

Curriculum

I Foundation Programme

12 Credits



Democracy and Justice

Environment and Climate Change

Neighbourhoods

Water

The studios deliver interdisciplinary learning around six domains:

Data Science, Communication, Behaviour, Constitution & Civilisation, Materials, and Biology & Life.

II General Education Requirement

30 Credits



Humanities and Languages GER

Social Sciences GER

Biological and Life Sciences GER

Mathematical and Physical Sciences GER

Performance and Visual Arts GER

GER Elective 1: Communication I

GER Elective 2: Communication II

GER Elective 3: Any course at the university outside the major

GER Elective 4: Any course at the university outside the major

GER Elective 5: Any course at the university outside the major

Major Requirements	Credits
<i>Major Core</i>	45
Classical Mechanics	
Intermediate Classical Mechanics	
Laboratory Physics - Mechanics	
Laboratory Physics - Electromagnetism	
Electromagnetic Theory	
Oscillations, Waves and Optics	
Quantum Mechanics I	
Quantum Mechanics II	
Thermodynamics	
Electrical Circuits, Solid State Physics, and Electronics	
Atomic, Nuclear and Molecular Physics including Spectroscopy	
Multivariable Calculus	
Applied Linear Algebra	
Differential Equations	
Laboratory Physics - Optics	
Laboratory Physics - Electronics	
<i>Major Electives</i>	9
Introductory Astronomy	
Advanced topics in Classical Electrodynamics	
Mathematical Methods for Physics	
Atmospheric Physics	
General Relativity, Black Holes and Cosmology	
<i>Undergraduate Thesis or Capstone Project</i>	6



Free Electives provide flexibility to students to customise their education at the University.

1. Free Electives allow you to take additional courses as per your choice (apart from the Foundation Programme, GERs and Major Requirements), upto 18 credits, across the university to increase your depth or breadth.
2. A student can take a Minor in any area designated as a Minor at any School or Centre of the University. Some Minors may have specific pre-requisites. Free Electives can also be used along with some courses from the Major Requirements and GERs towards a Minor.



All students will complete 30 hours of engagement with society to develop a sense of engagement, concern, build problem solving skills, and understand the role of an engaged member of a society. This will be done through a mandatory course, *Engagement with Society*, that would be a graduation requirement. This course can be taken anytime during the stay at the University but it is advised that the student engage with the courses during the first two years at the University. The 30 hours of volunteer work may be completed during one semester or during the Winter or Summer Break.
