

Lambert High School 2020-2021 Organic Chemistry Syllabus

| Digital access organic Chem syllabus |

Course Title: Organic Chemistry

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Course Description: If you invest in this course, you will emerge proficient in the language of organic chemistry, one of the most vivid and useful descriptions of the molecular world available to us. This course focuses on the fundamentals of structure and reactivity of organic molecules, which are characterized by the presence of carbon in a covalent framework. This course is highly visual (not mathematical), heuristic (not algorithmic), and qualitative (not quantitative). This course will require you to think actively, creatively, and flexibly

Goals: Upon completing this course, you will be able to...

- → Describe the electronic structures and spatial (conformational and stereochemical) properties of organic molecules with the ultimate aim of predicting reactivity.
- → Analyze spectroscopic data to determine the structures of organic compounds.
- → Apply a variety of qualitative reasoning strategies, especially *probabilistic reasoning* and *reasoning by analogy*, to predict the mechanisms and products of organic reactions.
- → Draw and analyze reasonable organic reaction mechanisms using the curved arrow formalism, the elementary-step framework, and structural stability factors.
- → Construct (synthesize) molecules using rationally designed sequences of reactions.

Standards/ Course specifications

Semester 1

- What is Organic Chemistry (Fundamentals of Organic Chemistry)
- Lewis Structures
- Resonance structures
- Mechanisms

Semester 2

- Mechanisms
- Reactions from Biochemistry
- Polymers

What you can expect in each unit/ Course Requirement:

Notes –I do my very best to present the content in a clear, understandable manner, where we will build on previous knowledge. We may also utilize podcasts, or a similar resource, to supplement what we cover in class. Please take detailed notes and if you are absent, you are responsible for the material. Notes outline will be posted on Itslearning

Lab – Will be posted on its Learning, These are to be completed in your digital lab notebook and are all formal.

Lab Safety - Is a primary concern and enforced. Not following the safety rules may result in loss of lab privileges and a reduced lab grade. A safety contract, quiz, and section in each lab will help to remind of this important aspect of the lab. In addition, I will carefully go over all safety concerns before the lab.

Safety Goggles -To reduce the possible spread COVID-19 by lab safety goggles, every lab will be equipped with a spray bottle of 70% isopropyl alcohol solution to sterilize goggles between each use. Students are welcome to bring their own goggles provided the goggles meet safety standards. They must be splash proof and have a Z87+ impact rating. The linked goggles should meet the safety guidelines required at most colleges as well. Safety glasses are not acceptable protection. Suitable goggles are linked below. An electronic copy of the syllabus can be accessed on Itslearning so that you can follow the links. Flinnsci.com <u>AP3306</u> or <u>AP3309</u> for Fog Free. Amazon.com - <u>Green Safety Goggles</u>

Quizzes/ Projects – They give you an opportunity to see how well you know the material. **[formative] Homework** - Necessary to master the content; may be a paper assignment or utilizing an online source such as Cengage **[formative]**

Formative Assessments include, but are not limited to homework, class work, practice tests, rough drafts, and sections of projects/ research papers/presentations.

Tests – The tests are meant to prepare you for the course .They will be composed of two parts and they will be timed. Part 1 will be multiple choice, and Part 2 will be Extended response. The tests will always have material from previous units. [summative]

Grading Policy

Course Average = 50 % (1st semester) + 50 % (2nd semester) Midterm and Final Exam each count as 2 summative assessments

Grading PA: 90-100; B:80-89.49; C:70-79.49; Fail < 70

1st and 2nd Semester Course Work = 75% Summative + 25% Formative

"Summative evaluations may not be given until formative feedback on the standards has been shared"
Summative Assessments include, but are not limited to unit tests, final projects, final essays, final research papers, and final presentations.

What Is expected from you for each unit

- #1- Use the planner in ITSlearning to keep up with reading, book problems, Waiting until the night before will not help you in this course and you will very guickly feel overwhelmed and behind.
- #2 Attend help sessions as needed and never hesitate to ask when you need help. The day before the test is too late to truly get the help you need (see point #1!)
- #3 Always follow the safety rules and specific guidelines for each lab. Failure to do so will result in possible injury and detention.
- #4 Come to class **each day**, **on time** and ready to go.We will always have something to do.This includes #1-2 and: no cell phones out, no sleeping, no talking during lecture. Failure to follow expectations may result in detention (glassware always needs cleaning!).

#5 - Turn work in ON-TIME !!!

Availability for Extra Help: As the school year proceeds, we hope to offer consistent, in-person help times. At this time, all extra help must be scheduled by appointment and will most likely be virtual in nature through a platform like Google Meets or Microsoft Teams. <u>Google form: Help session</u>

Makeup Work: Make up work is defined as work assigned during a student's absence, not work assigned prior to an absence. The student has (5) school days upon returning to school to complete make-up work. The teacher has the discretion to grant a longer period to make up work, if there are extenuating circumstances.

Learning Resources/Textbook(s): All learning resources, both print and digital, are meant to support and enhance the student learning experience of this class. Below are the names of the textbooks and websites that will be used in this course.

Workbook: Pushing Electrons (4th Edition, A guide for students of organic chemistry) Textbook: Organic Chemistry by John McMurry (9th Edition)

* The resources are county approved. These resources may vary by school due to sequencing, pacing, curriculum design, and/or individual needs of students.

Children's Internet Protection Act (CIPA): The school is required by CIPA to have technology measures and policies in place that protect students from harmful materials including those that are obscene and pornographic. Any harmful content contained within inappropriate sites will be blocked. http://fcc.gov/cgb/consumerfacts/cipa.html

Children's Online Privacy Protection Act (COPPA): COPPA applies to commercial companies and limits their ability to collect personal information from children under 13years of age. No personal student information is collected for commercial purposes.

https://www.ftc.gov/tips-advice/business-center/guidance/complying-coppa-frequently-asked-guestions-0

•	acy Act (FERPA): FERPA protects the privacy of student education review records. Under FERPA, schools may disclose directory
information in certain circumstances.	
I,	, have read this course syllabus and approve of its contents. I
agree to allow my student to use each	of the classroom resources listed in the learning resource section. \ensuremath{I}
will support my student following the cl	assroom expectations outlined in this course syllabus. I agree that I
am the person who is legally allowed t	o consent for my student whose name is listed below.
Parent's Name (Print)	Parent Signature

Date

Student's Name (Print)