

Survey of Chemistry II (CHEM1152) Syllabus- Summer- 2018- GEORGIA STATE UNIVERISTY, Chemistry Department
As on May 10, 2018... If changes are needed, changes will be made.

Instructor: Dr. Angela Maria Navarro-Eisenstein-

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Lecture 12:00-1:40 pm 501 Langdale

Office hours: Thursdays 2:30-5:00 pm or by appointment

Office Hours: 836 Langdale, are "First come first serves", if a large group comes, all students will be seen together if student coming first does not bring personal –private questions.

Prerequisite: Successful completion of Chemistry 1151K_

This course comprises of two parts:

First part is **organic chemistry** where you will have on line quizzes, 2 tests and one ACS final.

First part is **biochemistry** where you will have 4 on line quizzes, 2 tests and one ACS final.

Textbook: Karen C. Timberlake **General, Organic, and Biological Chemistry: Structures of Life (4th Edition)** (Prentice Hall, PEARSON) ISBN, 13-978-0-321-75089-1, ISBN, 10-0321-75089-6 If you have taken CHEM1151 during the Fall 2014 - Fall 2017 you already have the book. If you have any other General Organic Biochemistry Book, you can use it, just follow the order of topics listed. It makes no difference what author, edition you get as I will provide lots my own resources. Buy the least expensive book you find in Amazon®.

This is a hybrid course: 90% of resources are available in ICollege, also quizzes. I expect students to watch all videos for Alkanes before we see each other in person: Nomenclatures of very complex molecules are available in ICollege videos and will not be discussed in lecture. Pay close attention to isopropyl, and isobutyl as their prefixes are used in the alphabetization of the names of organic compounds.

Attend SI. Our leaders are usually selected from students that have the experience from taking this course. She/He will give you hints and tell you what works and what doesn't in a course with so many topics like this. Besides she will guide you when working problems. Understand he or she will not do your homework; that would hurt you as you and only you take exams in class.

Grading: Lecture comprises 75% of the overall course grade and laboratory 25%. GSU does not provide two separate grades in the transcript.

Grade: The lecture grade will be computed from on line quizzes, four major tests in class, and two final examinations. **The final exams are standardized American Chemical Society comprehensive exams. Every topic and chapter discussed will be in the ACS finals. The final exams** will count as 1/4 of the total lecture grade. These standardized exams consist of a total of 120 multiple choice questions. Students will have 55 minutes to complete 60 multiple choices each part - 60 questions in the Organic part (MIDTERM) and 60 questions in the Biochemistry (FINAL). These exams' scores will be curved based on national percentiles using national norms from ACS.

Grades Tentative Cut Off for CHEM 1152:

A+*: 96 % A*: 90%; A-: 87%; B+: 84% B: 80% B-: 77%, C+: 74% C: 70% C-: 67%, D= 64-66%, F= below 64%

***To get an A or A+ in the course students have to get at least 86 percentile in the ACS exams (this is usually 40-44 correct /from 60 questions depending, on the test provided by the Chemistry Department)**

Letter grade percentage is $\frac{\text{total number of points accumulated} \times 100}{800}$

200 points	Laboratory portion (includes a lab final exam)
200 points	2 ACS finals @ 100 each
240 points	4 tests in class @ 60 each
100 points	Many quizzes- on line, and homework / averaged to 100 points
60 points	In class quizzes

Total 800 points

* Icollege platform allows to assign 1 point or more per question. I will give you many questions to prepare students for in class exams- You have to study before taking on line quizzes- Questions are highly randomized from a large pool or database of my own questions. No two students will get the exact same set of questions, to keep the

integrity of assessments. Quizzes are timed. Doing on line quizzes with an open book could give a student a false feeling of confidence of "I know the material". In reality, those students could fail the tests in class as those are closed book.

- Class Preparation: Suggested reading assignments should be completed before the each lecture. To study is not the same than to learn. **When you prepare yourself as if you have to teach the topic to a classmate or a friend or in front to the class: That is learning. To study is short term, learning is long term. If you learned chapters 1-10 well during 1151 congratulations. Studying the night before tests alone does not work. You have to practice a lot ahead to make sure you ace this course.**

Laboratory Manual: A Laboratory Manual for Chemistry1152K will be available to students during the first pre-laboratory lecture at the scheduled time for each student to attend and check-in. **There is not lab during the first week of semester neither the holiday (Labor Day-Fall or MLK-Spring).** Class and lab resume after holidays.

When sending an e-mail to **Dr. Navarro-Eisenstein**, under the subject heading, please state in which class you are enrolled. (i.e., CHEM 1102, CHEM 1152)- Chemistry is not enough information. It is important you email to anavarro@gsu.edu from your GSU account to receive a prompt response. **If you email Dr. Navarro from Icollege, I will only reply your email when I access to enter grades.** Please, do not e-mail through Gmail, Hotmail, Yahooh etc. as your message could go to span. I will email the class from GSU mass collective emails. If the subject does not apply to you, please ignore it.

Storms: In the event of a storm students are expected to review topics discussed on line videos as all material will be included in assessments. Students will have to watch the videos and read the book and slides understanding that extra instruction or clarification will only be available during office hours. **In the event of cancelation due to storms an updated schedule of assessments will be posted.** Topics discussed in videos are supplemental instruction and will not be discussed in detail in the classroom.

Preparation for the course: Read the chapter to be discussed before you come to lecture. Work the problems within the chapter, as they bring step by step how to arrive to the answers. Work the problems at the end of the chapters. You know what you know when you answer the questions with the closed book. Exams are closed book. Previewing solutions to problems gives a false sense of confidence about the subject matter, and typically results in poorer test scores.

Planning ahead is a key to success. Your performance in science is a lot better when you study daily. Do not wait until the night before the exam to begin studying. **You EARN your grade, I DO NOT give grades.** As you read the material, you should take written notes and **underline**. Use **highlighters** or **color pens**. That will help you throughout the semester and to study for finals.

Miscellaneous:

- Make-ups: There is no chance for make ups due to time constraint. Plan accordingly.
- Academic Honesty: The honor code embraced by universities expresses an ideal of character, conduct, and citizenship. This applies especially to academic honesty and integrity. Passing off someone else's work as your own represents intellectual fraud and theft, and violates the core values of academic community. You will be asked to sign up the honor code in bold as written beneath, along with your printed name on the first page of assessments. **"As a member of the student body taking this course, I consider myself bound, guaranteed and compelled by honor to develop and uphold high standards of honesty and behavior."**
- Attendance: Students are expected to attend all lectures. As a courtesy to your fellow students, please arrive on time and do not leave during the lecture. **Please bring me a schedule of your RELIGIOUS HOLIDAYS OBSERVANCE the SECOND WEEK of class.**
- **Disabilities: Students who wish to request accommodation for a disability** may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed.
- **Accommodation Plan**: Students are responsible for providing a copy of that accommodation plan to instructors of all classes in which an accommodation is sought. Your need for accommodations will only be discussed in the office and never at the beginning or end of class **and never in front of classmates.**
- Electronic devices: Students are requested not to bring cellular telephones and/or Ipads or tablets to exams. Cell phones and laptops are allowed during lectures, BUT NOT during quizzes or exams
- The University requires that faculty members must, on a date after the mid-point of the course to be set by the Provost (or his designee): A) **Give a WF** to all those students who are on their rolls but no longer taking the class and B) **Report the last day** the student attended or turned in an assignment.

- Students need to **show their GSU Panther ID card when taking any test, quiz or exam**. All tests/exams are taken in class. The basic ideas and principles on these exams come from the book and lecture material and are designed to test a student's 1) understanding of the concepts and 2) ability to solve problems, as well as 3) knowledge of the facts.
- Research shows that the more **different ways** you present information to the brain the easier it is to learn. In other words **hear it, see it, say it, write it, practice it, highlight it, quiz it**, etc.
- In general, questions and problems on exams will be original and not copied from those found in a chapter of the textbook or old previous exams given. Don't waste time memorizing answers from old exams as the instructor modifies questions every semester. Exams are designed so that the majority of questions are of medium difficulty, some are relatively easy and very few are challenging.
- Major tests and the final exams will be multiple choices (green scantrons). Missing any exam will result in the assignment of a zero for that exam, in either the lecture or the laboratory. **NO MAKEUP EXAMS ARE GIVEN. Exams cannot be taken earlier or later than day scheduled. Students missing an exam will be expected to submit a written note explaining why the exam was missed, to provide valid evidence for that excuse and to discuss absence in the office, no in front of the class.**
- Any student presenting falsified documentation will receive an "F" for the course and be referred to the Chemistry Department Chair or Dean of Students for disciplinary action.
- The lecture professor may retain copies of students' homework, quizzes or tests. Exams are kept in my office and students can stop by to check on missed questions with the marked scantrons and keys.
- **Four (4) green** small scantrons are required for in class tests for Chem. Dept. machine. I do not return original graded scantrons, but students are welcome to look at them in my office. **We might have lecture after tests.**
- Two (2) blue large Scantrons for ACS the Final Exams **Form no. 4521** (blue form used by the Testing Center's machine) will be needed for this course. They can be obtained from at the bookstore or for free in the Students Center. **If the Chem. Dept. has the blue scantrons, I will announce in class.** Those scantrons are graded in the Testing and Counseling Center, Piedmont 75; therefore the scores for ACS Organic will not be available as soon as we regularly get them with green scantrons.
- **Class Preparation: The price of success** is high. Anything of value requires great effort. You have to work hard, be persistent, and pay attention to details. These traits are ultimately why a college degree is valuable, plus the capacity to learn. **Believe you can succeed.** Be willing to pay the price. **Accept responsibility for your learning!** It is your choice. I could be the best teacher in the world but your performance depends only on the time and effort you invest in this course. Chemistry is a highly structured subject in which each new topic is based on others previously discussed. Therefore, if one topic is not mastered, it becomes *increasingly* difficult to master those that follow. **Missing even one class can lead to problems** that the average student cannot overcome. Also, chemistry does not lend itself to "cramming". What you learned from the first chapter is needed for the second; what you learned from the third chapter will be needed the last day. Complex concepts build up from beginning chapters. **Attend all lectures!** The quizzes and exams are based mostly on material that is covered in class. You must be present to know what is going on.
- Students are strongly encouraged to download lecture notes from **ICollege** before coming to class. The lecture **visual aids** for the instructor and **are not intended** to be "*the only source of study*" for the students. **You need to study from the textbook for all exams.**
- **Three habits** will help in mastering each topic as it arises, and will reinforce the topics previously covered:
 - ✓ **Read** the assigned material *before* it is covered in lecture and watch my own Ipad videos. You can explore more in your own time but you might encounter the same topics with more details for higher level chemistry.
 - ✓ **Work** through the **example** and **practice problems** from the textbook within each assigned chapter or those I place in ICollege.
 - ✓ **Work** a large number and wide variety of problems "*as many end-of-chapter problems as possible*". All in-chapter examples and practice exercises should be done. To reward your hard work I might use some of the problems from your book for exams and quizzes.
- The instructor may assign or re-arrange seating at any examination or quiz. Please leave first row empty during all examinations.
- The instructor may take up an examination or quiz from any student who is behaving in such a manner as to disrupt the class during the examination or quiz, and assign a grade of zero to that student for that exercise. Such disruptive behavior includes looking around oneself or talking. Even if you are not copying, any form of looking around, neck

stretching, gesturing or talking is unacceptable /considered inappropriate testing procedure, and will result in a zero score for the exam plus subsequent disciplinary action. **Hats need to be removed or turned around.** Students who feel they must move around during these times can apply for special testing privileges through the GSU Department of Disability Services.

- The Instructor reserves the right to move students during the tests. During all exams, sit up straight and keep your paper directly in front of you and out of sight from other students.
- Before an exam is given to the students, there should be nothing on your desk except pencils, erasers, a scantron, and ID (scratch paper will be provided if necessary). Students are required to show (and leave) their student identification on the desk in order to take the test. Tests will be graded ONLY if a student I.D. is shown. Write your name, student ID number and exam color/ or exam letter (A or B or C) on your scantron and set your ID out to be checked after completion of the tests when you and the scantron to the instructor.
- Answer sheets, scantron and exam papers should be completely covered throughout all assessments. If your paper or scantron can be seen, then you are a participant in cheating and **ALL participants will face disciplinary action**, which may include a failing grade for the entire course.
- You **cannot use your cell phone as a calculator or as a watch**. If you need to be on-call during an exam, you can turn your cell phone to "vibrate" and leave it up front with the instructor.
- Use the restroom and complete any other personal business **before coming to an exam**. Bring tissues in case you need them. Students may leave the room only after their exam has been turned in. Leaving the room during any testing procedure will result in a score of zero for the exam.
- Students arriving late to exams will not have any additional time. Make sure you take into consideration Downtown's heavy traffic. Students arriving to ACS finals after instructions are given will not take such final.
- **Cancellation of Classes:** Official closure of the university is determined by the university administration. This sometimes occurs due to inclement weather, in which case notification will be made through local radio and television outlets.
- Should closure result in cancellation of classes or examination periods, resumption of the missed activities would occur at the next regular class period when the university reopens, or as determined by the course instructor. Should an instructor be unable to meet a class for reasons others than those above, another instructor would normally meet the class as scheduled. Be hereby advised, however, that on rare occasions conditions could require the cancellation of class or examination periods. In such cases, there would be *official* notification of the students affected via email, text message and the local news. Should this notification be through notices posted in the classroom or other means, the *student* has the final responsibility of confirming the authenticity of the cancellation through the Chemistry Department Office.
- **Each student has the responsibility of checking their email and iCollege on a daily basis.**
- **Prohibited Accessories:** Students may **NOT** use a **cell phone** as a timepiece or calculators during exams, or any such transmitting equipment (e.g. **Bluetooth, MP3, laptop, Ipod, Iphone, Ipad**). They are all strictly forbidden during any test or exam. Electronic calculators are not needed in this course, only for the lab portion.
- **Classroom etiquette:** Please do not reserve a seat for your friends coming late. Please **refrain from chit-chatting** during class as it distracts not only the students who sit around you but also the instructor. Disruptive conduct during class will not be tolerated and **appropriate action will be taken against you** (refer to your copy of the Student Conduct Code).
- **Cheating:** All tests taken must represent your individual, unaided efforts. To receive or offer information during an examination is cheating. The use of unauthorized supplementary materials during tests is also cheating. A student who cheats on an exam will receive **a zero for that exam which cannot be dropped as the lowest grade**. Any suspected offenses may also be referred to the Department Chairman and/or the Dean of Students for appropriated disciplinary action. The Department of Chemistry follows the university policy on academic honesty published in the "Faculty Affairs Handbook" and the "On Campus: The Undergraduate Co-Curricular Affairs Handbook."

Georgia State University Student Conduct and Integrity Policy: *The Georgia State University Policy on Academic Honesty* is applicable to this course, including but not necessarily limited to infractions in the areas of **plagiarism, cheating on examinations, unauthorized collaboration, falsification, and multiple submissions**. This policy is published in *On Campus: the Student Handbook*, available to all members of the university community. **Also all results submitted by you in the laboratory section of this course must reflect your individual effort**. Only original data obtained by your experimentation in the assigned laboratory may be used, except when specifically authorized by your laboratory instructor. Supplementary source material (handbooks, reference literature, etc.) must be *clearly referenced* (title, author, volume, page(s), etc.).

Falsification or destruction of data constitutes cheating. **Conduct or actions that disrupt class**, examination, or laboratory periods or falsification of information related to chemistry courses by any student will be taken as a violation of the policies of the Board of Regents of the University System of Georgia and the Georgia State University Student Code of Conduct, Section 6.0. Any suspected offenses may be referred to the Department Chair.

Some Examples of Unacceptable Student Conduct:

- ✓ Leaving class before the lecture is over
- ✓ Leaving class after taking a quiz or turning a homework
- ✓ Talking while your professor is lecturing distracting your fellow classmates
- ✓ Arguing with the professor about student conduct
- ✓ No following the testing procedures as listed in this syllabus
- ✓ No sitting up straight with paper directly in front of you during a quiz or exam or no keeping scantron covered
- ✓ No having your student ID for a quiz or test
- ✓ Letting your cell phone ring audibly during a lecture or exam or having a cell phone available during a quiz or test
- ✓ Using a disrespectful tone of voice, harsh words
- ✓ Using profanity or making inappropriate gestures of any kind

Profile of the A/B student after Dr. Terry L. Fry

Note: This checklist might be used by students to determine why they are or are not attaining their desired goals in class. Past students have contributed items to this list which they believed were characteristic of A/B students

Attends to school regularly

It is not tardy to class

Always writes down homework assignments

Does homework fully and completely (neatness counts)

Does make up work promptly after an absence

Is well organized

Schedules a regular study time

Comes to class prepared (books, paper, pencil, homework)

Pays attention in class (does not sleep or goof off)

Asks questions in class

Participates in class discussion

Develops good concentration (don't study with music or TV on)

Is courteous to others (does not distract students and instructor with cell phone or lab top)

Takes good lecture notes

Does not allow problems unrelated to school affect school work

Does extra work without expecting a grade

Sets and achieve goals and cooperates with the instructor

APPENDIX

TENTATIVE SCHEDULE OF ACTIVITIES: The schedule below is only tentative and it is subject to changes if needed

In order to get familiar with the new vocabulary, the students are required to read the chapters before the topics are discussed and do THE TEXTBOOK practice solved problems within the chapters. After discussions, work those at the end of chapters. Students are required to check announcements of changes in ICollege and to attend to lecture as this is only a general plan for the course; deviations may be necessary. Important: In the event of a storm students are expected to review topics discussed on line as all material will be included in assessments. In the event of cancellation due to storms an updated schedule of assessments will be posted. Work problems within the chapter. **Make flash cards for functional groups.** Finish worksheet, and work problems from the textbook at the **chemistry tutoring center CTC** (Sports Arena) if needed or use your book or Watch iPad videos.

Tentative Topic and Reading Assignment Before Each Lecture

This course comprises of two parts:

First part- **Organic Chemistry**- where you will have 2 tests and one ACS final in the classroom, and quizzes on line

Second part- **Biochemistry**- where you will have 2 tests and one ACS final in the classroom, and quizzes on line

Date		Tentative Topic and Reading assignment before each lecture After each lecture make a habit of the following: Finish worksheet, Watch IPad videos, re-read the chapter, to practice problems from your textbook –read and read- Part I – ORGANIC CHEMISTRY
Mon 6/4	Day 1	Chapter 11 Alkanes and cycloalkanes, memorize alkyl groups (methyl, ethyl, propyl, butyl) by heart to name branched compounds. Pay close attention to isopropyl, and isobutyl as their prefixes are used in the alphabetization of their names. Nomenclature of alkanes of complex molecules is a video.
Wed 6/6	Day 2	Chapter 11 Alkanes and cycloalkanes-Continued, Chapter 12 Alkenes
Frid 6/8	Day 3	Quiz in class 1 -Chapter 12 Alkenes, Chapter 12 Cycloalkenes, alkynes Benzene and aromatic compounds (make flashcards for benzenes)
Mon 6/11	Day 4	Chapter 13 Alcohols, diols, glycerol
Wed 6/13	Day 5	Chapter 13 Phenols, ethers, thiols, sulfides, disulfides
Frid 6/15	Day 6	Quiz in class 2 -Chapter 14, Aldehydes, nomenclature, Aldehydes, ketones, reactions
Mon 6/18	Day 7	Test 1 (55 minutes- 60 Pts) includes chapters 11,12- 13, lecture after exam. More Aldehydes ketones, reactions
Wed 6/20	Day 8	Aldehydes-hemiacetals, acetals and their hydrolysis Chapter 15 carbohydrates- introduction, stereochemistry and mono saccharides (glucose, and fructose structures)
Frid 6/22	Day 9	Chapter 16, Carboxylic acids, introduction, nomenclature, physical properties, Carboxylic acids derivatives- (esters) Chapter 18 (amides)
Mon 6/25	Day 10	Quiz in class 3 -Carboxylic acids and derivatives: fatty acids -(chapter 17-lipids) tri acylglycerols-Saponification Chapter 18 Amines – and amides- amino acids introduction (Alanine, Cysteine, phenylalanine, aspartic acid and lysine)
Wed 6/27	Day 11	Chapter 16 a m i d e s - e s t e r s - Hydrolysis (watch this video before coming to class)
Frid 6/29 DROP DAY	Day 12	Test 2 (55 minutes- 60 Pts) Lecture after exam Hydrolysis (watch this video before coming to class Observe that withdraw day is by 5pm, same day as Test II.
Mon 7/2	Day 13	ACS FINAL EXAM (ORGANIC) (100 POINTS) cumulative
Wed 7/4	Day 14	No class- Independence DAY
Frid 7/7	Day 15	Part II – BIOCHEMISTRY -Chapter 15-Carbohydrates /Chapter 17simple lipids (waxes,)
Mon 7/9	Day 16	Chapter 17 C o m p l e x Lipids – phospholipids- steroids, prostaglandins
Wed 7/11	Day 17	Quiz in class 4 -Chapter 19 (You have to review amino acids taught on June 25 th in your own time. Proteins: peptide bond and 4 levels of protein structure. Chapter 20 enzymes and vitamins- Study this from your lab
Frid 7/13	Day 18	Enzymes/ DNA
Mon 7/16	Day 19	Test #3 (55 minutes-60 Pts) includes chapters 15, 17, 19, 20 -RNA
Wed 7/18	Day 20	Chapter 22 Metabolism,(NAD+, FAD, AcCoA) glycolysis gluconeogenesis, Glycogenolysis Chapter 24, beta-oxidation) lipids metabolism I expect you watch the all videos for metabolism.
Frid 7/20	Day 21	Quiz in class 5 -Chapter 23 citric acid cycle (Krebs Cycle), Electron transport chain (ETC)
Mon 7/23	Day 22	Chapter 23 ETC and ATP synthesis “oxidative phosphorylation” Test # 4 (55 minutes-60Pts)
July 28	Final	Last day of classes ACS FINAL EXAM (BIOCHEMISTRY) (100 POINTS) at 10:45 AM- Langdale 501 at 10:45 pm