

Nanoscience

Program Requirements

Nanoscience

B.Sc. Honours (20.0 credits)

A. Credits Included in the Major CGPA (11.5 credits)

1. 5.0 credits in: 5.0

CHEM 1001 [0.5]	General Chemistry I
CHEM 1002 [0.5]	General Chemistry II
CHEM 2103 [0.5]	Physical Chemistry I
CHEM 2501 [0.5]	Introduction to Inorganic and Bioinorganic Chemistry

CHEM 3100 [0.5]	Physical Chemistry II
CHEM 3107 [0.5]	Experimental Methods in Nanoscience

CHEM 3503 [0.5]	Inorganic Chemistry I
CHEM 3600 [0.5]	Introduction to Nanotechnology
CHEM 4908 [1.0]	Research Project and Seminar

2. 1.0 credit from: 1.0

CHEM 2203 [0.5]	Organic Chemistry I
CHEM 2204 [0.5]	Organic Chemistry II
CHEM 2302 [0.5]	Analytical Chemistry I
CHEM 2303 [0.5]	Analytical Chemistry II

3. 1.0 credit from: 1.0

CHEM 4103 [0.5]	Surface Chemistry and Nanostructures
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CHEM 4104 [0.5]	Physical Methods of Nanotechnology
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CHEM 4201 [0.5]	Macromolecular Nanotechnology
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4. 3.5 credits in: 3.5

ELEC 2501 [0.5]	Circuits and Signals
ELEC 2507 [0.5]	Electronics I
ELEC 3908 [0.5]	Physical Electronics
ELEC 3105 [0.5]	Basic EM and Power Engineering
ELEC 4609 [0.5]	Integrated Circuit Design and Fabrication
ELEC 4700 [0.5]	The Physics and Modeling of Advanced Devices and Technologies

ELEC 4704 [0.5]	Nanoscale Technology and Devices
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5. 1.0 credit from: 1.0

ELEC 2607 [0.5]	Switching Circuits
ELEC 3500 [0.5]	Digital Electronics
ELEC 3509 [0.5]	Electronics II
ELEC 3909 [0.5]	Electromagnetic Waves

B. Credits Not Included in the Major CGPA (8.5 credits)

6. 2.5 credits in: 2.5

MATH 1004 [0.5]	Calculus for Engineering or Physics
MATH 1005 [0.5]	Differential Equations and Infinite Series for Engineering or Physics

MATH 1104 [0.5]	Linear Algebra for Engineering or Science
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MATH 2004 [0.5]	Multivariable Calculus for Engineering or Physics
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STAT 3502 [0.5]	Probability and Statistics
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7. 1.0 credits in: 1.0

PHYS 1003 [0.5]	Introductory Mechanics and Thermodynamics
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PHYS 1004 [0.5]	Introductory Electromagnetism and Wave Motion
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8. 1.5 credits in Advanced Science Faculty Electives: 1.5

9. 0.5 credit in Science Continuation (not CHEM) 0.5

10. 0.5 credit in: 0.5

NSCI 1000 [0.5]	Seminar in Science
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(or approved courses outside the faculties of Science and Engineering and Design)

11. 1.5 credits in approved courses outside the faculties of Science and Engineering and Design 1.5

12. 1.0 credit in free electives 1.0

Total Credits	20.0
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