



Academic Inquiries: Jinan University

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JINAN UNIVERSITY

General Chemistry I (With Lab)

Lecturer: Dr. Stefan Kautsch

Time: Monday through Friday (July 2, 2018 - August 3, 2018)

Teaching hour: 50 hours

Office hour: 2 hours (according to the teaching schedule)

Total Contact hour: 60 (50 minutes each)

Credit: 4

Location: School of Tourism

Office: School of Tourism 210

E-mail: skautsch@nova.edu

Course Description

This course constitutes an introduction to inorganic and physical chemistry and is appropriate for science and non-science students. It emphasizes the fundamental principles and theories of chemistry. We explore chemistry as a foundation of energy and matter. We start how the first elements were created after the Big Bang; students will investigate chemical compounds, chemical reactions, chemical nomenclature, and reaction stoichiometry. We discuss chemical periodicity, bonding, and states of matter including gases. The course includes an introduction to kinetics, equilibrium, theory of acids and bases, and oxidation-reduction reactions.

The underlying unity of chemistry is a basic theme. Lab activities and exercises will provide opportunities for students to experience the concepts learned in this course in our nature. These activities are selected in order to provide illustration and reinforcement of course topics: the fundamental laws, principles and theories of atomic and molecular structure, chemical reactions, states of matter, and energy and heat.

Required Textbook

Chemistry, The Molecular Nature of Matter and Change, edition 7e, by Martin S. Silberberg. Publisher: McGraw-Hill, ISBN-13: 978-9814646451.

Course Hours

The course has 20 lecture sessions and 5 lab sessions in total. Each session is 120 minutes in length. Lecture session meets from Monday to Thursday. Lab session meets on each Friday.

Assessment

Your final grade is based on the following components:

Lab Activities	25%
Quizzes/Homework	20%
Midterm Exam	25%
Final Exam	30%
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Total	100%

Grading Scale

The instructor will use the grading system as applied by JNU:

Definition	Letter Grade	Score
Excellent	A	90-100
Good	B	80-89
Satisfactory	C	70-79
Poor	D	60-69
Failed	E	Below 60

Policies

I want you to succeed in this course and at Jinan University. Here are some tips how to be successful in class: attend all lessons on time, prepare yourself by reading the textbook and not only rely on my slides, prepare your own study plan, stay awake during class. I encourage you to come see me during office hours or to schedule an appointment with questions or concerns about the course, and the universe. Any use

of an electronic computational/communication device is strictly prohibited. Using such a device will result in a 5 point penalty on your final grade. Audio and/or video recording during, before, and after the course is strictly forbidden. There will be no makeup exams. Missed or late homework assignments and/or quizzes and reports will receive zero points.

Class Schedule

Week 1

Lecture 1 - Keys to the Study of Chemistry

Lecture 2 - Matter and Energy

Lecture 3 – Atoms and Isotopes

Lecture 4 – Periodic Table

Lab 1 – Elements in Nature

Week 2

Lecture 5 – Formulas and Equations

Lecture 6 – Balance of Equations

Lecture 7 – Major Chemical Reactions I

Lecture 8 - Major Chemical Reactions II

Lab 2 - Chemical Reactions

Week 3

Lecture 9 – Gas Laws and Gas Properties

Lecture 10 – The Kinetic-Molecular Theory

Lecture 11 – Atmospheres

Mid-Term Exam

Lab 3 – States of Matter and Equation of State

Week 4

Lecture 12 – Thermochemistry

Lecture 13 – Calorimetry

Lecture 14 – Quantum Theory

Lecture 15 – Atomic Structures

Lab 4 – Heat and Calorimetry

Week 5

Lecture 16 – Chemical Bonding

Lecture 17 – The Shapes of Molecules

Lecture 18 – Chemistry in Research and Industry

Lecture 19 – Chemistry of Nature Recap

Cumulative Final Exam

Academic Honesty

Jinan University defines academic misconduct as any act by a student that misrepresents the students' own academic work or that compromises the academic work of another scholastic misconduct includes (but is not limited to) cheating on assignments or examinations; plagiarizing, i.e. misrepresenting as one's own work any work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of the instructors concerned; sabotaging another's work within these general definitions, however, instructors determine what constitutes academic misconduct in the courses they teach. Students found guilty of academic misconduct in any portion of the academic work face penalties ranging from lowering of their course grade to awarding a grade of E for the entire course.