1. INTRODUCTION

Chemistry is the foundation for all other sciences. It embraces the areas of medicine, engineering, agriculture, environment, biotechnology and nanotechnology. The beauty of this subject lies in its applicability to all aspects of our lives. In recognizing the importance of Chemistry, Sri Lankan education system has made it a key subject in the curriculum of the secondary level of science education. Students are eager to learn Chemistry as it has been the base for many other branching areas in science. It is, therefore, imperative that the teaching of Chemistry be conducted in such a manner to lay a strong foundation on which their future careers would be building upon. With the advancement of science & technology, the understanding of core concepts in Chemistry has been made easier, enabling the learning of Chemistry interesting and rewarding.

This program is, therefore, designed to impart new approaches to teaching and learning Chemistry and to update the subject knowledge in both Chemistry and Science Education. This course is of particular value to those who are currently working in the field of Chemistry Education in state or private sectors and for those seeking employment in the field of Chemistry Education.

2. COURSE AIMS

- Reinforce and update the knowledge of Chemistry
- Enhance the teaching skills and motivation by using modern methods of teaching, lecture demonstrations and laboratory experiments
- Use of information technology and molecular modeling in teaching chemistry
- Train the teachers to design and implement new activities related to the content in G.C.E. Advanced Level syllabus to make teaching more attractive and interesting
- Expose the teachers to modern chemistry equipment
- Develop the ability to effectively manage a chemistry laboratory
- Introduce effective evaluation and assessment methods
- Train the teachers to design curricula, lessons and assessments
- Encourage teachers to obtain feedback from students and use them constructively to improve the classroom activities
- Introduce the concepts of student-centered, inquiry-based, activity-based and technology-enabled education into the conventional classroom
- Train the teachers to recognize the various psychological aspects of students
- Develop and enhance the presentation skills of the teachers
- Develop the ability for research in education and in chemistry
- Improve the scientific writing skills

3. DURATION

Part 1: Theory and Practical Modules

Duration: 12 – 18 months

Conducted on Saturdays (8 a.m. – 5 p.m.) and some Sundays (8 a.m. – 12 p.m.)

Part 2: Chemistry Education Project

Duration: Full time; 6 months

Eligibility decided from the results for Part A

4. ELIGIBILITY & SELECTION

Application for admission to the course will be entertained from candidates who have passed the B.Sc Degree with Chemistry as a subject from a recognized university or an equivalent qualification acceptable to the Faculty Board of the Faculty of Science, University of Colombo. The selection will be on the basis of M.C.Q Examination and / or an interview.