SCGI 110 Chemistry in Everyday Life (Thu)

Semester 2 Academic Year 2023 – 2024

| Class Schedule | Thursday at 13:30 – 16:30 | |
|----------------|-----------------------------|------------------------------|
| Instructors | Aj. Thanchanok Ratvijitvech | (thanchanok.rat@mahidol.edu) |
| | Aj. Anyarat Watthanaphanit | (anyarat.wat@mahidol.ac.th) |

Aim of the Course

Students understand the basic chemical principles related to everyday phenomena and activities including air and water quality, atmospheric ozone layer, global warming, energy sources, alternative energy, drug, food, and materials. Students can apply chemical principle concepts gained from this course to solve uncomplicated problems. Students can communicate knowledge gained from this course and work as a team.

Grading Policy

Student evaluation is in accordance with the rules and regulations of the Faculty of Science, Mahidol University. Grade symbols of O, S, and U will be given according to the student's score.

Score consists of:

| Before midterm | 50% |
|----------------|-----|
| After midterm | 50% |

Textbooks

- Catherine H. Middlecamp, et al. Chemistry in Context: Applying Chemistry to Society, 7th edition, New York: McGraw-Hill, 2012.
- 2. Chang, R. Chemistry, 9th edition, New York: McGraw-Hill, 2007.

Timetable

| Date | Topics | Instructor |
|----------------|---|--------------------------------|
| 11 Jan | Introduction to the course and basic chemistry revision | |
| 18 Jan | 18 JanAir pollution25 JanWater for life1 FebAcid-base | |
| 25 Jan | | |
| 1 Feb | | |
| 8 Feb | Nutrition | Aj. Thanchanok Ratvijitvech |
| 15 Feb | Polymers | |
| 22 Feb | Group Presentation | |
| 29 Feb | Revision | |
| 4-8 Mar | Midterm Exam | |
| 14 Mar | Ozone depletion | Aj. Anyarat |
| 21 Mar | Global warming | |
| 28 Mar | Energy from combustion | |
| 4 Apr | Energy from electron transfer | |
| 11 Apr | Genetic engineering and the molecules of life | Watthanaphanit |
| 18 Apr | Drugs and medicines | |
| 25 Apr | Revision | |
| 1 Apr - 10 May | Final Exam | |