

Doctoral Program in Chemical Engineering & Technology

1. Introduction

The primary discipline of Chemical Engineering and Technology contains six secondary discipline master programs in chemical engineering, chemical technology, applied chemistry, bio-chemical, industrial catalysis, and explosions chemical. This primary discipline has a PhD program and a postdoctoral program. The secondary disciplines have some state-level key disciplines, national special majors, provincial brand majors, the National Chemistry Experimental Teaching Demonstration Center, and the National Chemical Engineering Practice Professional Education Center.

2. Research Directions

- (1) Chemical reaction engineering
- (2) Fine chemical engineering
- (3) Industrial catalyst study
- (4) Pyrotechnic & pyrotechnics technique
- (5) Biopharmaceutical

3. Duration of studies

Full time PhD students are expected to complete their studies and earn their degrees in 4 to 8 years, and they will be disqualified from the program after 8 years.

4. Credits requirements

Students are required to complete at least 18 degree credits from courses in Section 5 with a minimum of 16 coursework credits and 2 obligatory courses.

5. Curriculum

Course No.	Course Name	Semester	Credits
<i>I. Fundamental Courses</i>			4
L371A002	Chinese	Fall	2
L371A003	Introduction to Chinese Classics	Fall	2
<i>II. Core Courses</i>			8+
S103C009	Organic Reactions	Spring	2
S103C001	Catalysis in Asymmetric Synthesis	Spring	2
S103C005	Journal-Style Scientific Writing Skills	Spring	1
S103C031	Pyrotechnics	Fall	2
S103C030	Modern Instrumental Analysis	Fall	2
<i>III. Major Electives</i>			4+
S103C002	Progress in Biological Techniques	Fall	2
L103C019	Chemistry & Technology of High Explosives	Fall	2
L103C020	Chemistry & Technology of Propellants	Spring	2
S103B003	Thermal Safety of Chemical Process	Fall	2
B103Z002	Protein Crystallography	Spring	2

IV. Thesis Credits			
L0000003	Dissertation Proposal II	Fall	2
L0000004	Academic Activities II	Spring	
Total Credits Required			18+
NOTE: Graduate students are usually expected to meet the course requirements in the first academic year, including: I. Fundamental Courses, II. Core Courses, and sufficient elective courses in III. Major Electives.			

6. PhD Dissertation Topic and Research Proposal

PhD dissertation proposal should be no less than 10000 words long and has at least 80 references, half of which must be published in the recent 5 years. A PhD student should choose a research topic for the PhD dissertation and spend no less than 2 years on the dissertation research and writing, all under an advisor's guidance.

Detailed regulations and requirements on PhD dissertation are documented in the "*NJUST Regulations about the Topic Selection, Research Proposal and Composition of Postgraduate Theses and Dissertations*". The PhD dissertation research proposal writing and defense should be completed in no later than the second academic year of the program.

7. Publication

To meet the degree requirements, a PhD student is required to have a certain number of academic publications related to the dissertation research. Detailed requirements are documented in "*NUST regulations on a postgraduate's publications of their research work*".

8. PhD Dissertation Requirements

Detailed regulations and requirements on PhD dissertation are documented in the "*NJUST Regulations about the Topic Selection, Research Proposal and Composition of Postgraduate Theses and Dissertations*", and "*NUST Style Sheet for Theses and Dissertations*". For a joint effort with others, or a follow-up of previous work, the student should clearly specify his/her contribution to the thesis.