

Department of Chemical Engineering, National Chung Hsing University

Graduation Requirements for Undergraduate Students Enrolled **after** 2024

| Items | | Items | | |
|---|--|--|---|-----------|
| I. Period of Study : | | Core Course Title | | |
| 1. Minimum period of study : 4 years (5 years for Veterinary Medicine) | | (16) | Transport Phenomenon (I) | Semester |
| 2. Can be extended for 2 more years (excluding 2 years of suspension) | | (17) | Transport Phenomenon (II) | Semester |
| | | (18) | Unit Operations | Semester |
| | | (19) | Chemical Engineering Thermodynamics | Semester |
| | | (20) | Chemical Reaction Engineering | Semester |
| | | (21) | Process Control | Semester |
| | | (22) | Undergraduate Research/Selected Reading | Year |
| | | (23) | Instrumental Analysis | Semester |
| | | (24) | Instrumental Analysis Lab | Semester |
| | | (25) | Process Design | Semester |
| | | (26) | Chemical Engineering Laboratory(I) | Semester |
| | | (27) | Chemical Engineering Laboratory(II) | Semester |
| | | Total | | 82 |
| II. Minimum graduation credits: 137 credits (excluding PE credits). | | VI. Professional elective courses within the department: A minimum of 27 credits must be completed is required. | | |
| III. University Required Courses and Credits: | | VII. Other Regulations: | | |
| 1. Physical Education (PE) Course: 2 credits, not included in graduation credits. Student Athletes with outstanding sports achievements will be handled according to the relevant regulations of the Office of Physical Education and Sports. | | 1. Biochemistry: Compulsory departmental elective | | |
| 2. English Proficiency Requirement: 0 credit. | | 2. Introduction to Materials Science: Compulsory departmental elective | | |
| 3. General Education : 28 credits | | 3. Introduction to Polymer Science: Compulsory departmental elective | | |
| i. Core Competencies: at least 3 credits. International students do not need to take the "Information Literacy" course. | | 4. Practice in Process Design: Compulsory departmental elective | | |
| ii. Language Competencies: (at least 8 credits) | | 5. Undergraduate students may take graduate courses regardless of the number of credits. | | |
| ● Native Language and Literature : 4 credits | | 6. Moral and labor education shall be conducted in accordance with school regulations. | | |
| Narrative Expression: Language Literacy | | VIII. Minor Degree: To earn a minor degree, students are required to take 20 (or more) credits in addition to the department's minimum graduation credits. For more details, please see the bulletin of Curriculum Division website. | | |
| Narrative Expression: Language Application | | IX. Double Major: The graduation requirements for students in pursuit of a double major (department or degree program) shall be determined by relevant regulations in effect at the time when their application was approved. Double major students not only have to fulfill all graduation credit requirements of their first major (department or degree program), they must also complete all core courses for their second major (department or degree program). Only upon achieving a passing grade in these courses will students be eligible for a double major graduation qualification. Undergraduate students who have not complete or are short of 40 credits for the second major must make up for those credits by taking courses designated by the second major (department or degree program). | | |
| ● Foreign Language: at least 2 credits and up to 6 credits. | | X. Cross-Disciplinary Expertise Development Program: If the required professional courses of the program overlap with those of the affiliated departments (degree programs), double major, minor, or other cross-disciplinary expertise programs, students shall not take the said courses. Instead, they shall select other courses specified by the program's departments (degree programs) or colleges. | | |
| English Communication and Expression | | XI. Students who graduate from educational institutions equivalent to senior high school or junior college with a secondary education study period of less than 6 years are required to complete at least 12 extra credits as part of their graduation requirements. The additional credits and courses to be taken shall be departmental professional electives (no restrictions on subjects). | | |
| Academic English : Listening and Reading | | | | |
| Academic English : Speaking and Writing | | | | |
| iii. Domain Competencies: at least 10 credits | | | | |
| ● Humanistic Domain, Social Science Domain, and Natural Domain: at least one course in each Domain, totaling at least 6 credits. | | | | |
| ● Integrated Domain: at least 4 credits. | | | | |
| ● For National Defense Education courses can't be counted toward general education credits. | | | | |
| ● Our program belongs to the area of Engineering Technology, therefore, only one course from this area will be recognized. | | | | |
| iv. Except for the Academic English Speaking and Writing course, extra credits can't be counted toward the graduation credits. | | | | |
| IV. College Required Professional Courses and Credits: None | | | | |
| V. Department Required Professional Courses and Credits: Minimum 82 credits. | | | | |
| Core Course Title | | Semester/Year | Credits | |
| (1) | Introduction to Chemical Engineering and Chemical Process Safety | Semester | 3 | |
| (2) | Calculus(I) | Semester | 3 | |
| (3) | Calculus(II) | Semester | 3 | |
| (4) | General Physics | Year | 6 | |
| (5) | General Physics Lab | Year | 2 | |
| (6) | General Chemistry | Year | 6 | |
| (7) | General Chemistry and Lab | Year | 2 | |
| (8) | Fundamentals of Computer Programming Languages | Semester | 3 | |
| (9) | Material and Energy Balances | Semester | 3 | |
| (10) | Engineering Mathematics (I) | Semester | 3 | |
| (11) | Engineering Mathematics (II) | Semester | 3 | |
| (12) | Organic Chemistry | Year | 6 | |
| (13) | Organic Chemistry Lab. | Year | 2 | |
| (14) | Physical Chemistry | Year | 6 | |
| (15) | Physical Chemistry Lab | Year | 2 | |

Administrative Staff of the Department 系(所、學位學程)承辦人：

Signature of the Department Chair: 系所主管簽章：