# Yong Loo Lin School of Medicine

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Website: http://nusmedicine.nus.edu.sg, www.facebook.com/NUSMedicine

# 1 Faculty's Commitment

Ranked one of Asia's best medical education and research institutions, NUS Medicine admits 300 students every year into its undergraduate degree programme and produces the majority of doctors for Singapore. The School's undergraduate and postgraduate nursing degrees also train professionals who are able to work effectively with their medical and allied health colleagues in managing the full spectrum of diseases that afflict Singaporeans and Asians.

Along the way, the School has burnished its reputation as a crucible of significant research spanning the basic as well as clinical sciences. Its faculty comprise academic clinicians and scientists who have forged their credentials locally and internationally.

A transformational gift in 2005 from the Yong Loo Lin Trust further enabled the School to map new pathways of scientific enquiry into various causes and origins of key illnesses like cancer, cardiovascular disease, obesity, epigenetics and neurocognition. The gift also enabled a far-reaching revamp of the undergraduate education curriculum. This places the patient squarely in the centre of focus of everything that is now taught and done at the School, which was renamed in honour of its far-sighted benefactor.

The School strives to fulfil its mission of contributing to excellent clinical care, training the next generation of healthcare professionals, and fostering research that will help transform the practice of medicine. Its 18 departments in the basic sciences and clinical specialties work closely with the Centre for Medical Education and the Centre for Biomedical Ethics to ensure that teaching and research are aligned and relevant to Singapore's healthcare needs. In 2008, the School became an integral part of the National University Health System (NUHS), which also groups the National University Hospital, the NUS Faculty of Dentistry and the NUS Saw Swee Hock School of Public Health. The NUHS aims to develop and provide innovative, sustainable and value-driven healthcare for Singaporeans.

# **2 Key Contact Information**

 $(For up-to-date \ information, \ please \ visit \ the \ School's \ website \ at \ \underline{http://nusmedicine.nus.edu.sg/about})$ 

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE (6772-XXXX)	EMAIL (XXXX@NULLNUS.EDU.SG)
Assoc Prof YEOH Khay Guan	Dean	3732	meddean
Assoc Prof LAU Tang Ching	Vice-Dean (Education)	6193	mdcltc
Prof HO Khek Yu	Vice-Dean (Research)	4362	mdchoky
Assoc Prof SU Lin Lin	Vice-Dean (Academic Affairs)	4273	obgsll
Assoc Prof CHONG Yap Seng	Vice-Dean (Academic Medicine)	4272	obgcys
Assoc Prof LIM Yu- Tang Aymeric	Vice-Dean (Leadership Development & Strategy)	4125	doslima
Mr TEO Kheng Lin Stewart	Vice-Dean (Finance)	3811	medtkls
Mr SIM Tiong Kian	Director (Administration)	3788	medsimt

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE (6772-XXXX)	EMAIL (XXXX@NULLNUS.EDU.SG)
Mr LIM Teck Hau, Michael	Director (Corporate Communications)	3988	medlthm

# **Departments/Divisions**

The following departments are involved in teaching the undergraduate courses. In addition, clinical staff practise and teach in NUH and other restructured hospitals and national centres in Singapore. Medical undergraduates are also rotated to hospitals and selected clinics as part of their clinical teaching.

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE	EMAIL (XXXX@NULLNUS.EDU.SG)
Assoc Prof TI Lian Kah	Head, Department of Anaesthesia	6772 4200	anahead
Assoc Prof Shaikali Thameem DHEEN	Head, Department of Anatomy	6516 3127	anthead
Assoc Prof Markus R WENK	Head, Department of Biochemistry	6516 3624	bchhead
Assoc Prof QUEK Swee Tian	Head, Department of Diagnostic Radiology	6772 4211	dnrhead
Assoc Prof DAN Yock Young	Head, Department of Medicine	6772 4362	mdchead
Prof Nicholas Robert John GASCOIGNE	Head, Department of Microbiology and Immunology	6516 3275	michead
Prof Emily ANG Neo Kim	Head, Alice Lee Centre for Nursing Studies	6516 5088	nurhead
Prof YONG Eu Leong	Head, Department of Obstetrics and Gynaecology	6772 4285	obghead

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE	EMAIL (XXXX@NULLNUS.EDU.SG)
Assoc Prof Clement TAN	Head, Department of Ophthalmology	6772 5338	ophhead
Assoc Prof WANG Ee Jen Wilson	Head, Department of Orthopaedic Surgery	6772 2477	doshead
Assoc Prof LOH Kwok Seng Thomas	Head, Department of Otolaryngology	6772 5372	enthead
Assoc Prof LEE Yung Seng	Head, Department of Paediatrics	6772 4112	paehead
Assoc Prof TAN Soo Yong	Head, Department of Pathology	6772 4300	pathead
Assoc Prof Fred WONG Wai-Shiu	Head, Department of Pharmacology	6516 3266	phchead
Prof SOONG Tuck Wah	Head, Department of Physiology	6516 3222	phshead
Assoc Prof WONG Chee Meng John	Head, Department of Psychological Medicine	6772 4511	pcmhead
Prof Krishnakumar MADHAVAN	Head, Department of Surgery	6772 4220	surhead
Assoc Prof CHEN Fun Gee, Edward	Director, Division of Graduate  Medical Studies	6601 4949	gsmhead

# **Centre for Medical Education (CenMED)**

The Centre for Medical Education (CenMED) is a core unit in the Yong Loo Lin School of Medicine, with the mission to promote professionalism and excellence in medical education.

# CenMED aims to provide two core functions namely:

### **Academic Function**

• Initiate, organise, design and conduct faculty development programmes in medical pedagogy.

• Undertake and enhance scholarship and research in medical education.

• Establish the Yong Loo Lin School of Medicine and National University Health System as centres of excellence for medical education and training in the region and beyond, providing quality training

courses in various aspects of medical education.

**Service Function** 

• Provide educational leadership and expertise in the development of educational policies and procedures

based on best evidence in medical education.

• Provide expertise in and support for student assessment and curriculum evaluation.

• Contribute to the development of instructional materials to support teaching and learning.

Director: Dr Dujeepa D Samarasekera

Senior Associate Director: Ms Lee Su Mei

Tel: 6516 3732 Fax: 6872 1454

Email: medlsm@nullnus.edu.sg

**Centre for Healthcare Simulation (CHS)** 

The mission of the Centre is to develop a world-class immersive, simulation-based learning environment

where medical education is enhanced through simulation technology, innovation and research. Since the

establishment of CHS, simulation teaching is embedded into all years of medical and nursing training.

The CHS comprises a simulated Operating Theatre (OT), an Intensive Care Unit (ICU), an Emergency

Room (ER), a Paediatrics Acute Ward, a Labour Ward, eight clinical wards, two procedural rooms and 60

consultation rooms. With a suite of high fidelity simulators, part task trainers and a pool of trained

Standardised Patients, faculty members are able to plan and design innovative programmes where

medical and nursing students are given opportunities to learn various clinical skills, team training and

communication skills in a safe environment.

**Director: Assoc Prof Suresh Pillai** 

**Assistant Director: Mr Devin Wong** 

Tel: 6601 1976

E-mail: medwwhd@nullnus.edu.sg

**Division of Graduate Medical Studies** 

Graduate training and education is a continuation of medical education from the undergraduate years.

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The Division of Graduate Medical Studies (DGMS) has been responsible for graduate medical training and education in Singapore since 1969.

The objectives of the Division include:

- a. conducting examinations leading to graduate specialty qualifications in medicine;
- b. conducting courses and training leading to graduate specialty qualifications in medicine; and
- c. conducting courses and examinations leading to allied health qualifications.

DGMS currently offers 12 specialties or disciplines for the Master of Medicine (MMed) examinations of which five are offered jointly with the Royal Colleges in the United Kingdom. Besides MMed examinations and their examination preparatory courses, the DGMS also offers six Graduate Diploma programmes, two Allied Health professional degrees, namely the Master of Science (Speech and Language Pathology) and Master of Science (Audiology). The Division is also responsible for the conduct of qualifying examinations for Speech and Language Therapists and Advanced Practice Nursing Licensing in Singapore.

Head: Assoc Prof Chen Fun Gee Assistant Director: Ms Goh Mei Ling

Tel: 6601 4848

E-mail: gohml@nullnus.edu.sg

#### **Phase Directors**

TITLE & NAME	DESIGNATION/ RESPONSIBILITY	TELEPHONE	EMAIL (XXXX@NULLNUS.EDU.SG)
Assoc Prof NG Yee Kong	Year 1 (Phase I)	6516 3689	antngyk
Assoc Prof TAN Kong Bing	Year 2 (Phase II)	6772 2057	pattankb
Asst Prof Bettina LIESKE	Year 3 (Phase III)	6772 2399	surbl
Assoc Prof Malcolm MAHADEVAN	Year 4 (Phase IV)	6772 5002	malcolm_mahadevan@nullnuhs.edu.sg

TITLE & NAME	DESIGNATION/ RESPONSIBILITY	TELEPHONE	EMAIL (XXXX@NULLNUS.EDU.SG)
Asst Prof Derek SOON	Year 5 (Phase V)		mdcstld

# **Administrative Coordinators**

# A. Undergraduate Medical Studies

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE (6772-XXXX)	FAX	EMAIL (XXXX@NULLNUS.EDU.SG)	
Admissions, Curricu	lum, Assessment, Electives, Longitudinal Patient Ex	perience & Into	er-professio	nal Education	
Ms CHRISTINA Mohan	Assistant Manager (Admissions, Electives, Longitudinal Patient Experience & Inter-professional Education)	6601 5638	6778 5743	medmohan	
Ms Karen TAN	Manager (Curriculum, Assessment, Admissions & Electives)	6601 5640	6778 5743	medtssk	
Ms Joanne WONG	Assistant Manager (Curriculum & Assessment)	6601 5642	6778 5743	medwyhj	
Student Affairs					
Ms CHONG Siew Ling	Manager (Student Affairs)	6601 3477	6778 5743	medchon	
<b>Education Technolo</b>	gy		•		
Ms Grace SOW	Senior Manager (Education Technology)	7601	6778 5743	medgstb	
Mr GOH Kong Wei	Senior Assistant Manager (Education Technology)	6770	6778 5743	medgkw	
Plans					
Mr KOH Hwei Keong	Assistant Manager (Undergraduate Student Feedback System)	3776	6778 5743	medkhk	
Ms LEE Jia Hui	Management Assistant Officer (Global Health)	3797	6778 5743	gohelp	
Centre for Healthcare Simulation					
Ms ANG Shu Shing	Senior Assistant Manager (Centre for Healthcare Simulation)	6601 1520		medangss	
Ms HAFIZAH Binte Ibrahim	Assistant Manager (Centre for Healthcare Simulation)	6601 2989		medhi	

# B. Undergraduate Nursing Studies

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE	FAX	EMAIL (XXXX@NULLNUS.EDU.SG)
Mrs LEE Elaine	Deputy Director	6516 3320	6776 7135	nurleee
Ms HOI Lai Meng	Senior Manager (Undergraduate Programmes)	6516 5087	6776 7135	nurhlm

# C. Graduate Studies

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE	FAX	EMAIL (XXXX@NULLNUS.EDU.SG)
Ms TAN Stacy	Senior Manager (MSc/PhD Research Programme)	6772 3704	6778 5743	medtanbh
Ms TAN Xuan Min	Executive (Cancer Science Institute of Singapore PhD Programme)	6516 7287	6873 9664	csitxm
Mr Michael LIM Seow Ping	Senior Executive (Master of Clinical Investigation Programme)	6772 7545	6778 5743	medlspm
Ms GOH Mei Ling	Assistant Director/ Division of Graduate Medical Studies	6601 4848		gsmgohml
Ms YEO Chwee Geok Doris	Manager/ Master of Science in Speech and Language Pathology	6516 6740		entycgd
Mr CHOO Boon Beng Edmund	Assistant Manager/ Master of Science in Audiology	6601 3613		entcbbe
Ms ZHOU Wentao	Programme Director (Master of Nursing Programme)	6601 1762	6776 7135	nurzw
Ms MARIATI Bte Mohd Noor	Senior Assistant Manager (Graduate Research Programmes in Nursing)	6516 3115	6776 7135	nurmmn

# D. General Enquiries

TITLE & NAME	DESIGNATION/RESPONSIBILITY	TELEPHONE	FAX	EMAIL (XXXX@NULLNUS.EDU.SG)
Ms JURAIDAH Binte Selamat	Undergraduate Medical Studies	6601 5643	6778 5743	medjs
Ms HOI Lai Meng	Senior Manager/Undergraduate Nursing Studies	6516 5087	6776 7135	nurhlm
Ms Pauline HUANG	MSc/PhD Research Programme	6772 3727	6778 5743	dgrs
Ms TAN Xuan Min	Cancer Science Institute of Singapore PhD Programme	6516 7287	6873 9664	csitxm
Ms KAN Jia Hui	Assistant Manager/ Master of Nursing (MN) Programme	6516 8687	6776 7135	nurkjh
Ms MARIATI Bte Mohd Noor	Senior Assistant Manger/ Graduate Research Programmes in Nursing	6516 3115	6776 7135	nurbox3
Ms NUR FARHANA Binte Kamsani	Management Assistant Officer/ MMed, Graduate Diploma and Allied Health Programmes	6601 4888		gsmbox1

# **3 Undergraduate Education**

- 3.1 <u>Degrees Offered</u>
- 3.2 <u>Degree Requirements</u>
- 3.3 <u>Special Programmes</u>
- 3.4 Financial Assistance and Awards

# 3.1 Degrees Offered

The Yong Loo Lin School of Medicine offers two full-time undergraduate programmes, leading to:

- Bachelor of Medicine and Bachelor of Surgery (MBBS)
- Bachelor of Science (Nursing) / Bachelor of Science (Nursing)(Honours)

## Overview of Bachelor of Medicine and Bachelor of Surgery (MBBS)

The undergraduate medical programme is a five-year course leading to the degrees of Bachelor of Medicine and Bachelor of Surgery (MBBS). The curriculum is taught through five years or phases:

Phase I (Year 1)	Normal Structure and Function	
Phase II (Year 2)	Abnormal Structure and Function	Longitudinal Tracks:  • Health Ethics, Law & Professionalism
Phase III (Year 3)	Core Clinical Practice	Medicine & Society     Information Literacy
Phase IV (Year 4)	Acute and Specialty Clinical Practice	<ul><li> Patient-based Programme</li><li> Clinical Skills Foundation Programme</li></ul>
Phase V (Year 5)	Student Internship Programme	

**Note**: The curriculum map above is only applicable to students admitted from AY2008/09 and subsequent academic years, or students graduating 2013 and onwards. This revised curriculum map is not applicable to students admitted before AY2008/09 or students who graduated in 2012 and earlier. Students should note that there is a distinction between degree requirements for students who graduated in 2012 and earlier, viz-a-viz degree requirements for students graduating in 2013 and onwards. Where applicable, the distinctions in the requirements are set out in this Bulletin and students should take note of the requirements that are applicable to them. The Yong Loo Lin School of Medicine will endeavour to give students notice of revisions to any requirements as soon as reasonably practicable and revised requirements shall apply to students.

Some of the key highlights of the undergraduate medical curriculum are:

- Early meaningful clinical exposure;
- Developing caring and ethical medical professionals;
- An integrated curriculum where students can learn basic sciences holistically with stronger correlations to clinical conditions:
- Devoting significant curriculum time to collaborative case-based learning and small group teaching;
- Inter-professional education to equip graduates with competencies to be work-force ready;

- Aligning teaching and assessment to outcomes;
- Preparing graduates to be effective healthcare professionals in an increasingly globalised practice environment

# **Overview of Bachelor of Science (Nursing)**

The BSc (Nursing) curriculum reflects current healthcare trends and the role of registered nurses in facing the challenges of nursing practice in the 21st century. Students will learn basic skills in a simulated clinical laboratory on campus and be exposed to practise in a range of clinical settings as they progress. The programme is modular in nature and includes the following subjects:

- Nursing Sciences
- Anatomy and Physiology
- Pathophysiology
- Pharmacology
- Immunology
- Microbiology
- Psychology
- Sociology
- Critical Thinking and Analysis
- Healthcare Law and Ethics
- Healthcare Management and Education
- Research and Statistics
- Evidence-based Practice
- Clinical Skills
- Clinical attachments at local hospitals/institutions, etc.

Fourth-year Honours students will be expected to complete a research project and modules such as Applied Research Methods and Evidence-based Health Care Practice.

# 3.2 Degree Requirements

3.2.1	Bachelor of Medicine and Bachelor of Surgery (MBBS)
3.2.2	Bachelor of Science (Nursing) / Bachelor of Science (Nursing) (Hons)

## 3.2.1 Bachelor of Medicine and Bachelor of Surgery (MBBS)

### Admission to the undergraduate medical programme

Apart from the minimum requirements specified by the NUS Office of Admissions, candidates presenting the Singapore-Cambridge GCE 'A' Levels / International Baccalaureate / NUS High School Diploma / Local Polytechnic Diploma must meet the applicable prerequisites set out below:

#### GCE 'A' Levels

A good H2 pass in Chemistry and H2 pass in either Biology or Physics

#### International Baccalaureate

A good Pass in HL Chemistry and either HL Biology or HL Physics

#### NUS High School Diploma

Major CAP of at least 2.0 in Chemistry and either Biology or Physics and CAP of at least 1.0 in one other major and in English Programme and Research Project

#### Local Polytechnic Diploma

Good GPA from accredited polytechnic diplomas

Applicants will be shortlisted for the Focus Skills Assessment (FSA) and Situational Judgement Test (SJT) based on University Admission Scores. All shortlisted candidates are required to submit a portfolio, attend the FSA and SJT. Candidates who do not meet shortlisting criteria but have exceptional talents or have achieved success in their areas of endeavours may apply to be shortlisted by means of a discretionary admissions process, known as the Exceptional Individual Scheme (EIS). Admission to NUS Medicine will nonetheless be based on performance in the FSA and SJT.

### **Health Requirements - Virus Screening and Immunisation**

Besides the conditions indicated in the letter of offer, admission to Medicine & Nursing is also subject to the following health requirements.

HEALTH REQUIREMENT	DETAILS
Mumps, Measles and Rubella (MMR)	All prospective medical/nursing students should be immune (from documented infection) or fully vaccinated. Candidates should produce official records of previous vaccinations or serological screening results or physician documented diagnoses of previous infection as proof of immunity. Self-declaration of previous infection is not sufficient.  Students may begin classes without documentary evidence of immunization for MMR if he/she has a letter from a physician stating that there is a reason why he/she cannot receive the vaccine.
Varicella (Chickenpox)	All prospective medical/nursing students must undergo screening for immunity to the Varicella Zoster Virus (VZV), as demonstrated by adequate serological titres as defined by the reference range of an accredited testing laboratory. Candidates with negative or equivocal titres will require immunisation. Certification of past infection/previous immunisation of chickenpox is not acceptable, as there are issues with clinical diagnosis and the risk of transmission from students to vulnerable patients is significant.  Students may begin classes without documentary evidence of immunization for Chickenpox if:  i. He/she has a letter from a physician stating that there is a reason why he/she cannot receive the vaccine;  ii. He/she concerned has documented evidence of two administrations of the varicella vaccine (non-responders).
Pertussis	All prospective medical/nursing students should produce documented proof of vaccination with Tdap. Those who have not previously received tetanus toxoid, reduced diphtheria toxoid and acellular pertussis (Tdap) should be vaccinated with a single dose of Tdap, regardless of the interval since the last dose of tetanus or diphtheria-containing vaccine. Proof of vaccination with Td alone is insufficient. Self-declaration is not accepted as proof of immunity.

HEALTH REQUIREMENT	DETAILS
Blood Bourne Diseases (BBD)	Hepatitis B All prospective medical/nursing students should be screened for Hepatitis B carriage and show documented serological evidence of immunity against Hepatitis B (i.e. anti-HBs ≥10 mIU/mL). Hepatitis B negative students who do not have documented serological evidence of immunity against Hepatitis B (i.e. anti-HBs ≥10 mIU/mL) must be vaccinated with the primary course series (i.e. 3 doses of Hepatitis B vaccine). A post-vaccination serology test should be conducted to determine the concentration of protective antibodies i.e. anti-HBs of at least 10mIU/mL Hepatitis C All prospective medical/nursing students should be screened for Hepatitis C. HIV All prospective medical/nursing students should be screened for HIV. Screening should be carried out before final admission into the course, as results may affect students' career choices. Students tested positive for Hep B, Hep C and/or HIV will be counselled to understand that their areas of practice will be restricted to non exposure-prone procedure areas.

All candidates may have their screenings and immunisations done at the University Health Centre (UHC) Level 1, 20 Lower Kent Ridge Road, Singapore 119080; or any Singapore-registered medical practitioner. The deadlines by which the screening and immunisation must be completed, are set out in the table below.

VIRUS	SUBMISSION OF PROOF OF VACCINATIONS / SCREENING	IMMUNISATION (FOR THOSE WHO DO NOT HAVE IMMUNITY)		POST VACCINATION SCREENING	
Varicella Zoster (Chickenpox)	DEADLINE	• 2 injections over 6 to 10 weeks	DEADLINE	<b>DEADLINE</b> Not Applicable	
Mumps Measles Rubella (MMR)	Iumps Measles Rubella		To submit proof of first injection by 11 August 2017	Not Applicable	
Pertussis	14 July 2017	• 1 injection only	To complete and submit proof of vaccination by 11 August 2017	Not Applicable	
Hepatitis B		• 3 injections over 6 months or booster single injection only	To submit proof of first injection by 11 August 2017 To complete by 28 February 2018	1 month after immunization	
Hepatitis C		Not Applicable			
HIV		Not Applicable			

All students are required to submit a complete set screening and vaccination records in soft copy to <a href="mailto:nusmedicine.ohc@nullparkwaypantai.com">nusmedicine.ohc@nullparkwaypantai.com</a>

Students are to commence submissions of their screening and vaccinations to <a href="mailto:nusmedicine.ohc@nullparkwaypantai.com">nusmedicine.ohc@nullparkwaypantai.com</a> by the end of week 1 of Semester 1. Students who do not comply with this requirement will not be allowed to attend lessons in hospitals.

The above Health Requirements are subject to change. All updates will be available on our corporate website at <a href="http://nusmedicine.nus.edu.sg">http://nusmedicine.nus.edu.sg</a>.

#### **Bonds for Medical Students**

Candidates admitted to the MBBS undergraduate degree course at the NUS and who are not in receipt of Public Service Commission (PSC)/Ministry of Defence (MINDEF) scholarships/ bursaries, are required to serve the Government of Singapore upon successful completion of the course for a number of years as stated in the following table:

	SINGAPOREANS	SINGAPORE PR AND INTERNATIONAL STUDENTS
No. of Years of Bond	5 (excluding housemanship / first year residency training)	6 (excluding housemanship / first year residency training)

Those awarded PSC/MINDEF scholarships/bursaries will be bonded according to the terms of their respective awards.

Students are required to sign agreements with the Government to serve the bond periods as specified. Your acceptance of the offer of admission to the MBBS undergraduate degree course is conditional upon your signing the agreements with the relevant authority in the year of entry to the University.

Students who fail to fulfil the bond obligations will be required to pay liquidated damages (LD), amounting to the actual amount of tuition grants given, pro-rated by the number of completed months of service. Failure to obtain the MBBS or to complete the MBBS undergraduate degree course within the time stipulated by NUS will also be considered a breach of the provisions of the Agreement.

Please note that candidates are required to sign the agreement only in the year that they are matriculating in NUS.

To sign the bond, two persons are required to stand as your sureties. They should:

- a. Be above 21 years of age and preferably under 65 years of age;
- b. Not be in bankruptcy;
- c. Either be:
  - i. Able to provide proof of financial means to pay the scholarship liabilities should these become due, viz. banker's guarantee or proof of ownership of assets\*;
     or is
  - ii. Gainfully employed and drawing an income of at least S\$1,000 per month;
  - iii. Not party to an existing bond, scholarship or bursary; and
  - iv. Not bonded for an existing scholarship, bursary or study loan agreement.

#### \*Note:

The asset(s) must be owned by the surety (not mortgaged) and the purchase value of the asset(s) must not be less than the quantum of liquidated damages.

For Singaporeans/Singapore Permanent Resident students, the first surety should be a Singapore Citizen. The second surety can be a Singapore Citizen or Singapore Permanent Resident. Sureties for international students may be non-citizens if they are parents of these students. Otherwise, each surety must either be a Singapore Citizen or Singapore Permanent Resident.

If you need further information, please visit the Ministry of Health website at <a href="https://www.moh.gov.sg/content/moh\_web/healthprofessionalsportal/allhealthcareprofessionals/career\_practice/medical\_dental\_undergraduate\_agreement.html">https://www.moh.gov.sg/content/moh\_web/healthprofessionalsportal/allhealthcareprofessionals/career\_practice/medical\_dental\_undergraduate\_agreement.html</a> or contact the Ministry of Health at tel: 6325 9104.

#### **Educational Aims**

The aim of the medical curriculum is to produce graduates who are competent Residents or House Officers committed to serving the Singaporean community, with the foundation to undergo further training to become excellent clinicians and specialists, clinician-researchers, clinician-scholars, or health administrators.

The curriculum aims to support Singapore's goal of becoming a regional centre of excellence in healthcare, by meeting the needs of the ageing population, and by fostering translational research as an engine of growth for the economy.

#### **Education Outcomes**

Our graduates will:

- be equipped with sound medical knowledge;
- be able to provide quality patient care;
- demonstrate excellent interpersonal and communication skills;
- uphold high standards of professionalism;
- engage in continual practice-based learning & improvement; and
- engage in systems-based practice.

#### **Medical Knowledge**

- Demonstrate a thorough knowledge of the basic medical sciences and their relationship to the practice of medicine.
- Understand and apply the scientific basis of medicine as well as principles of the social-behavioural sciences to the diagnosis, management and prevention of disease, and to the maintenance of health.

#### **Patient Care**

• Achieve a sufficient level of medical knowledge and clinical skill to be a highly competent medical

practitioner who will be an effective house officer on graduation and have the capacity for further training to be a proficient general practitioner or specialist.

- Demonstrate the ability for effective and efficient data collection, synthesis and critical analysis in the prevention, diagnosis and management of disease.
- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

### **Interpersonal and Communication Skills**

- Develop skills in effective communication with patients and their relatives, with colleagues and for scholarly communication.
- Develop leadership skills and team skills to be an effective member of the healthcare delivery team.

#### **Professionalism**

- Display the attributes of compassion, honesty and integrity in relating to patients, families and the medical community.
- Adhere to the highest standards of professionalism, ethical behaviour and practice.
- Appreciate the limits of his/her clinical ability and seek assistance from more experienced colleagues where appropriate.

### **Practice-based Learning and Improvement**

- Demonstrate intellectual curiosity and the habit and skills for life-long learning and professional development.
- Develop the skills necessary to investigate and evaluate patient care based on scientific evidence, and proactively contribute to improve patient care.

## **Systems-based Practice**

• Develop a sound knowledge of the system of healthcare, and be able to garner resources for optimal treatment and quality delivery of healthcare to patients.

### **Longitudinal Tracks**

There are several broad-based curricular components that are integrated with biomedical sciences and clinical teaching, running through various Phases of the undergraduate medical course:

#### • Health Ethics, Law and Professionalism

The Health Ethics, Law and Professionalism (HELP) longitudinal track aims to develop ethical sensitivity, theoretical understanding, reflective and critical skills, and professional attitudes in medical undergraduates through all five years of the curriculum. It is student- and patient-centred; case-related, multidisciplinary and inter-professional; fully integrated into all phases of the curriculum; and regularly assessed, both formatively and summatively.

#### • Information Literacy

This longitudinal track aims to enable all students to gather and critically evaluate research information,

effectively incorporate the selected information into their knowledge base and apply the knowledge in patient care, and also to lay the foundation for future training in carrying out high quality research.

#### • Medicine and Society

This longitudinal track aims to expose students to the concepts of preventive healthcare at the population and individual level, with emphasis on the epidemiology of common communicable and non-communicable diseases, as well as on vulnerable groups. It also aims for students to gain an understanding of the influence and relevance of behavioural, social, cultural, environmental and economic factors that will assist in their promotion of health and management of illness as future doctors.

### • Patient-based Programme and Clinical Skills Foundation Programme

These two Programmes aim to give medical students an introduction to the Singapore healthcare system, the practice of medicine and the importance of the preclinical sciences. Students will be trained to become practitioners with skills in listening and questioning, and who understand and reflect on patient-centred care. Examples of skills that the students are expected to achieve are the ability to conduct and manage an open interview; introduction to the physical examination; the ability to evaluate and reflect on their interviewing skills; and to understand another person from that person's point of view. These longitudinal tracks begin in Phase I (Year One) and will run through to the end of Phase II (Year Two) of the curriculum.

# **Course of Study**

Satisfactory completion of all components of the curriculum is required for graduation. The course of study for students admitted from AY2008/09 onwards is as follows:

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Musculoskeletal System  Blood, Respiratory & Cardiovascular Systems  Renal, Fluid & Electrolyte Systems  Gastrointestinal, Nutrition & Metabolism Systems  Endocrine & Reproduction Systems  Neuroscience with Head & Neck
Phase I (Year 1)  Renal, Fluid & Electrolyte Systems  Gastrointestinal, Nutrition & Metabolism Systems  Endocrine & Reproduction Systems
(Year 1)  Renal, Fluid & Electrolyte Systems  Gastrointestinal, Nutrition & Metabolism Systems  Endocrine & Reproduction Systems
Gastrointestinal, Nutrition & Metabolism Systems  Endocrine & Reproduction Systems
1 3
Neuroscience with Head & Neck

#### **Longitudinal Tracks:**

- Health Ethics, Law & Professionalism;
- Medicine & Society;
- Information Literacy;
- Patient-based Programme;
- Clinical Skills Foundation Programme.

	Genetics and Genomics
	Cancer Biology
	Immunology
	Clinical Microbiology & Infection
Phase II (Year 2)	Principles of Pharmacology and Systemic Pharmacology
(Tour 2)	Principles of Pathology and Systemic Pathology
	Neuroscience & Musculoskeletal
	Foundations in Geriatric Medicine
	Clinical Skills Foundation Programme
	Family Medicine
	Medicine
Nhara III (Vara 2)	Orthopaedic Surgery
Phase III (Year 3)	Paediatrics
	Surgery
	Electives
	Acute Care comprising Anaesthesia and Emergency Medicine
	Obstetrics and Gynaecology
	Psychological Medicine
Phase IV (Year 4)	Forensic Medicine
Thase IV (Iear 4)	Ophthalmology
	Otolaryngology
	Community Health Posting
	Electives
	Medicine Student Internship Programme
	Surgery Student Internship Programme
	Paediatrics Student Internship Programme
DI V	Geriatric Medicine Student Internship Programme
Phase V (Year 5)	Orthopaedic Surgery Student Internship Programme
	Dermatology
	Infectious Diseases
	Clinical Skills and Life Support Training
	Electives

### **Examinations**

At the end of each year of study, examinations leading to the degrees of Bachelor of Medicine and Bachelor of Surgery (MBBS) are held as set out below. A candidate must pass each examination before proceeding to the next stage of study leading to the award of the degrees.

The examinations for students admitted from AY2008/09 onwards are as follows:

YEAR OF STUDY	EXAMINATION	MODULES
Phase I (Year 1)	First Professional	Normal Structure and Function (MD1140):  • Foundations of Human Biology - The Cell  • Musculoskeletal system  • Blood, Respiratory and Cardiovascular systems  • Renal, Fluid & Electrolyte systems  • Gastrointestinal, Nutrition & Metabolism systems  • Endocrine & Reproduction systems
		Neuroscience with Head and Neck
Phase II (Year 2)	Second Professional	Abnormal Structure and Function (MD2140):  • Genetics and Genomics  • Cancer Biology  • Immunology  • Clinical Microbiology & Infection  • Principles of Pharmacology and Systemic Pharmacology  • Principles of Pathology and Systemic Pathology  • Neuroscience & Musculoskeletal  • Foundations in Geriatric Medicine  Clinical Skills Foundation Programme (MD2150)
Phase III (Year 3)	Third Professional	Core Clinical Practice (MD3140):  • Family Medicine  • Medicine  • Orthopaedic Surgery  • Paediatrics  • Surgery
Phase IV (Year 4)	Fourth Professional	Acute and Specialty Clinical Practice (MD4140):  Obstetrics and Gynaecology  Psychological Medicine  Acute Care comprising Anaesthesia and Emergency Medicine  Specialties Posting comprising Forensic Medicine, Ophthalmology and Otolaryngology

YEAR OF STUDY	EXAMINATION	MODULES
YEAR OF STUDY  Phase V (Year 5)	Final Professional	Modules  Medicine (MD5140)  Medicine Student Internship Programme (SIP)  Geriatric Medicine SIP  Paediatrics SIP  Specialties Posting comprising Dermatology and Infectious  Disease  Surgery (MD5150)  Surgery SIP  Orthopaedic Surgery SIP
		Clinical Skills and Life Support Training

#### **Policies and Rules on Examinations**

(Contact for queries: Ms Karen Tan at 6601-5640 or email: medtssk@nullnus.edu.sg)

#### **Policies on Examination**

- 1. The course of study for the degrees of Bachelor of Medicine and Bachelor of Surgery lasts five years and consists of modules and tracks prescribed by the Yong Loo Lin School of Medicine.
- 2. A candidate may be granted up to a maximum of two calendar years of medical leave or leave of absence during the whole course of study. This may be extended only under extenuating circumstances, with the approval of the Dean.
- 3. Candidates shall not be permitted to take more than <u>six (6) years</u>, <u>excluding approved leaves of absence</u>, from the time of his/her admission to the course of study, to complete the prescribed examinations for the degrees of Bachelor of Medicine and Bachelor of Surgery.
- 4. The Examination Policies and Rules described below apply to students entering the respective year of study for academic year 2017/2018.
- 5. There are five examinations leading to the degrees of Bachelor of Medicine and Bachelor of Surgery, namely:

The First Professional, Second Professional, Third Professional, Fourth Professional and Final Professional Examination. A candidate must pass all requirements as set out in the Rules on Examination

before proceeding to the next stage of study leading to the degree.

- 6. A candidate who fails the main examination or any part thereof may be permitted to take a supplementary examination for the part(s) that was failed.
- 7. A distinction in any module of the course may be awarded by the Board of Examiners to a candidate who at his/her first sitting at the main examination obtains not less than 85% of the aggregate marks assigned to the module and not less than 50% in any other required module of that Phase.
- 8. Students may submit an application for Special Consideration, if they have circumstances that may adversely affect their examination performance. The application will be reviewed on a case-by-case basis, according to principles set by NUS Special Consideration Guidelines (https://myportal.nus.edu.sg/studentportal/academics/all/docs/Guidelines-on-Special-Consideration.pdf).

#### **Rules on Examinations**

#### First Professional Examination

- 1. A candidate for the First Professional Examination must have followed and completed, to the satisfaction of the Dean of the Yong Loo Lin School of Medicine, for not less than two semesters, the courses of study prescribed by the school for Phase I of the undergraduate medical programme.
- 2. A candidate may be eligible to enter Phase II when he/she has passed Phase I. Passing is defined as having
  - Obtained at least 50% of the aggregate marks assigned to MD1140; and
  - $\bullet$  Obtained at least 50% of the aggregate marks assigned to MD1140's end of academic year examination.
- 3. Subject to Policies 1 to 8 above, a candidate who fails the First Professional Examination shall be reexamined at a supplementary examination in that Phase as follows:
  - where the candidate failed to obtain at least 50% of the aggregate marks assigned to MD1140 or MD1140's end of academic year examination and continual assessments to sit for all the papers of the required module's end of academic year examination.
- 4. A candidate who fails or misses a supplementary examination (even if there is a special case or special consideration submission) must repeat the whole course of study for Phase I.
- 5. No candidate shall be permitted to take more than <u>two (2) years</u> from the time of his/her admission to the course of study for the degrees of Bachelor of Medicine and Bachelor of Surgery to complete the First Professional Examination.

#### Second Professional Examination

- 1. A candidate for the Second Professional Examination must have followed and completed, to the satisfaction of the Dean of the Yong Loo Lin School of Medicine, for not less than two semesters, the courses of study prescribed by the School for Phase II of the undergraduate medical programme.
- 2. A candidate may be eligible to enter Phase III, when he/she has passed Phase II. Passing is defined as having
  - Obtained at least 50% of the aggregate marks assigned to each required module (theory and clinical); and
  - Obtained at least 50% of the aggregate marks assigned to each required module's end of academic

year examination (theory and clinical); and

- Obtained a prescribed number in assessment points of the clinical module's end of academic year examination.
- 3. Subject to Policies 1 to 8 above, a candidate who fails the Second Professional Examination shall be re-examined at a supplementary examination in that Phase as follows:
  - where the candidate failed to obtain at least 50% of the aggregate marks assigned to the required module or module's end of academic year examination and continual assessments to sit for all the papers of the module's supplementary end of academic year examination.
  - where the candidate failed to obtain the prescribed number of assessment points in the clinical module's end of year examination, to sit for all the clinical components of the clinical module's supplementary end of academic year examination.
- 4. A candidate who fails or misses a supplementary examination (even if there is a special case or special consideration submission) must repeat the whole course of study of Phase II.

#### Third Professional Examination

- 1. A candidate for the Third Professional Examination must have followed and completed, to the satisfaction of the Dean of the Yong Loo Lin School of Medicine, for not less than two semesters, the courses of study prescribed by the School for Phase III of the undergraduate medical programme.
- 2. A candidate who fails or who does not complete any one (1) posting prescribed for Phase III shall be permitted to take the Third Professional Examination. For any failed or incomplete posting, a candidate will need to remediate and pass that posting before he/she is allowed to enter Phase V.
- 3. A candidate who fails or who does not complete any two (2) postings prescribed for Phase III shall not be eligible to take the main Third Professional Examination and shall only be eligible to take the supplementary examination as his/her first and final attempt. For any failed or incomplete posting, a candidate will need to remediate and pass that posting before he/she is allowed to enter Phase V.
- 4. A candidate who fails or who does not complete any three (3) postings prescribed for Phase III shall have to repeat the whole course of study for Phase III.
- 5. A candidate may be eligible to enter Phase IV, when he/she has passed Phase IV. Passing is defined as having
  - Obtained at least 50% of the aggregate marks assigned to MD3140; and
  - Obtained at least 50% of the aggregate marks assigned to each component (theory and clinical) of the end of academic year examination; and
  - Obtained a prescribed number of assessment points in the clinical component of the end of academic year examination.
- 6. Subject to Policies 1 to 8 above, a candidate who fails the Third Professional Examination shall be examined at a supplementary examination in that Phase as follows:
  - where the candidate failed or did not complete 2 postings to sit for the supplementary examination (theory and clinical) as his/her first and final attempt.
  - where the candidate failed to obtain 50% of the aggregate marks assigned to MD3140 to sit for all the components of the module's supplementary end of academic year examination.
  - where the candidate failed to obtain 50% of the aggregate marks assigned to the clinical component of the end of academic year examination or the prescribed number of assessment points in the clinical component of the end of academic year examination to sit for all the clinical components of the module's supplementary end of academic year examination.
- 7. A candidate who fails or misses a supplementary examination (even if there is a special case or special consideration submission) must repeat the whole course of study of Phase III.

#### Fourth Professional Examination

- 1. A candidate for the Fourth Professional Examination must have followed and completed, to the satisfaction of the Dean of the Yong Loo Lin School of Medicine, for not less than two semesters, the courses of study prescribed by the School for Phase IV of the undergraduate medical programme.
- 2. A candidate who fails or who does not complete any one (1) posting prescribed for Phase IV shall be permitted to take the Fourth Professional Examination.
- 3. A candidate who fails or who does not complete any two (2) postings prescribed for Phase IV shall not be eligible to take the main Fourth Professional Examination and shall only be eligible to take the supplementary examination as his/her first and final attempt. For any failed or incomplete posting, a candidate will need to remediate and pass that posting before he/she is allowed to enter Phase V.
- 4. A candidate who fails or who does not complete any three (3) postings prescribed for Phase IV will have to repeat the whole course of study of Phase IV.
- 5. A candidate may be eligible to enter Phase V, when he/she has passed Phase IV. Passing is defined as having
  - Obtained at least 50% of the aggregate marks assigned to MD4140; and
  - Obtained at least 50% of the aggregate marks assigned to each component (theory and clinical) of the end of academic year examination; and
  - Obtained a prescribed number of assessment points in the clinical component of the end of academic year examination.
- 6. Subject to Policies 1 to 8 above, a candidate who fails the Fourth Professional Examination shall be examined at a supplementary examination in that Phase as follows:
  - where the candidate failed or did not complete 1 or 2 postings to sit for the supplementary examination (theory and clinical) as his/her first and final attempt.
  - where the candidate failed to obtain 50% of the aggregate marks assigned to MD4140 to sit for all the components of the module's supplementary end of academic year examination.
  - where the candidate failed to obtain 50% of the aggregate marks assigned to the theory component of the end of academic year examination to sit for all the theory components of the module's supplementary end of academic year examination.
  - where the candidate failed to obtain 50% of the aggregate marks assigned to the clinical component of the end of academic year examination or the prescribed number of assessment points in the clinical component of the end of year academic examination to sit for all the clinical components of the module's supplementary end of academic year examination.
- 7. A candidate who fails or misses a supplementary examination (even if there is a special case or special consideration submission) must repeat the whole course of study of Phase IV.

#### **Final Professional Examination**

- 1. A candidate for the Final Professional Examination must have followed and completed, to the satisfaction of the Dean of the Yong Loo Lin School of Medicine, for not less than two semesters, the courses of study prescribed by the School for Phase V of the undergraduate medical programme.
- 2. There are two modules in Phase V, namely Medicine and Surgery. For the avoidance of doubt and without limitation to the foregoing, a candidate must:
  - pass all postings prescribed for the Third and Fourth Year of Study, at first attempt or during remedial postings, before he/she is eligible to undergo any posting in the Medicine or Surgery modules of Phase V; and
  - pass all final year postings for that module in order to be eligible for that module's Final Professional Examination
- 3. A candidate who fails or who does not complete any one (1) or two (2) postings in a module prescribed for Phase V shall not be eligible to take the Final Professional Examination for that module, and shall only be eligible to take the supplementary examination as his/her first and final attempt.

- 4. A candidate who fails or who does not complete any three (3) posting in a module prescribed for Phase V shall have to repeat the whole course of study (Phase V) for that module.
- 5. A candidate has passed a module when he/she has:
  - Obtained at least 50% of the aggregate marks assigned to each required module; and
  - Obtained at least 50% of the required module's end of academic year examination; and
  - Obtained at least 50% of the aggregate marks assigned to the clinical component of that module's end of academic year examination; and
  - Obtained a prescribed number of assessment points in the clinical component of that module's end of academic year examination.
- 6. Subject to Policies 1 to 8 above, a candidate who fails any module shall be examined at a supplementary examination in that module as follows:
  - Where the candidate failed or did not complete one (1) or two (2) postings in a module to sit for the theory and clinical components of the supplementary examination in that module as his/her first and final attempt.
  - Where the candidate failed to obtain 50% of the aggregate marks assigned to the module- to sit for all the components (theory and clinical) of the required module's supplementary examination.
  - Where the candidate failed to obtain 50% of the aggregate marks assigned to the module's end of academic year examination to retake all the components (theory and clinical) of the required module's examination.
  - Where the candidate failed the clinical component of the end of academic year examination for that module to retake all the components (theory and clinical) of the required module's supplementary examination.
- 7. A candidate who fails or misses a supplementary examination in any module (even if there is a special case or special consideration submission) must repeat the whole course of study for that module.

# 3.2.2 Bachelor of Science (Nursing) / Bachelor of Science (Nursing) (Honours)

#### **Admissions**

Admission of candidates into the BSc (Nursing) programme will be based on the academic merit of and in open competition with all eligible applicants. Candidates must fulfil the minimum university requirements for admission to full-time undergraduate studies.

To be eligible to apply for admission, applicants need to present:

- The Singapore Cambridge GCE 'A' Level certificate, or
- · A diploma from a polytechnic in Singapore, or
- Equivalent international qualifications.

### **Subject Requirement**

Applicants should also satisfy the subject prerequisites which require a H2 or HL pass in any two of the following at GCE 'A' Level or International Baccalaureate respectively: Biology, Chemistry, Computing, Physics, and Mathematics.

## **Advanced Placement / Exemption (APC)**

Polytechnic graduates of certain diplomas admitted into the BSc (Nursing) programme may be granted advanced placement credits as follows:

POLYTECHNIC	DIPLOMA	MODULES GRANTED APC	MODULAR CREDITS (MCS)	
		NUR1113 Health and Well-being for Older Adults	4	
		NUR1114 Fundamentals of Nursing	4	
		NUR1117 Anatomy and Physiology I	4	
	Nursing	NUR1118 Anatomy and Physiology II	4	
		NUR1119 Medical/Surgical Nursing I	4	
Nanyang		NUR1120 Comprehensive Health Assessment	4	
Polytechnic		SC2211 Medical Sociology	4	49
		NUR1121 Pathophysiology and Pharmacology for Nurses I	4	
		NUR1110 Effective Communication for Health Professionals	4	
		NUR2122 Psychology for Nurses	4	
		NUR1107A Nursing Practice Experience 1.1	2	
		NUR1108A Nursing Practice Experience 1.2	7	

POLYTECHNIC	DIPLOMA	MODULES GRANTED APC	MODULAR CREDITS (MCS)	
		NUR1113 Health and Well-being for Older Adults	4	
		NUR1114 Fundamentals of Nursing	4	
		NUR1117 Anatomy and Physiology I	4	
		NUR1118 Anatomy and Physiology II	4	
	Health Sciences (Nursing) (HSN)	NUR1119 Medical/Surgical Nursing I	4	1
		NUR1120 Comprehensive Health Assessment	4	
NT A		SC2211 Medical Sociology	4	49
Ngee Ann Polytechnic		NUR1121 Pathophysiology and Pharmacology for Nurses I	4	
		NUR1110 Effective Communication for Health Professionals	4	
		NUR2122 Psychology for Nurses	4	
		NUR1107A Nursing Practice Experience 1.1	2	
		NUR1108A Nursing Practice Experience 1.2	7	
	Pharmacy Science	NUR1117 Anatomy and Physiology I	4	0
	(PHARM)	NUR1118 Anatomy and Physiology II	4	8

POLYTECHNIC	DIPLOMA	MODULES GRANTED APC	MODULAR CREDITS (MCS)	
Republic Polytechnic	Biomedical Sciences	NUR1117 Anatomy and Physiology I	4	- 8
		NUR1118 Anatomy and Physiology II	4	
	Biotechnology	NUR1117 Anatomy and Physiology I	4	8
		NUR1118 Anatomy and Physiology II	4	
	Pharmaceutical Sciences (DPS)	NUR1117 Anatomy and Physiology I	4	- 8
		NUR1118 Anatomy and Physiology II	4	
	Sports and Exercise Sciences (DSES)	NUR1117 Anatomy and Physiology I	4	- 8
		NUR1118 Anatomy and Physiology II	4	
Singapore Polytechnic	Applied Chemistry with Pharmaceutical Sciences	NUR1117 Anatomy and Physiology I	4	8
		NUR1118 Anatomy and Physiology II	4	
	Applied Chemistry with Materials	NUR1117 Anatomy and Physiology I	4	8
	Sciences	NUR1118 Anatomy and Physiology II	4	
	Biotechnology	NUR1117 Anatomy and Physiology I	4	- 8
		NUR1118 Anatomy and Physiology II	4	
	Perfumery and Cosmetic Science	NUR1117 Anatomy and Physiology I	4	- 8
		NUR1118 Anatomy and Physiology II	4	

POLYTECHNIC	DIPLOMA	MODULES GRANTED APC		MODULAR CREDITS (MCS)	
	Applied Food	NUR1117 Anatomy and Physiology I	4	o	
	Science & Nutrition	NUR1118 Anatomy and Physiology II	4	8	
	Diamadia l Caiana	NUR1117 Anatomy and Physiology I	4	0	
	Biomedical Sciences	NUR1118 Anatomy and Physiology II	4	8	
Temasek		NUR1117 Anatomy and Physiology I		0	
Polytechnic	Biotechnology	NUR1118 Anatomy and Physiology II	4	8	
	Pharmaceutical	NUR1117 Anatomy and Physiology I	4	0	
	Sciences	NUR1118 Anatomy and Physiology II	4	8	
	Veterinary	NUR1117 Anatomy and Physiology I	4		
	Technology	NUR1118 Anatomy and Physiology II	4	8	

#### **Interview of Candidates**

Short-listed candidates will be asked to attend an admission interview in April. The selection of students will be determined by their academic achievement as well as the desirable traits for healthcare professionals.

#### **Health Requirements**

Please refer to Health Requirements in Section 3.2.1.

# Scholarships, Sponsorships and Bursaries

Scholarships, sponsorships and bursaries are offered by the Alice Lee Centre for Nursing Studies, the National University of Singapore, Ministry of Health (MOH) and various healthcare agencies. For more information regarding scholarships, sponsorships and bursaries, please visit <a href="http://medicine.nus.edu.sg/nursing/education/scholarships-bursaries-and-financial-aid.html">http://medicine.nus.edu.sg/nursing/education/scholarships-bursaries-and-financial-aid.html</a>.

#### **Bond**

Candidates who are in receipt of scholarships/sponsorships/bursaries are required to serve the bond as

stipulated by the respective funding agencies.

# **Educational Objectives**

On completion of the BSc (Nursing) / BSc (Nursing) (Honours) programme, a graduate will be a:

- Competent registered nurse who provides safe, compassionate and informed care based on current knowledge, theory and research evidence.
- Critical thinker able to question, interpret, apply, analyse and evaluate knowledge to make independent decisions.
- Coordinator of primary, secondary, and tertiary healthcare resources to meet patients' needs.
- Effective communicator who collects, uses, and disseminates information to optimise care outcomes.
- Advocate for the promotion and maintenance of good health, and for the rights of patients in the healthcare system.
- Exemplary professional nurse role model committed to the learning of self and others.
- Leader and researcher in nursing and related healthcare fields.

# Curriculum Structure for BSc (Nursing)\* / BSc (Nursing)(Honours)\*\*

		NUR1110	Effective Communication for Health Professionals
		NUR1113	Health and Wellness for Older Adults
	Semester 1	NUR1114	Fundamentals of Nursing
		NUR1117	Anatomy and Physiology I
Year		NUR1107A	Nursing Practice Experience 1.1
1		NUR1118	Anatomy and Physiology II
	Semester	NUR1119	Medical/Surgical Nursing I
	2	NUR1120	Comprehensive Health Assessment
		NUR1121	Pathophysiology and Pharmacology for Nurses I
	Special Term 1	NUR1108A	Nursing Practice Experience 1.2

	i	T	
		NUR2113	Mental Health Nursing
		NUR2116	Medical/Surgical Nursing II
	Semester 1	NUR2118	Pathophysiology and Pharmacology II
		NUR2120	Professional Nursing Practice, Ethics and Law
Year		NUR2106A	Nursing Practice Experience 2.1
2		MIC2000	Infection and Immunology
	Semester	SC2211	Medical Sociology
	2	NUR2121	Maternal and Child Health Nursing
		NUR2122	Psychology for Nurses
	Special Term 1	NUR2107A	Nursing Practice Experience 2.2
		NUR3109	Introduction to Research, Evidence and Nursing Practice
		NUR3113	Medical/Surgical Nursing III
	Semester 1	NUR3114	Leadership and Management
Year		NUR3117	Community Integrated Health Care
3		NUR3105A	Nursing Practice Experience 3.1
		NUR3114	Leadership and Management
	Semester 2	NUR3118	Consolidated Clinical Simulation Nursing Practice
		NUR3116A	Transition to Professional Practice Experience*

Honours	NUR4101	Evidence-based Health Care Practice (Sem 1 & 2)	
	NUR4102A	Consolidated Clinical Practice (Sem 2)	
	NUR4103A	Applied Research Methods (Sem 1 & 2)	
	NUR4104	Honours Project in Nursing (Sem 1 & 2)	
	Unrestricted E	lective (Any Sem)	

<sup>\*</sup>Students have to take 2 Unrestricted Elective Modules to make up 120MCs for the BSc (Nursing) programme requirement.

#### **Assessment**

Both formative and summative assessments are used to ensure the desired learning outcomes are achieved and will drive students' learning in a positive way.

GRADING OF ASSESSMENT AND CUMULATIVE AVERAGE POINTS (CAP)				
Grade	Grade Point	Grade	Grade Point	
A+	5.00	C+	2.50	
A	5.00	С	2.00	
A-	4.50	D+	1.50	
B+	4.00	D	1.00	
В	3.50	F (Fail)	0.00	
В-	3.00			

<sup>\*</sup>NUR3116A Transition to Professional Practice Experience comprises 13 weeks of clinical posting to meet SNB minimum requirements of clinical placement.

# 3.3 Special Programmes

# **Undergraduate Research Opportunities Programme (UROP)**

The Yong Loo Lin School of Medicine is committed to training outstanding doctors to serve the community and patients with care and integrity. We strive to establish the School as a centre of research excellence. To achieve this, a key approach is to develop and nurture our students to meet the research challenges of the 21st century. A research programme called the Undergraduate Research Opportunities Programme (UROP) is available for our medical undergraduates. Undergraduate research in non-clinical and clinical departments, under the supervision of faculty staff, is usually conducted during the vacation period in Phase I to Phase III of the curriculum. The clinical departments also offer opportunities for research in Phase IV and V. Students who participate and contribute in UROP will have due credits endorsed in their final-year academic transcripts. In addition, research projects of excellence may be submitted for consideration for research prizes awarded by the School.

#### 3.4 Financial Assistance and Awards

The School has several bursaries available to full-time undergraduate MBBS students who are in need of financial assistance to help them though their course of study. For more information regarding financial assistance and the application procedure, please

visit: http://nusmedicine.nus.edu.sg/admissions/medicine/undergraduate#financial-assistance

There are several bursaries available to full-time undergraduate BSc (Nursing) students who are in need of financial assistance to help them through their course of study. For more information regarding these bursaries, the conditions of award and application, please visit:

http://medicine.nus.edu.sg/nursing/education/scholarships-bursaries-and-financial-aid.html

# **4 Graduate Education**

- 4.1 Research Programmes
- 4.2 <u>Cancer Science Institute of Singapore (CSI) PhD Programme</u>
- 4.3 Graduate Coursework Programme in Clinical Research
- 4.4 Research Programmes in Nursing
- 4.5 <u>Graduate Examinations, Coursework and Allied Health Programmes Programmes: Division of Graduate Medical Studies (DGMS)</u>
- 4.6 Graduate Coursework Programme in Nursing

# **4.1 Research Programmes**

The School has an illustrious graduate programme that has contributed significantly to making the University a world-class tertiary institution. The programme provides the biomedical industry with highly competent biomedical scientists and clinician-scientists who will spearhead and drive medical biotechnology initiatives.

- 4.1.1 <u>Degrees Offered</u>
- 4.1.2 <u>Degree Requirements</u>
- 4.1.3 Financial Assistance and Awards

# **4.1.1 Degrees Offered**

The students are enrolled for the MSc or PhD programme at admission and fulfil requirements to graduate either with a generic MSc or PhD degree. Students will undertake supervised research with staff members from any of the departments for their period of candidature, at the end of which, they submit a thesis that is examined by a Board of Examiners.

Only those candidates who have fulfilled the criteria for PhD will be awarded the PhD degree. All other candidates will have to fulfil the criteria for the MSc in order to be awarded the MSc degree.

# 4.1.2 Degree Requirements

#### **Admission Requirements**

#### **MSc Programme**

- A relevant Bachelor's degree with at least a Second Class Honours or its equivalent
- The degree of Bachelor of Medicine and Bachelor of Surgery (MBBS) or
- The degree of Bachelor of Dental Surgery and
- The ability to pursue research in the candidate's proposed field of advanced study.

# **PhD Programme**

- A good Master's degree in a relevant discipline or
- A relevant Bachelor's degree with at least a Second Upper Class Honours or its equivalent
- The degrees of Bachelor of Medicine and Bachelor of Surgery (MBBS) or
- The degree of Bachelor of Dental Surgery and
- The ability to pursue research in the candidate's proposed field of advanced study.

# **Other Requirements**

#### **TOEFL**

As the medium of instruction is English, applicants whose native tongue and medium of undergraduate instruction is not English must submit TOEFL scores as evidence of their proficiency in the English Language. Exemptions will be given to applicants with distinctions in the Cambridge GCE 'O' level examination English Language Paper 1119. The minimum TOEFL score required is 580/237/85 for the paper-based, computer-based and internet-based tests respectively. For IELTS, the minimum score required is 6.5.

#### **GRE**

Applicants (except NUS & NTU graduates from relevant disciplines) <u>must also submit GRE scores</u> to support their application. A minimum total GRE score of 320 for the verbal and quantitative sections and 3.5 for the analytical section is required.

#### **Credit Transfer and Exemptions**

Credit transfer and exemption are allowed subject to the following conditions:

- [There is no limit to the transfer of credits for relevant modules that have not been used towards another degree at NUS or elsewhere.
- For relevant modules that have been credited towards another degree elsewhere, up to 50% of the modular credits (MCs) required in the coursework component of the NUS graduate research programme into which the candidate seeks admission may be exempted.
- For relevant <u>NUS</u> modules that have been credited towards another degree at NUS, on a case-by-case basis and subject to approval, more than 50% of the MCs required in the coursework component of the NUS graduate research programme may be allowed credit and grade transfer.
- Only graduate modules at Level-5000 and above which are relevant to the degree programme to which the candidate seeks admission at NUS can be considered for credit transfer or exemption. In addition,

only modules that have substantially the same learning objectives, content, and level of sophistication as the corresponding NUS module can be considered for credit transfer/exemption.

- Credit transfer and exemption is allowed only for modules that are taken less than five years before the date of admission.
- Applications for credit transfer or exemptions must be submitted within the first semester of study, preferably within two weeks of the start of the semester.

# **Curriculum Structure and Requirements**

Candidates admitted to the graduate programme will undertake research under the supervision of staff members from the School for their period of candidature, at the end of which, they submit a thesis that is examined by a Board of Examiners. In addition, they are required to fulfil a coursework component comprising the following, to graduate either with a MSc or a PhD degree:

MSc: A total of 16 modular credits comprising two core modules + elective modules (at Level-5000)

PhD : A total of 24 modular credits comprising two core modules + elective modules (at Level-5000 &

6000)

To be confirmed a PhD candidate, a student is required to pass a PhD qualifying examination within two years from the date of admission.

Candidates deemed weak in English by the School would also have to sit for the Diagnostic English Test and take additional English Language courses conducted by the Centre for English Language Communication.

All PhD candidates are required to take ES5002 (Advanced Level Writing) regardless of their performance in the Diagnostic English Test.

# **Residency Requirements and Candidature**

#### Residency requirements

All candidates must spend a minimum period of residence in Singapore as follows:

MSc: 6 months (one semester)

PhD: 18 months (three semesters)

#### **Residency Requires:**

a. Payment of fees

- b. Satisfy all curricular requirements of the programme of study
- c. Satisfy other departmental requirements such as teaching assistance

Periods of study leave and overseas fieldwork do not count toward residency. In addition, MSc and PhD candidates must be resident during the semester in which they submit their thesis for examination.

#### Candidature

The following maximum candidature periods are inclusive of periods of approved study leave and leave of absence.

MSc : 36 months PhD : 60 months

# **Continuation and Graduation requirements**

#### Continuation

For continuation of candidature, candidates have to meet the following CAP set for coursework:

 ${
m MSc}:{
m CAP}$  should not fall below 2.50 for two consecutive semesters or 3.00 for three consecutive semesters

 ${
m PhD}\,:\,{
m CAP}$  should not fall below 3.00 for two consecutive semesters or 3.50 for three consecutive semesters

Termination of candidature would result if a student fails to maintain the minimum CAP as stipulated above.

For any semester in which the MSc candidate's CAP falls below 3.00 (but  $\geq$  2.50), he/she will be issued an academic warning. If, in the following semester, the candidate's CAP again falls below 3.00, he/she will be placed on probation. If the candidate's CAP remains below 3.00 for the third consecutive semester, the candidate will be issued a letter of dismissal by the Registrar and denied re-admission.

MSc candidates with CAP below 2.50 for two consecutive semesters will be placed on probation for the first semester, followed by dismissal in the second semester.

A PhD candidate's whose CAP falls below 3.50 (but  $\geq$  3.00) will be issued an academic warning. If the candidate's CAP again falls below 3.50 in the following semester, he/she will be placed on probation. If the student's CAP remains below 3.50 for a third consecutive semester, the student will be issued a letter of dismissal by the Registrar and denied re-admission.

PhD candidates whose CAP falls below 3.00 for two consecutive semesters will be placed on probation for the first semester, followed by dismissal in the second semester.

A student may also be issued a warning or placed on probation or be issued a letter of termination for poor performance in the PhD qualifying examination, research thesis, or other programme requirements.

#### **Graduation Requirements**

#### MSc

- ullet Pass all prescribed core and elective modules with a minimum CAP of 3.00 (B-) for the prescribed modules
- Pass the Master's Thesis
- A minimum grade of C+ for all levels of English course(s), where applicable

#### PhD

- ullet Pass all prescribed core and elective modules with a minimum CAP of 3.50 (B) for the prescribed modules
- Pass the Qualifying Examination
- Pass the PhD Thesis and Oral Examination
- A minimum grade of C+ for all levels of English course(s), where applicable

#### Leave of absence

The University policies on leave of absence shall apply.

#### **Examination rules**

The University policies on examination rules shall apply.

# 4.1.3 Financial Assistance and Awards

Financial support in the form of scholarships is available for qualified candidates. These range from S\$1,500 - S\$3,500 per month for MSc and PhD candidates respectively.

Some additional support for projects in certain strategic research areas is also available. There may also be opportunities for earning additional income as part-time tutors and demonstrators.

To be eligible for the research scholarship, applicants must possess at least a Second Class Upper Honours degree.

# 4.2 Cancer Science Institute of Singapore (CSI) PhD Programme

The Cancer Science Institute of Singapore offers 2 PhD Graduate Programmes in Cancer Biology and RNA Biology.

The CSI Singapore PhD Graduate Programme in Cancer Biology seeks to attract top scientific and medical talents interested in a career in cancer research and RNA Biology. Graduate students will have access to world-class facilities dedicated to cancer research and can look forward to working with a dynamic team of globally renowned specialized scientists and clinicians in an intellectually stimulating environment.

This programme also aims to produce high-calibre researchers who are capable of independent research investigation, who will contribute original ideas that advance their specific field of cancer research, and are well-equipped to pursue careers in the field of cancer and/or RNA Biology.

- 4.2.1 <u>Degrees Offered</u>
- 4.2.2 Admission Requirements
- 4.2.3 Financial Assistance and Awards

# **4.2.1 Degrees Offered**

The students are enrolled for the PhD programme at admission and fulfil requirements to graduate with a generic PhD degree. There is no specialisation of the degrees awarded. Students will engage in supervised research with staff members from the Institute for their period of candidature, leading to submission of a thesis to a Board of Examiners.
Only candidates who have fulfilled the criteria for PhD will be awarded the PhD degree.

# 4.2.2 Admission Requirements

#### **PhD Programme**

- A good Master's degree in a relevant discipline; or
- A relevant Bachelor's degree with at least a Second Upper Class Honours or its equivalent;
- The degrees of Bachelor of Medicine and Bachelor of Surgery (MBBS); and
- The ability to pursue research in the candidate's proposed field of advanced study.

# **Other Requirements**

#### TOEFL/IELTS

As the medium of instruction is English, applicants whose native tongue and medium of university undergraduate instruction are not English must submit TOEFL scores as evidence of their proficiency in the English Language. The minimum TOEFL score required is 580/237/85 for the paper-based, computer-based and internet-based tests respectively. Exemptions will be given to applicants with distinctions in the Cambridge GCE 'O' level examination English Language Paper 1119.

For IELTS, the minimum score required is 6.5.

The TOEFL/IELTS scores are valid for 2 years from the test date.

#### **GRE**

Applicants (except NUS & NTU graduates from relevant disciplines) must also submit GRE scores to support their applications. A minimum total GRE score of 320 for the verbal and quantitative sections and of 3.5 for the analytical section is required.

The GRE scores are valid for 5 years from the test date.

#### **Curriculum Structure and Requirements**

Candidates admitted to the graduate programme will undertake research under the supervision of staff members from the Institute for their period of candidature, leading to the submission of a thesis to a Board of Examiners. In addition, candidates are required to fulfil a coursework component comprising the following:

PhD : A total of 24 modular credits comprising four core modules + 2 elective modules (at Level- 5000 & 6000)

To be confirmed a PhD candidate, a student is required to pass a PhD qualifying examination within two years from the date of admission.

Candidates deemed weak in English by the School would also have to sit for the Diagnostic English Test and take additional English Language courses conducted by the Centre for English Language Communication.

All PhD candidates are required to take ES5002 (Advanced Level Writing) regardless of their performance in the Diagnostic English Test.

# **Residency Requirements and Candidature**

#### Residency requirements

All candidates must spend a minimum period of residence in Singapore as follows:

PhD: 18months (three semesters)

#### **Residency Requires:**

- a) Payment of fees (not applicable to full-time candidates)
- b) Satisfying all curricular requirements of the programme of study
- c) Satisfying other departmental requirements such as teaching assistance

Periods of study leave and overseas fieldwork do not count toward residency. In addition, PhD candidates must be resident during the semester in which they submit their thesis for examination.

#### Candidature

The following maximum candidature periods are inclusive of periods of approved study leave and leave of absence.

PhD: 60 months

# **Laboratory Rotation Scheme**

All full-time candidates will be subjected to laboratory rotation scheme to identify a suitable supervisor. This scheme requires candidates to participate in a minimum of two to a maximum of three laboratory rotations before choosing a supervisor. Each rotation will last two months. Candidates should confirm a supervisor by the end of the laboratory rotation scheme.

To achieve an even distribution of students among the labs, each supervisor in CSI Singapore will only be

allowed to take in one full-time candidate per intake. As such, candidates may not be able to join the lab of their choice.

# **Continuation and Graduation Requirements**

#### Continuation

For continuation of candidature, candidates have to meet the following CAP set for coursework:

PhD : CAP should not fall below 3.00 for two consecutive semesters or 3.60 for three consecutive semesters

Termination of candidature would result if a student fails to maintain the minimum CAP as stipulated above.

A PhD student with a CAP falling below 3.60 (but  $\geq$  3.00) will be issued an academic warning. If the candidate's CAP again falls below 3.60 in the following semester, he/she will be placed on probation. If the student's CAP remains below 3.60 for a third consecutive semester, the candidate will be issued a letter of dismissal by the Registrar and denied re-admission.

PhD candidates whose CAP falls below 3.00 for two consecutive semesters will be placed on probation for the first semester, followed by dismissal in the second semester.

A student may also be issued a warning or placed on probation or be issued a letter of termination for poor performance in the PhD qualifying examination, research thesis, or other program requirements.

#### **Graduation Requirements**

- Pass all prescribed core and elective modules with a minimum CAP of 3.60 for the prescribed modules
- · Pass the Qualifying Examination
- Pass the PhD Thesis and Oral Examination
- A minimum grade of C+ for all levels of English course(s), where applicable

#### Leave of absence

The University policies on leave of absence shall apply.

#### Examination rules

The University policies on examination rules shall apply.

#### 4.2.3 Financial Assistance and Awards

#### I. CSI Singapore PhD Graduate Scholarship

Full-time Singaporean PhD students will be awarded a monthly stipend of \$3400 and employer's CPF contribution of 17%. Full-time Permanent Resident (PR) and International PhD students will be awarded a monthly stipend of \$3200. Scholarship includes a conference allowance of up to S\$10,000, laptop allowance along with book and software allowance.

# II. RNA Biology Scholarship

Full-time Singaporean PhD students will be awarded a monthly stipend of \$2700 and employer's CPF contribution of 17%. Full-time Permanent Resident (PR) and International PhD students will be awarded a monthly stipend of \$2200 and \$2000 respectively. RNA Biology scholars shall receive an additional stipend of up to \$500 per month from the date of passing their PhD Qualifying Examination (QE) for a duration of maximum of 24 months or only up to the 48<sup>th</sup> month of their candidature, whichever date is the earlier. The additional stipend is renewable each semester, subject to good performance. Scholarship also includes a Travel Grant for Conference, capped at \$3000 per candidature.

#### **Interviews**

All shortlisted applicants will be required to attend an interview.

#### **Application**

Application opens from 15 October to 15 February every year. Please visit our website at <a href="http://www.csi.nus.edu.sg/ws/graduate-program/introduction/admission-req...">http://www.csi.nus.edu.sg/ws/graduate-program/introduction/admission-req...</a>

# 4.3 Graduate Coursework Programme in Clinical Research

The Master of Clinical Investigation (MCI) is a new programme which commenced in August 2008. The programme, which is completed in 2 years, aims to equip clinicians with basic methodological and practical skills to design and conduct clinical investigations that are relevant to patient care. The MCI programme will also provide a good foundation for those aiming to pursue advanced clinical research training, including training programmes leading to a PhD degree.

#### **Degree Requirements**

- An MBBS or equivalent degree from a recognised university
- Candidates have entered specialist training or residency programme
- At least two years of post-registration clinical experience

#### **Curriculum Structure**

The MCI programme caters only for part-time students with a candidature period of two years, open to extension to a maximum of three years if more time is required for the research component. The 40-modular credit (MC) programme structure comprises 8 modules (32 MCs) for coursework (80%) and a research component (20%) of 8 MCs. For the research component, students work under the supervision of a group of mentors (established clinical investigators/researchers).

# 4.4 Research Programmes in Nursing

Opportunities abound for nursing research to make a substantial impact on population health and improve approaches to patient care. The shift in emphasis from treatment to prevention of illness and from acute illness to chronic conditions, as well as an urgent need to translate successful research findings into clinical practice has led framed the research training agenda at the Alice Lee Centre for Nursing Studies (NUS Nursing). Teaching processes in the graduate research programmes aim to develop a dynamic, vital, and productive community of investigators who conduct rigorous research to establish the scientific and evidence base for patient care.

#### **Objectives:**

The MSc (Nursing) and PhD programmes aim to develop graduates characterised by their:

- ability to identify, formulate, and address problems through research;
- drive for evidence-based nursing research and practice;
- creative and strategic approach to lead the nursing profession nationally and internationally;
- entrepreneurial spirit to lead innovation which will impact on the profession and the health care industry.
- 4.4.1 Degrees Offered
- 4.4.2 Admission Requirements
- 4.4.3 Degree Requirements and Curriculum Structure
- 4.4.4 Financial Assistance and Awards

# **4.4.1 Degrees Offered**

The following degrees will be offered:

- Master of Science (Nursing) [MSc (Nursing)]
- Doctor of Philosophy [PhD]

The MSc (Nursing) degree is designed to provide research training specifically for nurses who have a Bachelor degree without an Honours component. It will provide both stand-alone postgraduate research training and serve as a pathway to the PhD programme for nurses without an Honours degree.

The PhD will be offered with two flexible options:

Option A: A traditional thesis of a maximum of 80,000 words; or

**Option B**: An integrated thesis by publication of a maximum of 80,000 words.

# 4.4.2 Admission Requirements

#### **Admission Requirements**

#### MSc (Nursing) Programme

- Possess a current Registered Nurse license with the Singapore Nursing Board\*
- Have a minimum of 3 years nursing experience at the point of entry into the course
- A relevant Bachelor's degree with at least a Second Class Honours or its equivalent; or
- Relevant coursework Master's degree with a CAP of 3.50 or above; or
- ullet Bachelor's degree and evidence of outcomes from a research project equivalent to 25% of one year's full-time study

#### PhD Programme

- Possess a current Registered Nurse license with the Singapore Nursing Board\*
- Have a minimum of 3 years nursing experience at the point of entry into the course
- A relevant Bachelor's degree with at least a Second Upper Class Honours or its equivalent; or
- Coursework Master's degree with a CAP of 3.50 or above.
- Candidates are also expected to have the ability to pursue research in their proposed field of advanced study.
- \* For research studies conducted in Singapore's healthcare institutions.

# **Other Requirements**

#### TOEFL/IELTS

As the medium of instruction is English, applicants whose native tongue and medium of university undergraduate instruction are not English must submit TOEFL scores as evidence of their proficiency in the English language. The minimum TOEFL score required is 580/237/85 for the paper-based, computer-based and internet-based tests respectively. Exemptions will be given to applicants with distinctions in the Cambridge GCE 'O' level examination English Language Paper 1119.

For IELTS, the minimum score required is 6.

The TOEFL/IELTS scores are valid for 2 years from the test date.

#### **GRE**

Applicants (except NUS, NTU and SMU graduates from relevant disciplines) should also submit GRE scores to support their application. The minimum total GRE score of 320 for both Verbal and Quantitative sections and a minimum of 3.5 for the Analytical section are required.

The GRE scores are valid for 5 years from the test date.

# **Credit Transfer and Exemptions**

- $\circ\,$  Candidates may apply for credit & grade transfer/module exemption, subject to the approval of NUS Nursing.
- o Only graduate modules completed at level 5000 and above which are relevant to the degree programme to which the candidate seeks admission, with substantially the same learning objectives, content, and level of sophistication as the corresponding NUS module, and read less than five (5) years before the date of admission may be considered for credit & grade transfer/module exemption.
- Applications for credit & grade transfer/module exemption must be submitted within the first semester of study, preferably within two weeks of the start of the semester.
- Grade & credit transfer/module exemption is subject to the following conditions:

	Туре	Policy
1.	NUS modules that have not been credited towards a degree at NUS/elsewhere	No limit to the transfer of credit & grade for these modules
2.	Non-NUS modules that have not been credited towards another degree at NUS/elsewhere	No limit to the module exemption for these modules
3.	NUS modules that have been credited towards another degree at NUS/elsewhere	May be allowed for credit & grade transfer up to 50% of total coursework requirement
4.	Non-NUS modules that have been credited towards another degree at NUS/elsewhere	May be allowed for module exemption up to 50% of total coursework requirement

4.4.3 Degree Requirements and Curriculum Structure

**Degree Requirements and Curriculum Structure** 

The MSc (Nursing) comprises 20 module credits and a 40,000 word thesis.

The PhD comprises 28 module credits and an 80,000 word thesis.

Students will undertake research under the supervision of staff members from NUS Nursing for their period of candidature, at the end of which a thesis will be submitted for examination by the Thesis

Examination Panel. In addition to the research component, students are required to fulfil a coursework

component comprising of the following:

MSc (Nursing) : 3 core + 1 elective modules

PhD

: 3 core + 3 elective modules

Modules taken will be at levels 5000 and 6000 and must be equivalent to at least 4 module credits.

Elective modules can be chosen from those offered by NUS Nursing or any School or Research Institutes/Centres affiliated with the National University of Singapore (subject to the university

guidelines). These are subject to the approval of the supervisors and the Head of NUS Nursing.

To be confirmed a PhD candidate; a student is required to pass a PhD qualifying examination within two

vears from the date of admission.

Candidates deemed weak in English by the Alice Lee Centre for Nursing Studies would also have to sit

for the Diagnostic English Test and take additional English Language courses conducted by the Centre

for English Language Communication.

All PhD candidates are required to take ES5002 (Advanced Level Writing) regardless of their

performance in the Diagnostic English Test.

**Residency Requirements and Candidature** 

Residency requirements

All candidates must spend a minimum period of residence in Singapore as follows:

MSc (Nursing) : 6 months (one semester)

PhD

: 18 months (three semesters)

Residency requires:

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a. Payment of fees;

b. Satisfying all curricular requirements of the programme of study; and

c. Satisfying other departmental requirements such as teaching assistance

Periods of study leave and overseas fieldwork do not count toward residency. In addition, MSc (Nursing) and PhD candidates must be resident during the semester in which they submit their thesis for examination.

#### Candidature

The following maximum candidature periods are inclusive of periods of approved study leave and leave of absence.

 $MSc \ (Nursing) \quad : \quad 36 \ months \ (Full-time \ \& \ Part-time)$ 

PhD : 60 months (Full-time & Part-time)

# Continuation and graduation requirements

#### Continuation

For continuation of candidature, candidates have to meet the following Cumulative Average Point (CAP) set for coursework:

MSc (Nursing): CAP should not fall below 2.50 for two consecutive semesters or 3.00 for three consecutive semesters

PhD : CAP should not fall below 3.00 for two consecutive semesters or 3.50 for three consecutive semesters

Termination of candidature would result if a student fails to maintain the minimum CAP as stipulated above.

An MSc (Nursing) candidate whose CAP falls below 3.00 (but  $\geq$  2.50), will be issued an academic warning. If the candidate's CAP again falls below 3.00 in the following semester, he/she will be placed on probation. If the candidate's CAP remains below 3.00 for the third consecutive semester, the candidate will be issued a letter of dismissal by the Registrar and denied re-admission.

MSc (Nursing) candidates whose CAPs fall below 2.50 for two consecutive semesters will be placed on probation for the first semester, followed by dismissal in the second semester.

A PhD candidate whose CAP falls below 3.50 (but  $\geq$  3.00), will be issued an academic warning. If the candidate's CAP again falls below 3.50 in the following semester, he/she will be placed on probation. If the student's CAP remains below 3.50 for the third consecutive semester, the student will be issued a

letter of dismissal by the Registrar and denied re-admission.

PhD candidates whose CAPs fall below 3.00 for two consecutive semesters will be placed on probation for the first semester, followed by dismissal in the second semester.

A student may also be issued a warning, placed on probation or be issued a letter of termination for poor performance in the PhD qualifying examination, research thesis, or other programme requirements.

Such a student may appeal the dismissal if there are extenuating circumstances. The appeal must be submitted to NUS Nursing within two calendar weeks of the last day of the release of each semester's examination results.

Generally, a student is allowed only one such appeal per candidature. If the appeal is rejected, the student will not be readmitted. If the outcome of the appeal is positive, the student will be given one semester in which to achieve the minimum CAP required for continuation and graduation.

# **Graduation Requirements**

#### **MSc (Nursing)**

- Pass three core and one elective modules (with 20 module credits)
- A CAP of at least 3.00 (B-) in the elective module
- A Satisfactory grade in the three core modules
- Pass the MSc (Nursing) Thesis
- A minimum grade of C+ for all levels of English course(s) where applicable

#### **PhD**

- Pass three core and three elective modules (with 28 module credits)
- A CAP of at least 3.50 (B) in the elective modules
- A Satisfactory grade in the three core modules
- Pass the Qualifying Examination comprising of a comprehensive written examination and oral defence of the PhD Thesis proposal
- Satisfactory performance at the annual PhD Symposium (formative assessment)
- Pass the PhD Thesis and Oral Examination
- A minimum grade of C+ for all levels of English course(s), where applicable

#### Leave of absence

The University policies on leave of absence shall apply.

# **Examination rules**

The University policies on examination rules shall apply.

# 4.4.4 Financial Assistance and Awards

Financial support in the form of scholarships is available for qualified candidates on full-tin	ne study.
These range from $S$1,500 - S$3,200$ per month for MSc and PhD candidates respectively.	Additional
support for projects is also available.	

To be eligible for the research scholarship, applicants must possess at least a Second Upper Class Honours degree.

# 4.5 Graduate Examinations, Coursework and Allied Health Programmes: Division of Graduate Medical Studies (DGMS)

#### **Master of Medicine**

The Master of Medicine offered by the Division is based on two to four years of clinical training in approved training hospitals. Assessments are based on multi-format examinations and generally taken by doctors during their training (known as Residency Training) towards becoming specialists.

The Master of Medicine degree is offered in the following specialties/disciplines:

- 1. Anaesthesiology
- 2. Diagnostic Radiology
- 3. Emergency Medicine
- 4. Family Medicine
- 5. Internal Medicine
- 6. Obstetrics & Gynaecology
- 7. Ophthalmology
- 8. Orthopaedic Surgery
- 9. Otorhinolaryngology
- 10. Paediatric Medicine
- 11. Psychiatry
- 12. Surgery

The DGMS also offers short one-to-two-week examination preparatory courses to specifically help candidates prepare for their examinations. These are usually held a few weeks before the examinations. Any doctor may enrol although priority may be given to those taking the examinations.

# **Graduate Diploma Programmes and Diploma Programme**

The Division offers part-time Graduate Diploma programmes in Family Medicine, Family Practice Dermatology, Geriatric Medicine, Mental Health, Occupational Medicine and Palliative Medicine for doctors (mainly GPs practising in Singapore). A Diploma programme in Tissue Banking, also a part-time programme, is offered, in joint collaboration with the Department of Orthopaedic Surgery, National University Hospital.

For more information, please visit: <a href="http://medicine.nus.edu.sg/dgms/index.htm">http://medicine.nus.edu.sg/dgms/index.htm</a>

#### **Master of Science (Speech and Language Pathology)**

The Master of Science (Speech and Language Pathology) programme is a two-year professional practice training course designed for graduates from any discipline who seek careers working with children and/or adults as speech and language pathologists. The programme covers 18 compulsory modules, four of which involve clinical placements in local hospitals and social service centres. Problem-based learning,

with local case studies, provides the foundation for the academic modules, and students are expected to conduct a research project relevant to evidence-based practice in their final year.

For more information, please visit: <a href="http://medicine.nus.edu.sg/dgms/SLP/Home.html">http://medicine.nus.edu.sg/dgms/SLP/Home.html</a>

# **Master of Science (Audiology)**

This graduate-entry programme addresses the public demand for locally trained Audiologists. It is the only coursework-based study of its kind in Singapore and is offered in collaboration with the University of Melbourne. It is customised with a distinct Asian framework and distinguishes itself from other programmes by incorporating a multi-disciplinary approach with related modules covering psychology, public health, engineering, business and innovation. Students are given the opportunity to integrate academics, clinical practice and research, which will be carried out in a purpose-built facility, clinic and in collaboration with government research institutes, universities, industry and international partners.

For more information, please visit: <a href="http://medicine.nus.edu.sg/dgms/audiology">http://medicine.nus.edu.sg/dgms/audiology</a>

# 4.6 Graduate Coursework Programme in Nursing

# **Master of Nursing Programme**

The 2-year Master of Nursing programme provides essential advanced nursing knowledge and skills through encounters with experts from health sciences, clinical physicians and pharmacists, public health and social science. Upon successful completion of the programme, graduates are eligible to apply for provisional licensing as Advanced Practice Nurse (APN) interns with the Singapore Nursing Board (SNB).

#### The Curriculum

#### Aims of the Programme

The MN programme aims to prepare the graduate:

- to be a competent and safe Advanced Practice Nurse (APN) who exercise informed clinical judgment in delivery of evidence-based care that will improve patient outcomes;
- to function as clinical consultant, role model, and clinical leaders to lead innovation which will impact on the profession and the health care industry;
- to pursue life-long learning and be responsible for their competencies with up-to-date clinical practice.

# **Admission Requirements**

Applicants who fulfil all entry requirements and good recommendation from their Chief Nurse / Director of Nursing and Head of Department will be offered direct entry into the programme.

Eligible applicants (non-direct entry) will be requested to attend admission interview.

#### **Academic Requirements**

- possess a Bachelor's degree in nursing from an accredited programme; and
- have a CAP of 3.20; and
- have a minimum TOEFL score of 580/237/85 for the paper-based, computer-based and internet-based, respectively (for applicants whose native tongue or medium of undergraduate instruction is not English).

#### **SNB APN Certification Requirements**

- possess a full registration with Singapore Nursing Board; and
- have <u>at least 2 years</u> of post-Advanced Diploma relevant experience, or <u>at least 5 years</u> postregistration experiences of which <u>at least 3 years</u> of relevant clinical experience if without advanced diploma prior to Masters; and
- obtain a Master of Nursing degree
- \*\* Note: SNB will not grant provisional license to MN graduates who did not meet all the requirements.

#### Fee

Tuition fees (covering 4 semesters): S\$42,600 (inclusive of GST)

# **Application**

Application opens from 1 February to 31 March every year. Please visit our website at <a href="http://medicine.nus.edu.sg/nursing/education/masters-of-nursing-admission.html">http://medicine.nus.edu.sg/nursing/education/masters-of-nursing-admission.html</a> for more information.

# **Programme Structure**

The 24-month Master of Nursing programme comprises 80 modular credits (MCs). It has 4 tracks: Adult Health, Mental Health, Acute Care and Paediatrics. All students, regardless of track, will be required to complete and pass 14 modules. The table below illustrates the modules to be taken under the different tracks.

# **How to Apply**

For more information, please visit the programme website: <a href="http://medicine.nus.edu.sg/nursing/education/masters-of-nursing-overview.html">http://medicine.nus.edu.sg/nursing/education/masters-of-nursing-overview.html</a>.

# **Detailed Programme Structure of Master of Nursing 2017 Curriculum**

	Adult Health	Mental Health	Acute Care	Paediatrics
Core Clinical Modules (24 MC)		d Health Assessment (8) Pathophysiology (8MC) (		NUR5601 Advanced Health Assessment (Paed) (8MC) NUR5602 Applied Pathophysiology (Paed) (8MC)
		Pharmacology 1 (4MC) Pharmacology 2 (4MC)		
Generic/ Theoretical Modules (16MC)		nal Development and T Based Healthcare (8M Healthcare (4MC)		4MC)

Electives Choose Two (8MC)	NUR5002 Statistic Other university-wide	NUR5009 Principles and Practice of Palliative Care (4MC)  NUR5002 Statistic for Health Research (4MC)  Other university-wide electives e.g. Sociology Department, Public Health Department and etc.(level 5000 modules)					
	Adult Health	Mental Health	Acute Care	Paediatrics			
	NUR5301 Approa	NUR5301 Approaches to Clinical Signs and Symptoms (4MC)		NUR 5607 Approaches to Clinical Signs and Symptoms (Paed) (4MC)			
Clinical Modules (12MC)	NUR5302 Advanced Gerontological Nursing (4MC)	NUR5401 Applied Psychopathology (4MC)	NUR5502 Advanced Critical Care Nursing I(4MC)	NUR5608 Management of the Acute Paediatric Patients (4MC)			
	NUR5303 Integrated Primary and Community Care (4MC)	NUR5402 Advanced Psychosocial Interventions (4MC)	NUR5503 Advanced Critical Care Nursing II(4MC)	NUR5606 Integrated Primary and Community Care for Paediatrics (4MC)			
				NUR5611 Clinical			

**NUR5311** Clinical Practicum I (12MC) (12 weeks)<sup>1</sup>

**NUR5312** Clinical Practicum II (8MC) (8 weeks)<sup>3</sup>

Clinical

(20MC)

**Practicum** 

Practicum I (Paed)

 $(12MC)^{2}$ 

NUR5612 Clinical

Practicum II (Paed)

 $(8MC)^4$ 

<sup>&</sup>lt;sup>1</sup> NUR5311 covers 6 generic areas: Cardiology, Respiratory, Gastroenterology, Neurology, Emergency and Community

 $<sup>^{2}</sup>$  NUR5611 covers 6 specialty areas: Cardiology, Respiratory, Gastroenterology, Nephrology, Endocrine and Community

<sup>&</sup>lt;sup>3</sup> NUR5312 covers 8 weeks posting in different specialty areas: **AH**: 8 weeks Internal Medicine; **MH**: 8 weeks Psychiatrics; **AC**: 8 weeks ICU/HD

<sup>4</sup> NUR5612 covers 2 weeks ICU, 2 weeks Em	ergency and 4 weeks in Ge	neral Paediatric Medicine	