

## 1. Teaching Philosophy

The concepts of my teaching philosophy have been acquired from my own professional training and teaching experience, and from those that have influenced me. I completed my undergraduate study from a teachers college, and served as a university lecturer for many years. I was the second prize winner of a young teachers teaching contest (Nantong Teachers College (now Nantong University), China, 1992), and was awarded as a “Top Young Teacher in General Universities & Colleges of Jiangsu Province” (The Education Commission of Jiangsu Province, China, 1994).

In my opinion, the first goal in teaching chemistry is to have a solid curriculum and provide the students with the framework of knowledge. The understanding of chemistry concepts and the ability to solve various chemistry problems should be emphasized. Students need to be helped and encouraged in developing their own problem-solving abilities and styles, and the teacher should show students that there may be more than one way to approach a problem whenever it is possible.

As many teachers realized, one of the most challenging things in teaching is that the teacher is always faced with a group of students with very different backgrounds and abilities, so the teacher has to try to help those with the poorest background and the least knowledge, without completely boring and discouraging those students who have a very good background. I believe that teachers need to begin a course by starting everyone on the same page and then providing a common intellectual space for student to develop from there.

I strongly believe in cooperative learning. Teachers need to establish some protocols necessary to let the students develop ideas/concepts via e.g., prior assigned readings, classroom arguments and discussions, and after classroom experiments. This kind of interactive lecturing allows both students and the teacher to ask questions, and builds enormous confidence in the students about their ability to create original ideas.

In recent years, skills like computer literacy and the ability to use the internet are pre-requisites for success. I believe that transfer of knowledge can be achieved efficiency using modern computer tools and with other audio-visual aids as well. Students should be assigned computer work to learn how to use some of computer programs to solve chemistry problems, to write papers and to give oral presentations, whenever appropriate.

Students' homework and exams should be focused on basic understanding of fundamental chemical theories and concepts. It might be a good idea, too, I think, that the teacher assigns class projects for the semester whereby each student or group of students is required to design a new experiment/program. In this way, independent and comprehensive abilities of each student/group can be cultivated and assessed.

In addition to the teaching in the classroom, I believe participating in undergraduate and graduate research is an invaluable experience that benefits the students as well as the supervisor. It is hard to imagine that a teacher's teaching ability could be improved and the teaching contents could be up-to-dated if the teacher would not attend any research activities.

Eventually, the goal of education is learning rather than teaching. I believe that students should be inspired to think on their own, and that a good and healthy relationship between the teacher and students could motivate students' potential learning abilities. A teacher should treat students equally with respect, whatever their educational and cultural background.

## **2. Teaching Experience and Interests**

I have taught a number of courses over the years as a chemistry lab technician (instructor), teaching fellow, lecturer, assistant and associate professor. These courses included: (a) Inorganic & Analytical Chemistry, (b) Analytical Chemistry (Both Qualitative and Quantitative Analysis, with labs), (c) Instrumental Analysis (with labs), (d) Chemical literature, (e) Electrochemistry (or Analytical Electrochemistry), and (f) Lab preparation and demonstration of Inorganic Chemistry, Physical Chemistry, Analytical Chemistry, and Instrumental Analysis.

I would feel very comfortable to teach the following courses at both undergraduate and graduate levels: (a) Analytical Chemistry (with labs), (b) Instrumental Analysis (with labs), (c) Electrochemistry or Electroanalytical Chemistry, (d) Chemical Literature. I could also teach "Biosensors" or other division assigned courses that match my academic background and research interest.