Zewail City
of Science, Technology and Innovation

M.Sc. in Nanoscience
Admission Requirements

A total of 40 credits is required for the M.Sc. degree in Nanoscience Program. This includes 5 credit hours of university requirements courses, 17 credit hours of research lab work, and 18 credit hours of program and concentration specific coursework. Students should consult their advisor on a regular basis to ensure that the prerequisites for their university requirements, and program requirements, are fulfilled.

University Requirements (Cr)	Research Requirements (Cr)	Program Requirements (Cr)	Total (Cr)
5	17	18	40
12.5%	42.5%	45.0%	100%

1. University Requirements

The aim of university requirements is to provide UST students with scientific English writing skills and scientific communication and discussion skills.

University Requirements (5 Cr)

Course Code	Course Title	Cr	L	P	Prerequisite
ENG 601	Scientific English Writing	3	3	0	
NANOSC 691	Graduate Seminar 1	1	1	0	
NANOSC 692	Graduate Seminar 2	1	1	0	

2. Research Requirements

Research Requirements (17 Cr)

Course Code	Course Title	Cr	L	P	Prerequisite
NANOSC 694	M.Sc. Thesis 1	2	0	6	
NANOSC 695	M.Sc. Thesis 2	3	0	9	
NANOSC 696	M.Sc. Thesis 3	3	0	9	
NANOSC 697	M.Sc. Thesis 4	3	0	9	
NANOSC 698	M.Sc. Thesis 5	3	0	9	
NANOSC 699	M.Sc. Thesis 6	3	0	9	

3. Program Requirements

The aim of program requirements is to provide students of the M.Sc. Nanoscience program in UST with skills and knowledge essential to synthesize, characterize and direct the obtained materials towards the desired application. Program requirements include courses of basic knowledge essential to all graduate students of Nanoscience program such as introduction to nanoscience and technology, organic and polymer chemistry, characterization techniques, molecular spectroscopy, etc.

Program Requirements (18 Cr)

Course Code	Course Title	Cr	L	P	Prerequisite
NANOSC 601	Introduction to Nanoscience and Technology	3	3	0	
NANOSC 602	Advanced Organic Chemistry	3	3	0	
NANOSC 603	Advanced Polymer Chemistry	3	3	0	
NANOSC 604	Advanced Characterization Techniques	3	3	0	
NANOSC Electives		6			

1. Nanoscience Electives

The student must select 2 courses from the following list (Min 6 Cr)

Course Code	Course Title	Cr	L	P	Prerequisite
NANOSC 605	Advanced Molecular Spectroscopy	3	3	0	
NANOSC 606	Transition metals and main group chemistry	3	3	0	
NANOSC 607	Nanomedicine	3	3	0	
NANOSC 608 / NANOSC 708	Nanomaterials for Biomedical Applications	3	3	0	
NANOSC 609 / NANOSC 709	Advanced Pulmonary Drug Delivery	3	3	0	
NANOSC 610 / NANOSC 710	Macromolecules	3	3	0	
NANOSC 611 / NANOSC 711	Catalysis	3	3	0	
NANOSC 612 / NANOSC 712	Assembly and Fabrication of Nanomaterials	3	3	0	
NANOSC 613	Selected Topics in Nanoscience	1-3	-	-	