Doctor of Philosophy Program in Nanoscience and Nanotechnology (International Program)

Ph.D. (Nanoscience and Nanotechnology)

Philosophy of the Program:

The Doctor of Philosophy Program in Nanoscience and Nanotechnology is an application of interdisciplinary fields integrating both pure science and applied science to create new innovations and body of knowledge at nano-level. It focusses on producing graduates who gain practical, analytical and synthesizing skills for conducting research and for self-development.

Applicant Qualifications

Plan 1.1

Both Thai and foreign applicants must complete a Master's degree or are studying in the last semester of the Master of Science program (M.Sc.), Master of Engineering program (M.Eng.) or other equivalent programs with a cumulative grade point average not less than 3.25. For those with a grade lower than 3.25 must have research experiences related to the field of study. This shall be at the discretion of the program committee in considering the applicants on the following issues:

1. Publication
2. Awards Other works
3. Co-Curricular activities related to the program
4. Registered subjects

Plan 2.1

Both Thai and foreign applicants must complete a Master's degree or are studying in the last semester of the Master of Science program (M.Sc.), Master of Engineering program (M.Eng.) or other equivalent programs with a cumulative grade point average not less than 3.00.

Plan 2.2

Both Thai and foreign applicants must complete a bachelor's degree or are studying In the last semester of the Bachelor of Science program (B.Sc.), Bachelor of Engineering program (B.Eng.) or other equivalent programs with a cumulative grade point average not less than 3.50. For those with a grade lower than 3.50 and not less than 3.25 must have research experiences related to the field of study. This shall be at the discretion of the program committee in considering the applicants on the following issues:

1. Publication
2. Awards Other works
3. Co-Curricular activities related to the program
4. Registered subjects

The candidate must submit the English Proficiency Test Score as part of their application according to the KMUTT announcement on the English Language Requirement for Doctoral Degree.

Professions after graduation

1. Researchers/Lecturers/Academics in science and/or nanotechnology
2. Nanotechnology developers
3. Consultants in science projects and/or nanotechnology
4. Analysts for science research projects and/or nanotechnology
5. Sale engineers providing services and technology for nanotechnology business

Curriculum

Plan 1.1 for student with Master degree	48 Credits
Plan 2.1 for student with Master degree	48 Credits
Plan 2.2 for student with Bachelor degree	72 Credits

Curriculum Components

Plan 1.1 for student with Master degree

- Dissertation 48 Credits

Plan 2.1 for student with Master degree

- Major Course 9 Credits
- Elective Course 3 Credits
- Dissertation 36 Credits

Plan 2.2 for student with Bachelor degree

- Major Course 9 Credits
- Elective Course 12 Credits
- Seminar 3 Credits
- Dissertation 48 Credits

COURSE STRUCTURE

Plan 1.1 for student with Master degree

First Year

First Semester	**Credits**
NST 696 Seminar	1(0-2-3) (S/U)
NST 794 Dissertation	8(0-16-32)
Total	**8(0-18-35)**
Second Semester	**Credits**
NST 697 Seminar	1(0-2-3) (S/U)
NST 794 Dissertation	8(0-16-32)
Total	**8(0-18-35)**

Second Year

First Semester	**Credits**
NST 698 Seminar	1(0-2-3) (S/U)
NST 794 Dissertation	8(0-16-32)
Total	**8(0-18-35)**
Second Semester	**Credits**
NST 794 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Third Year

First Semester	**Credits**
NST 794 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Second Semester	**Credits**
NST 794 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Plan 2.1 for student with Master degree

First Year

First Semester	**Credits**
NST 601 Introduction to Nanoscience and Nanotechnology	3(3-0-9)
NST 602 Fabrication and Characterization in Nanotechnology	3(3-0-9)
NST 696 Seminar	1(0-2-3) (S/U)
XXX xxx Selective	3(3-0-9)
Total	**9(9-2-30)**

Second Semester	**Credits**
NST 603 Research Methodology for Nanoscience and Nanotechnology	3(3-0-9)
NST 697 Seminar	1(0-2-3) (S/U)
NST 793 Dissertation	6(0-12-24)
Total	**9(3-14-36)**

Second Year

First Semester	**Credits**
NST 698 Seminar	1(0-2-3) (S/U)
NST 793 Dissertation	6(0-12-24)
Total	**6(0-14-27)**

Second Semester	**Credits**
NST 793 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Third Year

First Semester	**Credits**
NST 793 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Second Semester	**Credits**
NST 793 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Plan 2.2 for student with Bachelor degree

First Year

First Semester	**Credits**
NST 601 Introduction to Nanoscience and Nanotechnology	3(3-0-9)
NST 602 Fabrication and Characterization in Nanotechnology	3(3-0-9)
NST 696 Seminar	1(0-2-3)
XXX xxx Selective	3(3-0-9)
Total	**10(9-2-30)**

Second Semester	**Credits**
NST 603 Research Methodology for Nanoscience and Nanotechnology	3(3-0-9)
NST 697 Seminar	1(0-2-3)
NST 793 Dissertation	2(0-4-8)
XXX xxx Selective	3(3-0-9)
Total	**9(6-6-29)**

Second Year

First Semester	**Credits**
NST 698 Seminar	1(0-2-3)
NST 794 Dissertation	2(0-4-8)
XXX xxx Selective	3(3-0-9)
XXX xxx Selective	3(3-0-9)
Total	**9(6-6-29)**

Second Semester	**Credits**
NST 794 Dissertation	5(0-10-20)
Total	**5(0-10-20)**

Third Year

First Semester	Credits
NST 794 Dissertation	6(0-12-24)
Total	**6(0-12-24)**

Second Semester	Credits
NST 794 Dissertation	6(0-12-24)
Total	**6(0-12-24)**

Forth Year

First Semester	Credits
NST 794 Dissertation	6(0-12-24)
Total	**6(0-12-24)**

Second Semester	Credits
NST 794 Dissertation	6(0-12-24)
Total	**6(0-12-24)**

Fifth Year

First Semester	Credits
NST 794 Dissertation	8(0-16-32)
Total	**8(0-16-32)**

Second Semester	Credits
NST 794 Dissertation	7(0-14-28)
Total	**7(0-14-28)**