

LIFE SCIENCES – GENERAL (SCIENCE) – BACHELOR OF SCIENCE

LISC-G-BSC

Subject: Administered by the Associate Dean, Life Sciences and Biochemistry

Plan: Consists of 48.00 units as described below.

Program: The Plan, with sufficient electives to total 90.0 units, will lead to a Bachelor of Science Degree.

Code	Title	Units
1. Core		
A. Complete the following:		
BIOL 102	Fundamentals of Biology: Molecular and Cell Biology	3.00
BIOL 103	Fundamentals of Biology: Organisms to Ecosystems	3.00
B. Complete 6.00 units from the following:		6.00
CHEM 112	General Chemistry	
CHEM 113	General Chemistry I (with Virtual & CHEM 114 Laboratory): From Atoms to Matter and General Chemistry II (with Virtual Laboratory): Thermodynamics and Kinetics	
C. Complete the following:		
CHEM 281	General Organic Chemistry I (with Virtual Laboratory)	3.00
D. Complete 3.00 units from the following:		3.00
PHAR 230	Pharmacology for the Health Sciences	
PHAR 370	Fundamentals of Pharmacology and Therapeutics	
E. Complete the following:		
PHGY 215	Principles of Mammalian Physiology I	3.00
PHGY 216	Principles of Mammalian Physiology II	3.00
2. Option		
A. Complete 12.00 units from the following course list: 2.00		
LISC_List_B at the 200-level or above		
B. Complete 6.00 units from the following course list: 6.00		
LISC_List_B		
3. Additional Requirements		
A. Complete 6.00 units from the following course list: 6.00		
ASC_Science		
B. No more than 12.00 units in BIOL or 3.00 units in NURS 100 and 9.00 units in BIOL may be used from LISC_List_B.		
Electives		

1. Core

A. Complete the following:

BIOL 102	Fundamentals of Biology: Molecular and Cell Biology	3.00
BIOL 103	Fundamentals of Biology: Organisms to Ecosystems	3.00

B. Complete 6.00 units from the following: 6.00

CHEM 112	General Chemistry	
CHEM 113	General Chemistry I (with Virtual & CHEM 114 Laboratory): From Atoms to Matter and General Chemistry II (with Virtual Laboratory): Thermodynamics and Kinetics	

C. Complete the following:

CHEM 281	General Organic Chemistry I (with Virtual Laboratory)	3.00
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D. Complete 3.00 units from the following: 3.00

PHAR 230	Pharmacology for the Health Sciences	
PHAR 370	Fundamentals of Pharmacology and Therapeutics	

E. Complete the following:

PHGY 215	Principles of Mammalian Physiology I	3.00
PHGY 216	Principles of Mammalian Physiology II	3.00

2. Option

A. Complete 12.00 units from the following course list: 2.00

LISC_List_B at the 200-level or above

B. Complete 6.00 units from the following course list: 6.00

LISC_List_B

3. Additional Requirements

A. Complete 6.00 units from the following course list: 6.00

ASC_Science

B. No more than 12.00 units in BIOL or 3.00 units in NURS 100 and 9.00 units in BIOL may be used from LISC_List_B.

Electives

Elective Courses	42.00
Total Units	90.00

4. Notes

A. A maximum of 6.00 units from courses offered by other Faculties and Schools may be counted toward the program and/or Plan requirements. This includes courses in COMM, LAW, NURS and courses in the Faculty of Engineering and Applied Science.

Life Sciences Course Lists

The following lists contain courses offered through other Departments. In accordance with Academic Regulation 2.6 (Access to Classes), students do not have enrolment priority in all of these courses. Access to these courses may only be made available during the Open Enrolment period, and then only if space permits.

ASC_Science

Code	Title	Units
Natural and Physical Science Courses		
ANAT		
ASTR		
BCHM		
BIOL		
BIOM		
BMED 384	Integrative Laboratory Course	3.00
BMED 470	Principles of 'Omics'	3.00
BMED 480	Clinical Applications of Human Anatomy	3.00
CANC		
CHEE 209	Analysis Of Process Data	3.50
CHEM		
CISC		
COGS		
COMM 162	Managerial Statistics	3.00
COMP		
CRSS		
DDHT		
ECON 250	Introduction to Statistics	3.00
ENSC 201	Environmental Toxicology and Chemical Risks	3.00
ENSC 301	Environmental Assessment	3.00
ENSC 307	Marine Environmental Issues	3.00

Natural and Physical Science Courses



ENSC 320	Wildlife Issues in a Changing World	3.00
ENSC 407	Global Water Issues	3.00
ENSC 425	Ecotoxicology	3.00
ENSC 471	Environmental Analysis Methods	3.00
ENSC 480	Special Topics in Environmental Science	3.00
EPID		
GEOL		
GLPH 472	Special Populations: Neonatal to End-of-Life-Care	3.00
GPHY_Physical Course List		
GPHY_Tech/Methods Course List		
HLTH 230	Basic Human Nutrition	3.00
HLTH 331	Advanced Human Nutrition	3.00
HSCI 270	Fundamentals of Health Research Methodology	3.00
KNPE 125	Introduction to Human Physiology	3.00
KNPE 153	Introductory Biomechanics	3.00
KNPE 225	Advanced Human Physiology	3.00
KNPE 227	Exercise Physiology	3.00
KNPE 251	Introduction to Statistics	3.00
KNPE 254	Biomechanical Analysis of Human Movement	3.00
KNPE 255	Physical Activity, Fitness, and Health	3.00
KNPE 261	Theory of Motor Behaviour and Motor Learning	3.00
KNPE 327	Exercise Physiology Laboratory	3.00
KNPE 339	Advanced Exercise Metabolism	3.00
KNPE 354	Occupational Biomechanics and Physical Ergonomics	3.00
KNPE 355	Lifestyle and Cardiometabolic Assessment Laboratory	3.00
KNPE 425	Physiology of Stress	3.00
KNPE 429	Skeletal Muscle Oxygen Delivery: Demand Matching in Exercise	3.00
KNPE 439	Critical Appraisal and Translation of Muscle Physiology Research	3.00
KNPE 450	Ergonomics	3.00
KNPE 454	Clinical Biomechanics	3.00
KNPE 455	Advanced Physical Activity and Health	3.00
KNPE 459	Clinical Exercise Physiology	3.00
KNPE 493	Special Topics in Kinesiology	3.00
LISC		
MATH		
MICR		
NSCI		
NURS 323	Introduction to Statistics	3.00

NURS 324	Research in Nursing	3.00
PATH		
PHAR		
PHGY		
PHYS		
POLS 285	Introduction to Statistics	3.00
PSYC 100	Principles of Psychology	6.00
PSYC 101	Principles of Psychology I	3.00
PSYC 102	Principles of Psychology II	3.00
PSYC 103	Principles of Psychology III	3.00
PSYC 202	Statistics in Psychology	3.00
PSYC 203	Research Methods in Psychology	3.00
PSYC 221	Cognitive Psychology	3.00
PSYC 271	Brain and Behaviour I	3.00
PSYC 299	Introduction to Directed Research in Psychology	3.00
PSYC 301	Advanced Statistical Inference	3.00
PSYC 302	Advanced Research Methods	3.00
PSYC 450	Advanced Topics in Developmental Psychology	3.00
PSYC_Cognitive Course List		
PSYC_BehaviouralNeuroscience Course List		
REPD		
SOCY 210	Social Research Methods	3.00
SOCY 211	Introduction to Statistics	3.00
SOFT		
STAM		
STAT		

LISC_List_B

Code	Title	Units
Options in the Life Science General/Minor Plan		
ANAT		
BCHM		
BIOL 205	Mendelian and Molecular Genetics	3.00
BIOL 243	Introduction to Statistics	3.00
BIOL 321	Animal Behaviour	3.00
BIOL 322	Environmental Physiology of Animals	3.00
BIOL 330	Cell Biology	3.00
BIOL 331	Analytical Genomics	3.00
BIOL 334	Comparative Biochemistry	3.00
BIOL 339	Animal Physiology	3.00
BIOM 300	Modeling Techniques in Biology	3.00
CHEM 282	General Organic Chemistry II	3.00
CHEM 285	General Organic Chemistry II (with Virtual Laboratory)	3.00

ENSC 201	Environmental Toxicology and Chemical Risks	3.00
EPID		
HLTH 102	Personal Health and Wellness	3.00
HLTH 230	Basic Human Nutrition	3.00
HLTH 237	An Introduction to Drugs, Drug Use and Drug Dependence	3.00
HLTH 331	Advanced Human Nutrition	3.00
LISC		
MICR		
NSCI 323	Cellular Neuroscience	3.00
NSCI 324	Systems Neuroscience	3.00
NURS 100	Nutrition and Health	3.00
PATH 310	Introduction to Pathology and Molecular Medicine	3.00
PHAR		
PHGY		
STAM 200	Introduction to Statistics	3.00
STAT 263	Introduction to Statistics	3.00