

SYLLABUS

Introduction to Chemistry
CHM 101
3 semester credits
8/13/18 – 10/13/18
Staff
josef.kren@doane.edu
5:00-5:55 pm Monday-Thursday
Email is preferred, responding within 12 hours.
N/A
All course materials are provided on DVD.
Model ChemLab - An interactive Lab Simulation for
Windows® and the Mac® OS X
http://www.modelscience.com/products.html?ref=home&link=
nav (provided by Doane University)
RECOMMENDED (optional). General, Organic and Biochemistry, by Katherine Denniston et. al. 11th Edition. McGraw Hill, 2017. ISBN: 978-0-07-351110-8.

Course Description	This course introduces students to chemistry in the context of the environment and every day life. Upon successful completion of the course, students will demonstrate an understanding of the chemistry of acid rain, ozone layer depletion, global warming, nuclear reactions of power plants, molecules of life like DNA, proteins, important pharmaceuticals, etc. In contrast to general chemistry, this course stresses the conceptual perspectives of chemistry rather than focusing on quantitative reasoning. This course is designed for non-science majors and is not required for a science related major. Lecture and laboratory.
Program Outcomes	Foundational Area of Knowledge: Scientific Perspectives Students will work to: employ methods of science for inquiry in a scientific discipline develop their scientific literacy and ability to critically evaluate scientific information consider the ethical and social implications of scientific study and use of scientific findings
Course Learning Outcomes/Objectives	 After completing the course you should be able to: Describe what chemistry is and the philosophy of chemistry as a science. Discuss the periodic table. Outline the basic concepts of general, inorganic, and organic chemistry and biochemistry. Describe some of the methods routinely used for chemical investigations. Demonstrate a basic knowledge of chemistry laboratory procedures. Apply knowledge of chemistry to everyday situations.
Technology Requirements	https://www.doane.edu/faq/minimum-computer-requirements

Course Schedule

Week or Module	Topic	Content	Assessments Matched to Learning Outcomes	Due Date & Time
1	Overview of Chemistry as the interconnecting scientific discipline.	Topic 1 on DVD	Class discussion	Read before the class
2	Chemistry in our lives; the pros and cons.	Topic 2 on DVD	Class discussion	Read before the class
3	Atoms, elements, compounds and their bonds.	Topic 3 on DVD	Class discussion	Read before the class
4	Chemical reactions.	Topic 4 on DVD Midterm Paper	Class discussion	Read before the class
5	Solutions. Chemical equilibrium. Acids and bases.	Topic 5 on DVD	Class discussion	Read before the class

6	Introduction to organic chemistry. Basic organic compounds.	Topic 6 on DVD	Class discussion	Read before the class
7	Carbohydrat es, lipids, proteins, enzymes and vitamins. Metabolic pathways.	Topic 7 on DVD	Class discussion	Read before the class
8	Applying principles of biochemistry into your health.	Topic 8 on DVD Final Paper	Class discussion	Read before the class

Grading Assessments

Type of Assessment	Points	Total possible points
Class discussion	10 points each class	80
Midterm paper		50
Final paper		75

Grade Scale (Grade scale will be program specific. Please check with the applicable Program Director for this information.)

A=90%-100%

D= 60-70%

F= 59% or

below

Participation Policy	A student is expected to be prompt and regularly attend on-ground classes in their entirety. Participation in class discussions is an integral part of your grade - my classes are heavily discussion based.
Study Time	Expectation of the amount of time the course requires students to spend preparing and completing assignments. Typically, students could expect to spend approximately 12 hours a week preparing for and actively participating in this 8-week 3 credit hour course. This actual time for study varies depending on students' backgrounds.
Late Work	5 % from total points will be deducted each day for late assignments
Submitting Assignments	In class (preferred) or via e-mail.
Communication Policy including Assignment Feedback	Responding to your e-mail within 24 hours, papers will be graded for the next class
Academic Integrity Policy	New Academic Integrity Policy to be released AUTM 2018
Academic Support	Please contact academicsupport@doane.edu https://www.doane.edu/graduate-and-adult/academic-support
Disability Services	https://www.doane.edu/disability-services Doane University supports reasonable accommodations to allow participation by individuals with disabilities. Any request for accommodation must be initiated by the student as soon as possible. Each student receiving accommodations is responsible for his or her educational and personal needs while enrolled at Doane University. Please contact Chris Brady at chris.brady@doane.edu or 402-467-9031 for assistance.
Military Services	https://www.doane.edu/graduate-and-adult/military
Anti-Harassment Policy	http://catalog.doane.edu/content.php?catoid=5&navoid=452

Grade Appeal Process	http://catalog.doane.edu/content.php?catoid=5&navoid=238
Credit Hour Definition	Doane University follows the federal guideline defining a credit hour as one hour (50 minutes) of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks (one semester), or the equivalent amount of work over a different time period (e.g., an 8-week term). This definition applies to courses regardless of delivery format, and thus includes in-person, online, and hybrid courses (combination of in-person and online). It also applies to internship, laboratory, performance, practicum, research, student teaching, and studio courses, among other contexts.
Syllabus Changes	Circumstances may occur which require adjustments to the syllabus. Changes will be made public at the earliest possible time.