JOINT DEGREE PROGRAMME (JDP)
NUS BACHELOR OF SCIENCE (HONOURS) IN LIFE SCIENCES WITH THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

1. Overview of Programme

This Joint Degree Programme (JDP) in Bachelor of Science (Honours) in Life Sciences is a collaboration between NUS Faculty of Science and College of Arts and Sciences, The University of North Carolina at Chapel Hill (UNC-CH). Designed as a 4-year programme, students will be taught in NUS and UNC-CH. This joint effort combines the strengths of both universities'; undergraduate curricula, taps on the exceptional liberal arts education of UNC-CH, integrates overseas experience into the undergraduate studies, and awards a jointly validated Bachelor of Science degree qualification.

The University of North Carolina at Chapel Hill | College of Arts and Sciences | Department of Biology

NUS students in this programme will complete the Major requirements for NUS BSc (Hons) degree in Life Sciences. They will complete the UNC-CH General Education Requirements tailored for this programme, which includes the NUS General Education. Life Sciences Major students will spend at least the first year in NUS before moving to and staying at UNC-CH for two to three regular semesters within the fourth to sixth semesters inclusive of their course of undergraduate study. They will return to NUS for the final year of the programme.

2. JDP Requirements

Here shows the summary of the JDP programme requirements. Details are in the annexes at the following links.

JDP Major Requirements | JDP General Education | Study Plan

Graduation Requirements	NUS BSc (Hons) in Life Sciences	
	Single Degree	Joint Degree
Major	84 MCs	84 MCs
Faculty Requirements	8 MCs	8 MCs
General Education	20 MCs	48 MCs
Unrestricted Free Electives	48 MCs	20 MCs
Total	160 MCs	160 MCs

3. Admissions

Open to Year 1 Life Sciences Major in NUS Faculty of Science.

Eligible undergraduate candidates will need to gain entry to NUS Faculty of Science first, and declare to read Life Sciences Major as the primary discipline.

Students in NUS Faculty of Science with primary Major in Life Sciences may apply to enter this programme at the end of the first year of the candidature. All applicants will undergo a selection process and shortlisted applicants will be required to attend an interview to assess their aptitude and suitability for the programme, as well as other relevant criteria.

The application period and procedure will be announced to Year 1 Life Sciences Major students every academic year.

4. Continuation and Exiting the Programme

NUS students in this JDP must maintain a Cumulative Average Point (CAP) of 3.75 or above (out of 5.00) for their BSc (Hons) degree requirements. A student whose CAP falls below 3.75 for two consecutive semesters will not be required to exit the JDP. The student may then resume and complete the BSc/BSc (Hons) degree in Life Sciences at NUS.

NUS students in this programme can choose to withdraw and continue with the BSc/BSc (Hons) degree in NUS. Students who exit the JDP would only have credit transfer (no grade transfer) for modules read at UNC-CH.

5. Application for Cohort AY2017/18 Life Sciences Majors

Application is now open to Cohort AY2017/18 Life Sciences Majors (returning Year 2 students). Applicants should have a CAP of at least 4.00 and have keen interest to take on a liberal arts and international education. Shortlisted applicants will be required to attend an interview.

To apply, please download and fill in the application form.

Application Form for JDP BSc (Hons) in Life Sciences with UNC-CH

Submit the completed form, together with your statement of interest in this programme and CV, to the Department of Biological Sciences Administration Office Block S3 Level 5 (Attn: Mr. Lim Miah Kyan). You may also email your application documents to Mr. Lim Miah Kyan (dbslmk@nus.edu.sg), with the subject title: **JDP UNCCH Application**

The application deadline is Monday 16 July 2018. Applicants shortlisted for the interview will be informed and will take place the same or following week.

6. Enquiry

For enquiry, you may contact:

Lim Miah Kyan (Mr.)
Tel: 6516 2698
Email: dbslmk@nus.edu.sg

Annex A

Programme/Major Requirements of NUS JDP in Life Sciences with UNC-CH (For Cohorts AY2017/18 onwards)

Numbers in [ ] indicates Modular Credits (MC).

UNC-CH Credit Hours [No. of courses]	For UNC-CH Biology Major Student	For NUS Life Sciences Major Student of Cohorts AY2017/18 onwards	NUS Modular Credits [No. of modules]
UNC-CH Physics/Chemistry Components and NUS FoS Faculty Requirements			
8 [2] 18 [5] 6 [2]	(PHYS 104 & 105) or (PHYS 116 & 117) CHEM 101-101L, 102-102L, 241-241L, 261, 262-262L Two additional Allied Science courses	• Module 1: CM1401 • Module 2: ST1232 • Module 3: Either CS1010 (or variant) OR COS2000 • Module 4: SP1541 Exploring Science Communication through Popular Science (if precluded from taking SP1541, please read one module from any subject group except LSM-prefixed modules)	16 [4]
Biology/Life Sciences Main Component			
16 [4]	BIOL 101-101L Principles of Biology BIOL 201 Ecology and Evolution BIOL 202 Molecular Biology and Genetics BIOL 205 Cellular and Developmental Biology	LSM1301 General Biology (waived for NUS Students) LSM1102 Molecular Genetics LSM1105 Evolutionary Biology LSM1106 Molecular Cell Biology LSM2233 Cell Biology LSM2251 Ecology and Environment	20 [5]
4 [1]	One 200 Organismal Biology Course with laboratory	LSM2252 Biodiversity	4 [1]
-	-	LSM2191 Laboratory Techniques in Life Sciences	4 [1]
14 [4]	Four BIOL courses beyond 205 (at least two with laboratory, and at least two above 400)*	Two LSM32xx elective modules. Two LSM32xx/LSM42xx/LSM-recognised elective modules (except LSM3289 and LSM4299). Note that one of these has to be LSM3233 Developmental Biology (OR the UNC-CH equivalent BIOL 443 Developmental Biology)	16 [4]
-	-	Complete 32MCs following the rules stipulated for Life Sciences Major Level 4000 Requirements	32 [8]
Total Hours/Credits			
66 Hrs (88 MCs) [18 Courses]		**92 MCs [23 Modules]**	

Annex B

General Education of NUS JDP in Life Sciences with UNC-CH (For Cohorts AY 2017/18 onwards)

Numbers in [ ] indicates Modular Credits (MC).

NUS Modular Credits [MCs] (3 UNC-CH Credit Hours = 4 NUS MCs)	UNC-CH Credit Hours	For UNC-CH Biology Major Student	General Education Requirements (Based on UNC-CH requirements) [No. refers to UNC-CH credit hours]	For NUS Life Sciences Major Student – Pillars refer to the module categories in NUS General Education scheme	NUS Modular Credits [MCs]
Foundations					
4	3	ENGL 105	English Composition and Rhetoric (CR) [3]	Waived for NUS Students or ES1102/3.	-
~12	Up to 8	Language Levels 1, 2, 3	Foreign Language (FL) [up to 8]	Waived for NUS Students.	-
4	3	MATH 231	Quantitative Reasoning (QR) [3]	GER1000 from the Quantitative Reasoning Pillar.	4
	-	Waived for JDP.	Lifetime Fitness (LF) [1]	Waived for JDP.	-
Approaches					
	-	BIOL 101-101L, CHEM 101-101L (for major requirement)	Physical and Life Sciences (PX/PL) [7]	LSM1301, CM1401 (for major/faculty requirement)	-
12	9	To meet UNC-CH requirements.	Social and Behavioural Sciences (HS/SS) [9]	To meet UNC-CH requirements. This may include modules for/from: - Thinking and Expression Pillar - Singapore Studies Pillar - Human Culture Pillar - Asking Questions Pillar	12
12	9	To meet UNC-CH requirements.	Humanities and Fine Arts (VP/LA/PH) [9]		12
Connections					
	-	BIOL 101-101L (for major requirement)	Communication Intensive (CI) [3]	SP1541 (for faculty requirement)	-
4	3	MATH 232, 238; COMP 110,116; STOR 155 or 215	Quantitative Intensive (QI) [3]	ST1232 (for major/ faculty requirement)	-
	-	Waived for JDP.	Experiential Education (EE) [3]	Waived for JDP.	-
4	3	To meet UNC-CH requirements.	U.S. Diversity (US) [3]	To meet UNC-CH requirements.	4
4	3	To meet UNC-CH requirements.	North Atlantic World (NA) [3]	To meet UNC-CH requirements.	4
4	3	To meet UNC-CH requirements.	Beyond the North Atlantic World (BN) [3]	One module from the Singapore Studies Pillar.	4
4	3	To meet UNC-CH requirements.	World before 1750 (WB) [3]	To meet UNC-CH requirements.	4
4	3	To meet UNC-CH requirements.	Global Issues (GI) [3]	To meet UNC-CH requirements.	4
67 MCs	50 Hrs	**Total Hours/Credits**			48 MCs

Annex C

Acceptable mappings of NUS LSM modules and UNC-CH BIOL courses

NUS		UNC-CH	
LSM1303	Animal Behaviour	BIOL 278-278L	Animal Behavior
LSM2252	Biodiversity	BIOL 279-279L	Special Topics in Organismal Biology
LSM2232	Genes, Genomes and Biomedical Implications	BIOL 434	Molecular Biology
LSM2212	Human Anatomy	BIOL 251-251L	Introduction to Human Anatomy and Physiology
LSM2212	Human Anatomy	BIOL 252-252L	Fundamentals of Human Anatomy and Physiology
LSM2241	Introductory Bioinformatics	BIOL 526	Computational Genetics
LSM2288	Basic UROPS in Life Sciences I	BIOL 295	Undergraduate Research in Biology
LSM3215	Neuronal Signaling and Memory Mechanisms	BIOL 450	Introduction to Neurobiology
LSM3223	Immunology	BIOL 449	Introduction to Immunology
LSM3224	Molecular Basis of Human Diseases	BIOL 444	Molecular Basis of Disease
LSM3232	Microbiology	BIOL 422-422L	Microbiology
LSM3233	Developmental Biology	BIOL 443	Developmental Biology
LSM3241	Genomic Data Analysis	BIOL 525	Computational Analysis and Resources in Genomics
LSM3243	Molecular Biophysics	BIOL 431	Biological Physics
LSM3252	Evolution and Comparative Genomics	BIOL 454	Evolutionary Genetics
LSM3252	Evolution and Comparative Genomics	BIOL 471-471L	Evolutionary Mechanisms
LSM3256	Tropical Horticulture	BIOL 273	Horticulture
LSM3262	Environmental Animal Physiology	BIOL 451-451L	Comparative Physiology
LSM3266	Avian Biology and Evolution	BIOL 476-476L	Avian Biology
LSM3272	Global Change Ecology	BIOL 464	Global Change Ecology
LSM3288	Advanced UROPS in Life Sciences I	BIOL 395	Undergraduate Research
LSM4213	Systems Neurobiology	BIOL 455	Behavioral Neuroscience
LSM4232	Advanced Cell Biology	BIOL 448	Advanced Cell Biology
LSM4243	Tumour Biology	BIOL 445	Cancer Biology
LSM4261	Marine Biology	BIOL 457	Marine Biology
LSM4262	Tropical Conservation Biology	BIOL 565	Conservation Biology

Annex D

Schedule for Completion of Joint Degree Programme
NUS BSc (Hons) in Life Sciences with The University of North Carolina at Chapel Hill
Cohorts AY2017/18 onwards

Numbers in [ ] indicates Modular Credits (MC).

	Semester	Life Sciences Major Modules	Other Graduation Requirements
YEAR 1	1st Semester (Sem 1) & 2nd Semester (Sem 2)	LSM1102 Molecular Genetics [4] LSM1106 Molecular Cell Biology [4] LSM1105 Evolutionary Biology [4] ST1232 Statistics for Life Sciences [4] CM1401 Chemistry for Life Sciences [4]	**General Education Requirements:** GER1000 – Quantitative Reasoning [4] GEH1XXX – Human Cultures [4] GES1XXX – Singapore Studies [4] GET1XXX – Thinking and Expression [4] GEQ1000 – Asking Questions [4] **Faculty Requirements:** Either CS1010 (or variant) OR COS2000 for Computational Thinking [4] SP1541 Exploring Science Communication through Popular Science (if precluded please read ***1 regular-code module*** from FoS except LSM-prefixed) [4]
YEAR 2	3rd Semester (Sem 1) & 4th Semester (Sem 2)	LSM2191 Laboratory Techniques in Life Sciences [4] **Pass 3 LSM22xx** (except LSM2288/9) [3x4=12] **Pass 2 LSM32xx** (except LSM3289) [2x4=8] **Pass 2 LSM32xx/LSM42xx/LSM-recognised elective modules** (except LSM3289 and LSM4299) [2x4=8]	
Year 3	At UNCCH 5th Semester (Sem 1) & 6th Semester (Sem 2)		**UNCCH General Education Modules:** 2-3 modules for Social and Behavioural Sciences 2-3 modules for Humanities and Fine Arts 1 module for U.S. Diversity 1 module for North Atlantic World 1 module for World before 1750 1 module for Global Issues
YEAR 4	7th Semester (Sem 1) & 8th Semester (Sem 2)	**Pass 32MC of LSM4xxx,** of which to include either LSM4199 or LSM4299 but not both.	**Unrestricted Elective Modules (UEM):** ***Remaining MC to top up to total 160 for graduation.***