

Doctoral Program in Mechanical Engineering

1. Introduction

Mechanical Engineering is a primary discipline and includes five secondary disciplines: Mechanical Manufacturing & Automation, Mechanical Design & Theory, Mechatronic Engineering (key discipline of Jiangsu province), Vehicle Engineering, and Industrial Engineering. The school of Mechanical Engineering offers first-class master, doctoral, and postdoctoral programs in China.

2. Research Directions

- (1) Methodology of modern mechanical design
- (2) Servo precision transmission and mechanism
- (3) Intelligent robots and bionic technology
- (4) Digital design and manufacturing
- (5) Advanced processing technology and equipment
- (6) Intelligent machinery
- (7) MEMS
- (8) Smart & intelligent electromechanical systems
- (9) Mechanics-electronics-hydraulics technology
- (10) Dynamics & dynamic simulation of electromechanical system
- (11) Vehicle power device simulation
- (12) Vehicle safety

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>			6+
L113A018	Multi-Body System Dynamics	Fall	2
L113A017	Elastic-Plastic Mechanics	Spring	3
L113A008	Stochastic mathematics	Spring	3
L113A016	Continuum Mechanics	Fall	2
<i>III. Major Electives</i>			4
L101C011	Academic Frontier of Mechanical Engineering	Spring	2
L101C012	Disciplinary Thematic Studies (Seminar)	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.