

# Department of Applied Chemistry

## Introduction

The Department of Applied Chemistry of National Chia-Yi University (NCYU) was founded in 2000, and was located in the Lantan main campus.

The Department of Applied Chemistry offers Bachelor of Science, Master of Science, and Doctor of Philosophy degrees. Currently, there are about fifty graduate and two hundred undergraduate students enrolled in the program. The student to faculty ratio was kept at a low level; therefore, our students have the best opportunity to receive the guidance from our dedicated faculty.

Although the program's history was short, we are able to offer a state-of-the-art facility, and continue to improve on a daily basis. In addition, we keep recruiting internationally recognized researchers to serve as our faculty members. Their expertise areas include analytical, organic, inorganic, physical chemistry, and biochemistry, as well as biotechnology and nanotechnology. Based on our efforts, we strongly believe this program will become one of the best chemistry programs in Taiwan.

## Course design

Our undergraduate program is designed to provide students with solid fundamental chemistry training, because we believe it will create more useful and meaningful applications. The undergraduate program not only covers all core courses of chemistry (like organic, inorganic, analytical, physical chemistry, and biochemistry), but also includes the application aspects (related to biotechnology and material chemistry). Thus, students will have the opportunity to extent their knowledge during the learning procedures. Moreover, the training of practical chemistry related skills and the ability of problem-solving are also emphasized. After receiving their degrees, students will be able to either look for a job in industry, or continue to pursue a higher degree.

## Faculty

Department currently has 17 full-time faculty members and 4 non-tenure track contract lectures, all have excellent enthusiasm on both teaching and research. Their expertise covered all the modern chemistry fields. Department will keep recruiting outstanding researchers and scholars to join our growing program.

## Facility

The applied Chemistry department is located at two modern four-story buildings, including four teaching laboratories for undergraduate courses and individual laboratories for faculties. In addition, two more newly modeled teaching laboratories at the common teaching building near the library are now established for freshman general and organic chemistry labs.

The equipments in our teaching laboratory are more than adequate for undergraduate program. Instruments like pH meters, bench-top centrifuges, and UV-visible spectrometers are provided for undergraduate students. All students are able to access these equipments under proper guidance. Other

research equipments, such as 300/400 MHz FT-NMR, TEM, LC-Mass, GC-Mass, FT-IR, UV-visible spectrometer, powder X-ray diffractometer, fluorescence spectrophotometer, atomic absorption spectrophotometer, and FT-Raman spectrometer are also available. Recently, the applied chemistry department acquired an automatic ABI 433A peptide synthesizer for routine and modified peptide synthesis.

## Prospective

The goal of our department is to establish integrated research programs of biotechnology and material science. The research direction will mainly focus on protein chemistry and biosensors, including structure elucidation of macromolecules, enzymology, synthesis of materials, instrumental design, and their applications. However, faculty is still encouraged to create other research interests. We are going to put together these research fields to make our program become more competitive.

## More Informations

Department welcomes all the students and junior lectures who are interested in pursuing the higher degrees to join the M.S.or Ph.D.program. Department home page:<http://www.ncyu.edu.tw/chem/>. Application home page:<http://admissions.ncyu.edu.tw/fsc/indexfsc.aspx>.



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