

NATIONAL UNIVERSITY OF SINGAPORE



This is to certify that

XIANG SHANG

**having fulfilled the requirements prescribed
by the University was conferred the degree of**

**BACHELOR OF SCIENCE
WITH HONOURS (MERIT)
IN APPLIED MATHEMATICS**

on

30 June 2018


Chair, Board of Trustees


President



NATIONAL UNIVERSITY of SINGAPORE

OFFICIAL TRANSCRIPT

NAME: XIANG SHANG

STUDENT NO.: A0133890A

DATE OF BIRTH: 22/04/1996

DATE ISSUED: 30/06/2018

PROGRAMME: BACHELOR OF SCIENCE
PROGRAMME STATUS: COMPLETED PROGRAMME

MODULE

ACADEMIC YEAR 2014/2015 SEMESTER 1

GEM2900	UNDERSTANDING UNCERTAINTY & STATS THINKING
MA1100	FUNDAMENTAL CONCEPTS OF MATHEMATICS
MA1101R	LINEAR ALGEBRA I
MA1102R	CALCULUS
PC1141	PHYSICS I

S	4.00
A	4.00
S	4.00
A-	4.00
S	4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 4.75

ACADEMIC YEAR 2014/2015 SEMESTER 2

CS1010S	PROGRAMMING METHODOLOGY
EC1301	PRINCIPLES OF ECONOMICS
ES1102	ENGLISH FOR ACADEMIC PURPOSES
MA1104	MULTIVARIABLE CALCULUS
MA2108S	MATHEMATICAL ANALYSIS I (S)
MA2216	PROBABILITY

A	4.00
B-	4.00
C	4.00
B+	4.00
B	4.00
B	4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 4.05

ACADEMIC YEAR 2015/2016 SEMESTER 1

CREDITS TRANSFERRED FROM BEIHANG UNIVERSITY

ENROLLED IN THE FOLLOWING NUS MODULES:
CFG1001 HEADSTART MODULE (A CAREER DEVELOPMENT PROGRAMME)
ES1541 EXPLORING SCIENCE COMMUNICATION THROUGH POPULAR SCIENCE
GEK1505 LIVING WITH MATHEMATICS

CS	8.00
S	4.00
A-	4.00

MODULE	GRADE	CREDITS
MA2101	A	4.00
MA2213	A	4.00
ST2132	B	4.00
ST3236	B+	4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 4.19

REMARKS:
Please refer to the transcript of Beihang University for details of modules taken and grades/credits obtained.

ACADEMIC YEAR 2015/2016 SEMESTER 2

CS1020	DATA STRUCTURES AND ALGORITHMS I	B	4.00
CS2100	COMPUTER ORGANISATION	B-	4.00
LAF1201	FRENCH 1	S	4.00
MA2219	INTRODUCTION TO GEOMETRY	B+	4.00
MA3252	LINEAR AND NETWORK OPTIMISATION	B+	4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 4.05

ACADEMIC YEAR 2016/2017 SEMESTER 1

CS2102	DATABASE SYSTEMS	A-	4.00
MA3110	MATHEMATICAL ANALYSIS II	B	4.00
MA3111	COMPLEX ANALYSIS I	B	4.00
MA3269	MATHEMATICAL FINANCE I	A-	4.00
MA4254	DISCRETE OPTIMIZATION	B-	4.00
SSS1207	NATURAL HERITAGE OF SINGAPORE	S	4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 3.99

ACADEMIC YEAR 2016/2017 SEMESTER 2

CS2105	INTRODUCTION TO COMPUTER NETWORKS	B	4.00
LSM1301	GENERAL BIOLOGY	B+	4.00
MA4255	NUMERICAL METHODS IN DIFFERENTIAL EQUATIONS	B+	4.00





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MODULE
MA4260 STOCHASTIC OPERATIONS RESEARCH
MA4264 GAME THEORY

GRADE
B+
B+

CREDITS
4.00
4.00

BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 3.98

ACADEMIC YEAR 2017/2018 SEMESTER 1

CS2010 DATA STRUCTURES AND ALGORITHMS II
MA4199 HONOURS PROJECT IN MATHEMATICS
MA4230 MATRIX COMPUTATION
MA4269 MATHEMATICAL FINANCE II
ST3131 REGRESSION ANALYSIS

B+
IP
B
B
B

4.00
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4.00
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BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 3.93

ACADEMIC YEAR 2017/2018 SEMESTER 2

CS3244 MACHINE LEARNING
MA4199 HONOURS PROJECT IN MATHEMATICS
MA4270 DATA MODELLING AND COMPUTATION
ST4240 DATA MINING

B+
B+
W
B+

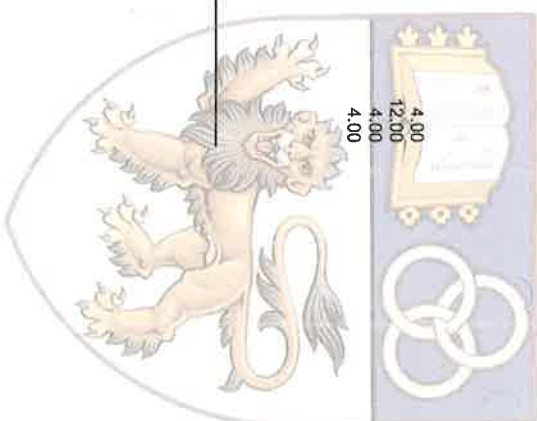
4.00
12.00
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BACHELOR OF SCIENCE
CUMULATIVE AVERAGE POINT: 3.94

CONFERRED/AWARDED THE DEGREE(S)/DIPLOMA(S) OF:
BACHELOR OF SCIENCE WITH HONOURS (MERIT)

MAJOR: APPLIED MATHEMATICS
MINOR: COMPUTER SCIENCE

CONFIRMATION DATE: 30/06/2018



NATIONAL UNIVERSITY OF SINGAPORE (NUS)

Registrar's Office, University Hall (Lee Kong Chian Wing),
#UHL-04-01, 21 Lower Kent Ridge Road,

Singapore 119077

Telephone : (65) 6516 2301 / (65) 6516 2304

Facsimile : (65) 6778 6371

Website : <http://www.nus.edu.sg/registrar>

TRANSCRIPT INFORMATION

Applicable to Undergraduate and Graduate programmes (unless specified otherwise)

MEDIUM OF INSTRUCTION

The medium of instruction used in the University is English, unless specified otherwise.

GRADE LEGEND

Grade	Grade Point	Additional Grading Options
A+, A	5.00	S Satisfactory
A-, A	4.50	U Unsatisfactory
B+	4.00	CS Completed (Satisfactory)
B	3.50	CU Completed (Unsatisfactory)
B-	3.00	IC Incomplete
C+	2.50	IP In Progress
C	2.00	AUD Audit
D+	1.50	EXE Exempted
D	1.00	W Withdrawn
F	0.00	WU Withdrawal from University

CUMULATIVE AVERAGE POINT (CAP)

The Cumulative Average Point (CAP) was introduced for students admitted from the Academic Year (AY) 1998/1999 onwards to track the progress of students under the Modular System. It is the weighted average grade point of all modules taken by the student. Modules with no assigned modular credit or grade point are excluded from the calculation of CAP.

MODULAR CREDIT (MC)

A modular credit (MC) is a unit of the effort, stated in terms of time, expected of a typical student in managing his/her workload. One MC is equivalent to 2.5 hours of study and preparation per week. Thus, a 4-MC module would require 10 hours of work a week, including lectures, tutorials, laboratory sessions, assignments, and independent or group study, over 13 Instructional Weeks in a semester.

GRADE-FREE SCHEME (GFS)

The Grade-free Scheme (GFS), in the form of 32 MCs of Satisfactory/Unsatisfactory (S/U) option, was introduced for undergraduate students admitted from AY2014/2015 onwards to provide a supportive and enabling environment for them to make a successful transition into

the academic and social culture of university life. It serves to facilitate a transformation in students' mindsets towards grades and learning in the university setting, as well as enable them to leverage opportunities for a holistic education. It was enhanced from a grade-free first semester to a grade-free first year for undergraduate students admitted from AY2016/2017 onwards.

At the end of a semester, students may choose to retain the letter grade or to exercise the S/U option on a module, in which case the letter grade will not be shown on the transcript nor computed towards the CAP. An 'S' grade is assigned if students receive a C grade or above while a 'U' grade is assigned if the grade obtained is D+, D or F. Students will receive credits towards the degree only if they attain an 'S' grade.

DEGREE CLASSIFICATION

The criteria for degree classification applicable to students admitted from AY2012/2013 onwards are as follows:

Honours Degree Classification ⁽ⁱ⁾	Criteria
Honours (Highest Distinction)	CAP 4.50 and above ⁽ⁱⁱ⁾
Honours (Distinction)	CAP 4.00 – 4.49
Honours (Merit)	CAP 3.50 – 3.99
Honours	CAP 3.00 – 3.49
Pass	CAP 2.00 – 2.99
Bachelor's Degree Classification ⁽ⁱⁱⁱ⁾	Criteria
Pass with Merit	CAP 3.00 and above
Pass	CAP 2.00 – 2.99

- ⁽ⁱ⁾ This refers to 160-MC degree programmes.
⁽ⁱⁱ⁾ Particular Faculties/Schools may stipulate other requirements.
⁽ⁱⁱⁱ⁾ This refers to 120-MC degree programmes.

LEAVE OF ABSENCE

Only leave of absence of one semester or longer is recorded in the transcript.

NUS BULLETIN

More information on the University's programmes is available in the NUS Bulletin at: <http://www.nus.edu.sg/nusbuletin>.

This transcript shows the latest information. For information on earlier grade legends, please visit:
<http://www.nus.edu.sg/registrar/adminpolicy/transcripts.html>.

For degree verification, please visit:
<http://www.nus.edu.sg/registrar/administrative-policies/degree-verification.html>.

CHECK FOR AUTHENTICITY:

NUS official transcript is printed in landscape format on paper with security fibres and displays the NUS coat of arms as a watermark with a smaller NUS coat of arms in full colour as part of the letterhead. Each page of the official transcript is individually validated with the NUS seal and the Registrar's endorsement (on a tri-colour background) or by an authorised staff of the University.

The following information is specific to the respective Faculties/Schools:

**FACULTY OF DENTISTRY (BDS) /
YONG LOO LIN SCHOOL OF MEDICINE (MBBS)**

GRADE LEGEND

Grade	Descriptor	Additional Grading Options
A+	Distinction	DT Distinction
A		M Merit
A-		P Pass
B+		IC Incomplete
B		IP In Progress
B-		W Withdrawn
C+		WU Withdrawal from University
C		
F		

SUPPLEMENTARY EXAMINATION AND RE-EXAMINATION

Students who sit for Supplementary Examination or Re-examination are awarded the grade appropriate to the marks they obtain.

FACULTY OF LAW (LLB)

DEGREE CLASSIFICATION

The criteria for degree classification applicable to students conferred their LLB degrees from 30 June 2016 are as follows:

Degree Classification	Criteria
First Class Honours ⁽ⁱ⁾	Obtained a Cumulative Weighted Numerical Average for all modules taken at NUS that is equivalent to a grade of A- or better, or finished in the top 10% of the graduating class.
Second Class (Upper Division) Honours ⁽ⁱ⁾	Obtained a Cumulative Weighted Numerical Average for all modules taken at NUS that is equivalent to a grade of B or better, and do not qualify for First Class Honours.
Second Class (Lower Division) Honours	Obtained a Cumulative Weighted Numerical Average for all modules taken at NUS that is equivalent to a grade of C or better, and do not qualify either for First Class or Second Class (Upper Division) Honours.
Third Class Honours	Completed the number of credits required for a LLB (Honours) degree but do not qualify for First Class, Second Class (Upper Division) or Second Class (Lower Division) Honours.

- ⁽ⁱ⁾ No student will be eligible for First Class or Second Class (Upper Division) Honours if:
a) the student has failed more than 12 credits of modules at NUS (or while on an approved exchange programme); or
b) the student has taken more than 9 semesters to complete the 4-year LLB programme (or 7 semesters to complete the 3-year Graduate LLB programme (excluding periods where the student has been granted a leave of absence).

SUPPLEMENTARY EXAMINATION

Unless otherwise indicated, a student who passes a subject by supplementary examination is awarded only a 'D' grade irrespective of his/her performance.