

Biology specialisation

LSM3252	Evolution and Comparative Genomics
LSM3253	Plant Physiology
LSM3254	Ecology of Aquatic Environments
LSM3255	Ecology of Terrestrial Environments
LSM3261	Life Form & Function
LSM3262	Environmental Animal Physiology
LSM3272	Global Change Biology

Life Sciences Related modules

BN3301	Introduction to Biomaterials
BN3402	Bio-Analytical Methods in Bioengineering
FST3102	Food Safety Assurance
FST3203	Vitamins & Mineral in Health & Diseases

Level 4000

Biomedical Science specialisation

LSM4211	Toxicology
LSM4212	Pharmacogenetics & Drug Responses
LSM4213	System Neurobiology
LSM4221	Drug Discovery & Clinical Trials
LSM4222	Advanced Immunology
LSM4223	Advances in Antimicrobial Strategies
LSM4224	Free Radicals & Antioxidant Biology
LSM4225	Genetic Medicine in the Post-Genomic Era

Molecular and Cell Biology specialisation

LSM4231	Structural Biology
LSM4232	Advanced Cell Biology
LSM4233	Chemical Biology
LSM4241	Functional Genomics
LSM4242	Protein Engineering
LSM4243	Tumour Biology

Biology specialisation

LSM4251	Plant Growth and Development
LSM4252	Animal Development and Reproduction
LSM4253	Behavioural Biology
LSM4261	Marine Biology
LSM4262	Tropical Conservation Biology
LSM4263	Field Studies in Biodiversity
LSM4264	Freshwater Biology

Life Sciences Related modules

BN4301	Principles of Tissue Engineering
BN4403	Cellular Bioengineering



For more information, please visit the Life Sciences website at:
<http://www.lifesciences.nus.edu.sg>

You may wish to contact the Life Sciences Undergraduate Programme committee members for further enquiries:

A/Prof Chung Ching Ming, Maxey
E-mail: bchcm@nus.edu.sg

Dr. Chew Fook Tim
E-mail: dbscft@nus.edu.sg

Or the supporting staff:

Ms. Jacqueline Lim E-mail: dbsjlsy@nus.edu.sg
Mr. Laurence Gwee E-mail: dbsgel@nus.edu.sg
Mr. Lim Miah Kyan E-mail: dbslmk@nus.edu.sg

LIFE SCIENCES GRADUATION CHECKLIST

For matriculation cohort AY 2009/2010
Suggested Timeline for Life Sciences Major

- Freshman year:** LSM1101, LSM1102, LSM1103, LSM1104 and CM1401.

- Second year:** LSM2101, LSM2102, LSM2103, ST1232, one experimental module, and one elective module; (possibly one UROPS).

- Third year:** 4 modules from one area of specialisation, and 2 modules from other specialisations or Life Sciences related modules; (possibly one 4MC UROPS can be used to replace any one of the third year level modules within or outside area of specialisation).

- Fourth year** [For B.Sc (Hons) min. CAP of 3.5]: Honours research project, 4 modules from one area of specialisation, and 1 module from other specialisations or Life Sciences related modules.



FACULTY OF SCIENCE

Life Sciences Major Requirements

Required Modules

- LSM1101 LSM1102 LSM1103 LSM1104
 CM1401

- LSM2101 LSM2102 LSM2103
 ST1232

- One experimental module (LSM2201A, LSM2202A or LSM2203)
 One level 2000 elective module (LSM2241 or LSM2251)

**Level 2000 UROPS can be taken to fulfil your UE requirement*

- Any 4 level 3000 modules from your area of specialisation
 Any 2 level 3000 modules out of your area of specialisation
 4MC of a level 3000 UROPS to replace any one of the third year level modules within/outside area of specialisation

- Honours Research Project (16MCs)
 Any 4 level 4000 modules from your area of specialisation
 Any 1 level 4000 modules out of your area of specialisation

University Level Requirements

- 1 Singapore Studies (SS) module
 2 GEMs - Either 1 from Group A (*Science & Technology*) and 1 from Group B (*Humanities & Social Sciences*) or 2 from Group B
 2 Breadth modules (modules that are offered by Faculties outside Science)

Faculty Level Requirements

- [For B.Sc]: CM1401, ST1232 and 1 module from Physical Sciences, Computing Sciences or Multidisciplinary & Interdisciplinary Sciences subject group (4MC)
 [For B.Sc (Hons)]: CM1401, ST1232, 1 module from Physical Sciences, Computing Sciences or Multidisciplinary & Interdisciplinary Sciences subject group (4MC) and 1 module from any subject group except LSM-prefixed modules

Unrestricted Electives (UE)

- Any 7 modules/28 MCs

Total MCs to be completed: 120 [for B.Sc] / 160 [for B.Sc (Hons)]

Module Listing

Level 1000

LSM1101	Biochemistry of Biomolecules
LSM1102	Molecular Genetics
LSM1103	Biodiversity
LSM1104	General Physiology
CM1401	Chemistry for Life Sciences
ST1232	Statistics for Life Sciences

Level 2000

LSM2101	Metabolism and Regulation
LSM2102	Molecular Biology
LSM2103	Cell Biology

Experimental modules

LSM2201A	Experimental Biochemistry
LSM2202A	Experimental Molecular and Cell Biology
LSM2203	Experimental Microbiology

Elective modules

LSM2241	Introductory Bioinformatics
LSM2251	Ecology and Environment

UROPS

LSM2288(4MC) / LSM2289 (8MC)
LSM3288 (4MC) / LSM3289 (8MC)

Level 3000

Biomedical Science specialisation

LSM3211	Fundamental Pharmacology
LSM3212	Human Physiology – Cardiopulmonary System
LSM3213	Molecular and Cellular Neurobiology
LSM3214	Human Physiology – Hormones and Health
LSM3221	Human Pharmacology
LSM3223	Immunology
LSM3224	Molecular Basis of Human Diseases
LSM3225	Infectious Diseases

Molecular and Cell Biology specialisation

LSM3231	Protein Structure & Function
LSM3232	Microbiology
LSM3233	Developmental Biology
LSM3241	Bioinformatics & Biocomputing
LSM3242	Applied Microbiology
LSM3243	Molecular Biophysics
LSM3244	Molecular Biotechnology