

## 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.

#### 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		
<input type="checkbox"/> Dissertation	48	Credits
Plan 2.1 for student with Master degree		
<input type="checkbox"/> Major Course	9	Credits
<input type="checkbox"/> Elective Course	3	Credits
<input type="checkbox"/> Dissertation	36	Credits
Plan 2.2 for student with Bachelor degree		
<input type="checkbox"/> Major Course	9	Credits
<input type="checkbox"/> Elective Course	12	Credits
<input type="checkbox"/> Seminar	3	Credits
<input type="checkbox"/> Dissertation	48	Credits

### COURSE STRUCTURE

#### Plan 1.1 for student with Master degree

##### First Year

First Semester	Credits
NST 794 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>
Second Semester	Credits
NST 794 Dissertation	8(0-16-32)
NST 692 Seminar III	1(0-2-3) (S/U)
<b>Total</b>	<b><u>8(0-18-35)</u></b>

##### Second Year

First Semester	Credits
NST 794 Dissertation	8(0-16-32)
NST 693 Seminar IV	1(0-2-3) (S/U)
<b>Total</b>	<b><u>8(0-18-35)</u></b>
Second Semester	Credits
NST 794 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>

##### Third Year

First Semester	Credits
NST 794 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>
Second Semester	Credits
NST 794 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>

#### 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 603 Research Methodology for Nanoscience and Nanotechnology	3(3-0-9)
XXX xxx Selective1	3(3-0-9)
<b>Total</b>	<b><u>12(12-0-36)</u></b>

Second Semester	Credits
NST 793 Dissertation	6(0-12-24)

NST 692 Seminar III	1(0-2-3) (S/U)
<b>Total</b>	<b><u>6(0-14-27)</u></b>
<b>Second Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 793 Dissertation	6(0-12-24)
NST 693 Seminar IV	1(0-2-3) (S/U)
<b>Total</b>	<b><u>6(0-14-27)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 793 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>
<b>Third Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 793 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 793 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>

### Plan 2.2 for student with Bachelor degree

<b>First Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 601 Introduction to Nanoscience and Nanotechnology	3(3-0-9)
NST 602 Fabrication and Characterization in Nanotechnology	3(3-0-9)
NST 603 Research Methodology for Nanoscience and Nanotechnology	3(3-0-9)
XXX xxx Selective1	3(3-0-9)
<b>Total</b>	<b><u>12(12-0-36)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 601 Introduction to Nanoscience and Nanotechnology	3(3-0-9)
NST 602 Fabrication and Characterization in Nanotechnology	3(3-0-9)
NST 603 Research Methodology for Nanoscience and Nanotechnology	3(3-0-9)
NST 794 Dissertation	2(0-4-8)
NST 691 Seminar II	1(0-2-3)
XXX xxx Selective2	3(3-0-9)
XXX xxx Selective3	3(3-0-9)
<b>Total</b>	<b><u>9(6-6-29)</u></b>
<b>Second Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 692 Seminar III	1(0-2-3)

NST 794 Dissertation	2(0-4-8)
XXX xxx Selective4	3(3-0-9)
<b>Total</b>	<b><u>6(3-6-20)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 794 Dissertation	5(0-10-20)
NST 693 Seminar IV	1(0-2-3)
<b>Total</b>	<b><u>6(0-12-23)</u></b>
<b>Third Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 794 Dissertation	6(0-12-24)
<b>Total</b>	<b><u>6(0-12-24)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 794 Dissertation	6(0-12-24)
<b>Total</b>	<b><u>6(0-12-24)</u></b>
<b>Forth Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 794 Dissertation	6(0-12-24)
<b>Total__</b>	<b><u>6(0-12-24)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 794 Dissertation	6(0-12-24)
<b>Total__</b>	<b><u>6(0-12-24)</u></b>
<b>Fifth Year</b>	
<b>First Semester</b>	<b>Credits</b>
NST 794 Dissertation	8(0-16-32)
<b>Total</b>	<b><u>8(0-16-32)</u></b>
<b>Second Semester</b>	<b>Credits</b>
NST 794 Dissertation	7(0-14-28)
<b>Total</b>	<b><u>7(0-14-28)</u></b>