Prospects

NUS Life Sciences Major graduates are fully poised to pursue a diverse range of careers ranging from research and scientific services, to healthcare and medical industries, and to education and related professions. Embarking on graduate studies at NUS or overseas as well as graduate medical education are also exciting options for our graduates. Prospective employers include research and education institutes, public agencies such as National Parks Board (NParks), National Environment Agency (NEA), Health Sciences Authority (HSA) and Singapore Food Agency (SFA), specialist medical centres and clinics, government and private hospitals, and industrial sectors involving biotechnology, pharmaceutical, food production and environmental technology.

LIFE SCIENCES PROGRAMME OFFERS EXCELLENT RESEARCH TRAINING AND INTERNSHIP OPPORTUNITIES.

To Read Life Sciences Major

Apply for Life Sciences on the course of study at NUS, which requires passes in two Science subjects (Biology, Chemistry, Physics, either Mathematics or Further Mathematics) at H2 or GCE ‘A’ Level (or equivalents).

Select Life Sciences in the first semester which needs H2 Level or GCE ‘A’ Level pass(es) for Biology and Chemistry. Read and pass the relevant bridging module in the first semester, if without.

Life Sciences may also be applied directly in upfront offer of Double-Degree, Double-Major and Major-Minor Programmes with this Major.

Minor and Second Major in Life Sciences are available for undergraduate students of other primary disciplines.

Programme Structure in Brief

<table>
<thead>
<tr>
<th>ENROLLED CREDITS</th>
<th>MODULES</th>
<th>MODULAR CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>• Pillars of General Education (one module each)</td>
<td>20</td>
</tr>
<tr>
<td>Computational Thinking</td>
<td>• CS1010 (or variant) Programming Methodology or • COS2000 Computational Thinking for Scientists</td>
<td>4</td>
</tr>
<tr>
<td>Science Communication</td>
<td>• SP1541 Exploring Science Communication through Popular Science</td>
<td>4</td>
</tr>
<tr>
<td>Major Level 1000</td>
<td>• LSM1000 Molecular Genetics or • LSM1005 Evolutionary Biology or • LSM1008 Molecular Cell Biology or • LSM1010 Chemistry for Life Sciences</td>
<td>20</td>
</tr>
<tr>
<td>Major Level 2000</td>
<td>• LSM2191 Laboratory Techniques in Life Sciences or • LSM22xx elective modules (except LSM2288 and LSM2289)</td>
<td>16</td>
</tr>
<tr>
<td>Major Level 3000</td>
<td>• LSM32xx elective modules (except LSM3289)</td>
<td>16</td>
</tr>
<tr>
<td>Major Level 4000</td>
<td>• Honours Research Project Option or • Applied Internship Project Option</td>
<td>32</td>
</tr>
<tr>
<td>Unrestricted Electives</td>
<td>• 12 modules typically. Can be used to fulfil the requirements of Minor or Second Major.</td>
<td>48</td>
</tr>
</tbody>
</table>

Designed by Redbean De Pte Ltd

LIFE SCIENCES PROGRAMME OFFERS EXCELLENT RESEARCH TRAINING AND INTERNSHIP OPPORTUNITIES.
MORE THAN JUST biological and biomedical sciences!

Although synonymous with biology, Life Sciences represent the huge spectrum of disciplines within and beyond biological and biomedical sciences. From the molecular and cellular worlds, to the organisms and individuals, from the macro-level ecological views to the underlying evolutionary concepts, different aspects of Life Sciences contribute to our understanding of how we humans work as well as how we interact and impact our environment.

The BSc (Hons) degree in Life Sciences is the undergraduate course on biological and biomedical sciences. The Major emphasises the underlying knowledge vital to all areas of Life Sciences in the first year of study, and allows selection of relevant advanced-level modules to focus on one of the three specialisations and other exciting themes in Life Sciences.

Diverse Disciplines – Roadmaps and Modules

Pick from the diverse roadmaps of modules we have developed, or freely structure one that is uniquely yours.

**Pharmacology**
- Fundamental Pharmacology
- Toxicology
- Cancer Pharmacology
- Drug Discovery and Clinical Trials

**Cell and Development**
- Cell Biology
- Stem Cell Biology
- Tissue Biology

**Plant Science**
- Plant Cell Biology
- Cell Biology
- Stem Cell Biology
- Tissue Biology

**Neurobiology**
- Neuronal Signalling and Memory Mechanisms
- Neuronal Development and Diseases
- Human Neuroanatomy
- Systems Neurobiology

**Aquatic Biology and Ecology**
- Aquatic Invertebrate Diversity
- Plankton Ecology
- Aquatic Vertebrate Diversity
- Marine Biology
- Freshwater Biology

**Infectious Diseases**
- Immunology
- Molecular Microbiology
- Advances in Antimicrobial Photodynamic Therapy
- Influenza and Influenza

**Physical Biology**
- Molecular Biophysics
- Nanoscale Bioelectronics
- Microscopy
- Biomedical Engineering

**Conservation**
- Biodiversity
- Wildlife Change Biology
- Tropical Conservation Biology
- Urban Ecology

**Environmental Biology**
- Importance and relevance of biodiversity and its applications towards environmental conservation.

**Molecular and Cell Biology**
- Focuses on the fundamental physical, chemical and biological mechanisms of living organisms.

**Biomedical Science**
- Focuses on human health and diseases, and its goal of clinical solutions.

**Environmental Biology**
- Affirms the importance and relevance of biodiversity and its applications towards environmental conservation.

ONE MAJOR, THREE SPECIALISATIONS, DIVERSE DISCIPLINES!

- Biomedical Science focuses on human health and diseases, and its goal of clinical solutions.
- Molecular and Cell Biology emphasises the fundamental physical, chemical and biological mechanisms of living organisms.
- Environmental Biology affirms the importance and relevance of biodiversity and its applications towards environmental conservation.

Exciting Enhancements for Life Sciences Major!

- Expanding from the Major, a Life Sciences student can enhance the academic developments and experience through a variety of cross- and inter-disciplinary undergraduate courses at NUS as well as at overseas partner universities.
- Double Major for Life Sciences with Second Major in: Chemistry, Management, Psychology, Data Analytics
- Major-Minor for Life Sciences with Minor in: Aquatic Ecology, Forensic Science, Public Health, Computer Science, Joint Degree with University of Dundee in areas of: Drug Design and Discovery, Developmental Biology, Plant Science