

For Academic Year AY2020/21 (Updated 2 September 2020)

Modules (Click on code for details)	Title	Semester	Module Coordinator(s)	Department(s)	Prerequisite(s)
Level 1000					
LSM1102	Molecular Genetics	Semester 1 / Semester 2	A/P Chew Fook Tim	Biological Sciences	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM1105	Evolutionary Biology	Semester 1 / Semester 2	A/P Ryan Chisholm (I) Prof Antonia Monteiro (II)	Biological Sciences	
LSM1106	Molecular Cell Biology	Semester 1 / Semester 2	A/P Deng Lih Wen (I) A/P Too Heng-Phon (II)	Biochemistry	
LSM1301	General Biology	Semester 1 / Semester 2	A/P Seow Teck Keong (I) Dr Wu Jinlu (II)	Biological Sciences	Nil (Preclude pass in GCE `A` Level or H2 Biology or equivalent)
LSM1303	Animal Behaviour	Semester 2	Mr Sivasothi, N	Biological Sciences	Nil (Preclude Life Sciences Major/Minor and BES student)
LSM1306	Forensic Science	Semester 1	A/P Stella Tan	Biological Sciences	Nil
LSM1307	Waste and Our Environment	Semester 1	Dr Choong Mei Fun, Amy	Biological Sciences	Nil
LSM1401	Fundamentals of Biochemistry	Semester 2	Dr Lin Qingsong	Biological Sciences	GCE `A` Level or H2 Chemistry or equivalent, or CM1417 or CM1417X
Level 2000					
LSM2191	Laboratory Techniques in Life Sciences (with compulsory FTF component)	Semester 1 / Semester 2	A/P Lu Gan (I) A/P Maxey Chung (II) A/P Norbert Lehming (II)	Biological Sciences / Biochemistry / Microbiology & Immunology	LSM1102 or LSM1106
LSM2211	Metabolism and Regulation	Semester 1 / Semester 2	A/P Yew Wen Shan (I) A/P Ganesh S Anand (II)	Biochemistry / Biological Sciences	LSM1106
LSM2212	Human Anatomy	Semester 1	Dr Hu Qidong	Anatomy	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM2231	General Physiology	Semester 1	Prof Ip Yuen Kwong	Biological Sciences	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM2232	Genes, Genomes and Biomedical Implications	Semester 1 / Semester 2	Prof Ding Jeak Ling	Biological Sciences	LSM1102 and LSM1106
LSM2233	Cell Biology	Semester 1 / Semester 2	A/P Yeong Foong May (I) A/P Thilo Hagen (II)	Biochemistry	LSM1106

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LSM2234	Introduction to Quantitative Biology	Semester 2	Dr Timothy Saunders	Biological Sciences	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM2241	Introductory Bioinformatics	Semester 1	Prof Greg Tucker-Kellogg	Biological Sciences	LSM1102 or LSM1105 or LSM1106 or PR1111A
LSM2251	Ecology and Environment	Semester 1 / Semester 2	Mr Sivasothi, N (I) Dr Chong Kwek Yan (II)	Biological Sciences	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM2252	Biodiversity	Semester 1 / Semester 2	Mr Sivasothi, N (I) Dr Ng Ngan Kee (II)	Biological Sciences	GCE `A` Level or H2 Biology or equivalent, or LSM1301 or LSM1301X
LSM2253	Applied Data Analysis in Ecology and Evolution	Semester 2	A/P Carrasco Torrecilla, Roman	Biological Sciences	GCE `A` Level or H2 Mathematics/Further Mathematics or equivalent, or MA1301 or MA1301X or ST1232
LSM2254	Fundamentals of Plant Biology	Semester 2	Dr Lau On Sun	Biological Sciences	LSM1102 or LSM1106
LSM2291	Fundamental Techniques in Microbiology (with compulsory FTF component)	Semester 1 / Semester 2	A/P Kevin Tan Shyong Wei (I) A/P Justin Chu Jang Hann (II)	Microbiology & Immunology	LSM1102 or LSM1106
LSM2288/9	Basic UROPS in Life Sciences I/II	All	Dr Huang Danwei	LS Teaching Departments	LSM1102 or LSM1105 or LSM1106; and departmental approval
LSM2301	Life Sciences Industry Seminar (Does not fulfill Life Sciences Major)	Semester 2	Dr Ng Ngan Kee	Biological Sciences	Year 2 students reading Life Sciences Major.
Level 3000					
LSM3201	Research and Communication in Life Sciences	Semester 1 / Semester 2	Dr Lam Siew Hong	Biological Sciences	Nil (Corequisite: LSM2288 or LSM3288 or LSM4199)
LSM3211	Fundamental Pharmacology	Semester 1 / Semester 2	Prof Wong Wai-Shiu Fred (I) Dr Inthrani Raja Indran (II)	Pharmacology	LSM2211 or LSM2233
LSM3212	Human Physiology: Cardiopulmonary System (Offer only in Semester 1 AY20/21 onwards)	Semester 1	Dr Zakaria Almsherqi	Physiology	LSM2211
LSM3214	Human Physiology - Hormones And Health	Semester 2	A/P Thai Tran	Physiology	LSM2211 and LSM3212
LSM3215	Neuronal Signaling and Memory Mechanisms	Semester 1	A/P Saji Kumar Sreedharan	Physiology	LSM1106 (revised)
LSM3216	Neuronal Development and Diseases	Semester 2	Dr John Chua Jia En	Physiology	LSM2232 and LSM2233
LSM3217	Human Ageing (Not offering in AY20/21)	-	-	Physiology	LSM2233
LSM3218	Cardiopulmonary Pharmacology (Not offering in AY20/21)	-	-	Pharmacology	LSM3211
LSM3219	Neuropharmacology	Semester 2	Dr Judy Sng	Pharmacology	LSM3211
LSM3222	Human Neuroanatomy	Semester 2	A/P Ong Wei Yi	Anatomy	LSM1102 or LSM1106
LSM3223	Immunology	Semester 1 / Semester 2	A/P Lu Jinhua (I)	Microbiology &	LSM2233 or PR2122

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		Semester 2	A/P Zhang Yongliang (II)	Immunology	
LSM3224	Molecular Basis of Human Diseases	Semester 2	A/P Yeong Foong May	Biochemistry	LSM2211 or LSM2233 or PR2122
LSM3225	Molecular Microbiology in Human Diseases	Semester 2	A/P Tan Yee Joo	Microbiology & Immunology	LSM2211 or LSM2232 or LSM2233
LSM3226	Medical Mycology and Drug Discovery	Semester 2	A/P Yeong Foong May	Biochemistry	LSM2233 or LSM2252 or LSM2291
LSM3227	General Virology (with compulsory FTF component)	Semester 1	Dr Wu Jinlu	Biological Sciences	LSM1102 and LSM1106 and LSM2191
LSM3231	Protein Structure & Function	Semester 1	A/P Maxey Chung	Biochemistry	LSM2211 or LSM2241
LSM3232	Microbiology (with compulsory FTF component)	Semester 1 / Semester 2	A/P Sim Tiow-Suan	Microbiology & Immunology	LSM2211 or LSM2232 or LSM2233
LSM3233	Developmental Biology	Semester 1	A/P Winkler, Christoph	Biological Sciences	LSM2233
LSM3234	Biological Imaging of Growth and Form	Semester 1	A/P Cynthia He	Biological Sciences	LSM2233
LSM3235	Epigenetics in Human Health and Diseases	Semester 1	Dr Karthik Mallilankaraman	Physiology	LSM2232
LSM3241	Genomic Data Analysis	Semester 2	Prof Greg Tucker-Kellogg	Biological Sciences	LSM2232, and either CS1010S (or equivalent) or CS2220 or LSM2241 or LSM2253 (revised)
LSM3242	Translational Microbiology	Semester 2	Dr Volker Patzel	Microbiology & Immunology	LSM1102 or LSM1106 (revised)
LSM3243	Molecular Biophysics	Semester 2	Prof Yang Daiwen	Biological Sciences	LSM1106 (revised)
LSM3244	Molecular Biotechnology	Semester 1	Dr Robert Lieu Zi Zhao	Biological Sciences	LSM2233
LSM3245	RNA Biology and Technology (with compulsory FTF component)	Semester 1	Dr Volker Patzel	Microbiology & Immunology	LSM1102 or LSM1106 (revised)
LSM3246	Synthetic Biology	Semester 1	A/P Chang, Matthew Wook	Biochemistry	LSM1102 or LSM1106 (revised)
LSM3247	Practical Synthetic Biology	Semester 2	A/P Chang, Matthew Wook	Biochemistry	LSM1102 or LSM1106 (revised)
LSM3252	Evolution and Comparative Genomics (To be offered in Semester 2 from AY20/21)	Semester 2	Dr Huang Danwei	Biological Sciences	LSM1105
LSM3254	Ecology of Aquatic Environments	Semester 1	A/P Darren Yeo Chong Jinn	Biological Sciences	LSM2251
LSM3255	Ecology of Terrestrial Environments	Semester 2	A/P Webb, Edward Layman	Biological Sciences	LSM2251
LSM3256	Tropical Horticulture	Semester 2	A/P Tan Tiang Wah, Hugh	Biological Sciences	LSM1105 or LSM2231 or LSM2252 or LSM2254 (revised)
LSM3258	Comparative Botany (with compulsory FTF component)	Semester 1	A/P Tan Tiang Wah, Hugh	Biological Sciences	LSM2231 or LSM2252 or LSM2254 (revised)
LSM3259	Fungal Biology	Semester 2	Dr Choong Mei Fun, Amy	Biological Sciences	LSM2252
LSM3262	Environmental Animal Physiology	Semester 2	Prof Ip Yuen Kwong	Biological Sciences	LSM2231

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LSM3263	Field Studies in Neotropical Ecosystems	-	Dr Zeehan Jaafar	Biological Sciences	LSM2251
LSM3265	Entomology (with compulsory FTF component)	Semester 1	Dr Ascher, John Stoskopf	Biological Sciences	LSM2251
LSM3266	Avian Biology and Evolution	Semester 1	Dr Rheindt, Frank Erwin	Biological Sciences	LSM2252
LSM3267	Behavioural Biology	Semester 2	A/P Li Daiqin	Biological Sciences	LSM2251
LSM3272	Global Change Biology	Semester 2	Dr Lim Lek Min, Matthew	Biological Sciences	LSM2252
LSM3273	Ecology, Conservation and Management of Sri Lankan Ecosystems	Special Term Part 1	A/P Webb, Edward Layman	Biological Sciences	LSM2251
LSM3274	Eco-Biodiversity Field Techniques in Taiwan & Singapore	-	Dr Lim Lek Min, Matthew	Biological Sciences	LSM2251 or LSM2252
LSM3288/9	Advanced UROPS in Life Sciences I/II	All	Dr Huang Danwei	LS Teaching Departments	Nil
LSM3311/2	UPIP (Undergraduate Professional Internship Programme)	All	Dr Ng Ngan Kee (Department Coordinator)	Science Dean's Office	UPIP prerequisites
Level 4000					
LSM4199	Honours Project in Life Sciences	Year-long	Prof Ding Jeak Ling	LS Teaching Departments	Life Sciences Major with overall CAP of 3.20 or more upon accumulated at least 100MC.
LSM4299	Applied Project in Life Sciences	Semester 1 / Semester 2	Dr Ng Ngan Kee	Biological Sciences	Life Sciences Major with overall CAP of 3.20 or more upon accumulated at least 100MC.
BIOMEDICAL SCIENCE (BMS)					
LSM4210	Topics in Biomedical Science	Semester 2	A/P Winkler, Christoph	Biological Sciences	LSM2211 or LSM2232 or LSM2233, with corequisite LSM4199 (revised)
LSM4211	Toxicology	Semester 1	Dr Lai Kim Peng Mitchell	Pharmacology	LSM3211
LSM4213	Systems Neurobiology	Semester 1	Dr Tan Yong-Yi, Andrew	Physiology	LSM3215 and LSM3216
LSM4214	Cancer Pharmacology	Semester 1 / Semester 2	A/P Gautam Sethi	Pharmacology	LSM3211
LSM4215	Extreme Physiology	Semester 2	A/P Thai Tran Dr Jason Lee	Physiology	LSM3212 and LSM3214
LSM4216	Molecular Nutrition and Metabolic Biology	Semester 1	Dr Long Yun Chau	Biochemistry	LSM2211 (revised)
LSM4217	Functional Ageing	Semester 2	A/P Manoor Prakash Hande	Physiology	LSM3217 or LSM3224
LSM4218	Biotechnology and Biotherapeutics	Special Term Part 2	A/P Ge Ruowen	Biological Sciences	LSM1106
LSM4221	Drug Discovery and Clinical Trials	Semester 1 / Semester 2	A/P Edward Kai-Hua Chow (I) A/P Tan Chay Hoon (II)	Pharmacology	LSM3211
LSM4222	Advanced Immunology	Semester 1	A/P Veronique Angeli (I)	Microbiology &	LSM3223

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	(with compulsory FTF component)	/		Immunology / Biochemistry	
LSM4223	Advances in Antimicrobial Strategies (with compulsory FTF component)	Semester 1	A/P Gan Yunn Hwen (II) A/P Tan Shyong Wei, Kevin	Microbiology & Immunology	LSM3225 or LSM3232
LSM4225	Genetic Medicine in the Post-Genomic Era	Semester 2	A/P Lee Guat Lay, Caroline	Biochemistry	LSM2232
LSM4226	Infection and Immunity	Semester 1	A/P Alonso, Sylvie	Microbiology & Immunology	LSM3223 and either LSM3225 or LSM3232
LSM4227	Stem Cell Biology	Semester 1 / Semester 2	A/P Chan Woon Khiong	Biological Sciences	LSM2232 and LSM2233
LSM4228	Experimental Models for Human Disease and Therapy (with compulsory FTF component)	Semester 1	A/P Ge Ruowen	Biological Sciences	LSM2233
LSM4229	Therapeutic and diagnostic agents from animal toxins	Semester 2	Prof Kini RM	Biological Sciences	LSM3211 or LSM3231
LSM4252	Reproductive Biology	Semester 2	A/P Winkler, Christoph	Biological Sciences	LSM3233
MOLECULAR AND CELL BIOLOGY (MCB)					
LSM4231	Structural Biology	Semester 2	Prof Yang Daiwen	Biological Sciences	LSM2234 or LSM3231 or LSM3243, and GCE 'A' Level or H2 Mathematics or equivalent, or MA1301 or MA1301X (revised)
LSM4232	Advanced Cell Biology	Semester 1	Dr Tsai Shih-Yin	Physiology	LSM2233
LSM4234	Mechanobiology	Semester 2	A/P Toyama, Yusuke	Biological Sciences	LSM2232 and LSM2233
LSM4241	Functional Genomics	Semester 2	A/P Maxey Chung	Biochemistry	LSM3231 or LSM3241
LSM4242	Protein Engineering	Semester 1	A/P Pan Shen Quan	Biological Sciences	LSM2232 or LSM3231
LSM4243	Tumour Biology (with compulsory FTF component)	Semester 1 / Semester 2	Dr Ong Sek Tong, Derrick (I) A/P Reshma Taneja (II)	Physiology	LSM2233
LSM4245	Advanced Epigenetics and Chromatin Biology	-	-	Biochemistry	LSM3235
LSM4251	Plant Growth and Development	Semester 1	Prof Yu Hao	Biological Sciences	LSM2254 or LSM3233 or LSM3258 (revised)
ENVIRONMENTAL BIOLOGY (EVB)					
LSM4254	Principles of Taxonomy and Systematics (with compulsory FTF component)	Semester 1	Prof Meier, Rudolf	Biological Sciences	LSM3241 or LSM3252
LSM4255	Methods in Mathematical Biology	Semester 1	A/P Chisholm, Ryan Alistair	Biological Sciences	LSM2253 (revised)
LSM4256	Evolution of Development (Not offering in AY20/21)	-	Prof Antonia Monteiro	Biological Sciences	LSM3233 or LSM3252
LSM4257	Aquatic Vertebrate Diversity (with compulsory FTF component)	Semester 1	Dr Zeehan Jaafar	Biological Sciences	LSM2252

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LSM4259	Evolutionary Genetics of Reproduction	Semester 1	Dr Nalini Puniamoorthy	Biological Sciences	LSM1102 and LSM1105
LSM4260	Plankton Ecology	Semester 1	Dr Maxine Mowe	Biological Sciences	LSM2253 or LSM3254
LSM4261	Marine Biology	Semester 2	Dr Huang Danwei	Biological Sciences	LSM3254
LSM4262	Tropical Conservation Biology	Semester 2	Dr Chong Kwek Yan	Biological Sciences	LSM2251 and either LSM3272 or ENV2101 (revised)
LSM4263	Field Studies In Biodiversity	Special Term Part 2	Dr Chan Kin Onn Ms Xu Weiting	Biological Sciences	LSM2251 and LSM2252 (revised)
LSM4264	Freshwater Biology	Semester 2	Dr Maxine Mowe	Biological Sciences	LSM3254
LSM4265	Urban Ecology	Semester 2	Dr Joanna Coleman	Biological Sciences	LSM2251 and LSM3255
LSM4266	Aquatic Invertebrate Diversity	Semester 1	Dr Ng Ngan Kee	Biological Sciences	LSM2252
LSM4267	Light & Vision in Animal Communication	Semester 1	Dr Lim Lek Min, Matthew	Biological Sciences	LSM3267
LSM4268	Environmental Bioacoustics	Semester 1	Dr Lim Lek Min, Matthew	Biological Sciences	LSM3267 or LSM3272
Non-LSM-Prefixed Modules for Life Sciences Major					
CM1401	Chemistry for Life Sciences	Semester 2	Dr Ong Yue Ying	Chemistry	GCE 'A' level or H2 pass in Chemistry or equivalent or CM1417/CM1417X
ST1232	Statistics for Life Sciences	Semester 1 / Semester 2	Refer to module host department	Statistics and Applied Probability	GCE 'AO' Level or H1 Pass in Mathematics or its equivalent