香 港 資 優 教 育 學 苑
The Hong Kong Academy for Gifted Education

E2CHE0010
(Non-token required)

Chemists Online Self-study Award Scheme 2023

Jointly organised by the Hong Kong Virtual University (HKVU) and the Education Bureau.

Chemists Online
Self-study Award Scheme

Application Deadline
12 Dec 2022 12:00 noon

Intended Learning Outcomes

Upon completion of the programme, participants should be able to:

1. understand the impact of scientific literacy on different chemistry topics;
2. explain the importance of the linkage among science, technology, society and the environment.

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

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Introduction

The Chemists Online Self-study Award Scheme (COSAS) 2023 (https://hkvu.hk/cosas) is jointly organised by the Hong Kong Virtual University (HKVU) and the Education Bureau. The aim of the Award Scheme is to enhance scientific literacy of senior secondary school students by offering them with more advanced chemistry online lectures. In the 22/23 school year, 26 online seminars will be organised to cover a wide range of chemistry topics, including drinking water treatment, synthetic polymers, gastronomy, nanomaterials and food chemistry, etc. All the seminars were delivered by experts from local universities and chemistry related trades. The contents of the seminars were designed to link with the Chemistry related curricula and further extend the reach to the latest advances in chemistry.

Target Participants

- S1 – S6 HKAGE student members in 2022/23 school year only
- Class size: 50

* First-come-first-served.

Medium of Instruction

English and Cantonese

Schedule

The seminars will be released in 2 batches. The second batches will be released on 1 April 2023. The whole award scheme will be completed on 31 August 2023.

Remarks

The seminars will be disseminated through an e-Learning Open Platform (URL: http://hkvu.hk/cosas) developed and hosted by the HKVU. The participating students will receive an email from the HKVU by Jan 2023, and students are required to register an account to access and attend the seminars online and to engage in the online exercises.

Certificate

Criteria for the awards To accomplish the assigned tasks for one seminar, students are expected to: - study the pre-seminar material which explains some of the chemistry knowledge and concepts involved in the seminar - attend the online seminar - complete the online assessment items The following awards will be given to the participating students:

Award	Number of seminars completed within the designated period
Bronze	3
Silver	6
Gold	9
Platinum	12
Diamond	18

Enquiries

3940 0101 programme@hkage.org.hk

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The topics for the 26 seminars in the Award Scheme are listed below:

	Seminar Title	Related Topics in the Curricula
	Phase 1	
1	Drinking Water Treatment	Planet Earth; Analytical Chemistry
2	Indoor Air Quality and Indoor Air Quality Certification Scheme	Analytical Chemistry
3	Air Quality Management Strategies for the Pearl River Delta Region	Analytical Chemistry
4	Water Uptake of Atmospheric Particles: From the Millikan Oil Droplet Experiment to a Blue Sky	Microscopic World II
5	Science and the Aftermath of Fukushima Nuclear Plant Accident	Microscopic World I
6	Electrochemistry	Redox Reactions, Chemical Cells and Electrolysis
7	The Importance of Water in Food Chemistry	Chemistry of Carbon Compounds
8	Gastronomy	Chemistry of Carbon Compounds
9	Colour Chemistry	Microscopic World I; Microscopic World II; Materials Chemistry
10	Photodynamic Therapy A Promising Strategy of Cancer Treatment	Materials Chemistry
11	Synthetic Polymers in Modern Life	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
12	Metals in Biological Systems	Metals; Chemistry of Carbon Compounds
	Phase 2	
13	Food Chemistry and Food Safety	Chemistry of Carbon Compounds
14	Molecules for Liquid Crystals Displays	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
15	Conducting Polymers	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds; Materials Chemistry
16	Display and lighting technologies - LCD, LED and OLED	Materials Chemistry
17	Chemistry and Material Science in our Daily Lives	Materials Chemistry (Cantonese)
18	From senior secondary level redox concept to the appreciation of the beauty of Chemistry	Redox Reactions, Chemical Cells and Electrolysis
19	Drug Discovery and Organic Chemistry	Chemistry of Carbon Compounds
20	Symmetry, Asymmetry and Our Chiral World A Personal Recollection of the 2001 Nobel Prize in Chemistry	Chemistry of Carbon Compounds
21	A Journey to the Structural Determination of Organic Molecules: IR, MS and NMR Spectroscopy	Analytical Chemistry
22	Instrumental Analysis of Food and Drugs	Analytical Chemistry
23	Determination of Volatile Organic Compounds	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds
24	Chemistry in the Service of Mankind	Fossil Fuels and Carbon Compounds; Chemistry of Carbon Compounds
25	The Future of Plastics	Materials Chemistry
26	The Nano World	Materials Chemistry

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