BSc (Hons) / BSc in Life Sciences (For Matriculation Cohort AY2012/2013)

Along with the University Level and Faculty Requirements and Unrestricted Elective Modules, to be awarded a BSc (Hons) or BSc in Life Sciences, candidates must satisfy the following:

<table>
<thead>
<tr>
<th>Level 1000</th>
<th>Life Sciences Major Requirements (For Matriculation Cohort AY2012/2013)</th>
<th>Cumulative Major MCs (Modular Credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pass LSM1101, LSM1102, LSM1103, LSM1104, CM1401* and ST1232*.</td>
<td>24</td>
</tr>
<tr>
<td>Level 2000</td>
<td>Pass LSM2101, LSM2102, LSM2103, LSM2201A or LSM2202A or LSM2203, and LSM2241 or LSM2251.</td>
<td>44</td>
</tr>
<tr>
<td>Level 3000</td>
<td>Pass five LSM32XX elective modules (except LSM3289), one of which may be a LSM-recognised elective module (up to 4 MCs).</td>
<td>64</td>
</tr>
<tr>
<td>Level 4000</td>
<td>Pass the Honours Year Project LSM4199, and four LSM42XX elective modules.</td>
<td>96</td>
</tr>
</tbody>
</table>

To be conferred one of the three specialisations (BMS/MCB/EVB), LSM4199 and at least two of the four LSM42XX elective modules have to be listed with chosen specialisation.

<table>
<thead>
<tr>
<th></th>
<th>BSc</th>
<th>BSc (Hons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Level Requirements</td>
<td>20 MCs</td>
<td>20 MCs</td>
</tr>
<tr>
<td>Faculty Requirements</td>
<td>4 MCs*</td>
<td>8 MCs*</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>64 MCs</td>
<td>96 MCs</td>
</tr>
<tr>
<td>Unrestricted Elective Modules</td>
<td>32 MCs</td>
<td>36 MCs</td>
</tr>
<tr>
<td>Total</td>
<td>120 MCs</td>
<td>160 MCs</td>
</tr>
</tbody>
</table>

To qualify for Honours year and LSM4199, students must fulfill the Life Sciences Major Requirements at BSc standard (i.e. Levels 1000, 2000 and 3000 Major Requirements), and obtained a minimum overall CAP of 3.20 on completion of 100 MCs (Modular Credits) or more.

Note: The number of MCs earned from Level 1000 modules for graduation requirements is capped at 60.

Faculty Requirements for Life Sciences Major:
Please refer to the following web page for details and subject groupings:

* Faculty Requirements are at 12 MCs (BSc) and 16 MCs (BSc (Hons)) respectively. Major modules CM1401 and ST1232 satisfy 8 MCs of the Faculty Requirements. DO NOT read ST1131 or ST2334.

Modules that can be used to fulfill Faculty Requirements:
Module 1: CM1401 (4 MCs; counted into Major Requirements)
Module 2: ST1232 (4 MCs; counted into Major Requirements)
Module 3: 1 module from Physical Sciences OR Computing Sciences OR Multidisciplinary & Interdisciplinary Sciences subject group (4 MCs)
Module 4 [for BSc (Hons)]: 1 module from any subject group except LSM-prefixed modules (4 MCs)
To be awarded at BSc (Hons) level a primary major in Life Sciences, candidates must satisfy the following requirements:

**[For Matriculation Cohort AY2012/2013]:**

<table>
<thead>
<tr>
<th>Level</th>
<th>Life Sciences Major Requirements (For Matriculation Cohort AY2012/2013)</th>
<th>Cumulative Major MCs</th>
</tr>
</thead>
</table>
| Level 1000 (24MCs) | **Pass all** LSM1101 Biochemistry of Biomolecules  
LSM1102 Molecular Genetics  
LSM1103 Biodiversity  
LSM1104 General Physiology  
CM1401 Chemistry for Life Sciences  
ST1232 Statistics for Life Sciences | 24 |
| Level 2000 (20MCs) | **Pass all** LSM2101 Metabolism and Regulation  
LSM2102 Molecular Biology  
LSM2103 Cell Biology  
**Pass 1** LSM2201A Experimental Biochemistry  
LSM2202A Experimental Molecular and Cell Biology  
LSM2203 Experimental Microbiology | 44 |
| Level 3000 (20MCs) | **Pass 5 LSM32XX elective modules** (except LSM3289), one of which may be a LSM-recognised elective module (up to 4MCs). LSM3201 Research and Communication in Life Sciences  
LSM3211 Fundamental Pharmacology  
LSM3212 Human Physiology: Cardiopulmonary System  
LSM3214 Human Physiology – Hormones and Health  
LSM3215 Neuronal Signaling and Memory Mechanisms  
LSM3216 Neuronal Development and Diseases  
LSM3217 Human Ageing  
LSM3221 Human Pharmacology  
LSM3223 Immunology  
LSM3224 Molecular Basis of Human Diseases  
LSM3225 Molecular Microbiology in Human Diseases  
LSM3231 Protein Structure and Function  
LSM3232 Microbiology  
LSM3233 Developmental Biology  
LSM3241 Bioinformatics and Biocomputing  
LSM3242 Applied Microbiology  
LSM3243 Molecular Biophysics  
LSM3245 RNA Biology and Technology  
LSM3252 Evolution and Comparative Genomics  
LSM3254 Ecology of Aquatic Environments  
LSM3255 Ecology of Terrestrial Environments  
LSM3256 Tropical Horticulture  
LSM3257 Quantitative Methods for Ecological Research  
LSM3261 Life Form and Function  
LSM3262 Environmental Animal Physiology  
LSM3263 Field Studies in Neotropical Ecosystems  
LSM3264 Environmental Biochemistry  
LSM3265 Entomology  
LSM3266 Avian Biology and Evolution  
LSM3267 Behavioural Biology  
LSM3272 Global Change Biology  
LSM3288 Advanced UROPS in Life Sciences I | 64 |
To be conferred one of the three specialisations (BMS/MCB/EVB), LSM4199 and at least 2 of the 4 LSM42XX elective modules have to be listed with chosen specialisation.

<table>
<thead>
<tr>
<th>Level 4000 (32MCs)</th>
<th>Pass the Honours Year Project LSM4199, and 4 LSM42XX elective modules.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSM4199</td>
<td>Honours Project in Life Sciences</td>
</tr>
<tr>
<td>LSM4211</td>
<td>Toxicology</td>
</tr>
<tr>
<td>LSM4212</td>
<td>Pharmacogenetics and Drug Responses</td>
</tr>
<tr>
<td>LSM4213</td>
<td>System Neurobiology</td>
</tr>
<tr>
<td>LSM4214</td>
<td>Cancer Pharmacology</td>
</tr>
<tr>
<td>LSM4215</td>
<td>Extreme Physiology</td>
</tr>
<tr>
<td>LSM4221</td>
<td>Drug Discovery and Clinical Trials</td>
</tr>
<tr>
<td>LSM4222</td>
<td>Advanced Immunology</td>
</tr>
<tr>
<td>LSM4223</td>
<td>Advances in Antimicrobial Strategies</td>
</tr>
<tr>
<td>LSM4225</td>
<td>Genetic Medicine in the Post-Genomic Era</td>
</tr>
<tr>
<td>LSM4226</td>
<td>Infection and Immunity</td>
</tr>
<tr>
<td>LSM4227</td>
<td>Stem Cell Biology</td>
</tr>
<tr>
<td>LSM4231</td>
<td>Structural Biology</td>
</tr>
<tr>
<td>LSM4232</td>
<td>Advanced Cell Biology</td>
</tr>
<tr>
<td>LSM4234</td>
<td>Mechanobiology</td>
</tr>
<tr>
<td>LSM4235</td>
<td>Nuclear Mechanics and Genome Regulation</td>
</tr>
<tr>
<td>LSM4241</td>
<td>Functional Genomics</td>
</tr>
<tr>
<td>LSM4242</td>
<td>Protein Engineering</td>
</tr>
<tr>
<td>LSM4243</td>
<td>Tumour Biology</td>
</tr>
<tr>
<td>LSM4244</td>
<td>Oncogenes and Signal Transduction</td>
</tr>
<tr>
<td>LSM4245</td>
<td>Epigenetics and Chromatin Biology</td>
</tr>
<tr>
<td>LSM4251</td>
<td>Plant Growth and Development</td>
</tr>
<tr>
<td>LSM4252</td>
<td>Animal Reproduction</td>
</tr>
<tr>
<td>LSM4254</td>
<td>Principles of Taxonomy and Systematics</td>
</tr>
<tr>
<td>LSM4255</td>
<td>Methods in Mathematical Biology</td>
</tr>
<tr>
<td>LSM4261</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>LSM4262</td>
<td>Tropical Conservation Biology</td>
</tr>
<tr>
<td>LSM4263</td>
<td>Field Studies in Biodiversity</td>
</tr>
<tr>
<td>LSM4264</td>
<td>Freshwater Biology</td>
</tr>
<tr>
<td>LSM4265</td>
<td>Urban Ecology</td>
</tr>
<tr>
<td>LSM4266</td>
<td>Aquatic Biodiversity</td>
</tr>
<tr>
<td>LSM4267</td>
<td>Animal Communications &amp; Sensory Ecology</td>
</tr>
</tbody>
</table>
To be awarded at BSc level a primary major in Life Sciences, candidates must satisfy the following [For Matriculation Cohort AY2012/2013]:

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<tr>
<td>Level</td>
<td>Pass all</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>LSM1101 Biochemistry of Biomolecules</td>
<td>24</td>
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<tr>
<td></td>
<td>LSM1102 Molecular Genetics</td>
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<td>LSM1103 Biodiversity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LSM1104 General Physiology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CM1401 Chemistry for Life Sciences</td>
<td></td>
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<tr>
<td></td>
<td>ST1232 Statistics for Life Sciences</td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Pass all</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>LSM2101 Metabolism and Regulation</td>
<td>44</td>
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<tr>
<td></td>
<td>LSM2102 Molecular Biology</td>
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<tr>
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<td>LSM2103 Cell Biology</td>
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<tr>
<td></td>
<td>Pass 1</td>
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<tr>
<td></td>
<td>LSM2201A Experimental Biochemistry</td>
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<td></td>
<td>LSM2202A Experimental Molecular and Cell Biology</td>
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<td>LSM2203 Experimental Microbiology</td>
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<tr>
<td></td>
<td>Pass 1</td>
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<tr>
<td></td>
<td>LSM2241 Introductory Bioinformatics</td>
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<tr>
<td></td>
<td>LSM2251 Ecology and Environment</td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>Pass 5 LSM32XX elective modules (except LSM3289), one of which may be a</td>
<td></td>
</tr>
<tr>
<td>3000</td>
<td>LSM-recognised elective module (up to 4MCs).</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>LSM3201 Research and Communication in Life Sciences</td>
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<td>LSM3272 Global Change Biology</td>
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<tr>
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<td>LSM3288 Advanced UROPS in Life Sciences I</td>
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</tr>
</tbody>
</table>