 9 questions asked in LON-CAPA and a student correctly answered 7 of them.

The student therefore earned 7 out of 9 for PreLab 2 in LON-CAPA.

All PreLabs are each worth 10 points.

To convert 7/9 to a score out of 10, multiply both 9 and 7 by (10/9).

When this is done the student, therefore, earned 8/10 (grades are rounded to the nearest whole number) for PreLab 2.

This student will see 8/10 in the online gradebook for their PreLab 2 grade and 8/10 will be used to calculate their CHEM 105 grade.

Online Lab 2 Meeting (using iClicker REEF):

For the Online Lab Meeting (using iClicker REEF), assume for the purpose of this sample calculation, there were 3 questions asked in this virtual lab session and a student correctly answered 2 of them. The student will also receive 1 point for participation.

The student, therefore, earned 3 out of 4 for their Online Lab 2 Meeting (using iClicker REEF).

Each Online Lab Meeting (using iClicker REEF) is worth 5 points.

To convert 3/4 to a score out of 5, multiply both 3 and 4 by (5/4).

When this is done the student, therefore, earned 4/5 (grades are rounded to the nearest whole number) for Online Lab 2 Meeting (using iClicker REEF).

This student will see 4/5 in the online gradebook for their Online Lab 2 Meeting (using iClicker REEF) grade and 4/5 will be used to calculate their CHEM 105 grade.

PostLab 2:

For PostLab 2, assume for the purpose of this sample calculation, there were 14 questions asked in LON-CAPA and a student answered 7 of them correctly.

The student therefore earned 7 out of 14 on PostLab 2 in LON-CAPA.

All PostLabs are out of 20 points.

To convert 7/14 to a score out of 20, multiply both 14 and 7 by (20/14).

This student will see 10/20 in the online grade book for their PostLab 2 grade and 10/20 will be used to calculate their CHEM 105 grade.

4) How does the online grade book use an excused absence grade to calculate your point total?

If you have an EX grade in the gradebook for a virtual lab session then the following formula is used by the grade book to calculate the number of points for that excused assignment:

EX = excused assignment = ((sum of all student's non-excused scores for that kind of assignment) / (sum of all student's non-excused possible points for that kind of assignment)) * (possible points the excused assignment is worth)

5) How many times can I miss Lab for the semester?

Any student who misses more than 2 virtual lab sessions (excused or not) during the semester will automatically fail the course, even if all other assignments for the course have been successfully completed, or receive an incomplete grade for the course if required reasonable excuse letters have been provided. Please note that an unexcused absence DOES mean that the student loses points for the virtual lab session they missed.

6) Is this course curved at the end?

No. Students must earn the point total that is stated under "Grading for the Course" in the Lab manual to earn the grade they desire for this course.

7) Is there extra credit available in this course?

There is an optional bonus assignment available to all Chemistry 105 students. This is a cumulative assignment that must be completed individually by the student (without any outside assistance) during the final 2 weeks (4/19–5/6) of the semester. Up to 10 bonus points can be earned on this assignment. Any earned points will be added to the student's final point total at the end of the semester.