

Framingham State University

THE CHEMISTRY OF LIFE (CHEM 101)

Lecture Syllabus Summer 2019

Instructor: Prof. Nan Chen

Lecture: M – F 3:20 PM – 5:20 PM

Email: nchen@framingham.edu

Office Hours: To be Announced

If you wish to speak to me outside the allotted office hours, please come by or make an appointment.

Catalog Description:

An exploration of the origin of life on a molecular basis; a familiarization with the basic chemistry of living organisms and their environment; an understanding of the laws that govern life; and a discussion on the fate of life as a consequence of drugs and man's chemical pollution of the earth's atmosphere, soil and water. Designed as a terminal **non-laboratory** course for the liberal arts non-science student.

Learning Objectives:

Upon successful completion of this course, students will be able to:

- Identify the elementary concepts of chemistry.
- Relate the use of chemistry in their everyday lives.
- Understand the concepts of atoms, molecules, ions, solutions and chemical reactions. - Recognize the relevance of chemistry in important societal issues.
- Think critically.

Required Materials

- 21st Century Chemistry, Kimberley Waldron, 1st Ed., ISBN-13: 9781936221394. - Scientific calculator

Lecture Reading Assignments: Lectures are designed to help you understand the emphasized material. To get the most out of lecture, please read the appropriate chapters before they are discussed in class.

Homework Assignments: Assignments and their due dates will be given in class and must be turned in by the start of the class when they are due. Assignments will be designed to reinforce concepts presented in class and provide individual exploration of topics of interest. *Late assignments will not be accepted.*

Electronic Devices:

All electronic communication devices must be turned off during class time. You will not be allowed to use electronic devices during exams or quizzes (no cell phones calculators).

Attendance: Classes, Quizzes & Exams:

It is highly recommended that you make every effort to attend all classes, as the quizzes and the three one-hour exams are based solely on the lecture. No additional “credit” is given in this course. Make-up quizzes or exams will only be permitted due *to illness or family emergency*. If you are unable to attend class on a quiz or exam day because of illness or emergency, you are expected to contact me *before class* by phone, WeChat or e-mail. Failure to notify me in one of these ways will result in you not receiving consideration for a make-up quiz or examination. A Doctor’s note is required in case of an illness.

Important Dates: (Are these dates correct for Summer 2019? I thought the session runs from 7/8 – 8/9.)

Last day to add or drop:	Wednesday July 4 th
Last day to withdrawal from course:	Tuesday July 24 th
Final Exam:	Thursday Aug. 2 nd

Exams:

Three one-hour exams will be given during the semester. A tentative exam schedule is provided below. *Make-up exams will only be permitted due to illness or family emergency.*

Exam Schedule:	Hour Exam I	Monday, July 9 th
	Hour Exam II	Monday, July 16 th
	Hour Exam III	Monday, July 23 th

Final Exam:

The final exam will be comprehensive and accounts for 25 % of your final grade.

Final Exam: Thursday, August 2nd @ 3:20 PM

Grade Calculations:

Regular class attendance and completion of chapter readings are necessary to succeed in this course. Your final course grade will be calculated as follows:

Lecture Attendance and Participation	10%
Homework Assignments	14%
Exams (3)	36%
Cumulative Final Exam	25%
Presentation	15%

Framingham State University Marking System:

Grade	Quality Points
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

Class Hours and Course Expectations

For our accreditation, it is essential that all Framingham State University credit courses follow the Federal Definition of credit hour: for every one hour of classroom or direct faculty instruction, a minimum of two hours of out-of-class student work is required. Since the summer China courses meet for two contact hours daily (10 contact hours of classroom time weekly), the expectation is that students spend 20 hours per week doing

out-of-class work. For the five week 4-credit course, this reflects 50 hours of classroom time and 100 hours of out-of-class time since the credit hour is defined as 50 minutes.

Academic Honesty:

Plagiarism and cheating of any kind are unacceptable, and all such offences will be reported to your academic dean and will result in failure of the assignment and possibly of the course. Please properly cite all quoted or paraphrased sources, and any ideas which are not originally yours. If you have any questions about how to cite your sources, or if you are unsure what counts as plagiarism or cheating, please get in touch with me. Integrity is essential to academic life. Consequently, students who enroll at Framingham State University agree to maintain high standards of academic honesty and scholarly practice. They shall be responsible for familiarizing themselves with the published policies and procedures regarding [academic honesty](#).

Academic honesty requires but is not limited to the following practices: appropriately citing all published and unpublished sources, whether quoted, paraphrased, or otherwise expressed, in all of the student's oral and written, technical, and artistic work; observing the policies regarding the use of technical facilities.

Infractions of the Policy on Academic Honesty include, but are not limited to:

1. Plagiarism: claiming as one's own work the published or unpublished literal or paraphrased work of another. It should be recognized that plagiarism is not only academically dishonest but also illegal.
2. Cheating on exams, tests, quizzes, assignments, and papers, including the giving or acceptance of these materials and other sources of information without the permission of the instructor(s).
3. Unauthorized collaboration with other individuals in the preparation of course assignments.
4. Submitting without authorization the same assignment for credit in more than one course.
5. Use of dishonest procedures in computer, laboratory, studio, or field work.

Further clarification on academic honesty will be provided, when appropriate, in individual courses.

6. Misuse of the University's technical facilities (computer machinery, laboratories, media equipment, etc.), either maliciously or for personal gain. Examples include but are not necessarily limited to:
- a) Accessing the private files of another person or agency without express permission.
 - b) The unauthorized use of technical facilities for purposes not connected with academic pursuits. When evidence indicates that a student has improperly used a technical facility, an appropriate supervisor (faculty or staff member) may take appropriate action reflecting the seriousness of the infraction, ranging from a verbal warning to, but not beyond, denial of use of the facility. If coursework may have been plagiarized, the supervisor will also inform all concerned faculty members, who may take action as described in the procedures for handling cases of alleged infractions of academic honesty.
7. Falsification of forms used to document the academic record and to conduct the academic business of the University

For more information about Academic Regulations at Framingham State, please see pages 28 -46 of the [Framingham State University Undergraduate Catalog 2018-2019](#).

U.S. Copyright Law

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Tentative Schedule

Date	Topic	Assignments	Important Events
July 8	Class Overview	2,10,14,16,20,22,24,26, 28,30,32,34,38,42,44,46	

	Chapter 1. The Story of Chemistry		
July 9	Chapter 2. Atoms	2,4,6,8,14,16,18,22, 24,26,34,36,42,44,46,48	
July 10	Chapter 3. Everything	2,4,6,8,10,12,14,16,18,20,22,24, 26,28,36,38,40,42,44,46,48,50	Last day to add or drop
July 11	Chapter 4. Bonds	2,4,8,10,12,16,20,26,28, 30,32,34,36,38,42,44,46,48	
July 12	Recitation		Ch. 1-4 HW Due
July 15	Hour Exam 1	Exam on Ch. 1-4	
July 16	Chapter 5. Carbon	2,4,6,12,14,16,18,20,24,26, 30,34,36,38,40,42,44,46,48,50	
July 17	Chapter 6. Air	2,4,6, 8,10,14,16,18,24,26,28, 30,32,36,40,42,44,46,48,50	
July 18	Chapter 7. Chemical Reactions	2,6,8,10,12,14,16,20,22,26,28,30, 32,34,36,38,40,42,44,46,48,50	
July 19	Recitation		Ch 5-7 HW Due
July 22	Hour Exam 2	Exam on Ch. 5-7	
July 23	Chapter 8. Water	2,4,8,10,16,18,20,22,24,26,28,30, 32,36,40,42,44,46,48,50	
July 24	Chapter 9. Salts and Aqueous Solution	4,6,8,10,12,14abc,16,20,24,26,28, 30,32,34,36,38,40,42,44,48,50	
July 25	Chapter 10. pH and Acid Rain	2,4,8,10,12,14,16,18,20,22,24,26, 32,34,36,38,40,42,44,46,50	

July 26	Recitation		Ch 8-10 HW Due
July 29	Hour Exam 3	Exam on Ch. 8-10	
July 30	Chapter 11. Nukes	2,4,6,10,12,14,16,18,20,22,24,26, 28,30,32,34,36,38,40,42,44,46,48 ,50	
July 31	Chapter 12. Energy, Power, and Climate Change	2,4,6,10,12,14,16,18,20,22,24,26, 28,30,32,34,38,40,42,44,46	
Aug. 1	Chapter 13. Sustainability and Recycling	2,6,8,10,12,14,20,22,24,26,28,30, 34,36,38,40,42,44,46,48,50	
Aug. 2	Chapter 14. Food	2,4,6,8,10,12,14,16,18,20,22,24,2 6,28,30,36,38,40,42,44,46,48,50	
Aug. 5	Recitation		Ch 11-14 HW Due
Aug. 6	Presentation		
Aug. 7	Presentation/Review		
Aug. 8	Final Exam		
Aug. 9	Farewell Day		