

3.3.1.5 Major Prerequisites

All students are expected to read one major in fulfilment of their degree requirements and will declare their major at the beginning of their first year of study. (For specific requirements of each major, please refer to Section 3.3.3 BSc/BSc (Hons) Programme Requirements).

They should meet the prerequisites (as stated in the table below) before choosing a particular major. Criteria are set to ensure that students have the necessary base knowledge to pursue studies in their selected major as well as to register for the relevant modules.

MAJOR	PREREQUISITES
1. Chemistry 2. Chemistry (with specialisation in Materials Chemistry) 3. Chemistry (with specialisation in Medicinal Chemistry) 4. Chemistry (with specialisation in Environment and Energy)	Good H2 pass (or equivalent) in Chemistry, and at least a good 'O' Level pass or equivalent in Mathematics.
5. Computational Biology*^	Good H2 passes (or equivalent) in Mathematics/Further Mathematics and either Biology or Chemistry. Students without H2 passes (or equivalent) in either Biology or Chemistry should have at least an O-Level (or equivalent) pass in it. Subject to departmental approval.
6. Data Science and Analytics+	Very good H2 pass (or equivalent) in Mathematics/Further Mathematics and a good H2 pass (or equivalent) in Biology or Chemistry or Physics or Computing
7. Food Science & Technology**	Good H2 pass (or equivalent) in Chemistry and a Good H2 pass (or equivalent) in Biology or Physics or Computing or Mathematics/Further Mathematics. Students without H2 pass in Biology are required to read the bridging module in Biology (i.e. LSM1301) in Semester 1 to fulfil the pre-requisites for the relevant Level 1000 Life Sciences module in the syllabus.

MAJOR	PREREQUISITES
8. Life Sciences 9. Life Sciences (with specialisation in Biomedical Science) 10. Life Sciences (with specialisation in Environmental Biology) 11. Life Sciences (with specialisation in Molecular and Cell Biology)	Two good H2 passes or equivalent in Biology or Chemistry, or Mathematics/Further Mathematics or Physics. Students without H2 pass in Biology or Chemistry may read the relevant bridging modules as entry requirements.
12. Mathematics 13. Applied Mathematics 14. Applied Mathematics (with specialisation in Mathematical Modelling and Data Analytics) 15. Applied Mathematics (with specialisation in Operation Research and Financial Mathematics) 16. Statistics 17. Statistics (with specialisation in Data Science) 18. Statistics (with specialisation in Finance and Business Statistics) 19. Quantitative Finance*	Good H2 pass (or equivalent) in Mathematics/Further Mathematics. Subject to departmental approval (applicable to Quantitative Finance only)
20. Physics 21. Physics (with specialisation in Astrophysics) 22. Physics (with specialisation in Nanophysics) 23. Physics (with specialisation in Quantum Technologies)	Good H2 passes (or equivalent) in Physics and Mathematics/Further Mathematics.
24. Pharmaceutical Science ^{+^}	Very good pass in H2 Chemistry and a very good pass in either H2 Biology or H2 Physics or H2 Mathematics / Further Mathematics

MAJOR	PREREQUISITES
25. Pharmacy ^{@+^}	Very good H2 passes (or equivalent) in Chemistry and either Biology, Mathematics/Further Mathematics or Physics.
26. Environmental Studies ^{+^} (Specialisation in Environmental Biology)	Good H1 pass or equivalent in Mathematics and good H2 pass or equivalent in either Biology or Chemistry.

* These majors are capped with quotas; eligibility to read these majors will be determined by additional selection criteria set by the department/programme.

@ BPharm/ BPharm (Hons) degree

+ Admission into the Data Science and Analytics, Environmental Studies, Food Science and Technology, Pharmaceutical Science and Pharmacy programmes is by direct application.

^ With the exceptions of Computational Biology, Data Science and Analytics, Environmental Studies, Pharmaceutical Science and Pharmacy, students in other majors have the option to exit after three years with a Bachelor's degree. The Chemistry, Life Sciences, Applied Mathematics, Physics and Statistics majors offer general BSc (Hons) programmes as well as BSc (Hons) with specialisation programmes. Specialisation is only awarded for BSc(Hons) programmes.