

IUPAC-CHED Conference **“Improving Chemical Education in the Philippines”**

Conference date: 17-18 April 2008

Conference venue: University of Santo Tomas
Manila, Philippines

Background:

The curriculum for the B.S. program for Chemistry has been recently assessed, and revisions have been recommended for the updating of the various courses in the curriculum. International benchmarks were adopted in the evaluation of the content of the courses to ensure their up-datedness and ensure the global competitiveness of the graduates of the program. However, concern has been expressed about the delivery of these courses, particularly the approaches to classroom and laboratory instruction and the use of information technology. Indeed, the up-dating of the contents of the B. S. Chemistry curriculum has to be matched with an up-dating of the teaching methods employed, and the foregrounding of learner-centered approaches in chemistry education.

Objectives:

To provide a forum for the assessment of the modes of course delivery presently being employed in the lecture and laboratory courses in the B. S. Chemistry curriculum .

To present to chemistry teachers modern teaching methods, particularly learner-centered approaches for the various chemistry courses.

To identify strategies for improving the quality of chemical education in the Philippines.

To adapt approaches in chemical education to contribute towards the development of the global competitiveness of the graduates.

To promote the development of innovative schemes in laboratory instruction towards reducing the costs and hazards associated with the chemistry laboratory courses.

To initiate the networking of chemistry teachers for real and virtual partnerships towards the sharing and monitoring of innovative practices in the teaching of chemistry.

Conference programme:

The conference will feature plenary lectures by IUPAC and local resource persons on the following topics:

- Educating the chemist
- New technologies and new approaches in chemical education
- Microscale chemistry and green chemistry
- Low Cost Instrumentation
- Pedagogical evaluation of the chemistry integrated laboratory program
- Academe-Industry linkage

It will also involve workshop and demonstration sessions on the following topics:

- Microscale chemistry and green chemistry
- Low Cost Instrumentation
- Visualization in Chemistry

There will also be research posters presentations which will include studies carried out on various aspects of chemistry education.

A group discussion session will be held on the various topics presented and the synthesis of a plan of action for the improvement of chemical education in the country.

The timetable for the conference is presented in Annex 1.

Conference speakers:

The invited conference speakers include the following resource persons mostly from the IUPAC Committee on Chemistry Education:

- Prof. Peter Atkins (*Oxford University, United Kingdom*)
- Prof. Mei-Hung Chiu (*National Taiwan Normal University, Taiwan*)
- Prof. Jorge Ibañez (*Universidad Ibero-americana, Mexico*)
- Prof. Peter Mahaffy (*King's University, Canada*)
- Prof. Fortunato Sevilla (*University of Santo Tomas, Philippines*)

Conference participants:

The conference participants are tertiary level chemistry teachers from the different colleges and universities in the Philippines. A total of about 200 participants are expected to attend the conference.

Conference support:

The conference is supported by a grant from the Philippine Commission on Higher Education and the Flying Chemists Program of the International Union of Pure and Applied Chemistry. Additional support has been proposed to the IUPAC under its program for Financial Support for Conference in Scientifically Emerging Regions. A proposal for additional travel grants has been submitted to the Science Education Institute of the Department of Science and Technology (Philippines).

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Thomas Aquinas Research Complex
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17 April

7:30 – 8:30	Registration
8:30 – 9:00	Opening ceremonies
9:00 – 9:40	Talk 1: Educating the chemist <i>Prof. Peter Atkins, Oxford University, U.K.</i>
9:40 – 10:00	Open forum
10:00 – 10:30	Break
10:30 – 11:10	Talk 2: New technologies and new approaches in chemistry education <i>Prof. Peter Mahaffy, King’s University, Canada P.M.</i>
11:10 – 11:30	Open forum
12:00 – 13:30	Lunch
13:30 – 14:10	Talk 3: Microscale chemistry and Green Chemistry <i>Prof. Jorge Ibanez, Universidad Ibero-americana, Mexico</i>
14:10 – 14:30	Open forum
14:30 – 15:10	Talk 4: Low-cost Instrumentation <i>Prof. Fortunato Sevilla III, University of Santo Tomas, Philippines</i>
15:10 – 15:30	Open forum
15:30 – 16:00	Break
16:00 – 17:30	Workshop / demonstration - 1 <ul style="list-style-type: none">• Microscale chemistry• Low-cost instrumentation• Visualization in chemistry

18 April

8:00 – 8:40	Talk 5: Pedagogical evaluation of the chemistry integrated laboratory Program <i>Prof. Mei-Hung Chiu, National Taiwan University, Taiwan</i>
8:40 – 9:00	Open forum
9:00 – 9:40	Talk 6: Industry as stake holder in chemistry education <i>....., Philippines</i>
9:40 – 10:00	Open forum
10:00 – 10:30	Break
10:30 – 12:00	Group discussion session
12:00 – 13:30	Lunch
13:30 – 15:00	Workshop / demonstration - 2 <ul style="list-style-type: none">• Microscale chemistry• Low-cost instrumentation• Visualization in chemistry
15:00 – 15:30	Break
15:30 – 16:30	Plenary session: Report of discussion groups
16:30 – 17:30	Plenary session: Plan of action
17:30 – 18:00	Closing ceremonies

