

# Department of Chemistry

URL: [www.chem.kaist.ac.kr](http://www.chem.kaist.ac.kr)

Dept. Phone : 042-869-2802~4

## Introduction

### □ Graduate Program

The department offers exciting opportunities and unique advantages for students to pursue their studies in the fields of physical, organic, inorganic, analytical and polymer chemistry, and biochemistry, leading to an M.S. and Ph.D. degree. The main objective of our program is to provide a suitable environment and necessary guidance to enable students to become independent scientists. Research is the main focus of the program. Through active participation in original research, built around a student's own interest and that of their chosen supervisor, the student can develop his/her creativity and become fully prepared for successful career in an academic or industrial institution. This department actively promotes joint research with industrial and other research organizations in both basic and applied chemistry; there is a minimum two semester-residency requirement for all Master's program students. In addition, all students are required to obtain a minimum total of 36 credits including the courses related to their thesis research.

These courses include a minimum of 1 general course, and 3 departmental elective courses from the two of four different areas of inorganic chemistry, organic chemistry, physical chemistry and biochemistry. All students are requested to conduct research. A successful oral presentation of their works, to a committee comprising three faculty members, is required for the completion of the program.

All predoctoral students must attend for a minimum of four semesters and complete all course requirements described in the Master's program.

Doctoral students take additional courses for a total requirement exceeding 72 credits, including 39 course credits. The oral examination is divided into two parts: a preliminary oral test and a final oral defence. Usually the preliminary oral test is scheduled before the completion of the sixth semester. During the oral examination, the doctoral candidates are expected to demonstrate their competence by presenting their research progress and future research plans in an organized manner to a committee made up of five faculty members. The final oral defence on the research thesis culminates in a Ph.D. degree. Most candidates complete their Ph.D. program within 3 to 4 years after the completion of the Master's Program.

### □ Undergraduate Program

The department offers an undergraduate program which covers the fundamental aspects of chemistry through theoretical learning and laboratory experiments. The department offers the general chemistry courses during the first year, followed by the mandatory courses in physical, organic, inorganic and analytical chemistry, and biochemistry. Leading to further specialization, a wide range of special topics are offered to 3rd and 4th year students. The program is designed to provide a balance among theoretical learning, training in modern experimental methods, and computing. The students are encouraged to undertake a research project during their senior year, and must submit a report to a faculty committee for review. Students must accumulate a total of 130 credits for graduation, of which some 49 credits must be from courses offered by this department, which may include a limited numbers of graduate courses. Although the undergraduate program normally lasts 4 years, early graduation is possible for students who have fulfilled all the requirements in a shorter time.