Faculty of Science

Undergraduate Course Briefing

22nd July 2014

A/P Chua Tin Chiu
Associate Dean
Undergraduate Programmes
Faculty of Science

Vision
• Be among the world’s best in Science education and research

Mission
• Provide quality education, foster the spirit of enterprise and conduct leading edge research to advance knowledge in Science and Technology for the benefit of Singapore and the global community
Deanery Members of the Undergraduate Team

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Vice Dean
Undergraduate Programmes

Dr Ng Kah Loon
Assistant Dean
Curriculum Matters

A/Prof Chua Tin Chiu
Associate Dean
Examinations, Registration & Student Matters

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Double Degree & Internship Programmes
Administrators of the Undergraduate Team

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Manager (Student Exchange)

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(ISM, DDP, Examinations)

Ms Yeo Xiao Ping Priscilla
Management Assistant Officer
(CORS, Examination)
Faculty of Science

- Department of Biological Sciences
- Department of Chemistry
- Department of Mathematics
- Department of Pharmacy
- Department of Physics
- Department of Statistics & Applied Probability
# NUS Modular System

<table>
<thead>
<tr>
<th>What is a ...</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module</td>
<td>A unit of study; has a unique module code e.g. CM1111, LSM2201, MA3205</td>
</tr>
<tr>
<td>Module Code</td>
<td>Consist of two- or three-letter prefix that denotes discipline, and four digits. The 1\textsuperscript{st} digit indicates the level e.g. MA3205 is a Level 3 module</td>
</tr>
<tr>
<td>Modular Credit (MC)</td>
<td>A unit of workload. 1 MC = 2.5 hrs of study and preparation per week.</td>
</tr>
<tr>
<td>Prerequisite</td>
<td>The base of knowledge on which the subject matter of a particular module will be built. A student must complete the prerequisites listed before taking the module.</td>
</tr>
<tr>
<td>Preclusion</td>
<td>Modules that have similar emphases and may not be taken together with that particular module.</td>
</tr>
<tr>
<td>What is a ...</td>
<td>Definition</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Primary Majors</strong></td>
<td>To graduate, students must fulfil at least 1 major leading to a Bachelor’s degree with a minimum of 120 MCs and 160 MCs for a Bachelor’s degree with Honours</td>
</tr>
<tr>
<td><strong>Second Majors</strong></td>
<td>This is optional and to qualify for a second major, a student must read modules equivalent to at least 48MCs of which 8 MCs can be double counted towards the primary majors requirements. The second majors may be taken from within or outside the Faculty of Science and students will be awarded a single degree upon completion.</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>This is optional and to qualify for a minor, a student must read modules equivalent to at least 24 MCs and of which 8 MCs can be double counted towards the primary major. The minor may be taken from within or outside the Faculty of Science and students will be awarded a single degree upon completion.</td>
</tr>
<tr>
<td><strong>Specialisation</strong></td>
<td>A programme of study on a particular sub-discipline within its main discipline. Only available to specific primary majors in FoS.</td>
</tr>
</tbody>
</table>
Majors for B.Sc

- Physics
- Computational Biology
- Statistics
- Quantitative Finance
- Chemistry
- Life Sciences
- Food Science & Technology
- Mathematics & Applied Mathematics
Science Programmes

Inter-Disciplinary Courses

- Food Science & Technology
- Quantitative Finance
- Computational Biology (Strict 4-year Course)

Chemical & Life Sciences

- Chemistry
- Chemistry with Specialisation in Environment and Energy
- Chemistry with Specialisation in Materials Chemistry
- Chemistry with Specialisation in Medicinal Chemistry

- Life Sciences
- Life Sciences with Specialisation in Environmental Biology
- Life Sciences with Specialisation in Biomedical Sciences
- Life Sciences with Specialisation in Molecular & Cell Biology

Physical & Mathematical Sciences

- Mathematics
- Applied Mathematics
- Applied Mathematics with Specialisation in Mathematical Modelling and Data Analytics
- Applied Mathematics with Specialisation in Operation Research & Financial Mathematics

- Statistics
- Statistics with Specialisation in Biostatistics
- Statistics with Specialisation in Finance and Business Statistics

- Physics
- Physics with Specialisation in Astrophysics
- Physics with Specialisation in Physics in Technology

Pharmacy (Professional 4-year Programme)

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Second Major

- Chemistry
- Chinese
- Chinese Studies
- Communication & New Media
- Economics
- English Language
- English Literature
- European Studies
- Geography
- History
- Japanese Studies
- Life Sciences
- Malay Studies
- Management
- Management (Technology)
- Mathematics
- Philosophy
- Political Science
- Physics
- Psychology
- Recording Arts & Science
- Social Work
- Sociology
- Systems Engineering
- Theatre Studies

http://www.nus.edu.sg/registrar/edu/UG/spugp-double-major.html
Double Degrees Programme (DDP)

- A double degree consists of two separate degrees from two discipline areas in the same Faculty or in two different Faculties
- Two types of DDPs: structured or student-designed
- Students may pursue either Honours in both degrees or only Honours in the first degree and non-Honours in the second degree
- Students can declare the intention to enrol for a double degree just after completion of between 60 MCs to 80 MCs
- A/P Wong Yan Loi at Science Dean’s Office will work with you on your programme requirements
- Minimum CAP requirement: 4.0

http://www.nus.edu.sg/registrar/edu/UG/spugp-double-major.html
Grading System
# NUS Grading System

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, A+</td>
<td>5.00</td>
</tr>
<tr>
<td>A-</td>
<td>4.50</td>
</tr>
<tr>
<td>B+</td>
<td>4.00</td>
</tr>
<tr>
<td>B</td>
<td>3.50</td>
</tr>
<tr>
<td>B-</td>
<td>3.00</td>
</tr>
<tr>
<td>C+</td>
<td>2.50</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>D+</td>
<td>1.50</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXE – Exempted</td>
</tr>
<tr>
<td>Awarded when candidate is exempted from and given credit for a module</td>
</tr>
<tr>
<td>IC – Incomplete</td>
</tr>
<tr>
<td>IP – In Progress</td>
</tr>
<tr>
<td>S – Satisfactory</td>
</tr>
<tr>
<td>U – Unsatisfactory</td>
</tr>
<tr>
<td>CS – Completed Satisfactorily for non-gradable module</td>
</tr>
<tr>
<td>CU – Completed Unsatisfactory for non-gradable module</td>
</tr>
<tr>
<td>W – Withdrawn</td>
</tr>
</tbody>
</table>

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Cumulative Average Point (CAP)

• Academic progress of every student is tracked by the CAP

• Formula for calculating CAP:

\[
\text{CAP} = \frac{\text{Sum (module grade point x MCs assigned to module)}}{\text{Sum (MCs assigned to modules used in calculating the numerator)}}
\]
How to calculate CAP

### Semester 1

<table>
<thead>
<tr>
<th>Module</th>
<th>MCS</th>
<th>Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM1111</td>
<td>4</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>CS1231S</td>
<td>5</td>
<td>B</td>
<td>3.5</td>
</tr>
<tr>
<td>MA1101R</td>
<td>4</td>
<td>B</td>
<td>3.5</td>
</tr>
<tr>
<td>MA1102R</td>
<td>4</td>
<td>B+</td>
<td>4</td>
</tr>
<tr>
<td>ST1232</td>
<td>4</td>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>

### Semester 2

<table>
<thead>
<tr>
<th>Module</th>
<th>MCS</th>
<th>Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSM1101</td>
<td>4</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>MA1104</td>
<td>4</td>
<td>B</td>
<td>3.5</td>
</tr>
<tr>
<td>ST1232</td>
<td>4</td>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>GEK2505</td>
<td>2</td>
<td>B+</td>
<td>4</td>
</tr>
<tr>
<td>SSA2207</td>
<td>4</td>
<td>S</td>
<td>-</td>
</tr>
</tbody>
</table>

**CAP at the end of Sem 2**

\[
\text{CAP} = \frac{(5 \times 4 + 3.5 \times 5 + 3.5 \times 4 + 4 \times 4 + 0 \times 4) + (5 \times 4 + 3.5 \times 4 + 0 \times 4 + 4 \times 2)}{(7 \times 4) + (1 \times 5) + (1 \times 2)}
\]

\[
= 3.13
\]

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Satisfactory / Unsatisfactory Option

S/U Option – Encourage students to pursue their intellectual interests, without undue concern that exploring a new subject area may adversely affect their CAP. Once exercised, will be **irrevocable** for the module.

**S Grade** – will be assigned if a student receives a ‘C’ grade or above towards for the module and will receive credit towards the degree.

**U Grade** – This can be exercised when the grade is lower than a ‘C’ Grade and thus will not affect student CAP.

**S/U declaration exercise** – Conducted upon the release of examination results and will end by the stipulated deadline which will be announced each semester.

Up to **12 MCs** (3 modules) may be taken on an S/U basis during a student’s candidature.

S/U option **cannot be exercised** when

- Modules dropped with a ‘F’ grade during the semester
- Modules in which a student has been found to have committed plagiarism
- Modules in which a revised grade has been prescribed by the Board of Discipline

The **objective of the Grade-free Policy** is to facilitate the transformation in students’ mindsets towards and learning in the university setting. It will alleviate high stress levels brought about by unhealthy competition and also to help reduce students’ obsession towards grades and enable them to leverage opportunities for a holistic education.

Up to **20 MCs** (≈ 5 modules) can be exercised with S/U Option and students can exercise only on modules taken in the first Semester of Year 1 (AY12014/15, Sem 1) *

**S Grade** – will be assigned if a student receives a ‘C’ grade or above towards for the module and will receive credit towards the degree

**U Grade** – This can be exercised when the grade is lower than a ‘C’ Grade and thus will not affect student CAP

**Eligibility** – Can be exercised for

- All level 1000 modules (Except for the English for Academic Purposes) and
- All level 2000 modules with no other NUS modules as pre-requisites

**S/U option cannot be exercised** when

- Modules dropped with a ‘F’ grade during the semester
- Modules in which a student has been found to have committed plagiarism
- Modules in which a revised grade has been prescribed by the Board of Discipline

*: There are exceptions"
Pre-allocation of Modules & Carry-over Policy

Pre-allocation of modules to students are practised for some modules due to logistical constraints and thus student A may take modules X and Y in Sem 1 and modules W and Z in Sem 2. Another student B may take modules W and Z in Sem 1 and X and Y in Sem 2.

Student A may exercise S/U for modules X and Y in Sem 1 and Student B may exercise S/U for modules W and Z.

To ensure consistency for both student A and B, there is the Carry-Over Policy of some 20 MCs.

Carry-Over Policy – Up to 8 MCs can be carried over to Sem 2 only to allow students who are affected by the pre-allocation process to exercise S/U on restricted modules.

Who are eligible to enjoy the carry-over policy? Students who major in

- Life Sciences - LSM1101 (X), LSM1102 (Y), LSM1103 (W) & LSM1104 (Z)
- Chemistry - CM1191
Grade-free Policy and S/U Option for modules up to 12 MCs

Up to **32 MCs** can be used by students to exercise S/U for modules with grade ‘C’ grades or above without affecting the CAP and yet will receive credit towards the degree.

**20 MCs** – to exercise S/U option for modules registered during Year 1 Sem 1 (with the exception for students with pre-allocated modules) and

**12 MCs** – to exercise S/U option for modules registered any time during a student’s candidature

**Eligibility to declare S/U** – Can be exercised for

- All level 1000 modules (Except for the English for Academic Purposes) and
- All level 2000 modules with no other NUS modules as pre-requisites

**S/U declaration exercise** – Conducted upon the release of examination results and will end by the stipulated deadline which will be announced each semester.

S/U option **cannot be exercised** when

- Modules dropped with a ‘F’ grade during the semester
- Modules in which a student has been found to have committed plagiarism
- Modules in which a revised grade has been prescribed by the Board of Discipline
Who are eligible to exercise S/U for the 20 MCs (Grade-free Policy)?

1. Students who matriculated in AY2014/2015
2. Former H3 / NUSHS / iBLOC RNSmen / Special Term RNSmen
3. Polytechnic graduates admitted students and B. Tech graduated admitted students
4. Transferred or readmitted students (who did not transfer grade / credit transfer of any NUS modules)
5. Students who are enrolled with Partner University (JDP, CDP, DDP) whose first semester of study is at NUS
GRADUATION REQUIREMENTS
Direct Honours with Options

Year 1

Year 2

Year 3

Year 4

B.Sc. or B.Sc.(Hons.) in ≈ 4 yrs

B.Sc. (Merit) or B.Sc. in ≈ 3 yrs for CAP < 3.50 or by choice
Graduation Requirements for B. Sc.

University Level Requirements
- General Education (2 modules)
- Breadth (2 modules)
- Singapore Studies (1 module)
- Faculty Requirements (3-4 modules)

Flexible Component
- Unrestricted Electives (5-9 modules)

B.Sc.
- Major Requirements (15-18 modules)

Programme Requirements

Min. CAP = 2.00
Min. Total MCs = 120
Max. Candidature = 4 yrs
Students must complete and pass at least 80 MCs of graded modules at NUS

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Graduation Requirements for B.Sc. (Hons)

University Level Requirements

- Singapore Studies (1 module)
- General Education (2 modules)

Flexible Component

- Unrestricted Electives (5-9 modules)

B.Sc. (Honours)

- Breadth (2 modules)
- Faculty Requirements (4-5 modules)
- Major Requirements (24-26 modules)
- Programme Requirements

Min. CAP = 3.20
Min. Total MCs = 160
Max. Candidature = 5 yrs

Students must complete and pass at least 80 MCs of graded modules at NUS
Honours Eligibility & Classification

To qualify for Honours (excluding Computational Biology and Pharmacy)
✓ Fulfilled the requirements of one major of B. Sc. Level and
✓ Must have obtained a minimum overall CAP of 3.50 on completion of 100 MCs or more

The computational Biology major is a four-year programme leading to a B. Sc. (Hons) degree, subject to a minimum CAP attainment

Pharmacy is a four-year programme leading to a B. Sc. (Pharmacy) (Hons) degree, subject to a minimum CAP attainment

Honours Classification:
✓ First Class Honours
✓ Second Class Honours, Upper Division
✓ Second Class Honours, Lower Division
✓ Third Class Honours
University Level Requirements – These requirements aim to broaden a student’s intellectual horizon, to develop critical and creative thinking skills for independent learning, and to promote spoken and written articulacy. They consist of General Education (GE) modules, Breadth modules and Singapore Studies.

Breadth Modules – This requirement provides student with the opportunity to read modules outside their chosen area(s) of study.

Singapore Studies - This aims to strengthen a student’s understanding of the economy, geography, history, politics and society of Singapore.

Programme Requirements – These consist of Faculty and Major requirements. Faculty requirements serve to introduce a student to the different disciplines in a faculty or to a certain basic areas of study that prepare a student to pursue a particular discipline. Major requirements provide specialised education in a subject and include both essential and electives modules.

Unrestricted Elective Modules – These allow students to explore greater breadth or depth in any subject and at any level. Students may use these modules to meet the requirements for a specialisation, minor, double major, double degree or concurrent Bachelor-Master degree.
Limitation on Level-1000 Modules

• **60 MCs of Level-1000 modules** can be counted towards the fulfillment of graduation requirements for both 120-MC (B.Sc.) and 160-MC (B. Sc. Hons) programmes.

• Level-1000 modules taken in excess of the 60 MCs limit will not be counted towards the total number of MCs required from graduation but they can be counted toward CAP computation (to improve CAP).
University Level Requirements (ULR)

**General Education Module (GEM)**
- Group A = Science & Technology (GExx5xx)
- Group B = Humanities & Social Sciences (GExx0xx)

**Science student must read**
- 2 Group B, or
- 1 Group A + 1 Group B

**Breadth Module**
- 1 compulsory Breadth Module will be **ES1541 Exploring Science Communication through Popular Science**
- Any module outside Science except Group A GEMs
- Excess Group B GEMs can be used as Breadth, even if it is offered by Science

**Singapore Studies Module (SS)**

http://www.science.nus.edu.sg/undergraduate-studies/ugfaq/faq-current

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University Town College Programme (UTCP)

UTCP is a multidisciplinary programme offered in the College of Alice & Peter Tan and Tembusu College and Residential College 4. It consists of 5 modules to be read over 4 semesters. A student who enrolls on the UTCP will be able to fulfill the University Level Requirements.

<table>
<thead>
<tr>
<th>UTown Requirements</th>
<th>Equivalent ULR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Seminar</td>
<td>General Education Module</td>
</tr>
<tr>
<td>First Senior Seminar</td>
<td>General Education Module</td>
</tr>
<tr>
<td>Second Senior Seminar</td>
<td>Singapore Studies Module</td>
</tr>
<tr>
<td>First Writing Module</td>
<td>Breadth Module</td>
</tr>
<tr>
<td>Second Writing Module</td>
<td>Breadth Module</td>
</tr>
</tbody>
</table>
## Faculty Requirements

<table>
<thead>
<tr>
<th>Degree</th>
<th>Faculty Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Sc.</td>
<td>12 MCs from 3 distinct subject groups outside the group(s) under which the major falls*</td>
</tr>
<tr>
<td>B.Sc. (Hons.)</td>
<td>16 MCs from at least 3 distinct subject groups outside the group(s) under which the major falls, where 4 MCs may come from the same subject group under which the major falls but not from the major *</td>
</tr>
<tr>
<td>B. Sc. (Pharmacy) (Hons)</td>
<td>16 MCs</td>
</tr>
<tr>
<td></td>
<td>AY1130 Human Physiology &amp; Anatomy I</td>
</tr>
<tr>
<td></td>
<td>PA1113 Basic Pharmacology</td>
</tr>
<tr>
<td></td>
<td>PY1131 Human Physiology &amp; Anatomy II</td>
</tr>
<tr>
<td></td>
<td>SP1203 Foundation in Effective Communication</td>
</tr>
</tbody>
</table>

*Not from the major* refers to modules that carry a prefix not associated with the student’s major. Example, PR for Pharmacy, LSM for Life Sciences,

[http://www.nus.edu.sg/registrar/nusbulletin/faculty-science/faculty-requirements](http://www.nus.edu.sg/registrar/nusbulletin/faculty-science/faculty-requirements)
<table>
<thead>
<tr>
<th>Subject Group</th>
<th>Majors in this Group</th>
<th>Module Prefix/Code in this Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing Science</td>
<td>Computational Biology, Quantitative Finance</td>
<td>CZ, CS, IT1001, IT1002, IT1006, QF, ZB</td>
</tr>
<tr>
<td>Chemical Sciences</td>
<td>Chemistry and its related specialisations, Food Science &amp; Technology, Pharmacy</td>
<td>CM, FST, PR</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>Food Science &amp; Technology, Life Sciences and its related specialisations, Pharmacy</td>
<td>FST, LSM, PR</td>
</tr>
<tr>
<td>Mathematical Sciences &amp; Statistical Sciences</td>
<td>Applied Mathematics, Mathematics, Quantitative Finance, Statistics and its related specialisations</td>
<td>CZ, MA, QF, ST</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>Physics and its related specialisations</td>
<td>PC</td>
</tr>
<tr>
<td>Multidisciplinary &amp; Interdisciplinary Sciences</td>
<td>-</td>
<td>FMS12xx(B,C,D,M,P,S), SP1203, SP2251, SP3201, SP3202</td>
</tr>
</tbody>
</table>

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CAP for Continuation & Graduation

• Minimum CAP required for Graduation is 2.00

**WARNING**
A student will be issued a warning when his/her CAP falls *below 2.00* (but above 1.50) for the *first time*.

**PROBATION**
A student will be placed on probation when his/her CAP
– falls *below 1.50* for the *first time*; or
– If the CAP continues to fall *below 2.00* in the *subsequent* semester after a warning is issued

**DISMISSAL**
A student will be dismissed if his/her CAP
– is *below 1.50* for 2 consecutive semesters
– Is *below 2.00* for 3 consecutive semesters
Advanced Placement (AP) Credits

For Polytechnic Diploma Holders:
• Will up granted up to a max of 40 MCs which are for
  ✓ 8 MCs from the ULRs (One GEM and one Breadth module)
  ✓ 12 MCs from Unrestricted Elective Modules
  ✓ Up to 20 MCs from the programme requirements based on performance in placement tests set by the depts

For GCE ‘A’ Level or Equivalent Leavers:
• May be granted up to 20 MCs from programme requirements based on student performance in the APC tests set by the depts
Freshman Seminar

The **Freshman Seminars** are excellent platforms for students to engage in in-depth discussions of an intellectual topic and to present their ideas without the pressure of examinations.

This module carries a 4 MCs and may be read to **satisfy faculty requirements**. In addition, a Completed Satisfactory/Completed Unsatisfactory (CS/CU) grade will be awarded. The module is open to Freshmen of the Faculty of Science in Sem 1 and 2 of Year 1.
To fulfil one of two Breadth Modules

- **ES1541 Exploring Science Communication through Popular Science**
- **Compulsory module** for all freshmen (except Pharmacy and Environmental Studies students and students residing in UTown)
  - to develop a habit of reading, especially in science-related topics
  - to enhance the ability to critically question published scientific information
  - to enhance the ability to articulate opinions and perspectives
  - to develop coherence in writing and oral communication

- Students are expected to bid for this module in Sem 1 or Sem 2 of the first year
Students who scored below a C grade for GP/International students without the required English qualifications

Qualifying English Test (QET)

Band 1
- ES1000 Basic English (Yr 1, Sem 1)
- ES1102 English for Academic Purposes (Yr 1, Sem 1)
- ES1102 English for Academic Purposes (Yr 1, Sem 2)
- ES1541 (Yr 2, Sem 1)

Band 2
- ES1102 English for Academic Purposes (Yr 1, Sem 1)
- ES1541 (Yr 1, Sem 2)

Band 3
- Exempted from ES modules
- ES1541 (Yr 1, Sem 1)

Students who are not required to take QET

ES1541 (Yr 1, Sem 1)

Note:
1. ES1541 is a graduation requirement.
2. ES1541 may be counted towards the Breadth requirement.
3. Students who have not passed ES1541 will not be allowed to apply for Study Abroad Programmes.
With effect from AY2012/13, NUS Career Center has introduced a NCC1001 Head Start Series to Freshmen to:

• Encourage students to discover and pursue their academic and career interests early

• Gain greater knowledge of job market trends and skills desired by employers

• Equip students with career skills so that they can differentiate and market themselves successfully for internships and jobs

Will be preallocated to Freshmen in Year 1, Sem 2 or Year 2, Sem 1
Undergraduate Research Opportunities Programme in Science (UROPS)

• Gain first-hand experience in research by embarking on an independent project in Year 2 and Year 3
• Acquire effective communication and presentation skills
• Avenue for talented undergraduate to make significant contributions to existing scientific knowledge
• Stimulate intellectual exchange and collaboration between student and faculty members on a one-to-one basis
FoS Study Abroad Programmes

French Double Degree Programme – 2 yrs in France
ANU-NUS Joint Degree Programme – 3 semesters in ANU
UNCCH-NUS Joint Degree Programme – 2-3 semesters in UNCCH
NUS Overseas College Programme – 1 year
Student Exchange Programme (SEP) – 1 semester
Joint Minors – 1 semester
Summer Programmes – 4-7 weeks
Summer Research – 6-12 weeks
Study Abroad Briefings

Come and find out the details for Student Exchange Programmes and Summer Programmes on:

- **19 August 2014**, 10.00 am -12.00 noon (LT31)
- **20 August 2014**, 12 noon – 2.00 pm (LT31)

**International Exchange Day:**
3 September 2013 (Full Day)
@ U Town, Town Plaza
Special Programme in Science (SPS)

SPS – It is an intense programme offered to students who have a strong passion and aptitude for science. A total of 6 modules are offered over a duration of two years, beginning in the first year.

<table>
<thead>
<tr>
<th>Research-Oriented Modules</th>
<th>Thematic Integrated Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP2171 - Discovering Science</td>
<td>SP2173 - Atoms to Molecules</td>
</tr>
<tr>
<td>SP3172 - Integrated Science Project</td>
<td>SP2174 - The Cell</td>
</tr>
<tr>
<td>SP3175 - The Earth</td>
<td>SP3176 - The Universe</td>
</tr>
</tbody>
</table>

Students who have passed any 4 of the following modules, SP2171, SP2173, SP2174, SP3172, SP3175 & SP3176 are deemed to have completed 16 MCs of the Faculty Requirements from 3 distinct subject group(s) outside the group under which their major falls.
Aims

- Attract the very best research-driven students
- Target top 5% of Science cohort & select 30 to 50 students
- Partner 10 top universities in the world for joint PhDs with 3 to 5 students to each of the universities

“The Global Science Programme will provide a unique and flexible global education that aims to realise the full potential of a select group of top Science students. This “through-train” programme will see students undergo semester exchanges and summer research attachments at top universities worldwide, and provide an accelerated path from B.Sc to joint M.Sc/PhD.”

- NUS Dean of Science, Professor Andrew Wee
Global Science Programme

Years 1 - 2

SPS

Top students not in SPS can also join in at this stage

With Minors in:
- Forensic Science
- Nanoscience
- Biophysics
- Energy Science

Years 3 – 4

B. Sc. (Honours)
Students can spend up to 2 summer semesters doing UROPS in labs of partner universities such as MIT, ICL, Caltech, UNC-Chapel Hill etc

Years 6 – 8

Joint M. Res./Ph.D
(ICL, KCL, MIT, EP, ANU, IITs, etc)

Year 5

Joint M. Sc.*
with EP, ICL, KCL, ANU, GIST, TUM

Students can exit with a M. Sc.

*Joint Masters
Ecole Polytechnic
- M. Sc. (Nanoscience)
ICL
- M. Res. (Biophysics)
- M. Sc. (Forensic Science, Analytical Toxicology)
KCL
ANU
- M. Sc. (Science Communication)
GIST, TUM
- M. Sc. (Industrial Chemistry)

Other Ph.D Options
Ph.D CREATE/SMART
NGS Ph.D Exchange
AGS Duke-NUS GMS
Duke-NUS Graduate Medical School

Training Physician Scientists and Medical Leaders for the 21st Century

ADMISSION:

• Undergraduate or Advanced Degree
  - First degree can be in any field, such as the Life Sciences (Biology, Pharmacology, etc), Engineering (Bioengineering, Chemical, Electrical Engineering, etc), Physical Sciences (Chemistry, Physics, etc), Humanities, or Social Sciences

• Demonstrated evidence of competence in core areas of general Chemistry, Physics, Biology, and Organic Chemistry
  Successful completion of university courses in biochemistry and cell biology is recommended

• Students with advanced degrees in scientific fields are encouraged to apply

DEGREE AWARDED:

Joint Doctor of Medicine (M.D.) degree from Duke University and NUS
Undergraduate Studies
Email: askscience@nus.edu.sg
Blk S16, Level 2,
6 Science Drive 2
Tel: +65-6516 8471
Thank You