

CHEM 0101 A (January 2025)
World of Chemistry

COURSE DESCRIPTION:

CHEM 0101 World of Chemistry (Winter 2025)

We heavily rely our happy and long life on science and technology. The goal of this course is to learn how chemistry impacts our daily lives in common and extraordinary ways. After learning basic concepts of elements, atoms, and molecules, we will explore topics in Health (food, alcohol, *cisplatin*), synthetic material (polymer), energy (fossil fuels, batteries, fuel cells, solar, nuclear), environmental issues (acid rain, greenhouse effect, and ozone depletion), and art (vision, color, forgery detection, and art restoration). **SCI**

INSTRUCTOR: Professor Sunhee Choi (MBH 544, choi@middlebury.edu)

MEETING TIMES AND PLACE: TWRWF 10:30-12:30 PM (MBH 216)

OFFICE HOUR: T: 12:30-2:00 PM (MBH 544)

TENTATIVE SCHEDULE

<u>Week</u>	<u>Topics</u>
W1 and W2	Topic I: Basics (Elements, Atoms, Molecules) Topic II: Health (Food, Alcohol, <i>Cisplatin</i>) Topic III: Synthetic Material (Polymer)
W3 and W4	Topic IV: Energy (Petroleum, Solar, Chemical, Nuclear) Topic V: Environment (Acid Rain, Green House Effect, Ozone holes) Topic VI: Art (Vision, Color, forgery detection, art restoration)

REQUIRED ACTIVITIES.

ATTENDANCE (10%) "If you miss the first two classes in the first week, you will be automatically dropped."
This is Middlebury Handbook rule.

PARTICIPATION (10%)

+ Points for your active participation and smile, etc.

- *Points for your active usage of cell phone or computer during the class.*

Term paper (20%)

on "*Periodic Table Cabinet*" located in the display cabinet across MBH 544.
5 page, double spacing

Due: **10:30 AM, T, Jan 14.**

EXAMS (60%)

	<u>Date</u>	<u>Topics</u>
Exam I: 30%	F, Jan 17	I (Basics), II (Health), III (Polymers)
Exam II: 30%	F, Jan 31	IV (Energy), V (Environment), VI (Art)

GRADING

100, 99, 98, 97%: A+	96, 95, 94, 93%: A	92, 91, 90%: A-
89, 88, 87%: B+	86, 85, 84, 83%: B	82, 81, 80%: B-
79, 78, 77%: C+	76, 75, 74, 73%: C	72, 71, 70%: C-
	69-50%: D	<50%: F