

## HOSTOS COMMUNITY COLLEGE of CUNY

Chemistry 120

Course Information

Fall/Spring XXX

**Principles of Organic Chemistry.** A survey of the fundamentals of organic and biological chemistry. This course is for Dental Hygiene students and a requirement for entry into the Nursing Program. Offered in English only. (2-hr lecture)

### Required Materials:

TEXTBOOK: Timberlake, K.C., Chemistry, An Introduction to General, Organic and Biological Chemistry, 12<sup>th</sup> Ed. Publisher: Benjamin Cummings, 2014 ISBN: 0321908449

### Recommended

Chemistry, Study Guide and Selected Solutions, K. Timberlake, 12-th Ed. Pearson-Prentice Hall, 2015 ISBN 032193346X

Meeting Times: Lecture (510A (39634)): **Wed 2:00 -3:50 pm A-432**

Lecture Instructor: Prof. XXXXXXXXXX

Office Hours: Mon 11:00 – 12:00 pm room A-507  
Wed 12:00 – 2:00 pm room A-507  
Other hours by appointment (email: XXXXXX )

Contact Policy: When sending an e-mail, be sure to put key information in the Subject area. Make sure to include your full name and class section in the text. I will answer your message in less than 48 hours. When requesting an appointment outside my office hours, speak to me before you come. Notify me immediately if you need to cancel or change an appointment. If you need to reach me urgently, contact the Department's secretary at (718) -518-4128. Leave a brief message and your contact information.

Course Objectives:

Upon successful completion of this course, the student should be able to:

- Recognize, name and draw the structures of the main organic functional groups
- Name selected organic molecules based on condensed or structural formulas
- Relate the reactions of functional groups to metabolic pathways
- Identify and explain the reactions that form carbohydrates
- Lipids, proteins and nucleic acids
- Classify lipids and discuss their physiological importance
- Classify amino acids based on their chemical structure
- Describe the interactions between amino acids as they relate to primary, secondary, tertiary and quaternary protein structures and how these are affected by denaturation
- Differentiate between aerobic and anaerobic metabolism
- Describe the structure and function of DNA and RNA, and relate them to replication, transcription and translation
- Explain protein synthesis and the impact of mutations on protein synthesis.

### Tentative Course Schedule

<u>WEEK/DAY</u>	<u>CHAPTER#</u>	<u>SECTIONS</u>	<u>QUESTIONS AND PROBLEMS</u> (even numbered problems on the following pages)
1/ Sep 2	<b>12</b> Alcohols, Phenols, Ethers, Aldehydes and Ketones	12.1-12.4	Pages 405, 406, 408, 414, 420
2/ Sep 9	<b>14</b> Carboxylic acids, Esters, Amines and Amides	14.1-14.3	Pages 475, 476, 480, 484, 485
3/ Sep 16	<b>14 - Continued</b>	14.4-14.6	Pages 486, 493, 494, 498, 499
<b>4/ Sep 30</b>	<b>Exam I (Chapters 12 and 14)</b>		
4/ Sep 30	<b>13</b> Carbohydrates	13.1-13.4	Pages 436, 437, 441, 442, 447, 448, 451
5/ Oct 7	<b>13- Continued</b>	13.5-13.7	Pages 453, 454, 459, 462
6/ Oct 14	<b>15</b> Lipids	15.1-15.4	Pages 518, 519, 523
7/ Oct 21	<b>15- Continued</b>	15.5-15.7	Pages 527, 532, 538, 540
<b>8/ Oct 28</b>	<b>Exam II (Chapters 13 and 15)</b>		
8/ Oct 28	<b>16</b> Amino Acids, Proteins and Enzymes	16.1-16.3	Pages 556, 559, 562
9/ Nov 4	<b>16 - Continued</b>	16.4-16.6	Pages 570, 574, 580
10/ Nov 11	<b>17</b> Nucleic Acids and Protein Synthesis	17.1-17.3	Pages 594, 596, 598
11/ Nov 18	<b>17 - Continued</b>	17.5-17.6	Pages 604, 607, 611
<b>12/ Nov 25</b>	<b>Exam III (Chapters 16 and 17)</b>		
12/ Nov 25	<b>18</b> Metabolic Pathways and Energy Production	18.1-18.3	Pages 627, 631, 634
13/ Dec 2	<b>18 - Continued</b>	18.4-18.5	Pages 640, 643
14/ Dec 9	<b>18 - Continued</b>	18.6-18.8	Pages 649, 655, 659
<b>Wed, Dec 16 - Final Exam</b>			

There are NO classes on Wednesday, Sep 23. The last day of classes is Dec 14.

Course Grade: The course grade will be determined on the following basis

Lecture	100%
- Three In-class Exams	70%
- Final Cumulative Exam	25%
- Homework Assignments	5%

Grade Policy: The College uses the following grades:

A, A<sup>-</sup> for excellent work  
B<sup>+</sup>, B, for good work  
B<sup>-</sup>, C, C<sup>+</sup> for fair work  
D, for poor work  
F, for failure  
I, for incomplete  
W<sub>U</sub>, for unfinished incomplete, equivalent to F  
W, for withdrawn

The grade of Incomplete (I) is given in regular courses upon request of the student for personal emergencies that are verifiable. The faculty member has the responsibility to provide Inc grade only to those students **who are passing the course**. The student has the responsibility to take the initiative in completing the work, and is expected to make up the incomplete during the first semester in residence after receiving the grade of Incomplete. If the student does not make up the incomplete during the following semester after receiving it, **an F grade may be given by the faculty member without further consultation with the student.**

If after the end of the first semester the Inc remains on the record it will be designated as an F and will be computed in the student's GPA.

A	93-100
A <sup>-</sup>	90-92
B <sup>+</sup>	87-89
B	83-86
B <sup>-</sup>	80-82
C <sup>+</sup>	77-79
C	70-76
D	60-69
F	Failure

There is no R grade in this course.

### Lecture participation:

Your participation in class is an important part of the final grade. This grade is based primarily on your participation in class discussions, in team projects and your attendance. For each class you miss, you will lose participation points. If you miss 25% or more of the term, you will be failed.

**Academic policies:**

Hostos Community College has an evaluation system based on the honesty and integrity of the academic work of an identified student or students. Faculty, students and staff have the responsibility to uphold the standards of the community and to take action when others violate them. Faculty members have an obligation to educate students to the standards of academic integrity, and to report violations of these standards to the appropriate authorities of the college. If a community member is proved with academic dishonesty, the college will impose sanctions. The three most common forms of academic dishonesty are cheating, plagiarism, and bribery. It must be understood that any student who knowingly aids in plagiarism or other cheating, e.g., allowing another student to copy a paper or examination question, is as guilty as the cheating student.

**Cheating:**

In the collegiate setting, cheating is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in an act of cheating and by discouraging others from doing so.

**Plagiarism:**

Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work as one's own constitutes an act of plagiarism.

**Bribery:**

In the collegiate setting, bribery involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor shall also be handled as per the Sexual Harassment procedures of the College.

Use of **Cellular Phone** is not allowed both in the classroom and in the hallway.