School of Computing

Undergraduate Programmes

2022/2023

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Vice Dean, Undergraduate Studies

National University of Singapore
This course briefing is meant for students pursuing the Bachelor of Computing and Bachelor of Science in Business Analytics degrees.

Course briefing for Bachelor of Engineering in Computer Engineering will be delivered by the CEG Joint Academic Committee from both Faculty of Engineering and School of Computing.

This course briefing touches on general information relevant to studying in the School of Computing.

It will not cover detailed information about individual programmes.

- Please attend the Programme Briefing via either zoom webinar or F2F session conducted by the Departments on 15 July 2022 at 2.30 pm to find out more information.
Outline

• Undergraduate Programmes and Degree Requirements
• Module Registration via MogReg@EduRec Platform
• Academic Challenge and Academic Advice
• Teaching
• Useful Information
Undergraduate Programmes:

B.Comp. (Honours) in Information Security
B.Comp. (Honours) in Computer Science
B.Comp. (Honours) in Information Systems
B.Eng. (Honours) in Computer Engineering
B.Sc. (Honours) in Business Analytics
Information Security Co-operative Programme

More details will be shared at the Programme briefing via zoom webinar sessions conducted by the Departments in the afternoon on 15 July 2022 2.30 pm.

Please apply with SoC UG Office (email: comwpd@nus.edu.sg) by 20 July 2022 5.00 pm using the prescribed application form as these students are required to follow the recommended study schedule throughout their candidature.
Resource: nusmods.com

- Module Information
- Class and Exam Time tables
- Planning for your classes
Module Information - I

CS3235 Computer Security

Computer Science • 4 MCs

The objective of this module is to provide a broad understanding of computer security with some indepth discussions on selected topics in system and network security. This module covers the following topics: intrusion detection, DNS security, electronic mail security, authentication, access control, buffer overflow, memory and stack protection, instance, web security.

Prerequisite
(CS2105 or EE3204 or EE4204) and (CS2106 or CG2271) and CS2107

“Weight” of a module:
The “MC”

Workload of a module
4MC = ~ 10 hrs/wk
5MC = ~ 12.5 hrs/wk
Lectures-Tutorials-Lab-Field work-Preparation

Must pass these modules before taking CS3235. Usually good idea to do level 1000 in Year 1, level 2000 in Year 2 for pre-req purposes
CS1231S Discrete Structures

Computer Science • 4 MCs


Preclusions
MA1100 and CS1231 or its equivalent

Prerequisite
A-level Mathematics or H2 Mathematics or MA1301 or MA1301FC or MA1301X

Must not have taken MA1100/CS1231 before
Modes of Module Taking

- Taking with Grade
- Taking CS/CU modules
- Taking the S/U Option
Modes of Module Taking

- **Taking with Grade**
  - Obtain a letter grade at the end of the course:
    - A+, A, A-, B+, B, B-, C+, C, D+, D, F
  - Included in the calculation of your performance

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>5.00</td>
</tr>
<tr>
<td>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>0.00</td>
</tr>
</tbody>
</table>
Modes of Module Taking

- Taking CS/CU modules
  - Obtain either Completed Satisfactorily (CS) or Completed Unsatisfactorily (CU)
  - Not an option with student
  - Does not affect CAP
Modes of Module Taking

Taking S/U Option

Grade free scheme to encourage students to try modules outside their fields of study


- Obtain either a Satisfactory (S) or an Unsatisfactory (U) record
- Not included in the calculation of your CAP performance
- Need at least a D grade to convert to S grade to obtain credits
- Three-day window to decide on S/U after release of results
- Can exercise S/U option on eligible modules read with grades received in the same Academic Year
- Irrevocable and cannot amend or withdraw any S/U option exercised in previous semesters once SU declaration exercise has concluded.
Enhanced Grade-Free Scheme

- S/U Option is limited to:
  - level 1000 modules, and
  - level 2000 modules without NUS modules as pre-requisites
  - level 2000 Communication and Ideas & Exposition modules offered by CELC and UTown
  - Language modules at all levels offered by Centre for Language Studies, FASS and Yale-NUS College

- Cannot exercise this option on modules:
  - dropped with a “F” grade during the semester
  - in which a student has been found to plagiarize
  - in which a revised grade had been prescribed by the Board of Discipline
Enhanced Grade-Free Scheme

Available for incoming undergraduates admitted from AY2022-23 onwards.

May exercise the S/U option for up to 32 MCs in the first academic year of studies (first 2 regular semesters and 2 Special Terms); if this is not fully utilised, the remaining S/U option may still be exercised in subsequent semesters, for up to max of 12 MCs.

Variations on the limit of S/U options that can be exercised may apply for specific groups of students, such as the following:

i. Students without prior university experience but are granted 20 or more Advanced Placement Credits (APCs) at the point of admission to NUS may exercise the S/U option for up to 20 MCs in the first two regular semesters; if this is not fully utilised, the remaining S/U option may still be exercised in subsequent semesters, for up to max of 12 MCs. Students can cancel polytechnic exemptions on unrestricted electives to get additional S/U MCs. Registrar’s Office will inform eligible students at appropriate time.

ii. Students with some prior university experience (which are being recognised towards the NUS degree) may exercise the S/U option for up to 12 MCs anytime during their candidature, including the first two regular semesters.

iii. Students with a prior university degree are not eligible for the grade-free scheme.
## Continuation Requirement

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
<th>Third Semester Onwards</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students progress</td>
<td>Advisory for students found to be performing poorly despite the grade-free scheme</td>
<td><strong>Probation</strong> if CAP &lt; 2.00 for current semester; <strong>Dismissal</strong> if CAP &lt; 2.00 for two consecutive semesters</td>
</tr>
</tbody>
</table>
## Grade, Grade Points and S/U Option

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point</th>
<th>S/U Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>5.00</td>
<td>Satisfactory (S)</td>
</tr>
<tr>
<td>A-</td>
<td>4.50</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>1.50</td>
<td>Satisfactory (S)</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>Unsatisfactory (U)</td>
</tr>
</tbody>
</table>

**Note:** A candidate who has obtained a D or higher grade cannot repeat the module.
Cumulative Average Point (CAP)

\[
\text{CAP} = \frac{\text{sum (module grade point} \times \text{modular credits)}}{\text{sum (modular credits)}}
\]

rounded up to 2 decimal places

Note:

To graduate, a student MUST obtain a CAP of at least 2.00
**CAP and SAP calculations (Example)**

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Name</th>
<th>Grade</th>
<th>MC</th>
<th>Grade Point</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS1101S</td>
<td>PROGRAMMING METHODOLOGY</td>
<td>A</td>
<td>4</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>CS1231S</td>
<td>DISCRETE STRUCTURES</td>
<td>B-</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>ES1103</td>
<td>ENGLISH FOR ACADEMIC PURPOSES</td>
<td>B-</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>MA1521</td>
<td>CALCULUS FOR COMPUTING</td>
<td>B</td>
<td>4</td>
<td>3.5</td>
<td>14</td>
</tr>
<tr>
<td>IS2101</td>
<td>BUSINESS &amp; TECHNICAL COMMUNICATION</td>
<td>D+</td>
<td>4</td>
<td>1.5</td>
<td>6</td>
</tr>
<tr>
<td>GER1000</td>
<td>QUANTITATIVE REASONING</td>
<td>S</td>
<td>4</td>
<td>null</td>
<td>null</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>20</td>
<td></td>
<td>64</td>
</tr>
</tbody>
</table>

**CAP = 64/20 = 3.2**

**SAP (Semester Average Point) = 64/20 = 3.20**
Degree Structure

SoC Common Curriculum

University Level Requirements (24 MCs)
- One module for each GE pillar
- Certain GE pillar modules are specific to the programme

Common Curriculum (16 MCs)
- Computing Ethics (4 MCs): IS1108 Digital Ethics and Data Privacy.
- Interdisciplinary (ID)/Cross Disciplinary (CD) Education (12 MCs):
  At least two ID modules and no more than one CD module to satisfy the 12 MCs required in this group

Programme Requirement

Programme Essentials
- Essentials specific to the programme

Programme Electives
- If you fail an elective, you may retake or read another elective

Unrestricted Electives (UE)
6 GE pillars (24 MCs)

- Modules that lay the foundation for important life skills
- Students are strongly encouraged to complete the GE modules within the first 2 years of their candidature.
6 GE Pillars (one module from each pillar)

- Cultures and Connections (prefix GEC)
- Critique and Expression (fulfilled by ES2660 for CS students whose home faculty is SoC)
- Data Literacy (fulfilled by CS1010%/CS1101S Programming Methodology for SoC being home faculty)
- Digital Literacy (fulfilled by BT1101 Introduction to Business Analytics for IS and BZA students whose home faculty is SoC)
- Singapore Studies (prefix GESS)
- Communities and Engagement (prefix GEN)

More details can be found at: https://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students/general-education/for-students-admitted-from-AY2021-22

UTown Programme, RVRC and NUSC students will follow the curriculum requirements specified by the respective colleges with variations for ULR fulfilment
Programme Requirements

- Programme Essentials/Compulsory GE modules
  - Core Modules/Computer Science Foundations/ ...
  - Must pass all of them with letter grades (unless with permitted S/U option)
  - Include at least two to three programming modules and prescribed non-GE coded modules depending on programme of study
    - CS1010/CS1010J/CS1010S/CS1101S Programming Methodology (prescribed to satisfy Digital Literacy Pillar)
    - CS2030 Programming Methodology II and CS2040 Data Structures and Algorithms (for IS and BZA), CS2030S/CS2040S (for CS)
    - CS2040C Data Structures and Algorithms (for InfoSec)
    - BT1101 Introduction to Business Analytics (for IS and BZA and prescribed to satisfy Data Literacy Pillar)

- Programme Electives
  - Each programme has its own list of elective modules
    - Allow you to choose modules from a basket
Unrestricted Electives (UE)

- Modules from SoC/other Faculties to make up total modular credit requirement
• Pass at least 160 MCs (approx. 40 modules) comprising:
  • SoC Common Curriculum
  • Programme Requirements
    Fulfil Programme Essentials, Programme Electives
  • Unrestricted Electives

• CAP must be at least 2.00.
Degree Requirements - II

- No more than 60 MCs at level-1000

- Residency requirement: must Complete $\chi$ MCs at NUS, where $\chi$ is:
  - 50% of required MCs for degree requirement must be at NUS
  - These MCs must be earned from NUS modules with assigned grades, or modules with an ‘S’ or ‘CS’ grade.
Polytechnic Graduates:

- Advanced Placement Credits:
  - 20 MCs from Unrestrictive Electives
    (not included in computation of 60-MC limit of level-1000 modules)
  - Up to 20 MCs from programme requirement
General Information on undergraduate education can be found at:

https://www.nus.edu.sg/registrar/academic-information-policies/undergraduate-students
Other Requirements - I

- Normal Candidature for our undergraduate programmes:
  - 4 Years

- Maximum Candidature for 4-year Programme:
  - 5 Years

- Maximum Candidature for Double-degree Programme:
  - 6 Years
University Level Requirements (ULR) (24 MCs)

- Up to 8 MCs of General Education requirements may be double counted with a Major requirement.
- General Education requirements may also be double counted with Second Major, Minor and Specialisation requirements, subject to the Second Major, Minor and Specialisation double counting rules.
Double-major Programmes (40 MCs)

- Up to 16 MCs may be used to meet the requirements for both (i) the Second Major and (ii) another Major or Minor

- Only Double Counting is allowed. “Triple counting” of a module that is common to, for example, a Major, Second Major and Minor that are all being taken by a student, is not allowed. The student will have to read an additional module/s to fulfill the MC requirement for one of the three programmes.

- at least 12 MCs must be at Level 3000.

- Of which, at least 60% must be modules read at NUS include all modules taught, co-taught, supervised or co-supervised by NUS faculty members. These consist of graded modules or modules with an ‘S' or ‘CS' grade. The remaining MCs may be earned through credit transfers, advanced placement and exemptions, from modules deemed relevant to the particular Second Major.
Minor Programmes (20 MCs)

- Up to 8 MCs (40% of the total requirements for Minor) may be used to meet the requirements for both the Minor and a Major/Second Major, or another Minor.

- At least 12 MCs for any Minor programme must be taken from outside the entire set of modules that are listed for the major(s)/another minor that the student is taking/ has taken.

- A minimum of 60% of the total MCs of the Minor requirements must be earned from modules read in NUS. Modules read at NUS include all modules taught, co-taught, supervised or co-supervised by NUS faculty members. These consist of graded modules or modules with an ‘S' or ‘CS' grade. The remaining MCs may be earned through credit transfers, advanced placement and exemptions, from modules deemed relevant to the particular Second Major or Minor.
Other Requirements - II

- Min workload every semester:
  - at least 18 MCs
  - No underloading request approval at earlier stage of study unless supported by medical grounds/extenuating circumstances

- Max permissible workload for 1st semester of study in NUS (no waiver allowed)
  - No more than 23 MCs (for Single degree students with or without minor/second major)
  - No more than 27 MCs (for students who are enrolled in USP or DDP or CDP)

- Class and Exam time-table waivers
  - Not supported by the School of Computing Office of Undergraduate Studies
Plan early for compulsory internship programmes to avoid delay of graduation
- Do it in year 3 of studies
- No internship allowed in final graduating semester

Completed the programme in the 8th semester or earlier, but want to do either an additional Regular semester or Special Term to pull up your CAP?
- Possible with permission from UG Office
- Must take at least 18 MCs
- Must take only level-3000 or above modules
<table>
<thead>
<tr>
<th>Honours Classification</th>
<th>CAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honours (Highest Distinction)</td>
<td>4.5 – 5</td>
</tr>
<tr>
<td>Honours (Distinction)</td>
<td>4.0 – 4.49</td>
</tr>
<tr>
<td>Honours (Merit)</td>
<td>3.5 – 3.99</td>
</tr>
<tr>
<td>Honours</td>
<td>3.0 – 3.49</td>
</tr>
<tr>
<td>Pass</td>
<td>2.0 – 2.99</td>
</tr>
<tr>
<td>Fail</td>
<td>Below 2.0</td>
</tr>
</tbody>
</table>
Adam is into his final semester. His CAP is 3.35, and his total MC accumulated is 142. He intends to take 20MC of modules in this semester. What should be his average grade for the final semester in order to get a CAP of 3.50? (Assuming no S/U options.)

\[
G \geq \frac{(162 \times 3.50 - 142 \times 3.35)}{20} = 4.57
\]

Examples:
- 4 A- (4.5) and 1 A (5.0) \(\rightarrow\) \(G = \frac{23}{5} = 4.6\)
- 2 B+ (4.0), and 3 A (5.0) \(\rightarrow\) \(G = \frac{23}{5} = 4.6\)
- 1 B (3.5), 1 B+ (4.0), and … \(\text{No Way!!}\)
Zack’s CAP is 1.49, and his total MC accumulated is 40. He intends to take 20MC of modules in the coming semester to achieve a CAP of at least 2.0. What should be his average grade for the coming semester in order to achieve that? (Assuming no S/U options.)

\[ \geq \frac{(60 \times 2.0 - 40 \times 1.49)}{20} = 3.02 \]

Examples:
- 4 B- (3.0) and 1 B (3.5) \( \Rightarrow 15.5/5 = 3.1 \)
- 2 C+ (2.5), 1 B- (3.0), 1 B (3.5), 1 B+ (4.0) \( \Rightarrow 15.5/5 = 3.1 \)
To continue in a programme, a student must **not** have:

- CAP below 2.00 for two consecutive semesters

Student receiving academic probation must receive counselling from academic advisors.

To restore to good standing before reaching the state of dismissal:

Bring CAP to the level of 2.00 in the following semester

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>5</td>
</tr>
<tr>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>A-</td>
<td>4.5</td>
</tr>
<tr>
<td>B+</td>
<td>4</td>
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<tr>
<td>B</td>
<td>3.5</td>
</tr>
<tr>
<td>B-</td>
<td>3</td>
</tr>
<tr>
<td>C+</td>
<td>2.5</td>
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<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D+</td>
<td>1.5</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
</tbody>
</table>
What do Employers look for ...

www.comp.nus.edu.sg/~sanjay/Google.mp4
Activities in SoC

• University education consists of more than just attending classes
• Develop a network of life-long friends
• Explore and find out what you are passionate about
Activities in SoC

• SoC/NUS offers
  o Internships for work experience
  o Entrepreneurship programme
  o Design-Your-Own-Module (DYOM)
    http://www.nus.edu.sg/registrar/education-at-nus/undergraduate-education/design-your-own-module.html
  o Open source and volunteer work
  o Leadership programme
  o Student clubs and activities
  o Student exchange programme
  o Research experience
  o Competitions
  o Teaching experience
Advanced Technology Attachment Programme (ATAP)
Industry Internship Programme (IIP)

- Course credit for 6 month internship

Student Internship Programme (SIP)

- Course credit for 3 month summer internship

Students also go on overseas internship
(see Project Intern at the end of this briefing)

- Google
- Facebook
- Microsoft
- ...

Compulsory internship. Details during afternoon briefing.
What do Employers look for ...

Project Intern

How you too, can land an internship with Google, Microsoft, Facebook and the like.

http://ymichael.github.io/projectintern
What do Employers look for ...

www.comp.nus.edu.sg/~sanjay/KPMG.mp4
Oversea Experience

Student Exchange

- University of British Columbia
- University of California
- University of Melbourne
- University of Illinois, Urbana-Champaign
- Technische Universitat Wien
- University of Copenhagen
- Tsinghua University
- Ecole Superieure D' Electricite
- University of Stuttgart
- Tokyo Institute of Technology
- Korea Advanced Inst of Sci & Tech
- University of Stockholm
- King's College London
Entrepreneurship

Courses on Digital Entrepreneurship
- CP2201 Journey of the Innovators
- IS3251 Principles of Technology Entrepreneurship

I&E Practicum@SoC
Up to $10,000 to develop idea

Full one year or 6-month in a start-up with NUS Overseas College (NOC). Meet compulsory internship requirement. Enough mapping for most students to complete degree in 4 years

Incubation center at SoC.
Open Source and Volunteer Work (CP3107/CP3110)

Build systems for volunteer organisations and gain course credits in CP3107 or CP3110

Get paid by Google for doing open source work and gain course credit

Google Summer of Code and Computing for Voluntary Welfare Organisations can be mapped to 3-month internship (SIP).
Independent Software Development Project (Orbital)

- Every SoC student should have the confidence to
  - propose their own project
  - learn what is necessary to do the project
  - deliver what was promised

- For 1st year students
  - Over the long vacation (May—July 2023)
  - Work in pairs
  - Basic project – web app in Python
    - Option to propose more advanced project
  - 4 MCs independent work (graded as CS/CU basis under CP2106)
Student Club/Interest Groups

NUS Computing Club
https://nuscomputing.com/

... and others
Outline

- Undergraduate Programmes and Degree Requirements
- **Module Registration via ModReg@EduRec Platform**
- Academic Challenge and Academic Advice
- Teaching in Semester 1
- Useful Information
How to Get the modules you want?

- **Module Registration via EduRec**
  employs a rules-driven priority-based engine to allocate modules to students based on Curricular needs; Seniority in the programme; and Module preferences
  Details at: [http://www.nus.edu.sg/ModReg/](http://www.nus.edu.sg/ModReg/)

- **Navigation**
  - myEduRec > Academics > Module Registration

- **Priority Score of module(s)**
  \[ A^m \times B^m \times C^m \]

- **User Guide**
### Priority Score of module(s)

\[ A^m \times B^m \times C^m \]

#### Programma Requirements Category (in descending order of points) – \( A^m \)
- UTown/USP modules
- Major core and Major Specialisation modules
- Major modules
- Second Major Specialisation modules
- Faculty Requirement modules
- Second Major modules
- Restricted/Direct Minor modules
- Unrestricted Elective / General Education modules

#### Students’ Seniority (in descending order of points) – \( B^m \)
- Year 4/GLB Year 3/Graduating Year 3
- Year 3
- Year 2/E-Scholars Programme
- Year 1

#### Rank Preference of Modules (in descending order of points) – \( C^m \)
- Rank 1
- Rank 2
- Rank 3
- Rank 4
- Rank 5
- Rank 6
- Rank 7
- Rank 8

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ModReg@EduRec

(myEduRec > Academics > Module Registration)
### Tie-breakers (in descending order of consideration)

<table>
<thead>
<tr>
<th>Tie-breaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who have not attained minimum workload</td>
</tr>
<tr>
<td>Student’s home faculty is module host faculty</td>
</tr>
<tr>
<td>Module feedback points</td>
</tr>
<tr>
<td>Random balloting</td>
</tr>
</tbody>
</table>
Can I drop a module after securing it?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add new modules</td>
<td>By end of week 1</td>
</tr>
<tr>
<td>Drop modules without grade penalty</td>
<td>By end of week 2</td>
</tr>
<tr>
<td>Drop modules with “W” grade</td>
<td>Week 3, Day 1 to last day of recess week</td>
</tr>
<tr>
<td>Drop modules with “F” grade</td>
<td>Week 7, Day 1 onwards</td>
</tr>
</tbody>
</table>

**Important:** You need to maintain the Min workload of 18 MCs per semester!!
Outline

• Degree Requirements
• Module Registration via EduRec@EduRec Platform
• Academic Challenge and Academic Advice
• Teaching
• Useful Information
## Academic Challenge: Double and Concurrent Degrees

<table>
<thead>
<tr>
<th>Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS/IS with Business Admin/Accountancy</td>
<td></td>
</tr>
<tr>
<td>BZA with Business Admin</td>
<td></td>
</tr>
<tr>
<td>CS with Maths (under CHS)</td>
<td></td>
</tr>
<tr>
<td>IS/BZA with Economics (under CHS)</td>
<td></td>
</tr>
<tr>
<td>IS with Masters in Engineering and Tech Innovation Management in CMU</td>
<td></td>
</tr>
<tr>
<td>CS/IS with Masters in Management with NUS Business School</td>
<td></td>
</tr>
<tr>
<td>Self designed DDP with another NUS Faculty</td>
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<tr>
<td>French Grandes Ecoles</td>
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Undergraduate Research Opportunity Programme (UROP)

Summer research attachment with MIT, Imperial College, King’s College, Brown University, Tsinghua

Chris Chua
Double-major Programmes

- Double major in Management
- Double major in Statistics
- Double major from many faculties

Minor Programmes offered by other faculties

- Math, Statistics, Economics, Management, ...
Questions you may have:

- Should I do a DDP, FDDP, CDP, SEP, specialisation, minor, second major, etc.?
- I want to be an entrepreneur. How do I go about it?
- What courses should I do to help prepare for a career as a software engineer, consultant, etc.?
- I am interested in research. How do I go about getting research experience?
- Should I do a PhD?
- I am struggling academically. How should I study? What courses should I select next semester?

Talk to an academic advisor especially when you are struggling with your studies!

Faculty Mentors

- You can talk to an academic advisor any time you need academic advice.
- Perhaps you want to have a closer mentorship relationship with:
  - Someone who has started a company and can advise you about entrepreneurship?
  - Someone who teaches or does research in a particular area so that you can get advice about the area?
  - Someone who interacts actively with mentees in his or her group using the social media?
  - Senior students with the same mentor who can also act as peer mentors?
- All freshmen can opt to participate in SoC Voluntary Mentorship scheme to be assigned a academic mentor.
- Your mentor will contact you to meet you online or f2f.
Advice on Passing a Module

Perform consistently in Continual assessment (CA) and examination.

CA \{ Assignments
   Tutorial Attendance
   Mid-term Tests/Quizzes \}

If you miss your examination due to medical/non-medical reason, make sure you ask the doctor to fill up the Form for Application for Special Consideration, and submit the form online via EduRec. Login to EduRec and navigate to My Homepage > Academics > Examinations > Access Special Consideration > Make Submission for Current Semester.
Form for Application for Special Consideration

NUS EXAMINATIONS: APPLICATION FOR SPECIAL CONSIDERATION (RO.160 /08)

Name: ___________________________  Faculty/School: ___________________________

Student No.: ______________________  Course & Level: _______________________

NRIC/PP No.: ______________________  Contact No.: _______________________

Email: ___________________________

ELIGIBILITY
A student whose performance in an examination has been affected by illness or other causes may apply for special consideration. Such causes may include:
Every year, around 5% of freshmen face academic problems
- CAP below 2.00 (C average)
- Have to see an academic advisor

You don’t want to be one of them.

What got them into academic difficulties?

Don’t overload unnecessarily!
Why they did badly ... and what they did to improve ...

• No real difficulties, I just didn't study. I was lazy and just wanted to enjoy university life.

• *I started studying and taking interest in programming.*

• I am not trying to blow my own trumpet, however, the first time I did it, I didn't do any work at all. That is to say, I didn't attend lectures, tutorials recitation nothing of sorts. So if I may say so, the prime reason for coming down in the particular course was rather a complete negligence on my part ...... Especially when I had come directly after A levels this sudden influx was a bit hard to grasp, inspite of being warned that uni would be like this. =)

• *Stuck to the basics, attend lectures, tutorials and recitations more than I did the first time. Started the labs earlier .......*
Why they did badly ... and what they did to improve ...

• Firstly, I had difficulty understanding programming as a whole since I had no background in computing when I first took CS1101S. Therefore, learning JavaScript Programming is almost the same as learning a new language.
• Secondly, I didn't really know how to apply basic algorithms to solve problems (labs).
• I attempted all tutorial questions and clarified my doubts during tutorials.
• I exchanged ideas on how to solve problems and weigh their complexity or efficiency with my tutorial mates.
• Increase my self-confidence, really.
Why they did badly ... and what they did to improve ...

• Complacency and adaptability. CS1010S is a module that I took in the first semester. Besides adapting to a brand new school, I also need to juggle between the new social life and a completely different (from JC) way to study a module. I think the main problem is not sure how to go about studying this module, no computing background, unsure how to go about asking question and that the nature of the module has a very huge snowballing effect once you lag at the very beginning of the course.

• *Practice, be consistent and keep asking questions (both to yourself and the lecturer), keep the programs that you practise, realised your mistake, remember them and keep going on.*
Advice for Grade-Free modules

• Reduce stress of transition to university
• Observed issues
  – Take too many and difficult modules
  – Too relaxed at till mid-semester, then too late to catch up
• Learn your basics well – you will continue to need it
If you think you may struggle...

1. **Try not to overload yourself.** Generally, doing more than 5 modules a semester is not a good idea for struggling students.

2. Try to **work consistently through the semester**, rather than cramming at the end. In particular, try to ensure that you do all the tutorial exercises.

3. **Work in a group** if possible. Students who study in a group tend to do better.

4. Other than compulsory modules, try to pick modules that **suit your strengths**.

5. **Do some research on the modules** before signing up for them.

You can drop a module with ‘W’ grade **before the end of the recess week** if you think that you cannot cope. Minimum workload of 18 MCs per semester must be maintained.
Module and Workload Waivers

• **Waiver of Module Prerequisite Chains**
  Appeals must be provided with strong justifications
  - Submit Appeals/Inquiries in ModReg
    CS Dept appeal procedure for CS and IFS coded modules at:
    Appeal procedure for BT and IS coded modules: via ModReg appeals

• **Waiver of class/exam time-table clashes:**
  Not supported by the School

• **Workload per semester:** At least 18 modular credits (MCs)

• **Workload increase for freshmen:**
  Will not be supported for first semester of study
  Do not file any such request/appeal via ModReg@EduRec
Outline

• Degree Requirements
• Module Registration via ModReg@EduRec Platform
• Academic Challenge and Academic Advice
• Useful Information
• **Teaching**
• University and Faculty Services (Wellness)
Some Basic Principles for restarting NUS

• Safety

• Containment in case of spread

• Maintain quality of education
Current Plans for Covid-19 measures

- As situation is evolving, we may need to change plans for teaching modes.
- Our main aim is to ensure safety for all, along with giving quality education subject to constraints.
Measures in Response to COVID-19

- Students must update their COVID-19 vaccination status via uNivUS app and conform to all Covid-19 measures required by the University.
- Students to refer to the Office of Risk Management & Compliance websites for the latest COVID-19 measures and COVID-19 Circulars.
- SoC website on COVID-19 updates: https://www.comp.nus.edu.sg/covid19/
- Safe distancing measures in place and to be abide by the university community
- If you have any COVID symptoms, do not come to class, go to University Health Centre (UHC) or a qualified medical doctor
- Inform your home faculty UG administrator (socug@comp.nus.edu.sg) if you are given medical leave and/or have been administered any COVID-19 swab test.
- Update the health protocols via uNivUS app
Face-to-face classes in AY2022/2023

- Maximal face-to-face classes
- In-person attendance is expected for all NUS Computing modules (including lectures, tutorials, labs, exams and any other module components).
- Students who are overseas are expected to return to NUS for classes by the time the new semester starts.
- Module Timetables will be published on https://nusmods.com/ or https://www.comp.nus.edu.sg/cugresource/soc-sched/
- Exceptions may be considered only for individuals who are unable to attend classes in-person due to the prevailing regulations of the Singapore government.
- Link: https://www.nus.edu.sg/registrar/academic-activities/registration/administrative-matters
Lectures, Assessments and Examinations

- Lecture recordings (asynchronous) or Zoom lectures (synchronous) may be used along with reading materials/answer sketches etc.
- 100 % CA for some modules.
- To maintain integrity of the e-exams, students need to follow honour code and the protocols as laid down by the University and the lecturers.
- Strict action will be taken against those who violate the honour code and exam protocols.
- Students should read and familiarize themselves with the code of conduct document from NUS.
- Please read E-Exam SOP for Students via mySoC -> Academic

Use NUSnet account to access the Link:

https://mysoc.nus.edu.sg/academic/e-exam-sop-for-students/
A breach of any of the NUS Code of Student Conduct or the assessment rules will render a student liable to disciplinary action which may result in suspension or expulsion from the University.

The online versions of NUS Statute 6 and Regulation 10 can be accessed at: https://www.nus.edu.sg/registrar/administrative-policies-procedures/undergraduate/nus-statutes-and-regulations.
Outline

• Degree Requirements
• Module Registration via ModReg@EduRec Platform
• Academic Challenge and Academic Advice
• Teaching
• **Useful Information**
Useful Information

- NUS Bulletin [https://www.nus.edu.sg/nusbulletin/ay202223/general-information/](https://www.nus.edu.sg/nusbulletin/ay202223/general-information/) has all the information about rules and regulations governing your degree.


- UG Wiki [https://wiki.nus.edu.sg/display/SUW/SoC+UG+WIKI](https://wiki.nus.edu.sg/display/SUW/SoC+UG+WIKI) has informal information that is useful to SoC undergraduates.

- You will be informed on how to participate in ATAP, SIP, and NOC at the appropriate periods. In addition, ad hoc job postings can be found at [https://nusu.sharepoint.com/sites/soc/Lists/Jobs/AllItems.aspx](https://nusu.sharepoint.com/sites/soc/Lists/Jobs/AllItems.aspx) (you may subscribe using to the list). Similarly, you may want to subscribe to industry related announcements at [https://nusu.sharepoint.com/sites/soc/Lists/Jobs/AllItems.aspx](https://nusu.sharepoint.com/sites/soc/Lists/Jobs/AllItems.aspx).
Useful Information

- **ModRegWebsite:** [http://www.nus.edu.sg/ModReg/index.html](http://www.nus.edu.sg/ModReg/index.html)

- **NUSMods:** Students can now search and view the module and timetable information from [NUSMods](http://www.nus.edu.sg/ModReg/index.html). Information on pre-requisites and preclusions of a module, whether they have S/U option, lab-based, independent-study modules or SkillsFuture funded can be found.

- **Course Briefing Slides to be deposited:**

- **Computer Accounts**
  - **NUSNET account**
    - Given out during registration
    - Email address: exxxx@u.nus.edu
  - **SoC UNIX account**
    - Email address: socrocks@comp.nus.edu.sg

- **Enquiries:** SOCUG@comp.nus.edu.sg
SoC Office of Undergraduate Studies

- **Vice Dean:** Prof JAIN, Sanjay
- **Assistant Deans:**
  - Assoc Prof CHAN Chee Yong
  - Assoc Prof KAN Min-Yen
  - Assoc Prof SETIONO, Rudy
  - Assoc Prof Aaron TAN
- **Deputy Director:** Ms TOH Mui Kiat
- **Associate Director:** Ms Pamela LIM
- **Asst Senior Managers:**
  - Mr LOW Mun Bak & Ms Diana WONG
- **Senior Executives:**
  - Ms Falilah Parvin &
  - Ms Sharifah Noor Ain Binte Ahmad Alhabshi
- **Executives:**
  - Ms Louise LOW, Ms Ivy NG & Ms Jenny TAY

Office of Undergraduate Studies is located at:
**COM1 Level 2 Room 19**

Email: socug@comp.nus.edu.sg

*Note: Do not send same email to multiple staff members!*
SoC Office of Industry Relations

- **Vice Dean:** Assoc Prof NG Teck Khim
- **Assistant Dean:** Assoc Prof HUANG Zhiyong
- **Assistant Dean:** Dr LEK Hsiang Hui
- **Senior Associate Director:** Ms Jane LIM
- **Executive:** Mr John Elijah TAN

SoC Office of Industry Relations is located within Dean’s Office at **COM1, Level 3 Room 27.** It liaises with companies to provide internship opportunities ([https://www.comp.nus.edu.sg/studentlife/intern/](https://www.comp.nus.edu.sg/studentlife/intern/)) and organises career fairs for our undergraduates and graduates.

Contact details:

[AskIR@comp.nus.edu.sg](mailto:AskIR@comp.nus.edu.sg)
Career Advisory Service

Venue: COM1 01-23

Some questions you may have for the Career Advisors:

- How to I plan for my career?
- How do I write a good CV?
- How do I prepare for my interview?
- How do I network with people during my internship?
- What are the resources I can use to get a job?
- I failed to secure an internship this semester. What did I do wrong? How can I do better next semester?
Faculty Services (Wellness)

- **Vice Dean:** Assoc Prof Gary TAN
- **Assistant Dean:** Assoc Prof WADHWA, Bimlesh
- **Assistant Dean:** Assoc Prof TAN Wee Kek
- **Senior Manager:** Ms Adele CHIEW
- **Asst Manager:** Ms Nur Arifah Josephine LIARDON
- **Senior Executive:** Mr Nicholas CHEANG

SoC Student Life Office is located **at COM1, Level 2 Room 19**

Contact details: **SoCFamily@comp.nus.edu.sg**

Student Life team aims to foster student success by providing students with access to broader experiences that would provide them with a balanced university life both within and beyond the classroom.

University Services (Wellness)

- University Counselling Services (UCS)
  - Phone, email or come in person (available only at Kent Ridge Campus) to make an appointment with UCS
    - Phone: +65 6516 2376
    - Email: ucs@nus.edu.sg
  - Walk-in
    - KENT RIDGE CAMPUS
      20 Lower Kent Ridge Road
      Level 2, Singapore 119060
    
    Operating hours:
    Monday to Thursday: 8.30am - 5.30pm
    Friday: 8.30am - 5.00pm
    Closed on Saturdays, Sundays & Public Holidays.
    
    Last walk-in appointments are available 30 minutes before closing.
Meeting Etiquette for Webinar Sessions (both faculty and dept briefings) on 15 July 2022

• Please check your audio settings.
• Your microphone is muted with video switched off by default upon joining the webinar session.
• You may post your questions via the webinar during the Q&A segment. The most “voted” ones will be answered first.
• This session will be recorded. If you choose to participate in this webinar, you are presumed to have given your consent of your video/audio text comments in these recordings and the recordings will be shared.
Thank you!

Q & A